LABOR AND HUMAN RESOURCE STRATEGIES IN THE TRANSFER OF TECHNOLOGY FROM INDUSTRIALIZED TO DEVELOPING NATIONS: THE CASE OF TURKEY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Graduate School of The Ohio State University

By

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* * * * *

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Riad A. Ajami
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1991
To My Son, Christian,  
and My Parents, Joseph and Thelma
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CHAPTER I

THE IMPACT OF TECHNOLOGY
ON THE EMPLOYMENT RELATIONSHIP IN DEVELOPING ECONOMIES

Introduction to the Topic

This research explores the employment effects of the transfer of technology from industrialized to developing nations. Its focus is on industrial relations (IR) practices in advanced technology firms operating in the newly industrializing economy, Turkey. IR practices are assumed to have a broad definition: how the interaction of people and work is organized at the work place interpreted within a social, cultural, economic and political dimension. Technology is defined broadly as knowledge, that is, technical and managerial know-how and its commercial and industrial application.

Framework and Purpose

This research creates a new macro-economic policy framework for corporations and nation-states, focusing on issues of employment, technology transfer and developing economies through the case study method of a broad segment of advanced technology industries in one country. Its policy perspective fills a gap in the literature that was noted by Arthur Ross twenty five years ago and has not been successfully redressed yet, that
Labour relations constitute a fundamental institutional factor of economic development. Research should be able to contribute to the formulation of social policies, as well as to their implementation. While attempting to draw general conclusions in so far as possible...a series of case studies on selected countries could greatly help in finding an exact definition of the problems to be solved, from which vantage point conclusions of practical value may then be reached.¹

By analyzing a variety of corporations from various industry segments each representing an advanced technology transfer in one country, this case study creates a useful policy framework.

Research Approach

This research is both cross-disciplinary and international in its approach. Its theoretical foundations and the practical application of its policy framework integrate the literature and problems of industrial relations and international business. This apparently unique combination of disciplines is actually an extension of the approach first used by highly respected industrial relations scholars working in the 1950s and 1960s on the "Inter-University Study of Human Resources in National Development"² who turned academic attention from capitalism and worker protest to industrialization. This study uses industrialization as a starting point to discuss the role of technology in the employment relationship. Technology becomes the central focus. Theoretically, a conceptual framework is developed through the use of international business theories, specifically on technology transfer and the role of the multinational firm, integrated with existing industrial relations theories.


²Kerr, Dunlop, Harbison, Myers, Sturmhal, Levine, Galenson, Bendix, Bakke, Hoselitz are only a few of the nearly 90 scholars associated with the project. See the section “Convergence Theory and Industrial Relations”, Chapter 2 for a description of the project.
The outcome is a new paradigm, a "Technology Paradigm" that forms the basis for the development of a new macro-economic policy on employment and technology transfer. The paradigmatic framework is a conceptualization originally developed by Thomas Kuhn over two decades ago. Kuhn contends that the emergence of a new paradigm, a "revolution", proceeds a critical watershed event and requires a "community" or enduring group of adherents and an open-ended set of problems to address.  

The study applies ideas of international industrial relations and strategic human resources to the international environment of business. Although the effects of technology on developing societies have been analyzed extensively by social scientists no work has been done on the effects of multinational corporate strategies on the host country worker in technologically advanced manufacturing and service settings. The study will analyze where the competitive strategies of nations and corporations intersect IR issues; it will describe how specific IR practices are transferred, changed or assimilated by host country corporations; and it will explain how specific international corporate strategies impact indigenous IR policies. As such it remains outside the mainstream concepts of IR research.  

The research is framed conceptually as an international, not comparative study. The distinction is important. International industrial relations is conceptually different from comparative industrial relations. The former, which forms the basis for this study focuses on what Bean describes as "those institutions and phenomena which cross national boundaries, such as the industrial relations of multinational companies or the international labour movement"; in contrast to comparative industrial relations which is a "systematic

---


4 Doeringer identifies "mainstream" IR issues as collective bargaining, trade union history and structure, conflict and conflict resolution, legal regulation of IR systems. Other related research patterns include workplace IR, labor economics and labor policy. See Peter Doeringer, ed. Industrial Relations Research in International Perspectives: Essays on Research and Policy (London: Macmillan, 1981).
method of investigation relating to more countries which has analytic rather than descriptive implications.\(^5\) Comparative industrial relations suffers a number of procedural problems related to the collection of comparative data. That data needs a common language, an agreed upon "reference point, scale of values"\(^6\). This study avoids these methodological issues because the critical focus is the cross-national issue of technology in the transfer of industrial relations practices, not how one nation's particular industrial relations practice compares and contrasts to another nation's. Kahn-Freund and Hepple argue the failings of this normative approach,

'Look how much better the Lilliputians do it' is a tempting cry, but the more one looks into it the more one finds that the Lilliputians aren't a fair comparison with us: they haven't got our antiquated industries...our legal system; and they are less than six inches tall.\(^7\)

This study "describes" what is occurring in the newly industrializing nation independent of what is occurring in the corporation's home country but cognizant nevertheless of the impact of the international environment's political economy. That is, it seeks to discover information that is relevant and important and that can stand alone.

It, however, does more than describe for it proceeds from theory, a priori, to develop its framework. The importance of the approach taken here lies in the assumptions of the host country actors, policies and events of the host country corporation and the nation-state's institutions, irrespective of the parallel outcomes of home country corporation. In terms of policy development this proactive approach is much richer than the comparative one which

\(^5\) R. Bean, \textit{Comparative Industrial Relations} (London: Croom Helm, 1985): 3. Bean provides an insightful analysis of the field of comparative industrial relations. See this work for a review of literature to date and a discussion of the myriad problems associated with comparative research and the authors associated with the criticism.


can analyze or judge reactively, in relation to another system. The comparative approach suits specific issues but is woefully lacking in providing a framework for macro-economic policy development. This study seeks to redress the absence of work in international issues that can provide a policy orientation. John Dunlop observed that "the growing importance of international interdependence...needs to be described and measured..." and further complained "the absence of a cadre of academics with specialization in the area of international labor and management developments has been a major deterrent to policy discourse, at home and abroad, as well as to decision-making itself."  

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The Research Question and Method

The basic question this research seeks to answer is whether technology drives the choice of industrial relations practices, providing similar or divergent firm level policies in highly diverse economies, the United States and Turkey. Technology is hypothesized to be a linking mechanism between the individual, the corporation and the nation-state and may therefore determine industrial relations practices. Subsidiary issues include how the type of technology transfer (licensing, joint ventures, technology offsets, bundling, "appropriate" technology and the like), assumed to be a strategic choice of the multinational corporation (MNC) or the host country, affects the choice of IR policies. The research therefore explores whether technology causes convergence in employment relationships.

The choice of technology is made by certain decision makers. The locus of control over those decisions -- decision making by corporations, workers, host governments, or some negotiated bargain between them in a tripartite system -- is assumed to have specific affects

on IR policies. Whether the strategic objectives of both home and host corporation meet the needs of the working population; whether workers have a "voice" through a strong labor movement or not; and whether government takes a proactive role through some central planning agency or asserts itself more reactively through legal regulations and the like affect the IR/technology linkage. The elucidation of the idea of choice will help discover what drives the choice of technology and myriad attendant affects on the employment relationship.

Building on systems theory's concepts the macro level framework for the analysis uses a modification of John Dunlop's Industrial Relations Systems perspective\(^9\) in a cross national application. (See Figure 1) This research uses a multilevel analysis: the individual (labor); the organization (multinational corporation); and the nation-state (host country government). This structure is roughly analogous to Dunlop's hierarchy of managers, workers and government agencies, expanded to a cross national application. The contexts of the system are the same as Dunlop's: technology, market and locus and distribution of power. The web of rules notion here is extended across national borders and is explained by Dunlop's determinants and further by what I call a negotiated bargain amongst the technology suppliers (the industrialized nation and the foreign firm) and the technology recipients (the developing nation government and the indigenous corporation). The bargaining process is constrained by the competition amongst nations and firms over markets, technology and power.

SYSTEMS FRAMEWORK FOR CROSS-NATIONAL ANALYSIS

ACTORS
- multinational enterprises
- labor
- host country

ENVIRONMENT
- global
- nation-state
- firm

CONTEXT
- market
- technology
- power

RULES
The rules which govern the relationship amongst the actors are in the interaction of the context factors: competition exists at each level of the environment and is driven by the negotiated bargain amongst the actors over market, technology and power issues.

Figure 1
My systems perspective chooses an environment for analysis in which global firms, the nation-state and local firms interact. An analysis of IR policies and strategies in this level of environment will help explain whether technology is "footloose" and knows no national boundaries or whether it provides a synergistic linking mechanism between divergent nations at different stages of development and their national objectives, particularly as related to employment objectives, and between firms and nation-states both internationally and domestically, and between individuals, corporations and nation-states over employment policies. The study will result in a process model of how IR practices are developed in the international environment with particular reference to the technology transfer process from industrialized to developing countries.

Two integrating hypotheses will test these ideas: H1 IR practices are determined less by legal/socio-cultural/political conditions that by economic/technology/market conditions. H2 Technology drives the choice of IR practices. The research, which will create a new macro-economic policy framework for corporations and nation-states, is expected to confirm that technology is a cooperative force through which both the multinational enterprise and the host nation achieves its objectives.

Object of Inquiry

The theoretical construct will be applied to multinational corporations operating in the developing nation, Turkey and to indigenous Turkish firms using foreign technology. Turkey is a most useful case study as its geographic location is attractive to U.S. corporations, particularly for strategic defense initiatives; Turkey has assumed a role as a banking and financial services center bridging the east and the west; it has recently shifted from a largely state-driven economy to a market driven one; its stated objective to modernize its newly industrializing economy, largely still agrarian but now at an interesting point of
technological take-off; its political economy strategy moving Turkey into the global arena as a major player, exemplified by its proposed entrance into the EEC; and its factor endowments, particularly Turkey's vast labor surplus.

The dichotomy between economic liberalism and economic nationalism by developing nations creates a complex environment for the creation of appropriate IR practices in high technology corporations. That the government actor in host nations chooses liberalism over nationalism has important consequences: typically, as in Turkey, the nation has been a labor exporter; whether the country can package policies to attract labor as well as attract technology is an issue at question. Change strategies include the upgrading of IR policies to match technology levels or creating an infrastructure (business/government) to accept directly transferred 'industrialized' IR policies necessary to conduct highly industrialized manufacturing operations.

Significance of the Research

The research is significant because it creates a new policy framework for multinational enterprise operations in a global economy based on a new analytical framework— a technology based paradigm. This new paradigm creates a synergistic linkage between employment policies and technology in global industries. In a now completely interdependent world economy how corporate strategies affect, succeed or fail to produce the desired results for either the firm or the host nation is critical knowledge. Technology may be the macro level linking mechanism that unites divergent goals, from nation to nation or firm to nation, distinctly played out at the macro level in specific IR policies for developing nation workers. A clearer understanding of how workers from divergent economic, social and political backgrounds react to the introduction of external technology has policy implications for both the technology supplier and the technology recipient. The
study has policy implications for U.S. and for developing nation corporations and for U.S. government policy promoting international competitiveness and for host nation regulations promoting industrial development. Interactions between industrialized and developing nations have become increasingly critical to both sides' economic and political well being in an interdependent and competitive world environment.
CHAPTER II

THEORETICAL FOUNDATIONS OF ISSUES IN INTERNATIONAL MANAGEMENT AND INDUSTRIAL RELATIONS

The study reviews the pertinent literature on convergence theory, theories of technology transfer, and development theory.

Convergence Theory

Convergence theory will be applied to interpret whether IR practices are transferred in a similar or divergent manner. Convergence theory is appropriate because the theoretical underpinnings of the study can be categorized as either supporting or denying the interpretation of convergence: that is that theories emphasize differences or similarities in management and industrial relations, technology and culture across national boundaries.

Overview and Definition

The concept of convergence is used in a number of disciplines that have bearing on this study, including industrial relations, economics and international management. Convergence is a conceptual framework used to analyze whether societies have or will become more alike as they move through similar stages of economic growth, particularly through industrialization caused by the transfer of technology across national borders.
Sociologist Jan Berting asserts the industrial convergence thesis "gives priority to technological developments as prime movers of societal change...In this model people and institutions such as political and educational ones, have to adapt to the exigencies of technological development."¹ In a now completely interdependent world the framework is useful in analyzing economies at the macro-economic level. This study uses convergence theory to create a new macro-economic policy for human resource issues in the transfer of technology to newly industrializing nations. The framework can also be addressed to the micro-level: the study also uses convergence theory to analyze employment policies of foreign firms operating in Turkey, a firm level application. Convergence theory, although widely described in several disciplines, suffers criticism from numerous fronts, particularly those that argued the unquestionable divergence of world economic systems. The recent breakdown of the socialist system in Eastern Europe brings one aspect of the issue to the forefront again-- the convergence of western industrialized societies over market or capitalist systems, discussed below at length under the section on convergence theory and Marxism.

Whether convergence is a "key issue in Western social theory" or not, the theory is still most useful and should be "reopened".² My use of the construct seeks neither to side with convergence or divergence, but rather looks to the epistemological use of the terms in ordering or categorizing events and outcomes of certain policies and strategies in order not to prove or disprove the theory but to shed light and knowledge on the subject.


²Management thinkers including industrial relations scholars have questioned convergence theory more often than economists and international management scholars. Chris Rojek writing in Organization Studies in 1986 admitted that "It might seem impish, nostalgic and above all gratuitous, to suggest that the question of convergence should be reopened." That he does open the question is of value in cross disciplinary studies and international research. His review article is most helpful and forms part of the basis of the following remarks. See Chris Rojek, "Convergence, Divergence and the Study of Organizations," Organization Studies 7.1 (1986): 25-36.
Convergence Theory and Industrial Relations

Industrial relations scholars have long argued whether societies would converge or exhibit similar characteristics when they attained similar levels of industrialization. A landmark work by Kerr, Dunlop, Harbison and Myers in 1960, *Industrialism and Industrial Man* popularized the logic of industrialization thesis predicting the convergence of industrial societies.\(^3\) The work's primary mission was to eliminate the ethnocentrism so characteristic of the discipline's work to date. As an early effort in comparative industrial relations, the work helped to define new parameters of the discipline moving it away from its historical emphasis on capitalism toward a more analytical study of industrialization and away from industrial conflict and worker protest toward an understanding of the employment relationship under the "web of rules" concept.\(^4\) Convergence, the authors' last of five "Forecasts" for industrial societies, was argued through the new "Web of Rules" notion\(^5\), a construct used to describe nations' industrial relations systems. The study argued that all societies would pass through certain stages during the industrialization process that


\(^4\)For a complete explanation of the actual study, its administrative roots, intended theoretical purpose and its critics both academic and administrative, see Cochrane, *Retrospect*, 1979.

\(^5\)The notion was first elucidated by John Dunlop in his *Industrial Relations Systems*, (New York: Henry Holt and Company, 1958).
would cause economic systems to converge through the adoption of a "universal technology". Convergence would result in "pluralistic industrialism", or several different systems extant but moving toward economic and social convergence.

The idea was criticized by numerous scholars and caused the authors in their final report to temper their ideas: convergence, they argued, was a "long run" tendency that nevertheless allowed for a great degree of cultural pluralism. Besides internationalizing the field of industrial relations, the work focused new interest on manpower, particularly management's role rather than the traditional emphasis on the labor movement, a focus also much criticized. Marxists also condemned the work. J.H. Goldthorpe, in particular, rejected completely the notion of convergence of industrial societies and argues the "divergence" of systems. This notion was in contrast to other Marxists who agreed with the convergence thesis, however different their descriptions of converged systems, a debate discussed at length elsewhere in the study.

Two decades after the publication of Industrialism and Industrial Man Kerr restated his position with some modification in his work, The Future of Industrial Societies:

Convergence or Continuing Diversity? Defending the conceptual framework Kerr argued

... These two sets of forces- for convergence and for continuing diversity- pull in opposite direction... the forces for convergence generally tend to become stronger and those for continuing diversity become weaker... Competition among nations becomes more intense while the pull of pre-industrial history attenuates and

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6The move away from solely "worker" issues concerned many colleagues from several perspectives, see especially Adolf Sturmhofel, Journal of Political Economy (1961); Reinhard Bendix, Embattled Reason, Essays on Social Knowledge, (N.Y.: Oxford University Press, 1970). Milton Derber and Sol Barkin also criticized the project's shift away from traditional Wisconsin School issues of trade union/worker concerns.

ideologies erode...This, in my opinion is the greatest barrier to full convergence. The conflicts over economic efficiency versus income equality, and over individual and group freedom versus centralized control in the economy, are likely to be eternal, with some nations putting more emphasis on one and others on another.⁸

Kerr described his construct as a "multidimensional, multiway convergence hypothesis" that remained "largely intact" from the original collaboration. To the earlier idea Kerr added a political dimension and stressed the importance of preindustrial beliefs. The addition of the political and the cultural dimension is important. Kerr's work remains in the category of normative scholarship, colored with predictions based on how society should act. This study seeks to avoid both historicist⁹ and normative criticisms by using convergence as a framework for analysis, rather than prediction.

Industrial relations scholars interested in comparative studies have addressed issues of convergence in the last two decades. Ronald Dore in his work on Britain and Japan borrowed from the Kerr collaboration while focusing his ideas on the influence of organizational and managerial structures: for example that management institutions would converge on Japanese practices.¹⁰ Marsh and Mannari argue the importance of cultural determinants of national similarities and differences.¹¹ On the impact of diversity rather than convergence, Kassalow argued "the largest work of comparative labour study lies in

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⁹See Karl Popper, The Poverty of Historicism (Boston: Beacon Press, 1957) for an explanation of the pitfalls of historicist research.

¹⁰Dore's work has been debated for over fifteen years, and interestingly seems more likely to be proved today than any time earlier. See Ronald Dore, British Factory, Japanese Factory: The Origins of National Diversity in Industrial Relations (London: George Allen and Unwin, 1973). On whether industrial relations models are "exportable" see also, Everett Kassalow, "Japan as an Industrial Relations Model," Journal of Industrial Relations, 25 (1983).

exploring and explaining these differences, even more than the similarities,"\textsuperscript{12} Shalev framed his comparative work in the convergence theory debate.\textsuperscript{13}

Other scholars dismiss convergence as a general "theory" but find the construct useful. Piore focuses on the impact of technology on regulatory institutions in different industrial systems and argues for both convergence and divergence.\textsuperscript{14} Doeringer creates a framework for convergence that focuses on institutional diversity among nations.\textsuperscript{15} One of the criticisms of Kerr et al's framework was the absence of empirical data to confirm the thesis. Several scholars have attempted to redress the issue. Most notably, Kobrin looked at 90 countries in his cross national test, finding some support for convergence at higher levels of industrialization.\textsuperscript{16}


Convergence Theory and Sociology

Sociologists have often fashioned their analysis of the industrialization process in economic development through an implied or direct use of convergence theory. Early scholars used the notion of convergence to describe events and predict outcomes. Emile Durkheim and Max Weber each implied that industrial societies would move toward similar institutional constructs, whether it be through the division of labor or rational bureaucracies.\textsuperscript{17} Thorstein Veblen also propounded the thesis of a linear evolution of all societies toward a similar social order based on the role of technology in industrialization.\textsuperscript{18} Sociologists have likewise noted aspects of convergence and divergence, that similarities occur on a macro level while differences remain in the micro level.\textsuperscript{19} Herbert Marcuse gained popular attention with the notion that industrial society would force convergence on economically motivated humans, the so-called "one dimensional man."\textsuperscript{20} Jacques Ellul in an equally disturbing treatise warned of the dangers of societies' inevitable march of


\textsuperscript{18} On the role of technology in particular see for example, T. Veblen The Place of Science in Modern Civilization (N.Y.: W.B. Huebsch, 1919). His classic work is T. Veblen, The Theory of the Leisure Class (N.Y.: Viking Press, 1922).

\textsuperscript{19} One argument notes, "Industrialization generally increases the comparability among societies and their principal structural elements, but does not necessarily increase their operating similarity. The problems may be typologically standard but the solutions are somewhat more variable...." Arnold S. Feldman and Wilbert E. Moore, "Are Industrial Societies Becoming Alike?" in Alvin Gouldner and S.M. Miller eds., Applied Sociology: Opportunities and Problems (N.Y.: 1965) quoted in J.P. Nettl and Roland Robertson, International Systems and the Modernization of Societies. The Formation of National Goals and Attitudes, (N.Y.: Basic Books, 1968).

technology. Simon Kuznets has often used convergence to construct his analysis. In discussing newly industrializing societies for example, he argued for "measurable convergence between less developed and developed countries, including much convergence in political and ideological aspects."\(^{22}\)

Convergence Theory and Economics

Economics is aptly suited to discussing convergence because in its most basic form it is a discipline devoted to discovering assumptions or "laws" applicable over human behavior across societies and cultures. Often these laws or assumptions describe similarities, or conversely dis-similarities amongst groups, organizations, markets, nations and so on. This discussion will focus on those thinkers who have discussed convergence directly or indirectly with particular reference to newly industrializing nations or development economics.

Classical and Mainstream Economics

In the 1940s two leading economists addressed convergence and development issues. The conservative Joseph Schumpeter argued that societies would converge on


The intellectual milieu of the 1950s and 1960s, ideas of progress, abundance and the like spawned a number of studies that addressed convergence issues. Foremost among them is W.W. Rostow's renowned work on economic development which argued that societies pass through certain "stages" necessary for industrialization to occur by absorbing technology that is available or becomes common to all. These four common stages included a traditional stage; a precondition for modernization; take-off and drive to maturity to finally reach a stage of mass consumption. Rostow writes his concern was "primarily with the pattern of growth itself – as common technologies were diffused to highly distinctive societies -- and with certain consequences of those strategic decisions for the timing of industrialization, the allocation of resources and war, as the stages of growth succeeded each other."\footnote{Quoted in Rostow's later work where politics rather than growth was the focus of his analysis using his stage theory, W.W. Rostow \textit{Politics and the Stages of Growth} (Cambridge: Cambridge University Press, 1971): 2. This work which used Turkey as one of six main nations to develop his analysis will be discussed at length later in the paper. Rostow's classic work is W.W. Rostow, \textit{The Stages of Economic Growth} (N.Y.: Cambridge University Press, 1959).}

Alternatively, Italian economist and sociologist Vilfredo Pareto analyzed society in terms of the struggle between ruling and aspring or counter-elites and the masses, in which the environment assumes some sort of balance, or "optimum" of operations, called the Pareto optima. This concept is useful in conceptualizing convergence, as competing interests may converge in the optima area. Ajami and Arch extended this framework to describe a "technology paradigm":

The 'technology paradigm' analyses the confluence of the multinational corporation and the developing country, legitimacy and accountability, and describes a commonality of goal projection over the issue of growth. This convergence suggests a utility curve in which the multinational corporation and the nation-state identify a Pareto optimum in which both can negotiate without creating disutility—lack of economic return for the corporation and dissonance in the host society.  

Jan Tinbergen looked at convergence on the optimum at a macro level in his work on the "theory of the optimum regime, a normative discussion of the path to a more successful society."  

Marxist Interpretations  

As an observer and a product of the industrial revolution in Britain in the mid-nineteenth century, Marx addressed issues of the convergence of industrial societies. Capitalist development he theorized was determined by a set of "economic laws of motion of modern society". Indeed capitalism was for developed and developing societies so powerful that all societies would necessarily converge on this form of production. The interdependency of the world economy based on the rise of capitalism Marx wrote 

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27 The literature on Marx and Marxism is extensive. For a collection of Marx's writings see Karl Marx, Karl Marx Selected Writings, ed. by David McLellan (Oxford: Oxford University Press, 1977). One particularly readable analysis is Robert Heilbroner, Marxism: For and Against (N.Y.: W.W. Norton, 1980).  

28 For an insightful and clear explanation of Marx in relation to development issues and other international political economy issues see Robert Gilpin, The Political Economy of International Relations (Princeton: Princeton University Press, 1987). Gilpin's framework for analyzing the influence of the market in international political economy argues the importance of three theories: Marxism, economic nationalism and liberalism.
"compels all nations, on pain of extinction, to adopt the bourgeois mode of production; it compels them to introduce what it calls civilization into their midst...in one word, it creates a world after its own image." Marx's deterministic, unilinear view however unproved, has remained a conceptual focus for scholars from various disciplines and backgrounds for nearly a century and a half.

The Marxist conceptual framework of analysis is based on the primacy of capitalism as an integrating world force. Present day Marxists approach their analysis similarly. It is most interesting that Kerr et al's work in the 1950s and 1960s was in direct contradiction of scholars' preoccupations, as they saw them, with issues of capitalism. The abundant and hopeful fifties shifted the focus. The contracting and disturbing eighties and nineties have, particularly in reference to Eastern Europe and the role of the state in developing economies, particularly in Latin America, shifted the focus back to capitalism today described as issues for "market economies." The controversy – industrialization, capitalism, technology as the focus of analysis – remains popular in the literature.

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Radical Economics and Neo-Marxist Approaches

Few works from a non-academic have received so wide and so long a period of attention as Braverman's *Labor and Monopoly Capital*. Braverman's thesis that capitalism forces the de-skilling of labor is applicable to international industrial relations issues as transnational organizations are viewed as the worst if newest proponents of the increasing powerlessness of wage labor. Numerous other Marxists approached the subject both as a rebuttal and confirmation of Braverman's line of thinking. The linear approach of both the Marxists and Kerr et al is apparent in the assumption of convergence over the inevitability of labor's deskilling.

The World System Approach

The World System Approach or Modern World System thesis departs from the classic Marxist approach by extending its criticism of (domestic) capitalism to the interaction of core (or industrialized, or capitalistic) societies on the world economies, which in total, are seen as a complete economic unit or "system". The World System Approach assumes an interdependent, even unified global economy of nation-states that are defined


hierarchically as either core, periphery or semi-periphery states. The work of Immanuel Wallerstein propounds this thesis, which all radical theorists of this approach argue, that core economies provide for the uneven development of developing or peripheral states.\textsuperscript{33} Although the conceptualization of the core/periphery in development was not new\textsuperscript{34}, the notion has been popularized by leading radical thinkers including Paul Baran, Andre Frank, Samir Amin, among others.\textsuperscript{35} For these writers, convergence shifts back to the issue of capitalism with a new twist. As Rojek notes "The focus is now on the effects of capitalism as a system of world domination, rather than the hypothetical laws of the industrialization process" and further that "the new view of convergence continuously emphasizes that social interests, values and power struggles shape history... individual nations are thought of as parts of a web: the movement of one precipitates adjustments in the web as a whole."\textsuperscript{36} This line of thinking, obviously a departure from Kerr's theses, borrows from it in its web of rules notion, and is reminiscent of the problems which scholars from the Inter-University Study sought to redress, that is the focus on capitalism and conflict (power).


\textsuperscript{34}The concept can be traced to the early nineteenth century in the work of Johann Heinrich von Thunen. See Gilpin, op cit., p. 69 who notes "It is ironic that although in its original formulation the core develops the periphery, this idea has been corrupted by contemporary radical thinkers (where the core underdevelops the periphery.)"


\textsuperscript{36}Rojek op cit., p. 30; p. 33.
Development Theory

As a cross disciplinary study, this research interprets technology and IR practices in Turkey through an integration of notions borrowed from economics and political science. Development theory is aptly suited to this end. Indeed, one theorist argues "In no other field of the social sciences are politics and economics so closely intertwined as in the study of development."\textsuperscript{37} It is this work's premise that the interaction of economic imperatives of the corporation and the political imperatives of the nation-state must be analyzed within a new theoretical framework. The literature on development richly suits this purpose and helps to specify the work's theoretical structure.

Overview and Definition

The problems of economic development have long intrigued scholars from diverse disciplines and the literature is extensive. Relevant development theorists focusing on employment and labor, technology and newly industrializing countries will be addressed here. This study uses a general definition of a developing or newly industrializing economy where, although generalizations are difficult and open to criticisms from numerous fronts, there are several standard indicators. In describing developing nations Arthur Ross notes

Certain basic conditions are widely encountered...such as the predominance of the agricultural sector, the small proportion of the labour force in the modern industrial sector, the concentration of urban wage earners in service occupations, and the prevalence of underemployment coexisting with serious shortages of technical, white collar and managerial skills.\textsuperscript{38}


\textsuperscript{38}See Arthur M. Ross, \textit{Industrial Relations and Economic Development} (London: Macmillan, 1966): xiii. This work contains the first extensive review of the literature on industrial relations and economic
Ross's compilation synthesized and annotated the already vast amount of literature on development and industrial relations since World War II and remains, twenty five years later, still a valuable reference source.

The operating environment for Third World or developing nations, extending beyond Ross's economic and social determinants, has been succinctly described by Arthur Lewis. Certain elements appear in the relationships between developed and developing nations, such as

- the division of the world into exporters of primary products and exporters of manufactures
- the adverse factorial terms of trade for the products of the developing countries
- the dependence of the developing countries on the developed for finance
- the dependence of the developing countries on the developed for their engine of growth. 39

At the societal level Michael Crozier argues three main aspects of development:

- new forms of collective action
- reduction of social distance between disparate and and traditionally separate groups
- new methods of formal organization 40

Ross, Lewis' and Crozier's framework will be discussed in relation to the analysis of firms in Turkey.

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Social Scientists and Development

The rubric newly industrializing country (NIC) or "developing" assumes movement of the nation through a process generally defined as industrialization. The classic work on this "process" is Rostow's stage theory. NICs are often analyzed with particular reference to Rostow's period of "take-off" in which societies are transformed within a decade or two, and in which growth becomes automatic. Rostow argues that in his hypothesis

The take-off is defined as an industrial revolution tied directly to radical changes in methods of production, having their decisive consequences over a relatively short period of time...for the take-off to be successful, it must lead on progressively to sustained growth....The rapid growth of one or more new manufacturing sectors is a powerful and essential engine of economic transformation.41

This assumption will be discussed in relation to the current environment in Turkey in particular reference to the advanced technology firms of this research's case study.

Economistic interpretations were remedied by a number of authors. In the 1950s and 1960s economists looked beyond economic variables to analyze development issues, especially in the early work of Hirschman, Kindleberger and Gerschenkron.42 Economists joined with other social scientists to develop new interpretations with bearing on a variety of disciplines43, including industrial relations as has been discussed earlier in this work.

Numerous scholars attacked the issue from a variety of perspectives in the 1970s. David

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Landes for example notes the political nature of industrialization while still propounding the thesis that economic development is essentially technological development.44 Winner's disturbing polemic addresses these and other philosophical issues on technology and development in history.45 From the late 1970s scholars have questioned mainstream economic development theory, in particular. Much of the hope and the assuredness of earlier decades' theorizing has been replaced with question and self-criticism. Earlier theories appeared lacking in their ability to describe and interpret new economic realities, particularly in their inappropriate reliance on the western model as the only cornerstone of real development. In the 1980s even Hirschman questioned the appropriateness of development theory noting "much of the zest and hope that characterized work in this area of economics in the 1950s and 1960s is no longer present."46

The Multinational Enterprise and Development

A body of insightful literature on the role of the multinational corporation in development has addressed issues of technology and economic growth.47

44See Landes' classic thesis on industrialization The Unbound Prometheus, Technological Change and Industrial Development in Western Europe from 1750 to the Present (London: Cambridge University Press, 1969).


unorthodox view predicted trends for the microcosm (the corporation) in relation to the macrocosm (international economy) based on the 'law of uneven development', or the "tendency of the system to produce poverty as well as wealth, underdevelopment as well as development."48 Keohane proponent also of rational choice asks, for example, whether the transnational firm is an alliance that transcends the law of uneven development.49

The rational choice perspective has numerous adherents. This review cites only Mancur Olson.50 Olson's notion of "distributional coalitions" although much criticized has applications for this research. Distributional coalitions or cartels, including unions, seek to increase their own share of social wealth, to the detriment of efficiency, productivity and society's technological advance. This research applies the idea of the "distributional" effect of coalitions, including corporations, to development issues in Turkey.

Orthodox and Radical Approaches

Development economists disaggregate the enormous literature in three identifiable schools of thought: the neoclassical; structuralist; and radical schools.51 This review

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49Among his many works, see for example the widely acclaimed work, Robert Keohane, After Hegemony: Cooperation and Discord in the World Political Economy (Princeton: Princeton University Press, 1984).


51These three schools correspond roughly to how Gilpin frames the ideologies of political economy: the liberalism, nationalism, and Marxism. For writers associated with these ideas, see Chapter 2, "Three Ideologies of Political Economy" in Robert Gilpin, the Political Economy of International Relations (Princeton: Princeton University Press, 1987): 25-64. See also Toye, op cit.; UNESCO, op cit.
covers only those works with relevant and direct bearing on the topic. Several valuable surveys of development theory have been published. Arthur Lewis and Jacob Viner, for example, are associated with the classical approach.

Raul Prebisch's work on Latin America, well known as the antecedent to the work of the Dependency (Dependencia) School, represents the structuralist theory of underdevelopment. Structuralists largely rely on promoting growth through an import-substitution strategy. This thesis, also known as the Singer-Prebisch theory, argued the separation of world economies into core or highly industrialized and peripheral or underdeveloped economies. Nurske and Myrdal are also associated with the underdevelopment thesis. Paul Krugman's work on trade theory parallels the structuralist's focus on core/periphery or "North-South" questions. Krugman argues

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industrialized or core nations will have to innovate faster and harder to even maintain their relative positions. 57

Various approaches of the radical school have gained much popular attention in the last two decades. The Dependency School largely replaced the structuralists and is closely related to the World System theorists discussed earlier in this work. Capitalism is discussed as the critical determinant in proffering unequal or underdevelopment. Authors of this approach suggest radical responses including "delinking" with the rest of the world economies and the promotion of "autonomous" development in a socialist mode. 58

Technology Theory

The literature on technology transfer is vast and growing, even exponentially. Because the issue is so critical in the new world economy scholars from all schools and perspectives have sought to delineate, describe, interpret and predict its function and its

57 Among Krugman's several works, see for example, Paul Krugman, "A Model of Innovation, Technology Transfer and the World Distribution of Income" Journal of Political Economy 87 (1979):253-66. As Gilpin discusses

Although in the short run the advanced countries may collect technological rents from the South, the long-term effect of this trading relationship, as Lenin and Hobson appreciated and as the late twentieth century has witnessed, is the transfer to the South and its newly industrializing countries of the industrial technology that has given the North its competitive advantage. As this occurs, the North, with its higher wage and cost structures, must innovate new technology at a faster rate than its older technology is diffusing to its rising competitors. In effect, the North must run faster and faster in order to maintain both its relative and absolute positions. Gilpin, op cit.,p.281.

58 A number of excellent surveys exist describing the abundant literature on this topic. For Latin America see for example, D. Tussie, Latin America in the World Economy: New Perspectives (London: St. Martin's Press, 1983); for a general discussion see Gabriel Palma, "Dependency: A Formal Theory of Underdevelopment or a Methodology for the Analysis of Concrete Situations of Underdevelopment?" World Development 6 (1978):881-924; for further critique see James Caporaso, "Dependance and Dependency in the Global System" International Organization 32 (1978):1-300.
future. The section reviews those works that are central to this research and those works that are landmarks in the field, particularly in reference to international management issues.

Overview and Definition

Scholars have sought with varying degrees of success to define "technology". Because it can encompass so vast a construct, ambiguity has sometimes sufficed for a clear delineation of its boundaries. Some authors describe technology as machines or inventions, know-how, material culture or for earlier writers, simply the practical arts. Winner aptly argues

That a concept that was once very specific in the way it was used has now become amorphous in the extreme. There is a tendency among those who write or talk about technology in our time to conclude that technology is everything and everything is technology...the word has come to mean everything and anything; it therefore threatens to mean nothing.59

The problem is apparent even at the micro or firm level. Michael Porter for example in his popular work on competitive advantage writes "A firm, as a collection of activities, is a collection of technologies. Technology is embodied in every value activity in a firm and technological change can affect competition through its impact on virtually any activity."60

The difficulty lies in the fact that technology is social construct, as well as scientific or mechanical one. Moreover, because of its vast influence on societies, an economic and political construct as well. North suggests "the radical simplification that technology is


ordinarily a dependant variable in human affairs". This apparent reductionism yet has analytical significance. An extension of this concept is used in this thesis in the section where six dimensions are used to explain technology, also assumed to be a dependant variable.

This kind of framework is open to charges of determinism, a critique leveled at writers from Marx to Galbraith. Technological determinism in a normative (negative) exposition is a problem of linearity: technology determines all of human life and the like, without regard for the interaction of other non-technological variables. Mirroring the thoughts of the industrial relations scholars who sought to shift academic discourse away from capitalism Galbraith argues in his classic work that economic changes are stimulated by technology: "The imperatives of technology and organization, not the images of ideology, are what determine the shape of economic society."

This kind of prescriptive framework – or this is what is bad or evil in society and this is how we can change it – is not the approach taken here. The systems approach of this work provides for the integration and interaction of a variety of constructs and therefore avoids a unilinear approach, while admitting the primacy of technology itself. Piore and Sabel succinctly noted the social, political and economic influences on technology:

Industrial technology does not grow out of a self-contained logic of scientific or technical necessity: which technologies develop and which languish depends crucially on the structure of the markets for the technologies' products; and the structure of the markets depends on such fundamentally political circumstances as

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63Galbraith is only one of a long line of thinkers in the technology-as-evil vein, from various schools including of course, Marx, Winner, Bendix, Braverman, Galbraith admonishes "we are becoming the servants in thought, as in action, of the machine we have created to serve us," op cit, p. 8.
rights to property and the distribution of wealth. Machines are as much a mirror as the motor of social development.\textsuperscript{64}

This work agrees with leading scholar on technology and public policy issues Harvey Brooks' conceptualization of technology. Brooks states

It has been traditional to define technology in terms of its physical embodiments, as novel physical objects created by man to fulfill certain human purposes... this is too limited a view and one that is becoming increasingly obsolete...technology must be sociotechnical rather than technical, and a technology must include the managerial and social supporting systems necessary to apply it on a significant scale.\textsuperscript{65}

From these several sources comes this work's general definition of technology, as stated in Chapter 1, that is "technical and managerial know-how and its commercial and industrial application."

Technology and Organizational Behavior

The general definition used here is in marked contrast to the use of technology in the early organizational theory literature. In that research stream there is heavy focus on process technology or product technology and its influence on organizational determinants. During the 1960s the Aston Group at the Imperial College of Science and Technology in London formed to study the role of technology in organizations under the leadership of Joan Woodward. Her seminal works in 1965 and 1970 on the connection between technology and organization structure have had widespread influence on organizational


theory.66 Victor Thompson stressed the influence of technology on administrative behavior.67 Presently a number of authors continue this research stream.68 Organization level research is significant in the development of the field, but outside the purview or interest of this policy study.

Technology and International Trade Theory

Technology has been a salient factor in trade theory at least since Adam Smith, author of the concept of absolute advantage in trade.69 David Ricardo observed that trade is primarily determined by productivity, particularly labor productivity, differences among nations. Ricardo's theory of comparative advantage based on relative technological capabilities remains an attractive concept, so much so that economics has seen an "upsurge


68 For a review of some of the literature in organizational behavior on technology issues the reader is referred to Ben Kedia and Rabi Bhagat, "Cultural Constraints on Transfer of Technology Across Nations: Implications for Research in International and Comparative Management" Academy of Management Review 13,4 (1988):559-571.

69 For an interesting analysis of the classical theory of trade through the mid twentieth century, with particular reference to developing economies, see Hal Myint "The 'Classical Theory' of International Trade and the Underdeveloped Countries" The Economic Journal 68 (1958):317-337.
of 'neo-Ricardian' or 'neotechnology' models of international trade. 70 Ohlin proposed a thesis of comparative advantage, refined by Ohlin's teacher, Heckscher and later by Samuelson, (The Heckscher-Ohlin-Samuelson Theory) that kept technology constant – nations have or can acquire the same technology – while differing in various factor endowments of land, labor and capital. 71 So, for example, capital rich nations like the U.S. would trade expensive high technology goods, while labour surplus nations like Turkey might trade labor intensive goods. However, industrialized nations, including the U.S., trade labor intensive goods and Turkey, as this research will show, trades high tech goods – A dichotomy noted by Wassily Leontief in 1954, well known as the Leontief Paradox. 72 Schumpeter theorized (the Schumpeter Hypothesis) on the returns to scale of new technology output given research and development, an input, and firm size, e.g. that "an increase in industrial concentration will result in larger aggregate industry output of new technology." 73 Economists of course remain intrigued by the role of technology. 74


71 The concept was originally proposed by Bertil Ohlin in Interregional and International Trade (Cambridge: Harvard University Press, 1933).


73 Carlos Rodriguez, "The Technology Transfer Issue" in Grassman and Lundberg, ibid., p. 171.

74 For a thorough review of the economic literature see Part II, "Technology and Trade" Chapters 4-6, in Grassman and Lundberg, ibid., 167-265.
Technology and the Multinational Enterprise

The concept of technology is central to the analysis of the multinational enterprise. One of the most important approaches to the multinational enterprise is the Product Cycle Theory associated with a number of scholars, foremost among them Raymond Vernon who first developed the thesis in 1966. Vernon's framework was an attempt to explain the U.S. lead in new technology goods. Under this theory, the innovative country receives an economic rent from the new technology which can be exploited as a temporary monopoly, during its early, export, phase. As the technology diffuses the nation sets up foreign operations. In this continuum or cycle, the host country then enters the industry, finally exporting back to the original innovator. Although the theory has received much criticism, from Vernon himself among others, it remains a valuable framework. Technology "gap" theories, arguing that nations export in those industries that they have a gap or lead in until the crossborder transfer of technology or diffusion closes the gap, borrows from this line of thinking.

One of the most critically analyzed approaches is John Dunning's Eclectic Paradigm of International Production. Dunning sought to remedy neoclassical trade theory's reliance on the pattern of perfect competition. He emphasized that the paradigm seeks to explain

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Interestingly, under what would be called 'simultaneous invention' by technology analysts, G.C. Hufbauer developed a similar idea independent and unaware of each others' work, see G.C. Hufbauer, Synthetic Materials and the Theory of International Trade (London: Gerald Duckworth, 1965).

both interindustry and intra-industry trade – particularly in intermediate products, the point at which neoclassical theory fails, particularly the Heckscher-Ohlin-Samuelson approach. Further, nations trade internationally more because of market failure (the absence of perfect competition) than because of the advantages of specific factor endowments. Technology in this paradigm is considered an intermediate product, like management skills or even, as in the case of Turkey, unskilled labor. Dunning contends that "explanations of trade and production may be thought of as part of a general paradigm based upon the international disposition of factor endowments, and the costs of alternative modalities for transacting intermediate products across national boundaries."77

77John H. Dunning, "The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions" Journal of International Business Studies 19,1 (Spring 1988).2. Dunning's famous framework was first stated in Bertil Ohlin, P.O. Hesselborn and P.M. Wiskman eds., The International Allocation of Economic Activity (London: Macmillan, 1977). For an elaboration of the paradigm, a review of the research stream it generated and a review of the critical scholarship arisen around it, see the above article for sources, citations and analysis.

Most recently, Dunning applied his paradigmatic framework to technology and competitiveness. See John H. Dunning, Multinationals, Technology and Competitiveness (London: Unwin Hyman, 1988).
CHAPTER III
THE TURKISH ENVIRONMENT

Introduction

The Turkish economy, although besieged by double digit inflation and recurring political problems, has vigorously attracted foreign operations to its shores. Turkey is a nation of 55 million people, largely still agrarian but at an interesting point of take-off through both private and public encouragement of modernization. A middle income developing nation or newly industrializing economy, Turkey has great economic potential, as it sits as a bridge between East and West, a platform for business in the Middle East and now, Eastern Europe.

Encouraged by economic reforms put into effect by the Ozal government in the 1980s, Turkey has experienced a decade of growth and change, particularly in the shift from a largely state-driven to a market driven economy. Free market economics have spawned an ambitious privatization movement as well as sweeping changes in the financial sector, such as the creation of new capital markets including the successful reopening of the Istanbul Stock Exchange in 1986. Turkey's country fund for example, is the world's most promising emerging stock market at present.¹ See the following table.

Table 1

EMERGING STOCK MARKETS
Best & Worst Performers March 1989–March 1990

This chart rates the best and worst 12-month performances among the world’s most promising emerging stock markets, according to data by the International Finance Corporation, the World Bank’s private investment arm.

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<td>THAILAND</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>MEXICO</td>
<td>24,604</td>
<td>81</td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>INDIA</td>
<td>28,130*</td>
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<tr>
<td>PAKISTAN</td>
<td>2,660</td>
<td>-1</td>
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<td></td>
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</tr>
<tr>
<td>COLOMBIA</td>
<td>1,261</td>
<td>-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KOREA</td>
<td>132,122</td>
<td>-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>BRAZIL</td>
<td>26,570*</td>
<td>-50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Preliminary data.


Foreign and domestic firms have poised themselves to provide the necessary goods and services imperative that has led the nation to more than triple its exports in the decade to over $10 billion today. The level of growth however has been achieved through debt financing and Turkey's external debt has also more than doubled in the same period to nearly $40 billion or close to an alarming 60% of its GNP. Turkey however, unlike many other nations with debt servicing problems and a lower debt/GNP ratio (many have defaulted at 50% or lower) has maintained its creditworthiness. Although Turkey has real GNP growth of over 5% and is one of a handful of the world's food surplus nations, it has an alarming population growth of over 2%.2 Turkey's location and its labor.3 Turkey's economic indicators in relation to

---

Turkey's economic indicators in relation to the United States, German and Japanese economies for 1984-1987 can be seen in Table 2.

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Indicators for Turkey, Germany, Japan &amp; The United States</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>Real GNP</strong></td>
</tr>
<tr>
<td>(Annual change, percent)</td>
</tr>
<tr>
<td>-United States</td>
</tr>
<tr>
<td>-Germany</td>
</tr>
<tr>
<td>-Japan</td>
</tr>
<tr>
<td>-Turkey</td>
</tr>
<tr>
<td><em><em>Inflation</em> (Percent)</em>*</td>
</tr>
<tr>
<td>-United States</td>
</tr>
<tr>
<td>-Germany</td>
</tr>
<tr>
<td>-Japan</td>
</tr>
<tr>
<td>-Turkey</td>
</tr>
<tr>
<td><strong>Unemployment Rate (percent)</strong></td>
</tr>
<tr>
<td>-United States</td>
</tr>
<tr>
<td>-Germany</td>
</tr>
<tr>
<td>-Japan</td>
</tr>
<tr>
<td>-Turkey</td>
</tr>
<tr>
<td><strong>Current Account Balance</strong></td>
</tr>
<tr>
<td>(In billions of US dollars)</td>
</tr>
<tr>
<td>-United States</td>
</tr>
<tr>
<td>-Germany</td>
</tr>
<tr>
<td>-Japan</td>
</tr>
<tr>
<td>-Turkey</td>
</tr>
<tr>
<td><strong>Money Supply (Broad Money)</strong></td>
</tr>
<tr>
<td>(Annual percent change)</td>
</tr>
<tr>
<td>-United States</td>
</tr>
<tr>
<td>-Germany</td>
</tr>
<tr>
<td>-Japan</td>
</tr>
<tr>
<td>-Turkey</td>
</tr>
<tr>
<td><strong>Central Government Fiscal Balance</strong></td>
</tr>
<tr>
<td>(As percent of GNP)</td>
</tr>
<tr>
<td>-United States</td>
</tr>
<tr>
<td>-Germany</td>
</tr>
<tr>
<td>-Japan</td>
</tr>
<tr>
<td>-Turkey</td>
</tr>
<tr>
<td><strong>Exchange Rates</strong></td>
</tr>
<tr>
<td>-DM/S</td>
</tr>
<tr>
<td>-YENS</td>
</tr>
<tr>
<td><strong>Interest Rates</strong></td>
</tr>
<tr>
<td>(In percent per annum)</td>
</tr>
<tr>
<td>-Short term US</td>
</tr>
<tr>
<td>-Long term US</td>
</tr>
</tbody>
</table>


Turkey encourages its export orientation in a number of ways. Significant activity focuses on Foreign Trade Companies (FTC's) modeled after Japanese trading companies, Soga-shoshas and Korean chaebols. This structure is an outgrowth of Turkey's traditional

---

association between large firms and commercial banks, a dependency that makes banks and private firms firms vulnerable to changes in costs of borrowing and lending, particularly apparent in an environment where extremely high inflation levels risk undermining the stability of the financial system. FTCs in Turkey include bank and large holding company affiliations and have expanded at 90% per year since their establishment in 1980. Although the conduit for greatly increased activity, they have fallen short of some expectations while failing to integrate into the domestic economy as accomplished by their Japanese and Korean counterparts. See Table 3 for the export levels of Turkey's FTCs.

Foreign firms also encourage export-led growth. The climate for foreign investment in Turkey has been greatly relaxed and the economy enjoys a remarkable increase in foreign activity. For example, foreign businesses operating in Istanbul alone increased over 200% from 1988 to 1990. As a seriously capital poor nation, industrialization and social growth thrives through the encouragement of domestic and foreign export activity.

---


Table 3

Growth of Exports of the FTC’s (Million US$)

<table>
<thead>
<tr>
<th>Name of the FTC</th>
<th>1981 Annual Exports</th>
<th>1987 Cumulative Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Enka</td>
<td>86</td>
<td>253</td>
</tr>
<tr>
<td>2. Ram</td>
<td>65</td>
<td>247</td>
</tr>
<tr>
<td>3. Exsa</td>
<td>58</td>
<td>222</td>
</tr>
<tr>
<td>4. Tekfen</td>
<td>0.2</td>
<td>357</td>
</tr>
<tr>
<td>5. Mentesoglu</td>
<td>20</td>
<td>256</td>
</tr>
<tr>
<td>6. Edpa</td>
<td>8</td>
<td>221</td>
</tr>
<tr>
<td>7. Mepe</td>
<td>12</td>
<td>149</td>
</tr>
<tr>
<td>8. Cam</td>
<td>45</td>
<td>191</td>
</tr>
<tr>
<td>9. Akpa</td>
<td>51</td>
<td>134</td>
</tr>
<tr>
<td>10. Penta</td>
<td>1</td>
<td>261</td>
</tr>
<tr>
<td>11. Izdas</td>
<td>8</td>
<td>171</td>
</tr>
<tr>
<td>12. Sukurova</td>
<td>13</td>
<td>134</td>
</tr>
<tr>
<td>13. Anex</td>
<td>3</td>
<td>151</td>
</tr>
<tr>
<td>14. Yasar</td>
<td>11</td>
<td>110</td>
</tr>
<tr>
<td>15. Suzer</td>
<td>11</td>
<td>113</td>
</tr>
<tr>
<td>16. Borusan</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>17. Ekinciler</td>
<td>1</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>1982</td>
<td>1987</td>
</tr>
<tr>
<td>18. Temel</td>
<td>2</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td>1983</td>
<td>1987</td>
</tr>
<tr>
<td>19. Meptas</td>
<td>23</td>
<td>135</td>
</tr>
<tr>
<td>20. Culakoglu</td>
<td>10</td>
<td>143</td>
</tr>
<tr>
<td>21. Pepas</td>
<td>0.2</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>1984</td>
<td>1987</td>
</tr>
<tr>
<td>22. Erpeks</td>
<td>35</td>
<td>90</td>
</tr>
<tr>
<td>23. Okan</td>
<td>29</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>1986</td>
<td>1987</td>
</tr>
<tr>
<td>24. Sodimpek</td>
<td>10</td>
<td>101</td>
</tr>
<tr>
<td>25. Bilkont</td>
<td>24</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>1987</td>
<td>1987</td>
</tr>
<tr>
<td>26. GSD</td>
<td></td>
<td>210</td>
</tr>
<tr>
<td>27. Marmara</td>
<td></td>
<td>77</td>
</tr>
<tr>
<td>28. Taha</td>
<td></td>
<td>53</td>
</tr>
</tbody>
</table>


Economic History of Turkey

Turkey has a fascinating, rich and deep history of trading and mercantile activity, the vestiges of which can be seen literally in the ancient caverns of Istanbul’s Covered Bazaar (hundreds of years old and still thriving) and further, in an inescapable national temperament that obviously enjoys business, bartering, brokering activity. This is not a nation in search of itself. It is a nation steeped in a history of conquering peoples, the fruits of the colossal Ottoman empire still apparent in its palaces and museums, preserved forever and yet untouchable for the vast numbers of its alarmingly poor citizens. It is a nation of
dichotomies at every turn—old and new, tradition and modernity, East and West, poverty and wealth, grandeur and despair. There is however, an immense pride in this grand history, in its spectacular geography, in its potential to reclaim its status as a great nation and its drive for international prestige.

The influence of the Ottoman empire is pervasive and inescapable. At its height in the sixteenth century the empire encompassed lands from the eastern edges of Europe through the Middle East and revelled in a civilization as great or greater than any of its time, East or West. The Ottoman powers, ruling until the twentieth century however did not keep pace with the social and economic transformations of its western neighbors and were eventually eclipsed by the technological and political, including democratic, advances of the European powers. The Ottoman influence gave Turkey a well-oiled state machinery, highly centralized and pervasively bureaucratic with a popular appeal toward the paternalistic and highly autonomous "father state" (devlet baba).

Ottoman reform in the late eighteen and nineteenth century sought to mirror some of the changes sweeping Europe, but not until the post World War I influence of Ataturk (Mustafa Kemal) did Turkey experience credible reform. After the founding of the Turkish Republic in 1919, the Ottoman loss in World War I broke the nation of its remaining empire in the Balkans and in the Arab Middle East but provided for the first time a homogeneous state in place of the empire's divided and diverse conglomeration of lands, peoples and traditions. The charismatic Ataturk nearly single-handedly reformed a country, creating a new national identity with the formation for the first time of a true nation-state. Ataturk's sweeping reforms changed the nation's social, political and economic landscape in a revolutionary manner, propelling the country from its Ottoman, eastern past to a western
and modern future. Ataturk changed the alphabet from Arabic to Latin in order to encourage literacy, freed women from behind their veils, prohibited men from wearing the fez, symbol of their traditional past. Ataturk's Turkey was a secular republic. He abolished the sultanate and held national elections in 1923, the following year the nation had a constitution. The transformation of Turkey became a symbol of modernization for other Middle Eastern states.

The problems of the fledgling nation-state were made more dramatic by conditions facing all nations worldwide during the early twentieth century. Turkey had borrowed heavily from European capitalists first during the Ottoman period to finance its military spread and then defense and later to finance its modernization. This external dependency has always been inimical to the creation of an independent national state. Then, the Great Depression coming during Ataturk's splurge of reforms shocked the new state and created a near national distrust of western capitalism. The outgrowth of the Depression for Turkey was the creation of a new form of economic policy, "etatism" or state capitalism. This policy, a response to the shock of the 1930s, remained essentially part of Turkey's national identity until the reforms of the 1980s, which clearly began the process of removing state control from peoples' lives and turned the nation outward toward a market orientation. The integral nature of the state in Turkish lives cannot be understated. As one Turkish analyst explained

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6 See the classic work Bernard Lewis The Emergence of Modern Turkey (Oxford: Oxford University Press, 1961).

7 The thesis that the transformation, "the Turkish paradigm", was an example or model for other states is convincingly developed in Alan Richards and John Waterbury A Political Economy of the Middle East, State, Class and Economic Development (Boulder: Westview Press, 1990).

Historically, integration in Turkish society has been achieved through control by a centralized state. If the civilian cadres of the state failed to hold the society together, the military would move in on occasion to achieve this end. The state in Turkish political culture has been elevated to the level of a holy, omnipotent organization against which no lesser collectivity or individual can stand and assert autonomy. This state-centered political culture will have to undergo major transformation on the way to becoming an European democracy. Arriving at political consensus through competition rather than achieving integration through state control will have to be internalized by all as the only possible way of holding the polity together.9

The latter part of the twentieth century as Turkey experienced profound structural changes has been rife with disruption both political, social and economic. One expression of the depth of this climate has been the partial military interventions of Turkey's government in 1960, following economic dislocation and bankruptcy; in 1971 following further economic dislocation and in 1980 coming on the heels of the oil shocks of the 1970s.10

The 1980s: A Decade of Change

Like world trends, Turkey experienced relative period of growth through the 1960s until the first oil crisis of 1973. A problematic balance of payments position furthered double digit inflation which by 1980 reached an alarming triple digit level, to over 100 percent. The fiscal problems of the 1970s had tripled external debt eventually causing the cancelation of external sources and causing comprehensive rescheduling agreements between 1978 and 1980. These events led to critical shortages of foreign exchange with


resultant disruptions in output and production, rising unemployment and hyperinflation. A comprehensive program of reform was begun in 1980 to encourage stabilization through price deregulation, trade liberalization, financial sector reform and the expansion of export-led growth.\(^{11}\)

Table 4 shows Turkish exports and imports for two decades ending in 1989, note the expansion of exports in the 1980s.

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
<th>%change</th>
<th>Imports</th>
<th>%change</th>
<th>Trade Balance</th>
<th>%change</th>
<th>Trade Volume</th>
<th>%change</th>
<th>% exports/imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>537</td>
<td>-</td>
<td>801</td>
<td>-</td>
<td>(264)</td>
<td>-</td>
<td>1,338</td>
<td>-</td>
<td>67.0%</td>
</tr>
<tr>
<td>1970</td>
<td>588</td>
<td>9.5%</td>
<td>948</td>
<td>18.4%</td>
<td>(360)</td>
<td>36.4%</td>
<td>1,536</td>
<td>14.8%</td>
<td>62.0%</td>
</tr>
<tr>
<td>1971</td>
<td>677</td>
<td>15.1%</td>
<td>1,171</td>
<td>23.5%</td>
<td>(494)</td>
<td>37.2%</td>
<td>1,848</td>
<td>20.3%</td>
<td>57.8%</td>
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<tr>
<td>1972</td>
<td>885</td>
<td>30.7%</td>
<td>1,563</td>
<td>33.5%</td>
<td>(678)</td>
<td>37.2%</td>
<td>2,448</td>
<td>32.5%</td>
<td>56.6%</td>
</tr>
<tr>
<td>1973</td>
<td>1,317</td>
<td>48.8%</td>
<td>2,086</td>
<td>33.5%</td>
<td>(769)</td>
<td>13.4%</td>
<td>3,403</td>
<td>39.0%</td>
<td>63.1%</td>
</tr>
<tr>
<td>1974</td>
<td>1,532</td>
<td>16.3%</td>
<td>3,778</td>
<td>81.1%</td>
<td>(2,246)</td>
<td>192.1%</td>
<td>5,310</td>
<td>56.0%</td>
<td>40.6%</td>
</tr>
<tr>
<td>1975</td>
<td>1,401</td>
<td>-8.6%</td>
<td>4,739</td>
<td>25.4%</td>
<td>(3,338)</td>
<td>48.6%</td>
<td>6,140</td>
<td>15.6%</td>
<td>29.6%</td>
</tr>
<tr>
<td>1976</td>
<td>1,960</td>
<td>39.9%</td>
<td>5,128</td>
<td>8.2%</td>
<td>(3,168)</td>
<td>-5.1%</td>
<td>7,088</td>
<td>15.4%</td>
<td>38.2%</td>
</tr>
<tr>
<td>1977</td>
<td>1,753</td>
<td>-10.6%</td>
<td>5,796</td>
<td>13.0%</td>
<td>(4,043)</td>
<td>27.6%</td>
<td>7,549</td>
<td>6.5%</td>
<td>30.2%</td>
</tr>
<tr>
<td>1978</td>
<td>2,288</td>
<td>30.5%</td>
<td>4,599</td>
<td>-20.7%</td>
<td>(2,311)</td>
<td>-42.8%</td>
<td>6,887</td>
<td>-8.8%</td>
<td>49.7%</td>
</tr>
<tr>
<td>1979</td>
<td>2,261</td>
<td>-1.2%</td>
<td>5,069</td>
<td>10.2%</td>
<td>(2,808)</td>
<td>21.5%</td>
<td>7,330</td>
<td>6.4%</td>
<td>44.6%</td>
</tr>
<tr>
<td>1980</td>
<td>2,910</td>
<td>28.7%</td>
<td>7,909</td>
<td>56.0%</td>
<td>(4,999)</td>
<td>78.0%</td>
<td>10,819</td>
<td>47.6%</td>
<td>36.8%</td>
</tr>
<tr>
<td>1981</td>
<td>4,703</td>
<td>61.6%</td>
<td>8,933</td>
<td>12.9%</td>
<td>(4,230)</td>
<td>-15.4%</td>
<td>13,636</td>
<td>26.0%</td>
<td>52.6%</td>
</tr>
<tr>
<td>1982</td>
<td>5,746</td>
<td>22.2%</td>
<td>8,843</td>
<td>-1.0%</td>
<td>(3,097)</td>
<td>-26.8%</td>
<td>14,589</td>
<td>7.0%</td>
<td>65.0%</td>
</tr>
<tr>
<td>1983</td>
<td>5,728</td>
<td>-0.3%</td>
<td>9,235</td>
<td>4.4%</td>
<td>(3,507)</td>
<td>13.2%</td>
<td>14,963</td>
<td>2.6%</td>
<td>62.0%</td>
</tr>
<tr>
<td>1984</td>
<td>7,134</td>
<td>24.5%</td>
<td>10,757</td>
<td>16.5%</td>
<td>(3,623)</td>
<td>3.3%</td>
<td>17,899</td>
<td>19.6%</td>
<td>66.3%</td>
</tr>
<tr>
<td>1985</td>
<td>7,958</td>
<td>11.6%</td>
<td>11,343</td>
<td>5.4%</td>
<td>(3,385)</td>
<td>-6.6%</td>
<td>19,301</td>
<td>7.9%</td>
<td>70.2%</td>
</tr>
<tr>
<td>1986</td>
<td>7,457</td>
<td>-6.3%</td>
<td>11,105</td>
<td>-2.1%</td>
<td>(3,648)</td>
<td>7.8%</td>
<td>18,562</td>
<td>-3.8%</td>
<td>67.1%</td>
</tr>
<tr>
<td>1987</td>
<td>10,190</td>
<td>36.7%</td>
<td>14,158</td>
<td>27.5%</td>
<td>(3,968)</td>
<td>8.8%</td>
<td>24,348</td>
<td>31.2%</td>
<td>72.0%</td>
</tr>
<tr>
<td>1988</td>
<td>11,662</td>
<td>14.4%</td>
<td>14,335</td>
<td>1.3%</td>
<td>(2,673)</td>
<td>-32.6%</td>
<td>25,997</td>
<td>6.8%</td>
<td>81.4%</td>
</tr>
<tr>
<td>1989</td>
<td>11,627</td>
<td>-0.3%</td>
<td>15,763</td>
<td>10.0%</td>
<td>(4,136)</td>
<td>54.7%</td>
<td>27,390</td>
<td>5.4%</td>
<td>73.8%</td>
</tr>
</tbody>
</table>

Source:Haluk Cilov, "The Turkish Economy in 1990" ICOC 36(December 1990):2

These programs produced a watershed for Turkey. In the outward, export orientation Turkey encouraged a radical departure from its past policy of import substitution, and importantly, its heavy reliance on state intervention was surplanted by market forces, with reasonable success. These structural changes came with political as well

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as economic upheaval. Following the military takeover curbing nearly systemic political violence Turkey elected in 1983 its first civilian president, Turgut Ozal, since 1960. For Turkish economic indicators, see Appendix C.

Industrial structure in Turkey has paralleled the global shift to services, although the dominate role of the state provided significant share of activity in services for forty years. Industry remains a growth sector. See Table 5 for the distribution of GDP by sector.

Table 5
The Transformation in Industrial Structure

<table>
<thead>
<tr>
<th>Year</th>
<th>The Share of Agriculture in GDP %</th>
<th>The Share of Industry in GDP %</th>
<th>The Share of Services in GDP %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>45.7</td>
<td>14.9</td>
<td>39.4</td>
</tr>
<tr>
<td>1960</td>
<td>41.2</td>
<td>20.9</td>
<td>37.9</td>
</tr>
<tr>
<td>1970</td>
<td>29.2</td>
<td>26.3</td>
<td>44.5</td>
</tr>
<tr>
<td>1975</td>
<td>29.1</td>
<td>25.2</td>
<td>45.7</td>
</tr>
<tr>
<td>1981</td>
<td>20.5</td>
<td>28.4</td>
<td>51.1</td>
</tr>
</tbody>
</table>


The Outlook for Foreign Firms

Although it was obvious to many development specialists in Turkey that foreign activity should be encouraged, resulting in the passage of a Foreign Investment Act in 1954, it was not until the reforms of the 1980s that Turkey took steps to remove the bureaucratic stumbling blocks to significant foreign capital investments. Indeed, as soon as the legal requirements were simplified after 1980 including for example the application process directed from a single authority, the Foreign Investment Department of the State Planning Organization, permits (showing intent to invest) from 1980-1983 alone were triple that of the entire preceding 26 years. When services were opened to foreign investment in 1984 activity increased dramatically. By 1989 the dollar volume of total foreign investment totaled 2.3 billion. See Table 6 for a display of foreign capital activity by year and by sector.
### Table 6
Foreign capital movements

(Values x US$1 million)

<table>
<thead>
<tr>
<th>Year</th>
<th>Valued of permits issued</th>
<th>Actual inflow</th>
<th>Profit transfers abroad</th>
<th>Net foreign capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954-80</td>
<td>325</td>
<td>228</td>
<td></td>
<td>228</td>
</tr>
<tr>
<td>1981-84</td>
<td>579</td>
<td>493</td>
<td>184</td>
<td>309</td>
</tr>
<tr>
<td>1985</td>
<td>235</td>
<td>158</td>
<td>59</td>
<td>99</td>
</tr>
<tr>
<td>1986</td>
<td>364</td>
<td>170</td>
<td>45</td>
<td>125</td>
</tr>
<tr>
<td>1987</td>
<td>537</td>
<td>171</td>
<td>65</td>
<td>106</td>
</tr>
<tr>
<td>1988</td>
<td>825</td>
<td>387</td>
<td>33</td>
<td>354</td>
</tr>
<tr>
<td>1989</td>
<td>1,471</td>
<td>738</td>
<td>75</td>
<td>663</td>
</tr>
<tr>
<td></td>
<td>4,336</td>
<td>2,345</td>
<td>461</td>
<td>1,884</td>
</tr>
</tbody>
</table>

#### Sectoral breakdown of foreign capital investment as of May 1990
(Capital values x TL 1 million)

<table>
<thead>
<tr>
<th>Sector</th>
<th># firms</th>
<th>Foreign capital</th>
<th>% foreign capital interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; stock breeding</td>
<td>47</td>
<td>53,090</td>
<td>2.2%</td>
</tr>
<tr>
<td>Mining</td>
<td>23</td>
<td>24,500</td>
<td>2.7%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food, beverages &amp; tobacco</td>
<td>65</td>
<td>173,650</td>
<td>7.1%</td>
</tr>
<tr>
<td>Textiles &amp; clothing</td>
<td>72</td>
<td>65,750</td>
<td>2.7%</td>
</tr>
<tr>
<td>Leather</td>
<td>11</td>
<td>3,925</td>
<td>0.2%</td>
</tr>
<tr>
<td>Paper &amp; printing</td>
<td>17</td>
<td>90,744</td>
<td>3.7%</td>
</tr>
<tr>
<td>Chemicals &amp; plastics</td>
<td>83</td>
<td>317,477</td>
<td>13.1%</td>
</tr>
<tr>
<td>Rubber</td>
<td>4</td>
<td>38,174</td>
<td>1.5%</td>
</tr>
<tr>
<td>Iron &amp; steel</td>
<td>17</td>
<td>102,864</td>
<td>4.2%</td>
</tr>
<tr>
<td>Machinery</td>
<td>51</td>
<td>65,915</td>
<td>2.7%</td>
</tr>
<tr>
<td>Electronics</td>
<td>22</td>
<td>161,375</td>
<td>6.6%</td>
</tr>
<tr>
<td>Automotive</td>
<td>24</td>
<td>120,116</td>
<td>4.9%</td>
</tr>
<tr>
<td>Others</td>
<td>79</td>
<td>93,580</td>
<td>3.6%</td>
</tr>
<tr>
<td>Total manufacturing</td>
<td>445</td>
<td>1,233,570</td>
<td>50.3%</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade</td>
<td>646</td>
<td>269,391</td>
<td>11.0%</td>
</tr>
<tr>
<td>Tourism</td>
<td>165</td>
<td>418,970</td>
<td>17.1%</td>
</tr>
<tr>
<td>Transportation</td>
<td>64</td>
<td>23,668</td>
<td>0.9%</td>
</tr>
<tr>
<td>Banking and finance</td>
<td>41</td>
<td>260,559</td>
<td>10.6%</td>
</tr>
<tr>
<td>Insurance</td>
<td>22</td>
<td>37,929</td>
<td>1.6%</td>
</tr>
<tr>
<td>Others</td>
<td>152</td>
<td>130,283</td>
<td>5.3%</td>
</tr>
<tr>
<td>Total services</td>
<td>1,090</td>
<td>1,140,800</td>
<td>46.5%</td>
</tr>
</tbody>
</table>

Overall total                         | 1,605   | 2,451,961      | 100.0%                    |

Labor and Human Resource Issues in Turkey

The Labor Force

Turkish demographics and national characteristics are both typical and unusual. Its population of 55 million with a per capita income of slightly over $1300 a year (1989) lives primarily in urban areas. Because of the nation's relatively large size (about the size of Germany and France combined) Turkey has low density but significant unemployment, running above 10% consistently throughout the decade of the 1980s. Income inequality like most developing nations, has not been reduced in the last decade and significant income differences exist by region, especially urban versus rural areas, not withstanding government financial incentives for rural economic development projects. Those economic expansion programs include for example, an offset agreement with General Dynamics to provide advanced technology to a major hydroelectric installation in rural Turkey in southeastern Anatolia.

Real earnings of employees outside of agriculture remained flat during the 1980s, in contrast to most South-east and West Asian developing nations which rose during the same period. Wages in manufacturing show that Turkey's wages remain below those in Greece and Spain, but above those in Korea. Labor cost advantages for Turkey appear in a middle range then, between the Asian low cost producer and the Western capital intensive producer. See Table 7 for a comparison of manufacturing wages in dollars.

12Including disguised unemployment the figure is more correctly stated at about 15%. See Rusen Keles "Urban Turkey in the Year 2000: A Pessimistic Scenario" Turkey in the Year 2000 (Ankara: Turkish Political Science Association, 1990):208.


Table 7

<table>
<thead>
<tr>
<th></th>
<th>Turkey</th>
<th>Korea</th>
<th>Greece</th>
<th>Spain</th>
<th>Germany</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>2.18</td>
<td>1.14</td>
<td>2.4</td>
<td>3.97</td>
<td>7.25</td>
<td>7.27</td>
</tr>
<tr>
<td>1981</td>
<td>2.06</td>
<td>1.2</td>
<td>2.35</td>
<td>3.75</td>
<td>6.16</td>
<td>7.99</td>
</tr>
<tr>
<td>1982</td>
<td>1.85</td>
<td>1.29</td>
<td>2.6</td>
<td>3.63</td>
<td>6.03</td>
<td>8.49</td>
</tr>
<tr>
<td>1983</td>
<td>1.81</td>
<td>1.34</td>
<td>2.36</td>
<td>3.19</td>
<td>5.93</td>
<td>9.19</td>
</tr>
<tr>
<td>1984</td>
<td>1.45</td>
<td>1.4</td>
<td>2.33</td>
<td>3.20</td>
<td>5.44</td>
<td>9.19</td>
</tr>
<tr>
<td>1985</td>
<td>1.44</td>
<td>2.27</td>
<td>3.32</td>
<td>5.5</td>
<td>9.53</td>
<td></td>
</tr>
</tbody>
</table>


For many economists the export orientation is based upon the labor cost advantage of low wages.\textsuperscript{15} Although intuitively attractive scenario, the reality is that Turkey competes in both high labor intensity industries (textiles, for example, with their low labor rates) and in high capital intensity industries (aerospace, for example, with extremely high capital, ie. technology, investments). The simple picture of economic policy/labor interaction is no longer viable. Table 8 shows the trends in trade of labor-intensive manufactures for Turkey and several other competing developing nations.

Table 8

<table>
<thead>
<tr>
<th>Share of Labour-intensive manufactured exports in total non-fuel exports</th>
<th>Share of textile and clothing in labour-intensive manufactures exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>45.5</td>
</tr>
<tr>
<td>All developing Countries</td>
<td>16.0</td>
</tr>
<tr>
<td>Turkey</td>
<td>8.7</td>
</tr>
<tr>
<td>Greece</td>
<td>29.0</td>
</tr>
<tr>
<td>Portugal</td>
<td>66.1</td>
</tr>
<tr>
<td>Spain</td>
<td>23.4</td>
</tr>
</tbody>
</table>


\textsuperscript{15}See for example Zeyyat Hatiboglu Comments on Conventional Economics in the Light of The Turkish Experience (Avci\l, Turkey: Istanbul University, Institute of Business Economics, 1990):305.
Turkey's population is expanding faster than any other nation in Europe with 1.2 million people added per year. Although the nation is currently experiencing a positive rate of economic growth, absorption of this level of population expansion into the work force is difficult if not impossible, with estimates realistically predicting the absorptive capacity of the economy at only half the increased figure.\textsuperscript{16} Currently over two million workers remain unemployed in Turkey, largely if not completely unskilled urban dwellers.\textsuperscript{17} Although the unemployment rate has decreased slightly in the last decade and a half the growth in the labor force eclipses employment or the participation rate. See Table 9 for Turkish labor market developments including the interesting stable sectoral distribution of employment.

Turkey's relatively high rate of economic growth, historically, appears tied to the nation's political economy. Economic growth provided a "dampening mechanism" that stalled any radicalization of the lower classes combined with relatively increasing levels of democratic politics during the nations last fifty years. The benefits of growth have been unevenly distributed regionally, sectorally and by class, but as one analyst noted "it is not the case that the rich got richer and the poor got poorer; rather, they both got richer, but the rich got richer at a faster rate."\textsuperscript{18}

\textsuperscript{16}Keles, "Urban Turkey", p.208.
\textsuperscript{17}Cilov, \textit{Turkish Economy}, p.3.
Table 9

LABOUR MARKET DEVELOPMENTS

[Graph showing unemployment rate and participation rate trends over time]

Sectoral distribution of employment

[Bar chart showing percentages of employment in Agriculture, Industry, Construction, and Services from 1978 to 1989]

The Unemployment Gap

[Graph showing the unemployment gap with indices 1960=100]

Source: Ibid., OECD Economic Survey Turkey, p. 21-23.
The Organized Environment and Collective Bargaining

Turkey has an active if relatively small trade union movement based on many of the same institutions as the American labor movement. Because of the sectoral distribution of employment, with the vast majority of Turkish labor still employed in agriculture, and because of the inability of civil servants to organize, the total potential union participation is only 3 to 4 million workers. Turkish workers have the right under statute to organize, bargain collectively and to strike. The labor movement is not class based and does not in general reflect class consciousness although left-wing and extremist activity, from both the right and the left, has risen steadily from the 1970s.

Although labor has become increasingly politicized in relation to its nearly pure business or job control unionism of the 1950s and 1960s, it remains essentially distinct and independent of Turkish political parties. Two major confederations organize workers - the militant arm of the labor movement, DISK (Confederation of Revolutionary Workers' Union) and the moderate arm and larger TURK-IS (Turkish Trade Unions Confederation).

Trade unionism in Turkey began in the post World War II era. Throughout the Ottoman period and Ataturk's Republican era labor unions were generally illegal and for any attempt at expression were quickly repressed reflecting both the heavy hand of the state and the low density of industrial workers or even wage labor. The development of a multiparty political system after World War II brought the legalization of trade unions with the first national regulation, marking the beginning of modern trade union organization, Law

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"Law on the Employees' and Employers' Unions and Union Associations." Not until constitutional reform during the 1960s however, did real trade unionism flourish.\textsuperscript{20}

The federation TURK-IS represents the vast majority of Turkish workers, some 85% of all union members. Begun in 1952 the organization reflects American influence in the form of its job control trade union philosophy and has received technical, educational and financial assistance from the Agency for International Development (AID) and the International Confederation of Free Trade Unions (ICFTU). The other federation DISK is a relative newcomer to the trades union scene, forming in 1967 by five unions previously associated with the moderate confederation. Although prevented from associating with the socialist political party, TLP (Turkish Labor Party) during its early years, DISK sought to attract urban, radical working population with principles based on socialist ideals of class struggle. It remains aligned with political ideologies of the left and promotes political trade unionism in marked contrast to the role of TURK-IS.

\textsuperscript{20}See Maksut Umucoglu "Political Activities of Trade Unions and Income Distribution" in Ergun Oxbadun and Aydin Ulusan The Political Economy of Income Distribution in Turkey (New York: Holmes and Meier Publishers, Inc.: 379-408.)
CHAPTER IV
RESEARCH METHODS

Introduction

The methodology employed in this research closely parallels the intellectual basis central to this work. The foundation of that heritage is an assumption of a bridge amongst fields (industrial relations, international business) and a bridge amongst research perspectives (theory versus action; deductive versus inductive; paradigm centered versus client centered; organizational versus individual units of analysis). The two controlling fields are aptly suited to a melding of perspectives derived from economics, sociology, anthropology and the like. As Edgar Schein, trained in the experimental method and yet heavily influenced by the brilliant sociologist E.C. Hughes, so aptly noted “In organizational studies especially, it is important to bring together the best of sociology, psychology, and anthropology instead of quarreling about research designs that reflect the different paradigms of these separate fields. I do not believe any of these paradigms is the correct one.”

One way to build the bridge is by a melding of quantitative techniques with qualitative design. So doing it addresses the various and sundry criticisms of both methodologies. By answering those criticisms it, hopefully, succeeds more successfully.

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The Hybrid Methodology

The research design employed here uses a hybrid methodology, a term borrowed from Katherine Harrigan of Columbia University. Such a design provides for a comparison of data from multiple methods providing for more robust results. The mixing of qualitative and quantitative techniques is not new and has been described by a number of similar terms, including "triangulation", "convergent validation", "multimethod/multitrait", beginning with Campbell and Fiske in the 1950s. Todd Jick reviewed the numerous scholars using this design as well as a description and critique of the method. Sumantra Ghoshal and Christopher Bartlett patterned their research on innovation in multinational subsidiaries on a similar design which they report as a "multi-phased and multi-method study" comprised of case research, multiple respondent questionnaire surveys and single respondent surveys. This study uses a similar form of case study and survey research.

Hybrid methodology in this research refers to the study's qualitative and quantitative component. This multi-method study uses case research on foreign owned multinational corporations in Turkey and indigenous Turkish firms using foreign technology and survey research on Turkish business elite's attitudes and perceptions. See Appendix A for a listing of the fifteen firms studied and the structured, open-ended interview instrument. See Appendix B for the English language and the Turkish language survey instrument. Data analysis is conducted separately using accepted field study

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techniques and common statistical techniques and then analyzed in coordinated manner for reporting results, overall findings, and theory building.

Both components of the hybrid design seek to elucidate the research's two integrating hypotheses H1: IR practices are determined less by legal/socio-cultural/political conditions than by economic/technology/market conditions H2: Technology drives the choice of IR practices. Survey results provide a tentative assumption of a chosen population parameter (developing nation elites) and the field study results describe the actual situation in the chosen sample. Results are analyzed in an integrated fashion and are used to build a model of multinational employment practices in developing countries in advanced technology firms. A policy framework is proposed for the operation of foreign multinationals in less developed nations.

Level of Analysis

The hybrid methodology further provides for coordination for a bridge between an organizational and individual level of analysis. The debate over the "proper" level of analysis has long occupied scholars from diverse fields and continues nearly unabated today. Peter Cappelli, for example, cautioned industrial relations scholars that their "uniqueness" was destined to be challenged by the encroachment of approaches from economics and organizational behavior. Both the latter disciplines use the individual as the level of analysis, with economists focusing on the importance of external factors while the psychologists focus on internal factors, perceptions and the like. This research uses issues in traditional industrial relations (the effect of certain institutions on employment relations)

to look at both external factors (regulatory environment and nation-state macro-economic development policies, for example) and internal factors (perceptions and attitudes of elites or decision makers) to elaborate its thesis. This research seeks to link macro and micro variables.\textsuperscript{6}

International research warrants this kind of complexity of design. Institutional \textit{and} individual behaviors clearly are \textit{both} necessary to explain the multi-nation, multi-system, multi-culture situation. International research— an infant, unsteady on its feet, yet can benefit immensely by the failings of its previous relatives' research and learn from those lessons. This research goes beyond the “new” neo-classical economists' attempt to describe macro economic affects through individual phenomena.\textsuperscript{7} It accepts Cappelli’s challenge to industrial relations: “One way forward for industrial relations, therefore, is to focus explicitly on this middle level of analysis between the external environment and the individual”.\textsuperscript{8}

International research is methodologically complex social science research and therefore warrants the hybrid, multilevel approach. This research assumes at its foundation a policy orientation, further seeks to fashion valid, testable theory applicable to this new world situation that itself has clear, real-world applicability. The hybrid methodology addresses the issue of theory and practice and best allows the development of a viable, usable policy perspective from its new theoretical conceptualization. Although sensitive to the idiographic approach this research seeks a nomothetic method for its policy development. It is further sensitive to the charge that IR lacks true theory construction,

\textsuperscript{6}Cappelli notes the concern by several scholars, including Porter and Lawler, in multilevel analysis. See Ibid., p. 265.

\textsuperscript{7}Ibid., p. 269.

\textsuperscript{8}Ibid., p. 269.
including among them the criticisms of John Dunlop's seminal work, *Industrial Relations Systems*—(a criticism similarly leveled against the burgeoning international business literature).

This perspective is not new. In a sense the research closes the circle to return to the plans of the original architects of the industrial relations discipline—those that would link theory and practice just as they themselves were, as George Strauss notes, both practitioners and academicians.\textsuperscript{9} The approach is certainly why this research is attracted to the work of Kerr, Dunlop, Harbison and Myers. It, however, does not negate the decades of quantitative advance since the 1960s but seeks to integrate that method's usefulness and successes with a now much discussed qualitative approach.

A further debate continues in the industrial relations and organizational behavior literature that loosely parallels the quantitative/qualitative research question. Davydd Greenwood of Cornell proposes new terminology: paradigm-centered versus client centered research referring to the pure versus applied research debate.\textsuperscript{10} Greenwood proposes a linkage between the two. This research directly addresses and provides that linkage.

This approach continues a critical line of thinking. The problems associated with previous attempts focused on the applied researchers' inability to ground their work conceptually and conversely, empiricists' common focus on less than useful issues. Greenwood charges


We must challenge the distinction between research and action by writing about it differently. At present both sides of this debate are collaborating to maintain the status quo. On the one hand, a radical distinction between research and action frees action agents from the requirements of the thinking systematically and linking their work to larger theoretical and interpretive questions. This, in turn, prevents the development of the appropriate forms of writing (and the implied community standards for judging excellence) for their work. On the other hand it frees paradigm centered researchers from studying problems that matter to society and from reporting their results in forms intelligible to the public. As divisions of labor go, this one is both well worked out and socially nihilistic.\footnote{Ibid., p. 279.}

Greenwood suggests a linkage can be accomplished by the careful attention to the highest standards of scholarship by action writers, the development of a community where researchers from both sides meet and other examples of a Kuhnian description of a paradigm. This research seeks to further this new research paradigm-- Greenwood's "blending" or this research's "hybrid" form-- and indeed will, if successful, help shape it.

It is perhaps no surprise that Greenwood works in the international arena.\footnote{Greenwood is at the Center for International Studies at Cornell.} The difficulties of this type of research force a reassessment, reappraisal and indeed reworking of traditional research modes. And, fortunately the newness of the field provides a bright, new field unencumbered by tradition-bound forms.
Qualitative Data Collection, Issues and Concerns

Qualitative data collection\textsuperscript{13} in this field is generally grounded in the sociological tradition. Its forte is generally agreed to be the definition and description of critical questions, concepts and variables. Psychologist Edgar Schein noted "Until I encountered descriptive sociology, I was not aware of another very important scientific principle, namely, that in order to define variables as good, either in the sense of making a theoretical difference or in the sense of helping one to understand a phenomenon, one had to conduct very good observation in the field."	extsuperscript{14} Banal research with elegant methodologies is a thorn in the side of many great thinkers, eloquently stated by Karl Weick (quoting Somerset Maugham): "She plunged into a sea of platitudes, and with the powerful breast stroke of a channel swimmer made her confident way toward the white cliffs of the obvious."\textsuperscript{15}

This approach is in no way atheoretical. Kurt Lewin, reports his great admirer, Chris Argyris, forced research to address theory and practice. Argyris commented

Sound theory, for Lewin, was practical, and he integrated theory with practice in several ways. First, he framed the social sciences as the study of problems. Second, he selected problems that were critical for society...Third, he began his studies by observations of real life...Fourth, Lewin connected all problems, no matter how small or temporary, large or long lasting to theory. No problem was studied that would not be a test of theory. No theory was formulated that could not be tested through

\textsuperscript{13}This study admits problems with the use of the term "qualitative". Tsoukas uses "idiographic research" to delineate the design, arguing that qualitative refers to data (evidence) and not design. Agreeing with Tsoukas and his reference R. Yin, this study avoids the complexity with the understanding the qualitative refers to the data within the overall "hybrid" design. See Haridimos Tsoukas, "The Validity of Idiographic Research Explanations" Academy of Management Review 14.4 (October 1989): 551-561; and R. Yin "The Case Study Crisis: Some Answers", Administrative Science Quarterly 26 (1981): 58-65 and R. Yin Case Study Research: Design and Methods. (Beverly Hills, Ca: Sage, 1984).

\textsuperscript{14}Schein, p. 103.

the study of problems. Practical problems were in the service of testing timeless theory.\textsuperscript{16}

This approach seeks to continue in that line of research that requires a marriage of theory and application including the less common approach of deriving theory from data, that is, data to theory, rather than theory to data.

The methodology here attempts to build theory from case study. Kathleen Eisenhardt has succinctly set out a "roadmap for building theories from case study research."\textsuperscript{17} Her work synthesizes and summarizes highly regarded work on qualitative research. Table 10 reports a sample of Eisenhardt's findings. As she notes case research has a long heritage in organization studies, from Selznick's work in the 1940s to Mintzberg's current work. Eisenhardt argues that "...given the strengths of this theory-building approach and its independence from prior literature or part empirical observation, it is particularly well-suited to new research areas or research areas for which existing theory seems inadequate."\textsuperscript{18} Work in the international arena calls for just such an approach.

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\textsuperscript{17}Kathleen M. Eisenhardt, "Building Theories from Case Study Research" \textit{Academy of Management Review} 14,4 (October 1989): 532-550.

\textsuperscript{18}Ibid., 549.
<table>
<thead>
<tr>
<th>Study</th>
<th>Description of Cases</th>
<th>Research Problem</th>
<th>Data Sources</th>
<th>Investigators</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burgelman (1983)</td>
<td>6 internal corporate ventures in 1 major corporation</td>
<td>Management of new ventures</td>
<td>Archives, Interviews, Some observation</td>
<td>Single investigator</td>
<td>Process model linking multiple organizational levels</td>
</tr>
<tr>
<td>Minzberg &amp; McHugh (1985)</td>
<td>1 National Film Board of Canada</td>
<td>Formation of strategy in an adhocracy</td>
<td>Archives, Some interviews</td>
<td>Research team</td>
<td>Strategy-making themes, &quot;grass roots&quot; model of strategy formation</td>
</tr>
<tr>
<td>Harris &amp; Sutton</td>
<td>8 diverse organizations</td>
<td>Parting ceremonies during organizational death</td>
<td>Interviews, Archives</td>
<td>Research team</td>
<td>Conceptual framework about the functions of parting ceremonies for displaced members</td>
</tr>
<tr>
<td>Eisenhardt &amp; Bourgeois</td>
<td>8 microcomputer</td>
<td>Strategic decision making in high velocity environments</td>
<td>Interviews, Questionnaires, Archives, Some observation</td>
<td>Research team, Tandem interviews</td>
<td>Mid-range theory linking power, politics, and firm performance</td>
</tr>
<tr>
<td>Gersick (1988)</td>
<td>8 projects groups with deadlines</td>
<td>Group development in project-teams</td>
<td>Interviews, Observation, Some interviews</td>
<td>Single investigator</td>
<td>Punctuated equilibrium model of group development</td>
</tr>
<tr>
<td>Leonard-Barton</td>
<td>10 technical innovations</td>
<td>Internal technology</td>
<td>Interviews, Experiment Observation, Interviews, Archives, Some observation</td>
<td>Research teams</td>
<td>In progress</td>
</tr>
<tr>
<td>Pettigrew (1988)</td>
<td>1 high performing &amp; 1 low performing firm in each of 4 industries</td>
<td>Strategic change &amp; competitiveness</td>
<td>Interviews, Archives, Some observation</td>
<td>Research teams</td>
<td>In progress</td>
</tr>
</tbody>
</table>


Field work is critical in the design of this study where rich "anectodal" information is used to constructs patterns of behavior and further, theory. Henry Mintzberg has long argued this approach. He writes

Theory building seems to require rich description, the richness that comes from anecdote...I believe the researcher who never goes near the water, who collects quantitative data from a distance without anecdote to support them, will always have difficulty explaining interesting relationships (although he may uncover them.)\textsuperscript{19}

The question of the validity of qualitative research has occupied researchers minds for some time. Over a decade ago the editors of Administrative Science Quarterly sent a call for papers for a volume dedicated to qualitative methodology. The response exceeded their expectations and the best papers, from premier and highly regarded researchers were included in \textit{ASQ}'s December 1979 issue. In the preface to that issue the editor explained

There is a growing concern about where quantitative techniques are carrying us. For example, questions have been raised about the extent to which our methods are guiding our theory and concern has been expressed about the degree to which our procedures have become so ritualized that the necessary connection between measure and concept has vanished. Since quantitative methods have held an almost monopolistic grip on the production of knowledge in the field, any serious reflection regarding current organization theory must at some point consider the value of alternative methods.

...There is something of a quiet reconstruction going on in the social sciences and some of the applied disciplines. It is hardly revolutionary, but a renewed interest in and felt need for qualitative research has slowly been emerging among sociologists, educators, urban planner, psychologists, public interest lawyers, welfare administrators, health care personnel, political scientists, labor economists and others.\textsuperscript{20}

The volume included fourteen articles by such diverse thinkers as Michael Piore, Gerald Salancik, Karl Weick, Todd Jick and Henry Mintzberg.

\textsuperscript{19}Mintzberg, ibid., 587.

This research's structured interview format closely resembles Michael Piore's research approach. Piore for example recounts the surprizing twists of purpose and direction of his open ended interview data for his dissertation research under John Dunlop on skill formation and technological change. Letting executives "tell their story" led to far more than anecdotal or impressionistic evidence in the hands of the widely acknowledged thinker. Piore indeed suggests that open-ended interviewing might serve to overcome the limits of conventional economic theory. Such limits include the identification of "worthwhile"variables to study. Individual responses are not analyzed in isolation but are grouped to provide patterns that are "clues to the mental processes of the economic participants." The approach is attractive because it provides not only theory construction but policy application. As Piore explains, his research

...has proved viable not so much because I have been able to use my fieldwork to sustain in any scientific way the "theories" I have abstracted from it but because these theories have to led to policy conclusions which have currency. That currency comes from the fact that they are derived from the models which people actually use in thinking about the processes that the proposed policies are designed to influence...21

This research's ultimate goal is likewise policy construction and follows Piore's methodology.

In the same journal Henry Mintzberg supports the validity and indeed the advisability of doing qualitative research in studies of organizations. Mintzberg hardly minces his words. He charges, for example, "It is the literature of management that often emerges as naked, since much of what it says becomes transparent when held up to the scrutiny of descriptive research." He continues, "The field of organization theory has,

believe, paid dearly for the obsession with rigor in the choice of methodology. Too many of the results have been significant only in the statistical sense of the word. Mintzberg quotes Hans Selye's work to support inductive research, which this methodology, like Mintzberg's, clearly follows. Mintzberg explains the joys of doing this type of research in the search discovery, rather than the "checking out of what we think we already know". He explains

I see two essential steps in inductive research. The first is detective work, the tracking down of patterns, consistencies. One searches through phenomenon looking for order, following one lead to another... The second step in induction is the creative leap...Every theory requires that creative leap, however small, that breaking away from the expected to describe something new. There is no one-to-one correspondence between data and theory. The data do not generate the theory -- only researchers do that--any more than the theory can be proved true in terms of the data. All theories are false, because all abstract from data and simplify the world they purport to describe. Our choice then, is not between true and false theories so much as between more and less useful theories. And usefulness, to repeat, stems from detective work well done,followed by creative leaps in relevant direction.

Mintzberg has widely published the results of this kind of research including a classic article for Harvard Business Review recently found pointed enough to republish after fifteen years.

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24Ibid., p. 584.

Issues in International Data Collection

Constraints and opportunities exist in the design and conduct of any research project. International data collection presents the same issues as any other research as well as some issues specific to cross national or cross cultural data collection.

Language

One of the obvious issues is language. Fortunately for the business researcher, the international language of commerce is English. In the case of Turkey, proficiency in English is a prerequisite for nearly all entry level jobs in multinationals and an absolute requirement for advancement.

For this study's qualitative component, all interviews were conducted in English, with no apparent language barriers. The only problem encountered was in the tape transcription by a professional typist, easily remedied by my replaying of the tapes and inserting any missing or incorrect wording. Any problems encountered seemed to have as much to do with background noise as with language barriers.

The survey was administered to graduate and to undergraduate business students at Istanbul University. Most MBA and MA students were sufficiently proficient in English to use the English language version. Indeed, the graduate degree program in international management is conducted solely in English. A number of others, whether proficient in English or not, lacked confidence in their language abilities and opted to use the survey's Turkish language version. (129 respondents used the English version; 36 respondents used the Turkish.) There is no need to suppose any variation in response based upon the use of the two surveys. The surveys had been pretested for numerous issues including problems of language inconsistencies, ambiguous, indigenous or slang terms, and the like, by Turkish
graduate students enrolled at The Ohio State University. Both versions, English and Turkish, were pretested by the Turkish students and corrected before final printing.

Culture

Although cultural differences exist between the investigator and respondents and interviewees, no constraints appeared in the collection procedure. Although women have a more constrained access to employment than might be encountered in the U.S., the situation is changing in Turkey, and I certainly never experienced any discrimination based on sex. As women have come later to the workforce, I interviewed only one woman in an executive level position, a bank Vice-President. Banks in Turkey, just as in the United States, are a popular and more available route for female employment and promotion. Because my data collection encompassed all of Ramadan, the Moslem holy month, I was sensitive to custom and tradition.

Surveys and the open-ended interview are an uncommon practice in Turkey. Few respondents had previously filled out a survey of any sort and were therefore shown how to address the questions on a Likert-type scale. Several interviewees declined to be tape recorded, but freely discussed company policy and other issues. No interviewee declined any question. The absence of this kind of study is attributed to Turkey's lower level of economic development, the prevalence of family-owned and therefore tightly controlled business firms, and the tradition of state dominance in economic and personal lives.

Legal Issues

Although Turkey has moved quickly to open its nation since the state dominated days ending in the early 1980s, state control in citizens', including visitors', lives is still
apparent. It was first made clear to me while still in the United States that several of the survey questions would be considered sensitive, improper, or illegal. Those questions referred to trade union issues, state policies and religion. I learned in Turkey that the questionnaire as developed would have to have Turkish government clearance which may have compromised the study, my ability to freely question firms and my personal safety. I therefore opted to remove the questions and continue with a sanitized version unencumbered by the need for state approval. See Table 11 for questions not included. The removal of these questions in no way makes the study less rigorous.

**TABLE 11**

**QUESTIONS REMOVED FROM SURVEY**

- Laws in Turkey determine employment practices here.
- Employees' rights are protected under Turkish laws.
- Foreign companies here have to carefully follow Turkish law in hiring/firing/paying people.
- We do not need trade unions because Turkish laws protect individual rights.
- Foreign companies are attracted to Turkey because of labor laws here.
- Discipline seems fair here.
- If my company asked me to work on a religious holiday, I would.

The questions were perceived as sensitive for a number of reasons. On the issue of religion, Turkish people ask respect to their deep Moslem heritage. On the one hand many citizens do not like it challenged or criticized by other religions (Christian missionaries and proselytizers are treated harshly) but almost equally fear the growing trend toward Moslem
fundamentalism and radical rightest activity. This generally devout nation perceives religion as a personal and critical variable of life, understandably not open to scrutiny by outsiders, particularly Western or American eyes.

The trade union issue is clearly more political. Turkey although characterized by less than free trade unionism during the past 50 years, yet has a strong and active labor movement. Even fearing the harsh retaliation of the state, numbers of classes of workers, including the cement workers, the miners and the printers have mounted major and crippling strikes. Such activity is perceived at the government level as radical and disruptive to the supremacy of the state bureaucracy. My survey questions were perceived as possibly inciting this type of radicalism and I was told I might be open to arrest. Interestingly, even the question which was in the survey on whether the respondent's organization was unionized elicited questions of my intentions (Why did I include this question, and who would read their response, for example) and an uncomfortable stance or reluctance to respond. Part of that response I attribute to a lack of experience with survey requests.

Access

Access to multinational corporations and to respondents was, in general, easier than expected. Turkey, with its essentially Eastern mind set, including concept of time and place, was a site that provided access based on family and other personal and professional connections. I gained access to four corporations through personal connections from various sources. I accessed eleven more firms through contacts made through friends and colleagues after arriving in Istanbul. Survey respondents were arranged through contacts at Istanbul University. Personal contacts in all cases gave ready availability in a more expedient manner than any other project previously conducted in the United States. The success at accessing the corporations and the respondents is predicated essentially on this
issue of culture, that is the importance of contacts and business done through personal relationships.

The Survey

The "Industrial Relations Practices Survey" was designed to discover the attitudes and perceptions of Turkish business elites toward the influence of the six central factors in the choice of human resource or industrial relations practices. The focus on elites as respondents in international business has a long tradition, including early work by Vernon and Fayerweather. This work reflects Ajami's beliefs. He argues

...that understanding attitudes is important, especially in an interdependent world wherein the attitudes of particular groups, elites, can have profound effects upon the orderly functioning of the global economy... that the potential and future growth of multinational firms, especially in developing economies is highly dependent upon elite orientations and attitudes.²⁷

In developing economies in particular elites assume a determinant role in decision-making. To a large degree, it is their attitudes which shape strategic choice. It is therefore imperative to ascertain what these beliefs are and attempt to discover patterns in those beliefs that can become the ingredients of theory.

Elites in this context assume, semantically, something quite different than how the term is used in the industrial relations literature. Kerr, Dunlop, Harbison and Myers' and later, Dunlop's seminal work was heavily criticized for focusing on "elites" or providing a


²⁷ Ajami, ibid., p. 6.
“management” orientation. Elites there encompass a normative or judgmental application that stratifies the group based on social class—elites are assumed to be “better” than the working class group it is separated from. This discriminatory application is particularly improper in the U.S. case, where any number of groups either individually or in consort countered or exceeded management power. Elite in the international context focuses more on the role of that group that without dispute maintains economic power, especially in the form of strategic choice or decision making. In the stratification of society in developing countries, and Turkey in particular, the interesting observance is that although other groups rarely counter the power of the elites, the elite group is extremely fluid and ever growing. The peasant and working class remains relatively constant, but movement through the economic and social hierarchy to elite status can be attained and is predicated on knowledge, talent or skill.

An assured entrance into an economic elite is a university education. In Turkey, universities have a stratification that is both economic and social. Istanbul University, the oldest university and highly regarded academically, assures its students a decision maker role. The survey for this research utilized respondents from Istanbul University's graduate business programs. All of the students were currently working or had worked in positions of substantial importance in Turkey’s domestic and international business community. Their perceptions as on the spot players in the nation's economic activity successfully represents elite attitudes. The survey was administered by this researcher and four other professors during University class hours. All classes given in English were administered the English version; classes in Turkish were administered the Turkish version by Turkish professors. The survey benefited from the support of a number of the professors from the College of Business, Istanbul University.
Data Analysis Techniques

Using non-probability sampling, the survey yielded 75 possible variables on 165 usable responses. Sixty-one of the variables were placed in one of the following six categories (the number in parentheses refers to the number of instrument questions referring to that category):

- Legal traditions (9)
- Sociocultural traditions (13)
- Political traditions (9)
- Economic conditions (10)
- Technology conditions (8)
- Market conditions (12)

The remaining fourteen variables provide demographic information. The variables include three dependent variables. Descriptive statistics and correlations were run to explore the data. Given the nature of the data (categorical) and purpose of the study, a logistics regression (logist) was decided as the appropriate technique.

The Field Study

The field study, as earlier discussed, comprised 15 firms and an interview with an American consular official. The logic for this sample selection follows Cook and Campbell's sampling for maximum variety. This research sought representatives from diverse organizations using advanced technology representative of the particular industry. For example, the textile industry was explored but rejected on its low level of technology. Similarly, the auto industry was avoided due to its present lack of current technology.

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Interviews were conducted with upper level managers (decision-makers) using accepted field study techniques for structured, open-ended interviews. Eleven interviews were taped in full and transcribed upon return. Four interviewees declined to be tape recorded and their interviews were reported through personal notes. This rich descriptive data, that “tells the story” and is often anecdotal, is the essence of theory building and the support of that theory.

The hybrid methodology then takes the perception of the issue (the survey) and analyzes the results against how things actually work (the field study). This “triangulation” or whatever term one wishes to use, then provides fodder for theory building as well as explanatory power for the use of that theory in the development of a policy proposal.
CHAPTER V

SURVEY RESULTS

Introduction

The Industrial Relations Practices Survey was developed to assess attitudes toward foreign firm, indigenous firm and government issues concerning labor and human resource practices. The survey was administered in English and in Turkish at Istanbul University, College of Business, Avcilar, Turkey during March and April 1990. The statistical study is a nonexperimental or observational design in which a sample was identified and the questionnaire administered with no attempt to control for factors that might influence the variables. The study yields categorical data which provides qualitative variables (independent variables measuring demographic information) due to its nonnumeric qualities and quantitative scales (independent variables measuring attitudes)\(^1\). Categorical data is measured on either a nominal or ordinal scale.\(^2\) In this study, the demographic data yields nominal data; the attitude response questionnaire yields ordinal data. This form of data properly suggests the use of certain statistical techniques, as applied in this chapter.\(^3\)

\(^1\) The qualitative data here provides numeric codes for labeling categories of like items. For a discussion of this type of data, see David Anderson et al, *Statistics for Business and Economics* (New York: West Publishing Company, 1990): 9–12, 604. Anderson explains “The distinguishing feature of qualitative variables is that there is no natural measure of “how much” or “how many”; these variables are used to refer to attributes that are either present or not present,” p. 604 ff.

\(^2\) A Likert-type scale, although ordinal from a purists point of view, is practically speaking, stronger than an ordinal and can appropriately have parametric techniques such as regression applied to it. See the discussion of this problem, including Likert items in Hubert Blalock, *Social Statistics*, 2nd edition, (New York: McGraw Hill, 1979): 444–447.

\(^3\) Statistical analysis is constrained by the type of data which provides fewer alternatives for statistical techniques. See Anderson, p.8.
Regressions on ordinal data are nonlinear and therefore require transformation techniques. The collapsing of data into six dimensions, elaborated in this chapter, provides continuous data while the dependent variable collapsed into two categories, remains binary. This type of data suggest the use of a logistic regression. The logistic transformation makes the absence of a linear, normally distributed data set of no consequence in the building of the regression model.

Data computation and analysis including descriptive statistics and analysis of variance was run using the statistical software, Minitab. The logistics regression, a LOGIST procedure, was run of SAS. The test of reliability for the survey instrument, Chronbach's alpha, was run on SPSS-X.

The survey instrument includes sixty one questions designed to assess attitudes and beliefs toward industry and national practices concerning labor and human resource issues in Turkey. Responses are measured on a 5 point Likert type scale. Frequency distributions on the categorical or discrete data, in results by percent, are found in Appendix D.

Population

The survey yielded a appropriate population for maximum variety under the description of elite or dominant coalition. Both personal demographics and work demographics show the population to include an array of sample possibilities. For results of the survey's 165 usable responses by population demographics, total and by sex, see Table 12.

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### TABLE 12

**Respondent Demographics**

<table>
<thead>
<tr>
<th>N=165</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>64%</td>
</tr>
<tr>
<td>36%</td>
</tr>
</tbody>
</table>

**Position:**
- Upper management: 16%
- Middle management: 47%
- Lower management/first-line supervisor: 31%
- Regular employee: 6%

**Union Status:**
- Organized: 36%
- Unorganized: 64%

**Foreign Firm Work Experience:**
- No experience: 67%
- In Turkey: 14%
- Outside Turkey: 19%

**Foreign Schooling:**
- No: 80%
- USA: 6%
- UK: 4%
- Germany: 2%
- France: 2%
- Austria: 2%
- Israel: 3%
- Other: 1%

**Foreign Languages:**
- English only: 39%
- German only: 4%
- English/German: 25%
- English/French: 21%
- English/German/Hebrew: 2%
- English/German/French/Hebrew: 5%
- English/Spanish: 4%

**Company Type:**
- Manufacturing: 41%
- Service: 41%
- Other: 18%

**Firm Ownership:**
- Foreign owners: 19%
- Turkish owners: 79%
- Don't know: 2%

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**Personal Demographics**

Slightly over one-third of the respondents were females and two-thirds males, with the vast majority between the ages of 21 and 30. All respondents were highly educated. Half of the respondents had at least a university degree, the remaining half had or were enrolled in a graduate program. Most had not been out of Turkey for schooling but all spoke at least
one language, English or German, and well over half spoke more than one language including, besides the previous two, French, Spanish and Hebrew.

Work Demographics

The respondents were nearly equally divided between manufacturing and service employment. Although most of the employing firms were of Turkish ownership, nearly a fifth of the respondents worked for foreign owners. The majority of the respondents were middle management, remaining respondents included company presidents or owners, as well as significant number of lower management or first line supervisors. Over a third of the respondents worked in an organized environment. Approximately the same number had previous work experience in a foreign firm either within or outside of Turkey while over two-thirds had no experience in a foreign firm. The size of respondents' firms was relatively equally divided between small, 100 employees or less, and large, more than 100. Respondents were virtually all paid on a monthly basis and they all worked between 8 and 12 hours a day.

Demographics by Sex

The female response mirrors the changing nature of women in the economic life of Turkey at the elite or decision maker level. See Table 13. Over one-third of the graduate school participation was female and all respondents were currently working and intended to remain in the work force. Confirming a traditional route into labor force participation at the professional level, nearly one-third more women than men work in service industries. Fewer women are found in upper management, nearly similar levels at the middle management level and many more women remain at the regular employee level which includes, for
## TABLE 13

Demographics by Sex

<table>
<thead>
<tr>
<th></th>
<th>FEMALE</th>
<th>MALE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Type:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>28%</td>
<td>47%</td>
</tr>
<tr>
<td>Services</td>
<td>61%</td>
<td>32%</td>
</tr>
<tr>
<td>other</td>
<td>11%</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Company Size:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-100</td>
<td>38%</td>
<td>43%</td>
</tr>
<tr>
<td>100+</td>
<td>62%</td>
<td>57%</td>
</tr>
<tr>
<td><strong>Hours Worked:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 or less</td>
<td>52%</td>
<td>58%</td>
</tr>
<tr>
<td>9-11</td>
<td>45%</td>
<td>42%</td>
</tr>
<tr>
<td>12+</td>
<td>3%</td>
<td>—</td>
</tr>
<tr>
<td><strong>Firm Ownership:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkish owners</td>
<td>67%</td>
<td>84%</td>
</tr>
<tr>
<td>Foreign owners</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Position:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper management</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>Middle management</td>
<td>51%</td>
<td>45%</td>
</tr>
<tr>
<td>Lower management/first-line supervisor</td>
<td>23%</td>
<td>34%</td>
</tr>
<tr>
<td>Regular employee</td>
<td>16%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Union Organization:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organized</td>
<td>33%</td>
<td>37%</td>
</tr>
<tr>
<td>Unorganized</td>
<td>67%</td>
<td>63%</td>
</tr>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 20</td>
<td>—</td>
<td>2%</td>
</tr>
<tr>
<td>21-30</td>
<td>73%</td>
<td>89%</td>
</tr>
<tr>
<td>31-40</td>
<td>23%</td>
<td>10%</td>
</tr>
<tr>
<td>41-50</td>
<td>6%</td>
<td>—</td>
</tr>
<tr>
<td><strong>Education:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>2%</td>
<td>—</td>
</tr>
<tr>
<td>University</td>
<td>34%</td>
<td>57%</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>64%</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Foreign Schooling:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>65%</td>
<td>88%</td>
</tr>
<tr>
<td>USA</td>
<td>11%</td>
<td>5%</td>
</tr>
<tr>
<td>UK</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Germany</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>France</td>
<td>4%</td>
<td>—</td>
</tr>
<tr>
<td>Austria</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Israel</td>
<td>4%</td>
<td>—</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>—</td>
</tr>
<tr>
<td><strong>Foreign Languages:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English only</td>
<td>40%</td>
<td>39%</td>
</tr>
<tr>
<td>all others</td>
<td>60%</td>
<td>41%</td>
</tr>
</tbody>
</table>
example, the traditional entrance path of secretaries, receptionists and administrative assistants, for those even with university or higher degrees. Significantly more women work in foreign owned firms which reflects the easier availability of professional opportunities at firms not bound by tradition and culture. No significant differences existed in trade union organization, with nearly the same number of women, about one-third, working in unionized environments. The relatively high degree of unionized firms for women may relate to their heavy participation in service industries including especially the banking industry, which remains organized at a significant level. Slightly more females work in larger firms, they work the same hours and they are paid in the same manner as men.

Female respondents were older- twice as many women appeared in the 31-40 age bracket and a third more women had graduate school degrees. Three times as many women had attended school outside of Turkey but they had similar language abilities.

A concise analysis of demographics by sex shows that to arrive at professional level positions women are better educated, older, find more opportunities in the service sector, tend toward employment in foreign firms and appear to meet the same glass ceiling barriers faced in the United States.
Work Related Attitudes and Perceptions

Questions were designed to measure attitudes towards several important work related issues that clearly impact managerial and worker related practices. These issues include participation, including decision making, job design, productivity, training and development; satisfaction, including exit-voice beliefs; specific union effects, including the role of conflict resolution; differences between private and state run firms for managers and workers; labor market effects including the role of multinationals in stemming employment drain; foreign investment and multinational firms; and the role of foreign technology in industrializing the developing nation.

Participation

Participation is a managerial form distinct from traditional practices relying on scientific management principles. Although extant in a formal structure in some firms for over twenty years (General Motor's program for example began in 1968) it is widely recognized as the 'new management', either as an extension of the human resource model, a response by the trade union movement or a rallying call for America's return to competitiveness. For managers, participation may simply be a response to the position's level within the firm's hierarchy -- the closer to strategic decision making the more "control", therefore participation, managers have over their environment. Other forms include joint

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decision making with other levels including non-managerial employees, the level of the worker.

Participation is not pervasive and if used is more a function of managerial level than joint decision making. Respondents overwhelmingly agreed that they had personal control and influence and were consulted in their own job design which reflects the relatively high level of their position and the management structure of respondents' firms. Slightly more females (76% versus 68%) than males believed they had control or choice in their job. No differences existed for the control and consultation measure for industry sector (manufacturing or services); organized versus unorganized firms; or Turkish or foreign ownership of the company. For managers, no differences in training existed for industry sector or union organization.

Significantly different conditions existed for firm ownership on several other measures of participation. Respondents employed in foreign owned companies reported much higher levels (78% versus 52%) of company sponsored training programs. Foreign owned companies further provide significantly higher degrees of participation as measured by acceptance of employee driven suggestions—indeed 78% of foreign firms listen to employee ideas, while 26% of Turkish firms are open to worker suggestions. Joint decision making is more prevalent in foreign owned companies—38% of foreign firms and 25% of Turkish firms make decisions jointly between management and labor. The overall measure of joint decision making for companies operating in Turkey remains a low 25%.

Significant differences in productivity concerns exist between foreign and Turkish firms and between different industry sectors. Respondents reported much higher degrees of company concern over productivity issues for foreign owned firms (73% versus 39%). Employees perceive the pace of work to be much faster at foreign rather than Turkish firms. Productivity concerns were greater in manufacturing firms and in those companies
organized by trade unions. Respondents from service firms were more content with the pace of work.

Managerial Satisfaction and Employee Preferences

Satisfaction is a complex construct, measured here by the managers reported desire to either quit or stay at the firm. Respondents were further asked to report on their perceptions of employees' preferences and priorities.

Respondents working in manufacturing were more satisfied (41% versus 34%) than those working in services. Respondents employed in foreign firms were twice as satisfied as those employed in companies owned by Turkish. Those in firms organized by trade unions also report a higher degree of satisfaction, as were those employed in larger size firms.

Respondents have a neutral attitude toward workers' preferences to work in Turkish companies, in sharp contrast to their response to their attitudes toward work in foreign firms. Nearly 70% agreed that employees prefer foreign companies, approximately equally distributed by industry sector, owner's home country, unionization and size.

A related dimension to satisfaction is workers' predilections if unhappy to either quit or stay in the firm, the exit-voice thesis.9 One manner of voicing discontent in organized firms is an appeal through the trade union. Ownership made no difference on this measure although significantly higher numbers of respondents in foreign owned firms disagreed that employees with problems would keep quiet. This measure reflects the management style of the foreign firm, typically including more open communication avenues and it confirms the higher degree of participation of the foreign firm. More respondents agreed that workers would voice discontent through their union in organized and in manufacturing firms,

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although service and unorganized respondents had perceptions that voicing through the collective body was an option. Whether workers will bottle their discontent or not seemed also to be dependent upon firm size. Smaller firms disagreed that employees would "keep quiet" while there was no significant response for respondents from larger firms, which perhaps reflects the naturally more responsive environment of a small company (in this case, generally extremely small with many at 10 employees or less). The almost even disagreement among every demographic measure that unhappy workers would not quit shows the absolute constriction of the Turkish labor market with workers having little or no option for mobility. Given the constraints of the labor market the relatively low degree of voicing implies that dissatisfaction has few outlets.

One outcome of discontent is to leave the firm and start one's own business. Respondents showed a generally neutral attitude toward whether workers would leave a larger firm for their own venture if they did not feel they were being treated fairly. Although Turkey has a high degree of entrepreneurial activity this attitude reflects the constraints of both the external economic environment and labor market problems.

Preferences of Turkish workers to be employed by Turkish or by foreign firms showed significant differences. For all demographic variables, respondents clustered around neutral for the question measuring attitudes toward Turkish workers' preferences for working in Turkish companies. Whether this response was influenced by the extremely tight labor market allowing little or no mobility or even entrance for some categories of workers was captured by the question asking whether workers would prefer Turkish companies, if enough jobs were available. Responses show a generally neutral attitude for all demographics although interestingly there was slightly more agreement by those respondents working in foreign firms. This may show that experience in a foreign firm provides a more realistic, and therefore less positive, attitude toward foreign firms.
Conversely, all demographics show a high degree of preference (nearly 70%) of employees desire to work in foreign multinationals, with understandably even more respondents currently working in foreign firms (85%) preferring foreign multinationals.

Union Effects

Unions obviously have a role in voicing process. They further have a role in conflict resolution. Approximately fifty percent of the respondents disagreed that labor disputes should be settled by a government agency, such an arbitration board rather than strikes. This response probably reflects a pervasive attitude—the drive to remove the state from economic life even the potentially cooperative role of the state as a conflict resolution body. The response in favor of traditional conflict is made more important by an understanding of the environment during which the instrument was delivered, that is during a period of major and crippling strikes by the mine workers, cement workers and printers, among others. It also implies a relatively high degree of support for the organized sector, supporting its role in dispute settlement.

For all respondents there was a positive response for union effects on employment practices, although the significant percentage of responses at neutral and disagree (23% and 28%, respectively) show the varying degree of union significance. More respondents working in Turkish firms agree that unions have significant effects on employment practices (52% versus 26% for foreign firms) which may reflect the lower level of unionization for foreign firms. Little difference existed for respondents attitudes toward union effects on society—spread on the scale showed 32% in agreement, 28% neutral and 41% disagreed. This measure reflects the typically economic function of trade unions in Turkey, and the smaller and less significant political role for organized labor. For demographics, only ownership showed differences. Respondents working in Turkish owned firms more
strongly agreed that unions had a significant effect on society (37% versus 18% for foreign owned firm employees).

Privately-owned and State-dominated Firms

Clearly workers' preferences are to work in private industry. The many problems of the earlier state driven economy, now mostly driven by the market through vast changes at the macroeconomic level, are still extant by the many yet to be privatized state dominated firms. Over 70% of employees prefer private firms with few significant differences by demographics. A similar percentage disagree that state firms offer the same opportunities as private industry, showing the great opportunity cost lost in that sector of the economy still state driven.

Labor Market Effects

Like many nations, there exists in Turkey a type of dual economy, in which the large, sometimes foreign and often multinational firms provide a higher level of human resource practices, including compensation, benefits and access to different management styles. This in effect provides a dual labor market, with workers stratified by advanced large scale manufacturers and service firms, and by small, artisan and local manufacturing plants. There is agreement among the respondents that employees in the small manufacturing and artisan sector work with different practices than those in the larger firms. This agreement however was less strong for respondents currently working in foreign firms, which may reflect foreign firms' ability to transfer practices, effective even in the small or artisan sector. There was general agreement that MNCs provide opportunities in ancillary industries, including positive effects on local suppliers and vendors for their products. The larger,
multinational firms then have a direct association with the secondary economy, and spillover in human practices appear to occur.

Turkey is a labor exporter at all levels of the economy. The inability of Turkey to provide anything close to approaching full employment has caused an obvious and serious drift of labor to foreign countries, including an alarming "brain drain" of highly educated workers. This highly trained sector of the labor market is globally mobile, and without advantages and opportunities to stay in Turkey, may opt for work outside of Turkey. The influx of foreign firms appears to be attracting labor to Turkey. Nearly one half of the respondents agreed that foreign firms provide employment for workers that might otherwise leave Turkey. Smaller firm employees were in stronger agreement than those employed in large firms.

Respondents were themselves highly mobile, particularly within Turkey. Over eighty percent believed they could leave their company and find a position of equal or greater value. As members of the dominant coalition, this is in marked contrast to most others, particularly those workers in the secondary market.

Foreign Direct Investment (FDI) and Multinational Firms

Foreign investment is perceived as positive for both the Turkish economy and for Turkish society. Respondents reported FDI as better for business people (66%), but still good for society as a whole (58%). Demographic differences exist only for the effect of foreign schooling and previous experience in a foreign firm. Both measures probably reflect the outward stance of respondents personal experience. The breakdown of foreign schooling shows interesting results. Sixty-four percent of those respondents who had not been schooled overseas believed FDI to be good for Turkish society. For those who had been schooled in the United States, their was no agreement, with nearly equal measures
across the scale. Clearly the great majority (80%) of those schooled in the United Kingdom felt FDI to be positive for Turkey, with quite the different case for those schooled in Germany, France and Austria, who clearly rejected the thesis that FDI is good for their society. For those with work experience outside of Turkey there was stronger agreement that FDI was positive for Turkish society in general. There was clear agreement, with no demographic splits, that FDI was good for business people.

Since Turkey's turn outward and its drive away from a state-driven economy to a market driven one during the early 1980s, the nation has focused considerable attention on attracting FDI. Nearly half of the respondents believed the country to be doing a good job at attracting foreign companies although manufacturing respondents appear more satisfied with national policies—68% versus 49% were satisfied. Those in unionized firms were slightly more satisfied (58%) than those in unorganized firms (42%). Foreign investment was also deemed positive for education and training, compensation and management opportunities. The largest agreement was over the effect on management practices with 81% of respondents agreeing that FDI provided new ideas in management practices. Seventy nine percent agreed that foreign investment provided new ideas in education and training and 64% agreed that it provided new ideas in compensation. There were few appreciable demographic effects, except that more organized firms believed foreign investment provided new ideas in education and training (83% union, 73% nonunion firms); compensation (73% union, 53% nonunion firms); and management opportunities (89% union, 75% nonunion firms). Many workers receive higher wages and better working conditions in the foreign firms. Approximately three quarters of the respondents believed that workers had better working conditions and were compensated at a higher level in foreign firms. No demographic differences exist, including whether respondents worked in a foreign firm. Preferences to work for or to manage either Turkish or foreigners show predilection
for foreign managers (51% preferred foreign managers versus 36% for Turkish managers). Respondents reported similar slightly higher preferences to manage Turkish workers, rather than foreign workers. Manufacturing employees show a slightly higher preference to work with Turkish managers than do service firm workers. Union firm employees show as lightly higher preference than non-union firms for working with foreign managers (58% versus 48%).

There is a high level of general agreement that foreign firms provide different work practices than indigenous firms. In descending order, respondents agreed that work practices in foreign firms are different for compensation (80% agreed); benefits (76% agreed); job design and responsibilities (73% agreed); mobility (72% agreed); work scheduling (69% agreed); and discipline (65% agreed). Hours, vacations and holidays show little difference amongst firms.

Technology Effects

Technology transfer is an important ingredient in the industrialization process for any nation. As a newly industrializing nation, Turkey has sought for a decade to attract foreign technology to help build its light to medium manufacturing sector, including aerospace, and its financial services sector, in particular. Although this transfer process is not without its critics, technology transfer is generally accepted as a positive good for the nation. Members of the dominant coalition who are actors in the industrialization process clearly see technology as providing a much needed boost to the nation's economy. Three quarters of the respondents believed Turkey needed more foreign technology. Even more respondents (85%) employed in unionized firms desired an increased level of foreign technology for Turkey in contrast to the attitudes of those in nonunion firms who, nevertheless, still agreed at a high level (70%).
Technology transfer appears to have a positive effect on working conditions. Overall, 69% of respondents believed transfer process to provide improved working conditions. That figure rises to 77% for respondents employed in foreign owned firms, 75% for union firms and 63% for nonunion firms with relatively differences for other demographic effects. Sixty-four percent of the respondents believed technology transfer affects wages. Respondents working in foreign firms and in Turkish owned firms show no differences. More respondents from unionized firms believe that technology drives wages upward (71% versus 63% for nonunion firms).

Technology transfer would generally be expected to have a greater impact on export led growth, which is the nation's stated policy for industrialization. Nevertheless import substitution remains an important vehicle for internal modernization, witness the popular support for Japanese-Turkish joint venture in the auto industry begun in late 1990. Respondents agreed at about similar levels (more than 50%) that technology transfer was an important vehicle for both import substitution and export led growth of Turkish industry.

Survey Dimensions

The questions were broadly conceived as measuring attitudes categorized in six dimensions. All questions, excepting the three used as dependent variables, relate to one of the following dimensions:

- Legal Traditions
- Socio-cultural Traditions
- Political Traditions
- Economic Conditions
- Technology Conditions
- Market Conditions

The questions were designed and placed in specific dimensions subjectively. Factor analysis, although intuitively attractive for the analysis of taxonomies, was not run due to the
nature of the data (categorical) and the inappropriateness of the technique for this type of
data (discrete).\textsuperscript{9} An appropriate measure of the reliability of the questionnaire is a
Cronbach's alpha\textsuperscript{10}. Using SPSS-X the test was run on the study's data with the following
conclusions. See Table 14.

\begin{center}
\begin{tabular}{|l|c|}
\hline
Dimension & Alpha \\
\hline
Legal Traditions & 0.8392 \\
Socio-cultural Traditions & 0.8720 \\
Political Traditions & 0.8245 \\
Economic Conditions & 0.8026 \\
Technology Conditions & 0.8072 \\
Market Conditions & 0.8727 \\
\hline
\end{tabular}
\end{center}

See Appendix E for the distribution of specific questions by dimension.

Independent Variables and Dependent Variables

Instrument questions were collapsed by dimension to form six new variables. These
new columns provide six independent variables for statistical analysis. They are labeled
respectively, 'legal'; 'socul'; 'polit'; 'econ'; 'tech'; 'markt'. See Appendix F for the reporting of
responses 1-5 for each question within each dimension. Table 15 shows by percentage the
average response on the 5 point scale for each dimension.

\textsuperscript{9}R. L. Gorsuch \textit{Factor Analysis} (1974). The display of questions by dimension was accomplished
through accepted social science techniques suggested by ethnomethodological research wherein the
researcher proceeds with emersion in the object of inquiry. Much of the instrument is obviously categorized
in a specific manner. For example, the question measuring attitudes toward the importance of work versus
family is clearly responsive to the socio-cultural dimension. Other questions, not as obvious, were tested
for application for specific dimensions after the emersion process.

\textsuperscript{10}L.J. Cronbach “Coefficient alpha and the internal structure of tests” \textit{Psychometrika} 16 (1951): 297-334. The reliability procedure performs an item analysis of the scales by essentially computing the sum as
weighted sum across variables as an estimate of a case’s true score. See also \textit{SPSS-X User’s Guide}, 3rd Ed.
TABLE 15

<table>
<thead>
<tr>
<th></th>
<th>agree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>[in percentages]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Traditions (LEGAL)</td>
<td>34</td>
<td>27</td>
<td>17</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Socio-cultural Traditions (SOCUL)</td>
<td>21</td>
<td>23</td>
<td>23</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>Political Traditions (POLIT)</td>
<td>30</td>
<td>25</td>
<td>2</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Economic Conditions (ECON)</td>
<td>23</td>
<td>22</td>
<td>20</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Technology Conditions (TECH)</td>
<td>31</td>
<td>28</td>
<td>23</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Market Conditions (MARKT)</td>
<td>26</td>
<td>28</td>
<td>26</td>
<td>14</td>
<td>6</td>
</tr>
</tbody>
</table>

There are three dependent variables. Two dependent variables measure different levels of influences on IR practices:

* Individual level influences (INDIVIDL), measured by a response to the question,

  "I have some control over or choice in what I do at my job and how I perform my job"

* Industry level influences (INDUSTRY), measured by the question,

  "The type of industry I work in determines how my day is planned and how my work is organized"

The third dependent variable measures perceptions of the role of technology on IR practices:

* Technology transfer effects (TECHNOL), measured by the question,

  "Technology transfer improves the working conditions for employees in Turkey"

Table 16 defines each independent variable (dimension) and each dependent variable.
<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEGAL</td>
<td>Influences of employment law and subjects covered under collective bargaining regulations and other labor laws</td>
</tr>
<tr>
<td>SOCUL</td>
<td>Influence of culture and tradition on employment practices</td>
</tr>
<tr>
<td>POLIT</td>
<td>Role of the state in FDI; unions as political institutions</td>
</tr>
<tr>
<td>ECON</td>
<td>Effects of macroeconomic policies on employment practices; role of unions; firm level conditions</td>
</tr>
<tr>
<td>TECH</td>
<td>Impact of technology transfer on IR practices</td>
</tr>
<tr>
<td>MARKT</td>
<td>Internal/external labor market conditions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDIVIDL</td>
<td>Individual influence in IR practices</td>
</tr>
<tr>
<td>INDUSTRY</td>
<td>Industry influences on IR practices</td>
</tr>
<tr>
<td>TECHNOLOGY</td>
<td>Technology transfer effects on IR practices</td>
</tr>
</tbody>
</table>

Independent Variables, Demographics

An analysis of variance was run to assess what demographic information influence the dependent variables. The following demographic variables were postulated to have an effect on the dependent variables:

- COTYPE c62: industry sector- manufacturing, service, other
- OWN c63: employment at firm owned by Turkish or by foreign owners
- UNION c65: whether or not firm is organized by trade union
- SEX c67: male, female
- FORSCH c69: schooling outside of Turkey
- FORWORK c71: previous work experience in a foreign firm
- COSIZE c86: size of company
Due to the unbalanced design a general linear model technique was chosen. The following results suggest demographic variables to be added to build the regression models. Analysis of variance computations, providing higher F-statistics and lower P values showing level of significance, suggest the following variables for inclusion:

* FOR INDIVIDUAL - MAIN EFFECTS:

COTYPE: Whether respondent was employed in manufacturing of services effects the degree of individual influence on IR practices
OWN: Whether respondent's firm was foreign owned or had indigenous owners effects the degree of individual influence on IR practices
UNION: Whether company was organized by a trade union effects the degree of individual influence on IR practices
SEX: Whether respondent was a male or female effects the degree of individual influence on IR practices
FORSCH: Whether respondent had attended school outside of Turkey effected the degree of individual influence on IR practices
COSIZE: Size of respondent's firm effects the degree of individual influence on IR practices

* FOR INDUSTRY - MAIN EFFECTS:

COTYPE: Manufacturing or service employment effects industry influence on IR practices.
OWN: Foreign or indigenous ownership effects industry influence on IR practices.
UNION: Trade union organization effects industry influence on IR practices
FORSCH: Schooling outside of Turkey effects industry influence on IR practices
FORWORK: Previous work experience in a foreign firm effects industry influence on IR practices
COSIZE: Company size effects industry influence on IR practices

FOR TECHNOLOGY - MAIN EFFECTS:

OWN: Foreign or indigenous ownership effects respondent's perception of the impact of technology transfer on IR practices
UNION: Whether firm is organized by a trade union effects perception of the impact of technology transfer on IR practices
SEX: Respondent's sex effects perception of the impact of technology transfer on IR practices
COSIZE: Size of the company effects perception of the impact of technology transfer on IR practices.

See Appendix G for statistical computations.
Model Specification for Logistics Regression

A logistics regression was utilized due to the nature of the data: binary dependent
variables (responses coded 1 agree; 0 disagree) and independent variables derived from the
collapsed categorical data yielding continuous dimensions.

Logistics Regression Formula

A logistics regression utilizes the following formula:

\[ P[Y_{i}=1] = \frac{1}{1+\exp\left(-B_0-BX_i\right)} \]

This binary model requires the following assumptions. Yi denotes the dependent
variable for the ith observation and the vector of independent variables for the ith
observation is assumed to be

\[ X_{i1}, X_{i2}, \ldots, X_{ip} \]

and

\[ B_{xi} = B_1 * X_{i1} + B_2 * X_{i2} + \ldots + B_p * X_{ip} \]

where \( B = (B_1, \ldots, B_p) \) denotes the vector of regression parameters.\(^{11}\)

A stepwise logistics regression by backward elimination was utilized. See Appendix
H for statistical computations.

Two related research questions form the foundation of this study. Three regression
models are used to help describe the impact of foreign technology firms on industrial
relations practices. The regressions' relation to the research questions are as follows.

\(^{11}\)For a further discussion of the logistic regression see Chapter 23, Robert Hastings, ed., SUGI
HYPOTHESIS 1

H1 Industrial relations practices are determined less by legal/socio cultural/political traditions than economic/technology/market conditions.

Two regression models are built to elucidate H1. The equations use two levels of analysis.

Regression 1 uses individual level, dependent variable INDIVIDL.

Regression 2 uses industry level, dependent variable INDUSTRY.

Regression 1

INDIVIDL Individual influences on IR practices.

The regression equation utilizing the backward elimination procedure is

\[ \text{INDIVIDL} = \frac{1}{1 + \exp(-B10 - B1X1 - B1X2)} \]

where \( X1 = \) Economic conditions
\( X2 = \) Trade union organization

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Chi-Square</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>4.0599052</td>
<td>1.29916742</td>
<td>9.72</td>
<td>0.0018</td>
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<td>C65</td>
<td>1.09645734</td>
<td>0.049368977</td>
<td>4.93</td>
<td>0.0264</td>
</tr>
</tbody>
</table>

[NOTE: For clarity, the dependent variable responses will be reported as the likelihood of strongly agreeing, that is the closer the response is to 1, shown as P[y=1].

For independent variables measured on the Likert-type scale: The negative sign on beta for the independent variable shows that when x is decreasing (tending toward 1 on the instrument scale), the probability of \( Y=1 \) goes up and respondents are more likely to agree. The positive sign for the independent variable beta shows that when x is increasing (tending toward 5 on the instrument scale), the probability of getting \( Y=1 \) goes down and respondents are more likely to disagree. For demographic variables, beta shows the category with the strongest association.]

This regression shows that attitudes toward Turkish economic conditions and whether firms were organized by a trade union best predict responses to whether respondents believed they had control over or choice in what they do at their job and how
they perform that job. The more important respondents consider economic dimension to be, the more likely they are to agree that they have personal control over how their work lives. Respondents in organized firms report less control over their work is organized. Respondents who believed they had control or choice preferred private industry and the opportunities provided by foreign firms and tended to work in unorganized firms. The singular support for the explanatory power of economic conditions and the interesting absence of the other dimensions show the power and influence of Turkey's changing economic environment. Here locus of control over the organization of work is predicated quite forcefully on the external economic environment, that is specifically whether one enjoys the benefits of private industry or whether one still operates in the state dominated economy. Further, the relationship between labor union organization and locus of control supports the view in Turkey or trade unions as agents of either management or the government.

Regression 2

INDUSTRY Industry influences on IR practices

The regression equation utilizing the backward elimination procedure is

\[
\text{INDUSTRY} = \frac{1}{1 + \exp (-B0 - B1X1 - B2X2 - B3X3 - B4X4 - B5X5)}
\]

where  
X1 = Legal traditions  
X2 = Economic conditions  
X3 = Technology conditions  
X4 = Market conditions  
X5 = Company size
<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Chi-Square</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td>Intercept</td>
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<td>C80</td>
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<td>0.0089</td>
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<tr>
<td>C83</td>
<td>2.29083928</td>
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<td>4.65</td>
<td>0.0311</td>
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<td>C84</td>
<td>-3.83682634</td>
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<td>C86</td>
<td>-1.61259650</td>
<td>0.67748113</td>
<td>5.67</td>
<td>0.0173</td>
</tr>
</tbody>
</table>

For those respondents who believed that the type of industry they worked in determined how their day was planned and how their work was organized, five dimensions influence how they answered: legal traditions, economic, technology and conditions, and size of the company. Here the less importance attached to legal and the economic dimension, the more likely respondents are to agree that the industry determines IR practices. The more important the influence of technology and market conditions, the more likely respondents are to agree. Company size impacts significantly here, where the smaller the company, the more importance attached to industry determination.

The strength of the association between economics and legal issues as shown by their inclusion in the model, suggest the importance of the shift in macroeconomic policies that are often regulatory in nature allowing specifically new industries to enter. These dimensions, however show that legal and economic issues have lesser importance in determining and industry's IR practices, as seen by the association of the last three variables. Technology conditions show the greatest importance, as do market conditions and size. The technology issue shows the importance attached to technology transfer in determining how an industry's human resource policies are designed-- here is the strongest association. Market conditions, related to the shifting economic environment, also point to differences between the constraints and opportunities offered in foreign versus traditional firms and the environment of the Turkish market.

A comparison of the two regressions show reasonable if not complete support for acceptance of H1. Clear importance in determining industrial relations practices at both an
individual and industry level is shown by the influence of economic, technology and market conditions. The inclusion of the legal dimension shows the importance of the regulatory environment in this large systems change and clearly helps to elaborate the research question. The regression shows support for five of the six dimensions in the hypothesized situation.

HYPOTHESIS 2

H2 Technology drives the choice of IR practices.

A regression model is built to develop this hypothesis using the dependent variable, TECHNOLO.

TECHNOLO. Technology transfer effects on IR practices

Regression 3

The regression equation utilizing backward elimination procedure is

$$\text{TECHNOLO} = \frac{1}{(1 + \exp(-Bo BX1 - BX2 - BX3 - BX4))}$$

where X1 = Sociocultural traditions
X2 = Political traditions
X3 = Economic conditions
X4 = Industry sector

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Chi-Square</th>
<th>P</th>
</tr>
</thead>
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<tr>
<td>Intercept</td>
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<td>C83</td>
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<tr>
<td>C62</td>
<td>0.87500866</td>
<td>0.36280618</td>
<td>5.82</td>
<td>0.0159</td>
</tr>
</tbody>
</table>
Respondents attitudes were ascertained on whether technology transfer improved the working conditions for employees in Turkey that is, does technology drive the choice of industrial relations practices. The less importance respondents attached to socio cultural traditions, the more likely they were to agree that technology impacts IR practices. This supports this research's thesis that cultural constraints are of lesser importance in a global environment, a point to be discussed further in the next chapter under the discussion of convergence.

Political traditions are important and were reported only this once in any of the regressions. Here, the more importance attached to political traditions, the more likely respondents were to agree that technology drives IR issues. The inclusion of this dimension in the model shows the extreme importance attached to foreign investment by the current Turkish government, which has been a deeply debated political issue inseparably associated with the Ozal ministry. The issue of foreign investment ascertained by the political dimension is closely aligned with economic conditions, also greatly influencing respondents' attitudes. Again, economic conditions are a driving force and show that private sector relies on and supports technology transfer.

The last variable included in the regression is industry sector. Whether respondents worked in manufacturing or in services impact the relationship, but as the variable with the highest p value it is borderline for inclusion in this model. This shows there is some difference between sectors, with more manufacturing respondents agreeing, but that the association is limited.

The model developed here suggests that the absence of cultural constraints and the importance of political and economic dimensions best explain whether respondents agree that technology drives the choice of IR practices. Interpretation of this regression substantially supports H2.
CHAPTER VI
FIELD STUDY RESULTS

Introduction

This study has been conducted to discover what drives the choice of industrial relations practices in developing nations, questioning whether advanced IR practices are transferred along with advanced technology. In-depth field interviews were conducted with high level decisionmakers in fourteen organizations chosen for sampling variety. Their comments support the acceptance of both hypotheses and help elucidate the study's analysis. The study questions whether IR practices are culture-bound, as is the generally accepted attitude toward IR systems. In discussing industrial relations systems, analysts have often used a regiocentric and even ethnocentric approach to describing various nation's many differences. These differences exist, however, only for some industry and social sectors. In reality-- in practice for a specific category of worker-- IR practices are not culture-bound, but are global in scope and are driven by the transfer of technology. This category or level is found in foreign firms and as this study will show, has great impact beyond its own sector.

Description of Firms Involved in the Study

Arthur Anderson

Arthur Anderson Turkey is an accounting and management consultancy firm with a long tradition serving both foreign and Turkish firms. It is the most highly regarded firm of its type and has few competitors. A partnership in the U.S., its corporate structure is slightly different in Turkey where there are two companies, one a corporation 96% owned by Arthur
Anderson and the second 49% owned by the firm with the remaining 51% controlled by its partners. It is the most highly prized training ground for young Turkish business people, who may stay or move on to key positions throughout Turkey. Its reputation places it as a major player in the Turkish economy. All firms studied for example, used Arthur Anderson's services.

Citibank

Citibank is a 100% company owned branch of the global giant Citicorp. It has a long tradition in providing financial services in Turkey, having entered the Turkish market over 25 years ago. Its main business is in commercial banking but with the changing environment in Turkey for capital markets, the evolving stock market and the availability of new financial instruments Citibank expects its investment banking function to increase, which would require the ownership structure to change to a subsidiary, under Turkish regulations. Of the approximately 160 employees serving Turkish corporations and the foreign firm community in particular, less than 5% are foreign.

Digital

Digital is Turkey's newest entrant into the growing computer systems market. It is a wholly owned subsidiary, part of Digital international network based out of its European operations who provided the capital investment, projected to achieve 24 million dollars in Turkey alone. Digital Turkey was founded to provide services to its multinational clients currently operating in Turkey. When interviewed for this study the company had just entered its first fourth quarter, exceeding its expected goals. Digital had 50 employees on staff with expectations to grow to 96 by early 1991. The workforce was "multinational" in scope with key figures from Digital operations in the U.S., Switzerland, the U.K. and France besides the numerous Turkish executives transferred from the Digital network worldwide for their background or recruited locally. Digital entered the Turkish market by buying an existing Digital distributor.
Eczabici Holding

Eczabici is one of Turkey's foremost family owned conglomerates. It is a highly diversified company that has interests in pharmaceuticals, ceramics, construction materials, paper products as well as banking, brockereage and investment services. This particularly Turkish corporate form, wholly family owned and controlled, is a highly sophisticated organization and is a major player in the Turkish economy and on the world market. It is a multinational through its extensive export business and through its numerous ties to foreign companies. For example, it is a licensee of Upjohn and Bristol Myers as well as several other companies in Japan, Sweden and France. Among its many joint ventures, is an operation with Proctor and Gamble and Lincoln Electric here in Ohio. It heavy reliance and close association with foreign technology is the reason the firm was chosen for study.

Finansbank

Finansbank is one of Turkey's newest specialists in investment and commercial banking begun in response to the market opportunity offered by the nation's changing capital markets sector. Like Impex, it offers the most advanced instruments to Turkey's export and import business.

General Dynamics

GD Turkey is a joint venture company begun in 1984 and owned by the following partners: General Dynamics 42%; General Electric and Westinghouse together 7%; government of Turkey 51%. The Turkish partner TUSAS is a government organization set up a decade ago for the specific purpose of establishing an aerospace industry in Turkey. This joint venture builds F-16 fighter jets under a Foreign Military Sales (FMS) program providing military hardware for the U.S. government who in turn sells the jets the Turkish government. The program's direct offset builds components for the U.S. government, helping to build Turkey's export market. Indirect offsets include a number of projects
directed at finding export markets for other Turkish products. The agreement between Turkey and General Dynamics stipulates that the jet be built wholly of Turkish origin by 1994, excepting its weapons systems. At completion of the 160 jets currently on order, the plant will be turned over to the Turkish government.

**IBM**

During its 52 years in Turkey IBM has enjoyed a long association and extremely high degree of name recognition. Indeed, most people associate any computer activities with the company— one competitor complained for example that the general public took its company to be an offshoot of IBM, "IBM Digital, Inc." In Turkey IBM is 100% owned subsidiary that holds approximately 85% of the market for large installations, slightly more than 50% for midsize and somewhat below that figure for smaller. IBM employes about 400 employees in Turkey, 100% nationals.

**Impex Bank**

Impex is one of a handful of new upstart Turkish banks, organized to capture the fledgling capital markets business. It highly sophisticated, offering the latest in information technology, and directs its business primarily to the investment banking customer through its merchant banking orientation. It is 100% owned by a Turkish businessman residing in England and staffed solely with Turkish bankers all trained at Citibank. It offers technology applications and financial service instruments as advanced as any in the world.

**Midland Bank**

Midland Bank PLC is a British financial institution that, pending its proposed merger with Hong Kong Shanghai Bank, will become the world's third largest financial institution, excepting Japanese banks. Midland is one of the latest entrants to Turkey's expanding financial services sector. Driven by enormous market changes, in particular the opening of Turkey's capital market in the early 1980s, foreign firms and new indigenous
banks have responded to a completely new market situation. At the time of these interviews, Midland had completed the legal reporting and momentous paperwork involved in a foreign firms entrance into the market and was awaiting clearance to begin official operations. Midland, unlike its American counterpart, offers both commercial and investment banking services.

**Proctor and Gamble (Mintax Corporation)**

Mintax is Proctor and Gambles Turkish subsidiary, 100% owned by the Cincinnati based corporation. P&G bought an existing corporation, Mintax, a major manufacturer of household, personal and baby care products in 1988. Mintax reports to P&G's European headquarters. It employs over 1000 employees which include 25 foreign managers whose positions will eventually be turned over to Turkish nationals. All company operations are run locally including marketing, advertising and raw material procurement.

**Reuters**

Reuters is a global leader in communications technology headquartered in the U.K. servicing every market worldwide. It operation in Turkey was a new installation when chosen for this study and provided the most advanced level of information technology including the latest in communications and satellite transfer. Its small staff, technology driven, was primarily Turkish, with a British general manager and chief correspondent.

**Wendy's Hamburger (Aytemiz Hamburger)**

Two Wendy's currently operate in Turkey under a franchise agreement with Wendy's International. Within months after the first store opened in Istanbul, it was the highest performer in Wendy's international system. The franchise operates under close supervision per its agreement, dictating store set up and operations, food quality, preparation and the like. Foods, however are all bought locally and all employees are Turkish. To
provide fresh quality buns the franchisee also built and operates a bakery to service the operations.

**Wyeth Pharmaceuticals**

Wyeth is a 100% owned subsidiary of American Home Products located in New York city. In Turkey for over 25 years, the firm manufactures chemicals, infant formulas, and pharmaceuticals. The parent has 25 plants around the world in nations they previously had export experience and saw an opportunity to invest for manufacture to local markets. The General Manager, who was interviewed for this project, was the only non-Turkish employee in the operation, numbering approximately 150 employees.

**Yapi Kredi Bank**

Yapi Kredi, one of Turkey's three major commercial banking institutions, is a publically owned corporation with majority interests owned by three banks, a major industrial and commercial trade group, and a group of private investors. It is known among Turkish banks as the leader in technology implementations and it includes a separate corporate entity organized to develop its own software applications. The company's dependance upon state of the art hardware technology is foreign with much of its applications indigenous, which was why Yapi Kredi was chosen for study. Yapi Kredi was the first bank to install the extremely successful automated teller machines (ATMs) in Turkey-- a welcomed boon to the population still generally operating in a cash based society.
Impact of Technology, Market and Economic Conditions on IR Practices

Turkey is a changing, often volatile market, where corporations need to react quickly to shifting opportunities. Information technology (IT) is a critically important variable in the ability of an organization to react in an environment where the window of opportunity is often small and the technology life cycle short.

Transfer of Machine Technology

Turkey receives advanced technology through the hundreds of foreign firms operating on its shores. Technology is transferred packaged, or what is termed "bundled", nearly completely intact and ready for use with relatively little adjustment to local needs and extremely little constraint due to the nation's overall lower level of technological development. Every firm studied used bundled technology transferred from corporate headquarters. The same technology is used internationally throughout the firms' systems.

Citibank for example uses a "universal" system, compatible for every location in every part of the world. Citibank's relationship with Turkey, over 40 years old, began through the financing of government and public works projects. The bank made direct investment in the 1970s through the opening of a representative office and during the 1980s, after governmental reform and loosening of regulations, it opened a full service commercial bank as well as a capital markets operation to operate in the emerging domestic capital market. Citibank is a leader in trade finance and product development, engaging in all areas of commercial finance activities and is a global leader in mergers and acquisitions for developing and industrialized nations. Citibank's business characteristics, the large number of markets in which it operates and its environments, and its stated strategy to service emerging as well as mature markets, forces its heavy reliance on state-of-the-art technology of which it is both an end-user and an innovator. Technology is brought to Turkey completely packaged providing the system's universality throughout all operations. The bank
provides forward integration through the sale of its systems application packages. There are few constraints on any firm's ability to use the most advanced technology. Those focus on the ancillary links to the technology such as the quality of the data transmission due to problems with communications links. As a Citibank officer noted "We have no problem getting operators that are competent or software specialists that are required, so we don't have to make any adjustment in terms of quality, sophistication and content of the data."

Software applications development is purely of Turkish origin. Even language does not constrain the transfer as all activities are conducted in English. For companies selling information systems to the local Turkish market (IBM and Digital for example) technological adjustment was necessary only in changing computer keyboards and supporting software to accommodate Turkish language characters not found in the English language alphabet.

In the early 1980s General Dynamics agreed to provide the technology to produce the F-16 fighter plane in Turkey. During this period intense global competition shifted arms sales to a buyers market. Developing nations in particular gained heretofore impossible bargaining power. Coupled with a political imperative that prodded the U.S. government to favor friendly nations -- particularly strategically located ones-- newly industrializing nations (NICs) such as Turkey negotiated highly favorable "offset" programs that transferred advanced technology. In this offset plan, the majority of the sophisticated aircraft would be built in Turkey under a coproduction agreement with the Turkish government agency, TUSAS (the majority owner), while GD would provide its marketing expertise to a number of indigenous products on the world market.

The negotiations resulted in a form of license agreement which provides that the planes be built directly from General Dynamics plans with no design requirements or modifications on the Turkish part. This is the lowest level of technological complexity
available in military production. GD is considered a prime or lead contractor, and therefore provides the technology in whole. The F-16 plant is built to GD design specifications, under their authority with Turkish personnel. The site now encompasses acres of the latest in aerospace production technology, scheduled to include a million square feet of space. Although the first jets contain considerable American parts, the accord stipulates 100% Turkish content by the end of the agreement period: by 1994 the plane will be built completely of Turkish parts, excepting its weapon systems, still considered proprietary knowledge.

In all firms technology was rarely adjusted for use in the developing nation, although one problem was noted consistently--the issue of quality. For firms dependent upon information technology, a constraint appeared in data transmission quality--the communications links provided through telephone and transmission cables. Reuters solved problems in this area by providing both the necessary cables and the personnel to install the systems to work with the Turkish state-run telephone company, the PTT. This solution provides further diffusion of technological know-how, as Reuters trained and educated local Turkish workers in related but different industry sectors. Citibank also complained about the quality of their communications links although the nation is in the process of installing a nationwide system of advanced fiber-optic communications channels.

In the case of General Dynamics, any Turkish vendor must meet the extremely high and difficult standards of U.S. military specifications. The indigenous suppliers are constrained by the exacting specifications and even by raw materials quality. Turkish aluminum, for example, does not meet necessary standards as yet. Machine technology is transferred in a straightforward non-fragmented or packaged form and it is, importantly, diffused through the use of foreign engineers, technicians and specialists working with their indigenous counterparts.
Transfer of Management Practices

Management practices are transferred in a similar packaged or bundled manner. Citibank, because of its size and influence worldwide, is a primary mover in the creation of the "community" of adherents necessary for the development of a new paradigm. In Turkey, all top level managers at indigenous banks were trained at Citibank. Managers receive the same technology training, management education, tools and skills at the Turkey subsidiary as would be received worldwide. This in-house training program known worldwide as "Citibank U." is a form of institutionalized diffusion. The coordination of training provides for the development of a common language, perspective and approach to technology and banking. Although Citibank experiences a "continuous loss of staff to the growing/emerging local banks" it remains committed to its role as a training ground. Midland Bank's training program includes two years at in internship in Paris. This informal diffusion process is a critical avenue of technological development.

The transfer of management know-how is one explanation of the convergence of the banking industry in Turkey at a common, technologically advanced level. This convergence is promoted by government institutions as well as private firms. For example, Citibank is sponsors a cooperative effort with the Turkish Central Bank, The World Bank and the Banks Association of Turkey in which the organization provides formal instruction. This Center for International Banking Studies is available for Turkish and Middle Eastern banking personnel. Citibank provides managerial expertise without fee. Individual banks pay for instruction which is subsidized by the Bankers Association. The Institute trains scores of bankers in every possible area of banking industry practice at its campus like
facility outside of Istanbul. Close to 1800 people from 50 banks have been trained there in four years of operation.

At General Dynamics the diffusion of management practices is accomplished within a formal structure. For each of the four major company divisions, expatriate managers are matched with a Turkish counterpart who are being trained to assume full responsibilities from the U.S. managers. The Turkish management training on the job provides for a structured transfer of management know-how.

Transfer of HR Practices

A similar transfer occurs with human resource or HR practices. The foreign firm "transfers" their personnel system worldwide in a largely bundled manner. IBM operates under virtually the same procedures in Turkey as in New York a top official noted, known as the "IBM Way"; Citibank's practices are "well established and standardized throughout the Citibank world".

Training

The technology requirements of foreign firms often present new labor market issues. In the absence of trained personnel they educate and develop their own workers, training them on the job. General Dynamics for example, found no tool makers and tool engineers in Turkey and so trained a cadre of workers. The company sent Turkish representatives from each major department to their Texas headquarters for formal training. These workers in turn diffuse GD policies by becoming trainers themselves. Of the firm's 1800 employees in Turkey, approximately 75 are U.S. citizens, mostly factory workers
brought to Turkey to train their production employee counterparts. Although training is constantly occurring, as an official noted "it's our role to move to where we are observing, rather than the hands on where we are showing them how, unless there's a new step in the production process."

Another important route of technological diffusion including management know-how is through vendor-run training programs. Most of Turkey's computer software engineers serving information technology (IT) companies, in the financial service sectors in particular are trained by vendors including IBM and NCR. Vendor training programs quickly brings comparability on an international level. The vendor relationships are significant parts of the technology transfer process. These system personnel trained by the large organizations often opt later in their employment cycle to move to other firms transferring their technical and managerial know-how. The informal diffusion process provided by company training programs is costly. Highly trained personnel from one company are often lured to new firms for status and money. One Midland official referred to such job-hopping as "poaching." This form skills transfer whether costly to a firm or not is a critical form of information diffusion.

The absence of formal training programs promote initiative seeking behavior on the one hand and seat of the pants adaptation on the other. The outcome is personal creativity, but at a cost. The lack of formal structures as expected in the West-- university or vocational education, stepwise career paths, placement within a formal human resource plan-- provides innovative but sometimes difficult responses. A Midland executive explained,

It's the scrounger/mechanic approach, because you give very good people some good machinery, like lathes, IBM, and they can work wonders, they can do very good things, but it's all on the job. Just go, take the manuals, test this, test that, does that work, this kind of thing. There's very little planning in this kind of approach... in a sense it's refreshing because you see people getting on and doing things and just trying to pull things off to an existing kind of degree. It's very dangerous at the same time. Very little formal training. It's all sort of pick up as you go.
The General Dynamics official corroborated this idea,

My experience has been that the Turkish workforce is very innovative. They're great shade tree mechanics, that is there are mechanics conducting business under a tree. They have an engine hoist tied to a limb and they fix it on the spot and that sort of thing. It just doesn't work with aircraft. But this mentality they're eventually going to see what it takes, and because they are innovative they will realize they have to get qualified, they have to meet certain standards, and they will change.

This sort of initiative or innovative seeking behavior exists within a sort of dual labor market. Midland Bank for example hires 95% of its personnel from Turkey, including all information technology people. The bank acknowledged the extremely competitive market it had entered and the problems associated with the hiring of trained personnel. In terms of its technology people, one Midland officer perceived two opposing trends in its staff: highly innovative persons with formal training and high initiative with no formal training on the one hand, and traditional workers with a degree of resistance to new technology on the other. Highly efficient, innovator companies invest in IT; traditional institutions reflect their style in technology, production and management.

The hinterland or rural attitude includes the view of advanced technology as the object of an elitist minority which constitute what one executive termed an "artificial bourgeoisie." Technology in certain circles is a status symbol which has attracted a large number of skilled, entrepreneurial and young group of workers. These technology adherents promote a sort of national group norm process promoting technological growth.

Recruitment and Retention

Training programs are clearly used as both recruitment and retention measures. Yapi Kredi Bank, one of Turkey's largest publicly owned commercial bank is an acknowledged leader in technology implications in Turkey and a much sought after proving ground for systems personnel. Although the firm buys hardware bundled it relies on a large in-house
staff of systems analysts and programmers for much of its software development. Yapi Kredi relies exclusively on the local market for systems personnel, who are hired with experience, or more often, join the bank newly graduated from technical or university programs and are trained. Technology training is done by the bank and by their vendors. Yapi Kredi promotes retention of trained technology personnel through placement of the data processing teams in a separate subsidiary, largely to avoid restrictive collective bargaining agreements and certain other managerial rules and regulations, particularly wage structures. Here too, the subsidiary relationship allows compensation driven retention for key employees with highly desired skills. Further Yapi Kredi's reputation as an innovative leader of banking technology impacts recruitment.

Market Conditions

Without question the market drives the entry strategies of Turkish foreign firms. Citibank goes "wherever the market warrants". Midland Bank seized an opportunity nearly at the end of a surprisingly short market cycle. Digital followed its customers--strategic worldwide accounts that needed to be serviced in Turkey such as ITT, Northern Telecom and Citibank. General Dynamics is increasingly relying upon its Foreign Military Sales (FMS) program to provide a expanded market for its products. Wendy's entered at a stage in the nation's development process where a large class of urban, generally young workers were attracted to the concept of fast food and had the expendable income to support the industry.

Turkey's decision to joint venture the experiment with General Dynamics is similarly market driven. The venture's growth strategy, export driven versus import
substitution, provides much needed capital as well as experience in a new sector, capital equipment.

One of Turkey's problems is its labor surplus at all levels. Because there are fewer jobs than university graduates, positions are fiercely competitive, particularly in foreign firms. Many other graduates accept low level positions or leave the country. Foreign firms appear to be employment generators at a significant level including especially the effects of supplier/vendor links. Wendy's for example hires over 200 employees per store and the introduction of the bakery to service just the franchise's two operations, provides a learning curve and employment in upstream activities. All foreign firms used local suppliers-- from paper mills supplying computer paper to the paint plants supplying the newly created defense industry-- which provided increased employment and a positive learning curve in ancillary industries.

However abundant skills are at most levels, there exists a shortage of managers and production workers with industry specific skills. For these highly sought after workers, compensation drives employment choices. One banking executive described the trouble in finding and retaining a trained pool of indigenous managers: "Human resource policies are very simple here, it's money, money, and money... Because of scarce resources and tremendous opportunities, the number of people available have been so limited that the only way to attract people was to just pay they more."

Given an extreme labor surplus at other levels, Turkey holds a comparative advantage in labor intensive industries. Unlike similiar situated NICS, Korea and Taiwan, for example, Turkey's export focus remains in textiles and clothing, and has not attempted serious diversification into other profitable segments such as electronics. The General Dynamics/TUSAS venture is a method of capturing an advantage in the capital goods sector, a feature as yet to be proved. The government's desire to create its own indigenous
aircraft industry, TAI (Turkish Aerospace Industry) made the make or buy decision simple. Like a number of other NICs and a handful of industrialized nations Turkey decided in favor of the more difficult and costly make, or build, route. As one official commented

"They (the Turkish government) wanted a factory. They could have purchased 160 F-16s and had them flown over here from Texas at a per unit cost much less than producing them here, but the technology transfer, the employment, the jobs that you're creating, the second layer of suppliers that are beginning to come on line, that's why it does cost more to start one of these coproduction activities.

The learning curve derived from the experience of building an indigenous aerospace industry is expected to help Turkey "leapfrog" into the 21st century. A significant portion of the offset agreement's cost for both parties is the development of the sophisticated plant. With relative ease, the complex can be retooled to manufacture various products after completion of the scheduled order of jets. As one GD official noted "You don't build a multimillion dollar factory to manufacture 160 F-16s. Other programs will be going in there, not necessarily U.S. programs. Eventually they'll be able to do their own." Diffusion of technology, management and human resource practices is supposed to provide a positive return to the nation's fledgling capital goods sector that far outweighs the seemingly extravagant cost of the project. The development of an indigenous aerospace industry is purported to have widespread significance in subsidiary or tertiary markets. The use of Turkish vendors and suppliers provides the the transfer of technological know-how for widespread use in numerous technologies. The transfer improves the rate and speed of industrialization throughout several sectors, particularly the machinery and capital equipment sector, electronics and heavy industry. This form of transfer further creates employment at all skill levels, a well received benefit for Turkey, a labor exporter at all levels.
Economic Impact

Two major, related events signaled a new environment for Turkey. First, by political
decree, the shift from a largely state-driven to market driven economy and second, the
opening of Turkish capital markets. The two events opened the nation for new foreign
investment and both shook and shocked existing firms both foreign and domestic. The
emerging capital market has obviously impacted banks and financial service firms. It further
has had a ripple effect in the computer and computer service industry which is designing
and providing for the market's sophisticated automated systems. The stock market
operations have been so immediately successful that no one company, including IBM, had
enough infrastructure to service them and a number of new entrants have seized the
opportunity.

Although the technology is rapidly being assimilated, all officials queried noted the
long road still to travel technologically. Turkey remains technologically dependent upon
other nations. Although applications can be indigenously designed all basic research is of
foreign origin.

Turkey has promoted a governmental imperative to encourage technology
acquisition by corporations through the removal of all tariff barriers, that is, a zero tariff on
technology imports for business. However, tradition lives next to modernity in many ways
and forms in Turkey, including the regulatory environment. Corporations found the
reporting requirements so cumbersome that payment of the duty was preferable to the
paperwork involved.

Competitive advantage through technology occurs only when acquisition is
dependant upon state-of-the-art technology. Although a noted problem in sectors outside of
this research (the auto industry for example), most sectors in Turkey do not suffer a senario
typically played out on developing nations--- the transfer of old and inappropriate
technology. Banks for example as major investors in new technology rely clearly on only the most advanced knowledge available. In the competitive Turkish market for financial services, no matter where a firm entered in terms of the industry's or the technology's life cycle (a cycle that for technology acquisition becomes exponentially shortened as sophistication increases), companies require the latest technological capabilities. Both Yapi Kredi and Impexbank have already implemented a second generation of hardware.

This new generation has significant affects on employment. Buying the first generation of technology generally focused on the scale economies of creating a labor cost advantage through automation. Now, for existing firms and the new entrants (including Impexbank and Finansbank, the emerging firms that have entered at the forefront of the technology lifecycle) the focus is on providing services, or customerization. As an official from Yapi Kredi explained, the strategy focuses on "Efficiency increasing efficiency, making services available to the customers in a more convenient way, and more information, more bundled services... Labor, saving labor costs in secondary-- perhaps even less in the order of priorities."

Yapi Kredi perceives its role and develops its corporate strategy to be a driver or engine of technological change for the nation. Banking can assume this role because it is the link between the domestic and international markets, the export orientation that is now one of Turkey's political economy imperatives supported at several levels of society, including governmental policy and private enterprise.

Diffusion of technological know-how is a critical variable in the creation of a new paradigm. Labor force mobility in the technology sector is one avenue of diffusion. The inability to protect proprietary knowledge is another related form of diffusion. Although both Citibank and Yapi Kredi criticized the negative impact on its own competitive advantage from the movement of highly trained personnel and the failure of patents rights to fully
realize protection on proprietary software for example, the diffusion throughout the economy has a positive impact on industrialization.

Clearly the preference for professionals, managers and skilled workers are to work in foreign firms or for employment in indigenous firms that have imitated the foreign firms in both technology and human resource practices. The pull of these two types of firms is predicated on the changing economic environment that has opened the Turkish economy to foreign firms. The explosion of opportunity in the banking industry for example is only a decade old due to liberalization of the regulatory climate. Skilled human resources are difficult to find and conditions of employment are driven by this scarcity. As the Midland banker explained

Banking was liberalized in the early 80s so there's been a boom in this industry, and because of scarce resources and tremendous opportunities, the number of people available have been so limited that the only way to attract people was to just pay them more. So there's really been an increase in salaries, the packages you can find here for qualified bankers are comparable again to most other OECD countries. At least at the management level and above.

This imbalance of supply and demand and the resulting disparity in compensation levels drives draws unlikely candidates to employment in the foreign firms. Digital for example has an astrophysicist with a PH.D. in a middle management position, Digital and IBM both employ receptionists with MBAs. At Digital a manager explained-- "We have two associate professors for secretaries. I mean our lunch pay is equal to their salary where they come from." This sort of turbulent human resource environment provides little opportunity for establishing a career path. Lack of pathing is indicative of the maturity level of the industry. The young upstarts in banking for example have yet to establish clear paths and are more likely to suffer poaching. As one banker explained

There is no career pathing what so ever, you are lucky to get the right people and you're lucky to hold on to them... One issue is that if you can give them enough growth in their work in terms of status and salary that's fine. The big question
comes when they feel they are hitting their heads against the ceiling because there's nothing more to do and [their job is] more of a maintenance function with marginal development.

At the other end of the spectrum is the firm with long term experience in the country. Arthur Anderson, for example, has operated in Turkey for decades and provides highly sought after paths for its managerial employees. Its stable environment is due in great part to the firm's clear expectation that hopping or poaching will occur in order to both stabilize employment levels and carry goodwill and its business to other firms - a policy that Arthur Anderson uses successfully in its system worldwide.

The demand for people with specific skills is so high that "job hopping" by the employee and "job poaching" by the firm has become commonplace in some sectors. Although firms find the quits expensive due to the training costs, the diffusion of information including in particular the expectation of certain types and level of human resource practices through "hopping" should not be underestimated. The multinational does not exploit these classes of workers but may perceive itself as being exploited by this highly mobile skilled employee who may transfer and diffuse trade secrets and competitive advantages with their human resource practices.

The impact of this form of labor scarcity should not be underestimated. Scarcity often drives the innovative process as efficiency measures are discovered to provide goods or services faster, cheaper or more abundantly. This scarcity typically exists within a dicotomous environment of labor surplus in a successfully newly industrializing economy. Just as pre-industrial and industrializing America was driven by the scarcity/surplus duality, labor surplus in Turkey provides the necessary growing markets and workers for the industrialization process while the highly sought after and scarce skilled categories design and drive the industrialization process.

The opening of the Turkish economy has had enormous impact for human resources. Foreign companies are clearly attempting to tap what a Digital executive called
"momentum" referring to the burgeoning markets of a growing middle income nation intersecting with a trained and entrepreneurial cadre of workers ready to service those markets in an innovative manner.

Although a new environment for business is emerging, this advanced operating environment is nevertheless only a small portion of the Turkish economy. Government firms still account for nearly 50% of economic activity and the traditional Turkish business form, the family dominated holding companies, are in many instances cartel operations. State-run firms, although not popular with the entrepreneurial class, yet provide much of what a American Consular official called "feedstock" (for example anything from telephone service to raw materials) for the private firms at a cost low enough to greatly benefit the private firms. This underlying public-private partnership helps fund the industrialization process. New foreign entrants and the indigenous firms often spun from the foreign firms are impetus not necessarily providers of change.

It is not only Turkey's changed economic environment that has attracted foreign firms. Turkey is also cast in the unusual role as a platform from which foreign firms can enter the unstable East European market. As the U.S. Commercial Attache in Istanbul explained, Turkey appears to be reemerging as a crossroads of trade, just as the nation operated in Ottoman times. Turkey's strategic geographical position and its relatively stable operating environment is in large part the answer to its growing foreign investment. Notwithstanding Turkey's relative risk factors, religious zealotism and political crisis, the nation is perceived as a safer harbor for new entrants.

At the moment Turkey is clearly in a "take-off" stage, to borrow the term from W. W. Rostow. The nation is poised economically to enter specific export markets while bolstering indigenous capital equipment industry. The national sentiment appears to support a market driven open economy, foreign investment and Turkey's role in a global economy.
Take-off will fail only if culture overrides development and the fundamentalist right sways the public to turn inward.

The Role of Culture, Politics and The Regulatory Environment

Without question culture, politics and the legal regulations of any nation shape the character and function of its environment for business. What appears to be different in the global environment is that what used to be determining factors in how business was conducted are now mediating ones, that more often color but not determine labor and human resource practices. Foreign firms clearly transfer management practices around the world and the indigenous firms competing in the same markets or responding to the foreign firms imitate those practices. Socio-cultural differences remain critical variables but determine human resource issues only in the traditional sector.

Socio-cultural Issues

Culture and tradition rarely constrain the operation of the foreign firm and it appears that the indigenous firms go to great measure to avoid at least the appearance of any operating constrictions. The only impediment that was voiced was by a Midland official who, although American by birth had spent many years in Turkey and of all managers interviewed best understood the Turkish experience. He candidly admitted not anticipating the depth of religious fundamentalism in Turkey and the effect in both the economic and social environment. After returning to Turkey to live he noted his perceptions were different in degree, not in nature. His comments pointedly show that Turkey remains a nation distinct from its western neighbors.
Some foreign firms often respect cultural practices in a paternalistic manner. Mintax for example gives candy baskets to all employees in a traditional celebration of the end of Ramadan. The Wyeth general manager is expected to provide personal loans to employees and does, with both company and personal funds. Wyeth provides van transportation for workers, an expectation of many employees tied to the vagaries of a limited public transportation system in the congested city of Istanbul. Other foreign companies avoid even these familial kinds of perquisites. Reuters for example expects all employees to find their own way, however difficult to work.

The role for women in Turkey's economic life is changing, albeit slowly. The shift of all economies to services has positively impacted women in Turkey where opportunities in new service industries provide jobs without traditional entry barriers. Some foreign firms provide for the diffusion of attitudes conducive to female participation. IBM for example uses the same hiring process worldwide. One executive noted that the company "opened doors" for females in Turkey. Proctor and Gamble's operation in Turkey also follows similar employment practices globally. In this firm a number of female executives had reached middle and upper levels, mostly in marketing. Following human resource practices globally is made more interesting given the recent U.S. Supreme Court decision upholding U.S. multinational's ability to ignore U.S. employment law, particularly discrimination regulations.

Perhaps where culture and society most impacts labor and human resource issues is in the difficult to quantify arena of national temperament. A number of foreign managers commented on the existence of a common response to managerial direction that they perceived as predicated on the influence of the Ottoman and bureaucratic tradition. That is, a tradition that tends to avoid responsibility: "that's your job", an attitude typical of layers of bureaucracy, even when no bureaucracy exists, as in Citibank.
Aligned with these early influences is what was perceived as an overemphasis on status, a throwback to a hierarchical and class based society. Citibank, in attempting an expanded matrix form of management found Turkish managers overly concerned with their own and their peers position, title and place in the corporate structure to the detriment of the introduction of a team and project based managerial system. The cultural differences expressed in work behaviors led one Citibank administrator to comment

This is the most management intensive job I've ever had, even though I've had as many people before reporting to me. Although I'm a banker I would say I spend 85% of my time of staffing issues, either direct coaching of one kind or another, fixing people problems, rivalries, career issues, etc. It's a continuous management exercise.

Another cultural difference noted by a number of expatriate managers was the Turkish attraction to business itself, the deal making, the trading, that almost seems like part of a national pastime. When asked about whether an entrepreneurial spirit exists in Turkey the response was culturally interesting and pointed.

I don't know if it's truly entrepreneurial and how much of it is the traders, the merchants. They like to do business, do deals, buy and sell, this is the home of the Covered Bazaar, so there is a natural interest in trading... there is a very natural business inclination, people are very business conscious, they are very Asian. In Hong Kong people know who the top businessmen are in the community like kids in the states know who has the highest batting average. You can go to anybody anywhere in Turkey and you mention certain of the big names and who's who in business and they can tell you who the family members are, where they're from, how they got their money and what they're doing in what business they're in. So they are very conscious of business, very much, so there's predisposition in that respect.

Trading, dealing, bartering is seen on every street. But the effect is deeper. Work hours for a typical day outside of the foreign or foreign-imitative firm easily ran twelve or more hours albeit at a more relaxed pace. Work, business is an integrated part of one's life.
Political Traditions

One of the difficulties in any environment is the impact of public perception on the object and purpose of the business firm. Foreign investment is a political issue, as Turkey's President has singularly encouraged this new business enterprise as a public good for the nation. The President is not without his critics. General Dynamics for example has received much public and media attention, much of it critical of the TUSAS operation. As a media opportunity to attack both presidential policies and the defense company, the public has had a little chance to understand the complexities and advantages of the offset program. Often it is partially a problem of public education and perception attendant to the ability to acquire and not develop one's own technology. A General Dynamics official explained

President Ozal has over and over made the statement that Turkey has leap frogged into the 20th century with all this technology. And that's true, but when you leap frog you miss lots of steps, and you have no appreciation of what it took to get you there, and I think there's a lack of understanding and appreciation of what the people have done out there.

Leftist critics can easily take the facts and apply them to the old paradigm of business, where developing nation states took a secondary position to the power of the multinational found in other conceptualizations including the dependencia thesis. Although easier to resort to this old framework than to investigate a changing environment, a new analysis of the reality needs to be made. Offset programs, the ability to buy relatively inexpensive state-of-the-art technology, and global competitiveness have evened out considerably the bargaining power of corporations and nation-states. As a Digital executive explained

Before, there was lack of competition. The number of competitor companies in our market coming into Turkey has accelerated in the last few years, before there were only a few players. And therefore they were restricting their technology. As a sort of monopoly they were setting the rules of the game. Now that all of us are here, all the major players are here, there is a good competitive environment. In order to be able to survive in the world market you have to bring state of the art, the leading edge of technology-- pride, performance and so forth. Whatever the criteria to be successful, you have to present them in the Turkish market as well.
Legal Traditions

The regulatory environment is critical to Turkey's shift and blossoming in the global arena. Major changes in foreign investment laws spawned much of the foreign business activity throughout the 1980s. At a macro level, technology transfer would not have occurred on the level it did without regulatory support. The shifting sands of the legal environment impact human resources in a number of ways. Regulations were developed to encourage local participation, therefore the local hiring of Turkish workers and managers. Further, local representatives are clearly more capable of swimming through the regulatory climate. A Digital official commented "Turkey changes laws and regulations very often--import laws, tax laws, -- you have to be constantly in touch."

Privatization legislation is part of that complex, changing climate. The privatization movement is a critical variable in the success of Turkey's new capital markets and the attendant rush by numerous banks to capture the financial service needs of this new sector. Although the movement has had great popular appeal and is attractive to some foreign companies, the legal constraints are extensive. Further, the movement's lack of clear direction has been used to fraction the ruling political party and others. Turkish courts have overturned two large sales to foreign firms, disallowing the cement industry sale to French buyers and an airline catering company to Scandinavian Airline System, SAS.

The socio-cultural, legal and political climate is firmly imbedded in the fabric of the nation and helps provide the distinct characteristics that help define and differentiate any nation. The dimensions both promote and constrain business activity, but the emphasis on culture and on the regulatory environment in particular is one of declining importance relative to how earlier analysts described their impact. The global firm is indeed boundaryless and operates distinct from the indigenous distinctions of the nation-state.
CHAPTER VII

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Systems Framework for Cross-National Analysis

Over two decades ago John Dunlop queried whether industrial relations practices would be transferred from one nation to another producing convergence among systems.\(^1\) Dunlop's approach to the problem, and that of the few others who have addressed this issue,\(^2\) is based on a country by country or industry sector analysis of practices--a standard comparative approach. In 1970 the external environment could still be analyzed in this somewhat parochial manner where analysts looked at individual national industrial relations systems separate and distinct from any integrated whole. Today the globalization of the world economy including the integration of systems from industrialized and developing nations of all levels, radically changes the analysis of industrial relations systems.

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\(^1\) In the preface to the 1971 reprint of *Industrial Relations Systems* sets out basic questions that have yet to be answered and form the foundation for this work. Dunlop argues:

The theoretical analysis of industrial relations systems illuminate two groups of questions which are of increasing interest across countries: (1) To what extent is there a long run tendency for convergence among different national industrial relations systems? Are industrial relations becoming more similar, or less similar, between the United States and England or Western Europe, or between Eastern and Western countries? (2) Under what circumstances and to what extent, can industrial relations institutions or practices to be transferred from one country to another? What is the experience of multinational firms?


The departure from Dunlop's system in this research is an extension of his framework, a derivation he did not recognize in a world economy that reflected the primacy of individual corporations and nation-states. Taking the systems framework and extending it to a global application forces one to think in terms of an integrated, global system. This approach redresses the problems associated with the parochial, nonstandardizable approach that is perhaps why comparative industrial relations has had few adherents and little scholarly attention even though a number of the field's major players (Dunlop, Kerr, Harbison and Myers for example) sent the rallying call to comparative research three decades ago.

This study uses Dunlop's basic concepts in the creation of a new "Systems Framework for Cross-National Analysis" (Figure 1). The actors are the multinational enterprise, labor and host country governments. The environment is global, at the level of the nation-state and the firm, and the contexts are market, technology and power issues, just as described by Dunlop. The rules which govern the relationship amongst the actors in the international environment are dependant upon the interaction of the context factors. Competition exists at every level of the environment and is driven by the negotiated bargain amongst the actors over market, technology and power issues.

The Macroeconomic Environment

What is new here is the operating environment for the actors. Global competition has fostered a bargaining environment in which no one nation or company has a clear advantage. The outcome is a negotiated bargain in an environment of increasing parity rather than disparity.
In this increasingly decentralized environment corporations and governments arrive at a negotiated consensus.\textsuperscript{3} Established institutions in the world political economy are ineffective in either limiting or legitimizing the multinational organization: although issues of concern are global in scope, authority remains concentrated at the level of the nation-state. The inherent tension between the needs of the domestic economy, based on interests at the nation-state level, and the machinations of the global economy, based on market preferences, is played out forcefully through a supranational mechanism, the multinational corporation. The MNC has been forced to expand its span of interests to address the welfare needs of the public it affects, essentially performing both an economic and a political function in response to its diverse stakeholders.

Similarly, nation-states have been required to do the reverse. Governments have become increasingly accountable for the economic welfare of their constituencies. Political institutions have expanded their roles into the economic arena in response to their stakeholders. It is at the strategic decision-making level -- capital movement, technology resource use and the like-- that governments have the least impact and desire the most control. The dichotomy between national interests and organizational decision-making at a global level adds stress to a system of inherent conflict.

The regulation of MNCs is an accepted and even expected function of domestic governments of nation-states. At the domestic level, national elites may fail to check the power of the corporation but because the doctrine of national sovereignty can be invoked, nation-states can assert their collective national needs over private firms. In the world economy, constraints are less clear. It is the issue of national control, or lack of it, at the strategic level of the corporation that concerns host governmental elites. These concerns

\textsuperscript{3}The concepts here have been developed in Riad Ajami and Gail Arch, “Cooperating to Compete: Using Technology to Link the Multinational Corporation and the Country” \textit{International Journal of Technology Management} 5,2 (1990):165-177.
form part of a growing demand for an increased political or governmental role in the international operation of corporate giants.

Governments respond to certain constituencies (wider in democratic societies, more constrained in non-democratic) which may or may not believe that the interests of the MNC serve the interests of their public. If the corporation is perceived to be anomalous to the nation-state, and particularly is there is a perceived imbalance in economic power, then a government under a mandate from its constituency will attempt to redress the imbalance through state interaction in the economy, including protectionist regulation or other policy imperatives. The recent sentiment behind the rising protectionism, or neo-mercantilism, in the U.S. economy does not differ fundamentally from the economic nationalism of the Third World or from various industrial policy imperatives in various highly industrialized countries.

The Development Cycle and the Tri-level Economy

The outcome of this research on Turkey shows that globalization has fostered a different kind of environment for business in developing countries. (See Figure 2) Firms operate on one of three levels-- in a "traditional" sector, on the level of the "indigenous" firm, or on the level of the "foreign" firm. The three distinct sectors form a Tri-Level Economy, with employment implications for each sector. The sectors interact in a Development Cycle.

It is important to note that this cycle is dependant upon the ability of the actors to "choose" certain strategies. The idea of strategic choice applies to the Development Cycle, an idea far removed from the deterministic conceptualization of the omnipotent function of the multinational enterprise popular two decades ago. Actors in the system-- the MNE, labor or the host government-- clearly have choice in deciding what labor and human resource
DEVELOPMENT CYCLE
TRI-LEVEL ECONOMY

1 FF - Foreign Firms
- Joint Venture
- Branch
- Subsidiary
- Franchise
- Corporation

2 IF - Indigenous Firms
- New Entrants
- Existing Vendors/Suppliers for FF

Figure 2
strategies to pursue. The Tri-Level economy provides an environment suitable for any option or choice.

In the Development Cycle, the foreign firm (FF) enters the cycle after perceiving an opportunity in the technologically immature developing nation. The FF transfers technology most often in a packaged or bundled manner, which quickly provides a certain level of technological maturity for the nation. During the early stages of the transfer the FF often draws labor from the traditional sector, training workers on the new technology. The indigenous firm (IF) enters at a mature stage and draws from the experience of the FF. Labor is drawn from the FF back to the IF and diffuses technology and know-how into the indigenous sector. Experience, know-how, all types of technology transfer then allow the IF and the FF to enter a environment of intense competition.

Labor and human resource issues have completely converged for these two sectors that compete with each other in domestic and in international competition. At this stage the FF may opt to stay or quit depending upon the perceived advantages of the local firm to capture local business and/or service international accounts. The traditional sector remains separate and distinct from these two sectors and the labor and human resource issues remain completely divergent for this sector in comparison to the other two. The traditional sector may have no association with the other two or it may service the two providing a cost advantage for component parts, cheaper labor, state subsidized services and the like.

For example, Citibank entered the Turkish market at a low level of financial service technology and easily captured a significant share of Turkish commercial and investment banking activity. The bank transferred machine and managerial know-how and diffused labor and human resource practices to a significant cadre of workers drawn from traditional banking organizations. Citibank's labor and human resource practices are institutionalized in
two ways--through the informal "Citibank U" and the formal structure, Center for International Banking Studies. At a relatively high level of technological maturity, indigenous firms trained by the foreign firm--in this case Finansbank and Impexbank--enter the cycle and with experience provided by Citibank provide completely convergent labor and human resource policies for its workers who are drawn from the foreign firm and expect and demand the same practices in order to operate successfully during this period of intense competition.

An example from manufacturing provides a similar scenario for alternate sectors. In the case of General Dynamics, the firm entered at an extremely low level of technological maturity with the understanding it would provide technological and organizational learning with its transfer of technological and managerial expertise while it drew labor from the traditional sector. At technological maturity (yet to be reached in this case), the Turkish F-16s will be produced from completely locally produced parts, a feat that can only occur with the arrival of the indigenous firm which provides convergent labor and human resource practices. The indigenous firm which may be a transformation of an existing supplier or a completely new vendor draws labor and experience from the foreign firm. In this case, the scenario provides a slightly different twist, as General Dynamics is contracted to exit the Turkish market within a specified period of time. At that point it is expected that the Turkish aerospace industry will be free standing and able to compete in both domestic markets, import substitution, and global markets, export orientation, with General Dynamics.

The Basic Research Question: Convergence

This research ultimately explores the question of whether technology transfer provides convergence of firm level labor and human resource practices in highly divergent economies, the United States and Turkey. An analysis of the Development Cycle shows
that there is convergence between two levels of the economy-- the foreign firm and the indigenous firm. The third level remains separate and distinct in character and practice but operates to provide labor in the early stages of the cycle and "feedstock" or cheaper components for the goods or services in the later stages in a somewhat similar manner to the operation of subcontractors in Japan's dual economy. What is different here, specific to developing economies and certainly part of their comparative advantage, is the ability of the indigenous firm to enter the cycle at a mature stage, that is to acquire advanced technology, diffuse it quickly and be ready to compete with the foreign firm within an extremely protracted period of time, while the business or product cycle still operates to provide economic gain.

The Macroeconomic Policy Framework

The existing policy perspective for corporations and for nation-states was developed under an old paradigm. In this paradigm the analysis of multinationals and developing nations concentrate on the inappropriateness in relation to factor endowments of technology, its restricted availability and cost, and the contention that the policies and practices of multinationals create a perpetual state of technological dependance upon the corporate system. The notion of inappropriateness of production technology stems from 'technological fixity' or factor substitution inelasticity in the production process, which leads to relatively higher levels of capital intensity than is warranted given the factor endowment of less developed countries. This occurs because technology was initially designed to reflect existing factor availability and factor prices in advanced industrial societies.

Analysts in the old paradigm argue that technology is transferred without variations to fit societies faced with different factor endowments, prices and problems. Often MNCs transfer technology through subsidiaries or turnkey plants that do not ensure acceptable
assimilation into the sometimes passive developing nation. Research on the Middle East nearly a decade ago for example, showed technology may be more easily traded than absorbed; suffered from lack of professional, technical and managerial indigenous skills; and disproportionately benefited certain groups. Because R & D is often concentrated in metropolitan societies, the developing nation is relegated to dependency and inferiority by the lack of formal structures, laboratories and R&D arms, which create opportunities for innovation in host societies.

The issue of technological inappropriateness extends to both production and consumption technology. Critics argue that the MNCs provide non-essential goods and services incompatible with the income priorities of the populace in recipient developing countries. Other criticisms indirectly negate the technological inappropriateness argument. One is the notion that the transferred technology is standardized and non-advanced, thus relegate recipient nations to a position of technological inferiority within the international production system. The proponents of this argument cite the product cycle theory associated with the work of Vernon and Wells to suggest that only standardized and mature products in the later stages of their life-cycle are likely to be transferred abroad, long after their novelty and quasi monopolistic advantages have been dissipated. Vaistos argues that the product life-cycle model strengthens the monopolistic advantages of MNCs while weakening developing countries by containing them in a sequential state of perpetual dependency awaiting new mature products and new cycles. Although the product life-cycle

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5See Office of Technology Assessment, Technology Transfer to the Middle East (Washington: OTA, 1984).

6See Vernon, op cit.; and Wells, op cit.

is no longer representative of the realities of the global marketplace, its adherents insist that the cycle is a preferred global strategy for the MNC.

The power imbalance between the corporations and the nation-states relegates the developing countries to an inferior bargaining position. The structure of technology transfer can therefore be moulded to affect the bargaining position of either the MNC or the developing nation-state.

Technology is transferred either as a complete entity in an integrated or 'packaged' form (as in a turnkey or product-in-hand structure) or in an 'unpackaged' or fragmented parcel. Fragmentation can provide indigenous opportunities for learning and innovation. In the existing paradigm analysts argue the preference of MNCs for a total 'package' of direct investments limits the options of developing countries, open them to manipulations through transfer pricing devices, and can continue the process of development dependency.

The New Paradigm

This research shows that there is a new paradigm, a technology paradigm, for international activity. Multinationals are no longer "invisible empires" holding court at the bargaining table with the ineffectual developing nation-state. Global competition has bred a new way of looking at the world. The end of one paradigm signals the entrance of a new paradigm. There a revolution is underway and its conduit is technology.

A new paradigm requires a watershed, that is the event or events that herald a completely new way of organizing activity and purpose. Clearly a watershed event occurred in the development of microelectronics. Microelectronics provides the ability to process,

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store and analyze enormous quantities of information on increasingly smaller, faster and more powerful technologies. The digital age, now an extension of this watershed event, has brought an increasing variety of technologies to business and the consumer, creating new products and changing old markets. From the introduction of commercially applicable computers nearly thirty years ago, the microelectronics revolution has provided exponential growth and change in industries and national economies. Information technology is that primary product of the microelectronics revolution, the driver of economic change, a competitive resource as some analysts have argued.10

This technology is "footloose" or readily available to any buyer and knows no national boundaries. Newly industrializing economies can capture an important advantage in the footloose nature of technology. Because it is often readily available for purchase, nations and companies have little or no R&D costs, and because of the competitive nature of the products, are charged little or no rents for technology development. That basic research by corporations is not rent-seeking positively impacts developing economies' abilities to rapidly modernize. Critics argue that developing nations, among others, are the recipients of the obvious failure of legal regulations in the form of intellectual property rights to protect innovators, inventors and investors. However, developing economies in return provide vast possibilities in untapped consumer and commercial markets.

Technologies of the sort under discussion have an extremely protracted lifecycle, changing approximately every four to five years. Advances grow at an exponential rate while mature companies need constantly to innovate or purchase new generations, newcomers can enter at the forefront of the technology life cycle. Competition is therefore not based on technological capabilities, but on other issues.

The microelectronic revolution provides a new paradigm for international economic activity. Adam Smith's conceptualization of comparative advantage is of lesser importance in this paradigm. The paradigm is driven by new technology, now institutionalized in a dynamic process of change. In Turkey as this research shows international conglomerates compete with tiny indigenous Turkish firms in the same domestic and even export markets.

The new paradigm has clearly delineated change masters, the technology workers. These technology adherents represent Kuhn's conceptualization of the community or enduring group. In hardly more than one generation, these workers have converged to a clearly defined group with common language, function and roles who address a common but open ended series of issues. The university as an institution is often a catalyst for the creation of a community of adherents. The role of the universities in Turkey in providing technology workers is important, for it is these young indigenous managers together with production workers that diffuse common labor and human resource strategies throughout the first two layers of the economy.

The diffusion of technological know-how is a critical variable in the creation of the new paradigm. Labor force mobility is the primary driver of diffusion. The inability to protect proprietary knowledge is another related form of diffusion with positive impact on the industrialization process.

The Inverse Law of Complexity

A partial explanation of the development of a new paradigm is the dissemination of the technology throughout nations of various levels of development due to an inverse relationship between technological complexity and technology use. Miniaturization and digitalization, that is allowing increasingly complex and varied functions in increasingly smaller and faster technologies, have also caused the simplification of the technologies' use:
increasingly complex functions become increasingly easy to use. The outcome is that technology becomes readily available to wide or mass markets, the focus of newly industrializing economies. Before technology attracted mass markets, technology producers focused on market innovations and kept prices inelastic. Only when the inverse law shifted attention to mass markets did price and performance overwhelm innovation. Scale economies are realized in this new world.

Growth: The Open-ended Problem

Given its global visibility the MNC has naturally become a focus for observers of development in newly industrializing or developing countries. The commitment to development drives the motivation for growth in less developed societies. The United Nations embodied this commitment in its 1974 General Assembly Declaration on the Establishment of a New International Economic Order\textsuperscript{11} which urged the international community to promote the industrialization of developing countries and to foster the creation of a new international economic structure that would increase developing countries' share of world industrial production. Because financial aid as an instrument of development proved inadequate to foster growth, the focus shifted to trade and investments, the domain of the MNC, as tools of development. This shift has increased the significance of the MNC's relationship to the process of development.

Economic growth is the substance behind today's popular catch-all phrase, 'competitiveness'. Competitiveness is a function of product, market or national innovation. Whether the MNC or the developing nation can compete, innovate or grow, depends upon its access to and use of technology.

Technology then becomes the dependent term for the emergence of a new paradigm, using Kuhn's description of the importance of a community or enduring group of adherents (this wide range of technology analysts) and an open-ended set of problems to address.\textsuperscript{12} Technology is a determinist construct in that the technologies of private firms, the MNCs, have altered the world economic structure and spawned conflict amongst globe-spanning firms and boundary ridden nations.\textsuperscript{13} The systems interplay between the corporation and the nation-state, whose stakeholders assume a shared consensus over the crucial role of technology if not its outcome, is the 'technology paradigm'. Multinational power, an economic imperative, rests on the transnational mobility of technology or transfer mechanisms: technological know-how and diffusion; capital availability including R&D expenditures; market penetration and product/market innovation. The political imperatives of the developing nation limit, or make accountable, the power derived from technological penetration of the MNC. Limitations include the comparative advantage in resources including labor or raw materials that developing nations may enjoy; host government rules which tend to remain state-centric even when a country participates in the global economy; and the social or cultural impediments to modernization that may exist in developing economies. Further, developing countries intersect the corporate framework as governments have recently become net purchasers as well as brokers of technology in their quest for growth in their economies and competitiveness in their indigenous industries. Growth, then is the common and fundamental goal of both the MNC and the developing nation-state. The outcome of this new paradigm is a negotiated consensus which encourages a state of equilibrium for a system constantly in flux, of competing institutions in dynamic movement.

\textsuperscript{12}See Thomas Kuhn, op cit.

\textsuperscript{13}See the discussion in Bruce Guile and Harvey Brooks, Technology and Global Industry: Companies and Nations in the World Economy (Washington: National Academy Press, 1987).
A Macroeconomic Policy Perspective

To develop a viable macroeconomic policy, corporations and nation-states need to be looked at as part of an integrated system within the tri-level economy. The increasing parity of power between firms and governments presents a bargaining situation that can be described as a negotiated consensus-- that is, a sort of pareto optima where the interests of both parties can be met in a cooperative manner. Foreign firms provide learning opportunities for employment issues, indigenous firms assure local interests are met without resort to extremist tendencies of economic nationalism, and the traditional sector provides an environment that remains culturally centric and yet economically integral to the other two sectors. Policy should encourage the cooperative integration of the three sectors.

Future Research

This research suggests a number of areas for further and ongoing research. The six survey dimensions should be looked at individually and in depth with particular attention to the interaction among these obviously related dimensions. Although it appears clear from this study that economic, technology and market conditions drive the choice of labor and human resource strategies-- sociocultural, legal and political traditions are important mediating variables whose influence is not clearly understood.

The Development Cycle as developed in this research should be further elaborated. Information on the traditional sector, including empirical analyses which were outside this research, is seriously needed, particularly in relation to this third level's interaction with the other two levels, the indigenous and foreign firm levels. It cannot be discerned for example from this study whether and exactly how the IF and FF levels impact the traditional sector and whether this sector experiences any "trickle-down" effects or is moving in the direction
of convergence or not. An in depth study of the operation of the Tri-Level Economy is needed to elucidate the impact of the three sectors on labor and human resource strategies. These areas for future research should be further researched in the Turkish environment.

Once a definitive picture of the tri-level economy is developed the research should be extended to other developing nations. Can this model be standardized and applied to other economies, or is it specific to either the Turkish economy or middle income developing nations, for example? Further investigation needs to assess whether there is something specific to the Turkish experience or whether this is a model that can appropriately help explain operation in a wide range of economies. The subject offers rich and fertile ground for future analysis.
APPENDIX A

FIRMS INVOLVED IN THE SURVEY AND THE FIELD STUDY INSTRUMENT
LIST OF CORPORATIONS AND INTERVIEWEES

Arthur Anderson, Istanbul
  Saban Erdikler, Managing Partner

Center for International Banking Studies
  Nafiz Girginok, Citibank, Vice President

Citibank, Istanbul
  Luis A. Viada, Vice President

Digital Equipment Computer A.S., Istanbul
  I. Semih Arslanoglu, Subsidiary Manager
  Uluc Ozguven and Mehmet Demirel, Marketing Executives

Eczacibasi Holding Company, Istanbul
  Bulent Eczacibasi, Managing Director

Finansbank, Istanbul
  Barlas Balabaner, Assistant General Manager

General Dynamics, Ankara
  William Archibald, Manager, Administration and Finance

IBM, Istanbul
  Huseyin Kiziltay, Marketing Manager

Impexbank, Import-Export Bank of Turkey, Istanbul
  Nukhet Kucukkoca, Senior Vice President, Head of International Department and
  Halil S. Ergur, Assistant General Manager

Midland Bank, Istanbul
  Christopher Ellis, Managing Director and General Manager

Proctor and Gamble (Mintax Deterjan San. A.S.)
  Ahmet H. Gokcesu, Employee Relations Manager

Reuters Teknik Servisler Ltd. Sti., Istanbul
  Jeremy Harris, Manager and John Owen-Davies, Chief Correspondent and Gokce
  Murat Ozaydin, Assistant Technical Manager

Wendy’s Hamburgers (Aytemiz Hamburger ve Restoran Isletmeleri A.S.), Istanbul

Wyeth Laboratuvarlari A.S., Istanbul
  William Monroe, Chairman and General Manager

Yapi ve Kredi Bankasi, Istanbul
  Ismail Yalcinkaya, Executive Vice President, Individual Banking Systems and
  Operations
OTHER INTERVIEWEE:
Scott Bozak, Commercial Attache, United States Consulate

FIRMS BY CATEGORY:

Manufacturing
   Eczacibasi Holding
   General Dynamics
   Proctor and Gamble

Chemicals
   Eczacibasi Holding
   Wyeth Labs

Computers and Information Technology
   Digital
   IBM
   Reuters

Banking and Banking Services
   Center for International Banking Studies
   Citibank
   Finansbank
   Impexbank
   Midland Bank
   Yapi Kredi Bank

Financial Services and Consulting
   Arthur Anderson

Food Service
   Wendy's Hamburgers
Field Study Instrument

Structured, Open-ended Interview Format

- How is your corporation structured? Ownership? Organizational structure/form?
- Please describe your operations.
- Are there workers here represented by a trade union? Which Union? How would you describe your relations?
- What is the level of technology being used here?
- What is the form of technology transfer? Does it come bundled, fragmented? Is it of the latest available? Is it adjusted for use in a developing nation? Does the issue of “appropriate” technology enter your technology decisions?
- What technologies might be developed indigenously and what is transferred?
- Who makes technology decisions? Here, headquarters? Decision dependant upon industry sector?
- Could you tell me about the technological infrastructure here in Turkey? Are there training and development programs, educational programs, government sponsored R&D? Manpower policies that encourage/constrain? Public Sector programs? Private sector programs?
- What skill level is necessary for you business?
- Do you provide training? How else is training accomplished?
- Does your firm’s technology needs provide employment or attract talented people that might otherwise leave the country for work opportunities? Is there a brain drain here?
- What motivates talented employees to stay? Money? Experience? Learning curve?
- Does technology used in this company impact your management style? Do you manage high tech firm differently? How would you describe your management style (participative, matrix, hierarchical, etc.)
- How do you select your managers?
- Please address the issue of proprietary knowledge, protection of intellectual property right. Is this a concern?
- In your opinion does technology provide for similar work systems - industrial relations and human resource practices, management styles, organization design and structure?
APPENDIX B

SURVEY INSTRUMENT-ENGLISH VERSION AND TURKISH VERSION
This study is concerned with human resource practices in your company or government agency. Human resource practices include company or government policy on the way work is organized, performed, evaluated, and compensated—simply put, those policies at work concerning people. Please circle the number that most closely matches your attitude or perception. Thank you for your cooperation!
Work practices are different in foreign firms than Turkish firms, specifically:
- hours of work.
- scheduling of work.
- how I'm paid.
- benefits.
- mobility within the company (promotions, etc.).
- discipline.
- vacations and holidays.
- job design and responsibilities.

1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5

If a foreign firm in a particular industry has a new idea or starts a new employment practice, it won't be long before the Turkish firms in the same industry do the same thing.

1 2 3 4 5

Foreign investment is good:
- for Turkish society as a whole.
- for Turkish business people.

1 2 3 4 5
1 2 3 4 5

Turkey seems to be doing a good job at attracting foreign investment.

1 2 3 4 5

Labor disputes are better decided by a government agency, like an Arbitration Board, than by strikes or industrial conflict.

1 2 3 4 5

Employees prefer to work for private industry, rather than state-run firms.

1 2 3 4 5

State-run firms offer the same opportunities as private industry for employees.

1 2 3 4 5

Foreign investment provides new ideas in:
- education and training.
- compensation.
- management opportunities.

1 2 3 4 5
1 2 3 4 5
1 2 3 4 5

Employees are paid more at foreign companies.

1 2 3 4 5

Employees have better working conditions at foreign companies.

1 2 3 4 5

Unions have significant effect on:
- employment practices.
- society as a whole.

1 2 3 4 5
1 2 3 4 5
I have some control over or choice in what I do at my job and how I perform my job.

Employees in the artisan or small manufacturing sector do not benefit from improved working conditions and higher wages of the large-scale manufacturers.

If there were enough jobs, Turkish employees would prefer to work for Turkish firms.

Turkish companies are competitive because of the lower labor costs here.

The large multinationals provide new opportunities for small businesses here to supply locally the parts and materials the multinationals need locally.

Employees will start their own businesses if they do not believe they are treated fairly by the big companies.

Turkey could use more foreign technology.

Technology transfer improves the working conditions for employees in Turkey.

If an employee has a good idea, managers in this company will readily listen to it.

The machines or technology employees use in this company are easy to train on or understand.

Foreign companies provide new jobs for Turkish employees who might otherwise leave Turkey for employment elsewhere.

The type of industry I work in determines how my day is planned and how my work is organized.

Employees get a better deal at companies making products:
  for export.
  for the home market.
  for producer-goods sector.
  for consumer-goods sector.
  no difference.

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5
In general, I believe that employees here would prefer to work for:
- Turkish companies.
- foreign multinationals.

<table>
<thead>
<tr>
<th>agree</th>
<th>neutral</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

My family is more important than my work.

| 1 2 3 4 5 |

Technology transfer from the West may drive up the wages of employees.

| 1 2 3 4 5 |

Technology transfer is best used to substitute Turkish products for imports.

| 1 2 3 4 5 |

Technology transfer is best used to increase the export capabilities of Turkish firms.

| 1 2 3 4 5 |

If I leave this company, I will be able to find another job of equal or greater value.

| 1 2 3 4 5 |

I prefer to work with Turkish managers.

| 1 2 3 4 5 |

I prefer to manage Turkish workers.

| 1 2 3 4 5 |

I prefer to work for foreign managers.

| 1 2 3 4 5 |

I prefer to manage foreign workers.

| 1 2 3 4 5 |

If employees have a problem at work, they will:
- tell their union.
- keep quiet.
- leave and find another job.

| 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 |

I am asked my opinion on the work that I do.

| 1 2 3 4 5 |

Decisions here are made jointly between the workers and managers.

| 1 2 3 4 5 |

My company offers me the opportunity to learn new skills.

| 1 2 3 4 5 |

The pace of the work here is considered:
- slow.
- just right.
- fast.

| 1 2 3 4 5 | 1 2 3 4 5 | 1 2 3 4 5 |

This company seems very concerned with productivity.

| 1 2 3 4 5 |

I would not want to leave this firm for another company.

| 1 2 3 4 5 |
Demographic Information

Name of company you work for______________________________
Your job title__________________________________________
Company is a manufacturing firm____ service firm____ other____
Company is owned by Turkish owners____ foreign owners____ don't know____
Your position in the company:
  upper management____
  middle management____
  lower management/first-line supervisor____
  regular employee____
Is the company organized by a trade union? Yes____ No____
Your age group
  <20____ 21-30____ 31-40____ 41-50____ 60+____
Male____ Female____
Education
  no high school____ high school____ university____ graduate____
Foreign schooling?____ What country?__________________________
I speak the following foreign languages___________________________
Have you worked for a foreign firm before?
  Yes, in Turkey____ Yes, outside of Turkey____ No____
I am paid
  a monthly salary____ an hourly wage____ on a piece-rate basis____
Average hours I work
  per day_______
  per week_______
Overtime here is
  voluntary____
  mandatory____
  there is no overtime____
Number of employees in the company
  <10____
  11-25____
  26-50____
  51-100____
  101-500____
  501-2000____
  2000+____
Wage rate__________________________

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Bir Çalışma: Pratikte Endüstriyel ilişkiler

Bu çalışma, çalışmakta olduğunuz şirket ya da kamu kuruluşundaki insan kaynakları, kullanımını incelemektedir. İnsan kaynakları kullanım, emeğin organizasyonu, performansı, değerlendirilmesi ve ödüllendirilmesine ilişkin şirket ve hükümet politikalarını içermektedir. Daha öz bir deyişle çalışanları ilgilendiren politikaların iş yerindeki etkisini incelemektedir. Lütfen sıralanan seçenekler arasında, kendi durumunuzda en uygun seçeneği bir yuvarlak içine alınız. Değerli iş birliğiniz için sonsuz teşekkürler.
İşyeri uygulamaları, Türk işletmelerinde yabancı işletmelerden daha farklıdır. Özellikle farklı olan uygulamalar:
- çalışma saatlerinin uzunluğu.
- çalışma saatlerinin düzenlenmesi.
- Nasıl ve ne kadar para ödeniği.
- Ücret dışı katkılar (araba, tatil, ev tahsisi v.s.)
- Şirket içinde hareketlilik (terfi v.s.)
- Ücretli tatiller
- İş tasarımı ve sorumluluklar

Herhangi bir endüstri kolunda yabancı bir şirket çalışanları ilgilendiren yeni bir düzenlemeye giderse ya da yeni bir uygulama getirirse, aynı endüstri kolunda çok geçmenden Türk şirketlerinde aynı uygulamayı adaptede ederler.

Yabancı (yatırımlar) sermaye iyidir
- Bütün olarak toplum için
- Türk iş çevreleri için

Türkiye yabancı sermaye çekmek konusunda yeterli çabayı göstermektedir.

İşçi-işveren anlaşmazlıklar en iyi şekilde grev yerine yüksek hakemler kurulu gibi bir hükümet organı zarağlı ile çözülebilir.

İşçilerr özel kuruluşlarda çalışmaya, kamu kuruluşlarında çalışmaya tercih ederler.

Kamu kuruluşları, çalışanlarına özel kuruluşların sağladığı olanakların aynı- sinin sağlarlar.

Yabancı yatırımlar şu konularda yenilikler getirirler
- iş içi eğitim
- ücret ve maaş ödemeleri (kardan pay, şirket hissesi v.s.)
- yönetsel teknikler

İşçiler yabancı kuruluşlarda daha fazla ücret alırlar.

Yabancı kuruluşlarda çalışanlar daha iyi çalışma koşullarına sahiptirler.
İşçi sendikaları işçi-şürefen ilişkilerini önemli ölçüde etkilemektedir.

İşçi sendikaları toplum üzerinde bütün olarak önemli bir etkiye sahiptir.
İşimi nasıl ve ne şekilde yapacağını, işim uygun şekilde yaptığım süreci benim kontrolümdedir. Bir başka devişle yapacağım işi ve işi nasıl yapacağımı seçmek konusunda özgürm. Küçük zanaatkar ve küçük sanayide çalışanlar büyük ölçekli işletmelerde sağlanan daha iyi çalışma şartları ve yüksek ücretlerden olumlu şekilde ekilenmezler.

Yeterince sayıda iş olsaydı Türk işçileri Türk şirketlerinde çalışmayı tercih ederlerdi.

Türk şirketleri, düşük işçi maliyetleri nedeniyle rekabet avantajına sahiptirler.

Büyük çok-uluslu şirketler, ihtiyaç duydukları malzeme ve parçaları yerel olarak temin ederek malzeme ve parça sağlayan yerel küçük işletmeleri yeni olanaklar sağlarlar.

Çalışanlar büyük işletmelerin kendilerine adil davranmadığını düşündüğü zaman kendi işlerini kurmak eğilimindedirler.

Türkiye daha fazla yabancı teknoloji kullanabilir.

Eğer bir çalışan yapığu işe ilişkin yeni ve iyi bir fikire sahipse, bu kuruluşun yöneticileri onu mutlaka dinlerler.

Teknoloji transferi Türkiye'de çalışanların, çalışma koşullarını düzeltmektedir.

Bu kuruluşta çalışanlarca kullanılan makineler ve teknoloji kolayca öğrenilebilir ve anlaşılabılır.

Yabancı kuruluşlar aksı halde Türkiye'yi terkedip başka ülkelerde iş arayacaklara yeni iş sahaları yaratırlar.

Çalıştıklarım endüstri kolu, günlük planımı ve işimin organizasyonunu belirler.

Çalışanlar şu kuruluşlarda daha iyi şartlara sahiptirler:
- ihracatçı
- yerli pazara mal sağlayan
- imalat mamulleri sektörü
- fark yok

Batıdan teknoloji transferi çalışanların (işçilerin) ücretlerini yükselebilir.
Genelde şuna inanıyorum ki işçiler
A. Türk işletmelerinde.
B. Çok-uluslu yabancı işletmelerde çalışmaya tercih edeceklerdir.

Ailem işimden daha önemlidir.
Teknoloji transferi en uygun şekilde, Türk ürünlerinin ithalatı ikame etmesinde kullanılır.

Teknoloji transferi en uygun şekilde, Türk işletmelerinin ihracat kapasitesini arıtmakta kullanılır.

 Eğer işini burakırsam aynı ya da daha iyi şartlarda bir iş bulabilirim.
Türk yöneticiler ile çalışmaya tercih ederim.
Türk işçilere yönetici olmayı tercih ederim.
Yabancı yöneticiler ile çalışmaya tercih ederim.
Yabancı işçilere yönetici olmayı tercih ederim.

 Eğer çalışanlarım iş ile ilgili bir sorunları varsa
- sendikaya anlatırlar
- sessiz kalmırlar
- ayrıntır ve yeni bir iş bulurlar

Yaptığım işe ilgili düşüncelerim bana sorular.

Burreda kararlar yönetici ve işçilere işbirliği ile verilir.

Çalışmakta olduğum işletme bana işime ait yeni teknikler öğrenme olanağı sağlar.

Burada iş tempozu
- yavaş
- normal
- hızlı

Verimlilik bu işletmede üzerinde durulun bir kondur.

Bu işletmeyi bir başka işletmeye geçmek için bırakmak istemiyorum.
Demografik Bilgiler

Çalıştığınız işletmenin adı: ___________________________ 

Ünvanınız: ____________________________________________

Çalıştığınız işletmeimalata: __ hizmet sektöründe __ diğer __ 

İşlette sahipleri Türk __ Yabancı __ Bilmiyorum __

işletmedeki pozisyonunuz:

- üst kademe yönetici (Genel müdür, genel müdür yardımcısı) __
- orta kademe yönetici (bölüm yönetmeni müdür v.s.) __
- alt kademe yönetici (üzman, usta, v.s.) __
- normal çalışan __

İşletmede eşgütü bir sendika var mı? Evet __ Hayır __

Eğer var ise sendika adı: ____________________________________________

Yaş grubunuz:

- <20 __ 21-30 __ 31-40 X 41-50 __ 60+ __

Erkek __ Kadın __

Eğitim:

- orta __ lise __ üniversite __ Yüksek Lisans (Master, Ph.D. v.s.) __

Yabancı okullara devam ettiniz mi: __ Hangi ülkede? __

Bilişim yabancı diller: ____________________________________________

Daha önce yabancı bir işletme çalıştım mı?

- Evet, Türkiye de __  Evet, Yurtdışında __ Hayır __

Ücretim:

- aylık maaş şeçinde __ saat ücreti bazında __ parçabası __

Ortalama günlük çalışma saatı toplam: __

Ortalama haftalık çalışma saatı toplam: __

Bu işletme fazla mesai

- gönüllüdür __
- zorunludur __
- fazla mesai yoktur __

İşletmede çalışan sayısı:

- <10 __
- 11-25 __
- 26-50 __
- 51-100 __
- 101-500 __
- 501-2000 __
- 2000+ __

Saat ücreti: ____________________________

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APPENDIX C

TURKISH ECONOMIC INDICATORS
# TURKEY

## A. Shares of Gross Domestic Product (from current price data)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross Domestic Product:</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Net Incomes Taxes:</strong></td>
<td>4.7</td>
<td>4.7</td>
<td>5.4</td>
<td>3.7</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Agriculture:</strong></td>
<td>10.1</td>
<td>10.1</td>
<td>5.3</td>
<td>8.2</td>
<td>9.0</td>
</tr>
<tr>
<td><strong>Industry:</strong></td>
<td>21.4</td>
<td>14.4</td>
<td>15.9</td>
<td>15.3</td>
<td>15.5</td>
</tr>
<tr>
<td><strong>(of which Manufacturing):</strong></td>
<td>32.6</td>
<td>33.0</td>
<td>32.3</td>
<td>32.7</td>
<td>23.7</td>
</tr>
<tr>
<td><strong>Services:</strong></td>
<td>41.8</td>
<td>42.1</td>
<td>43.5</td>
<td>43.5</td>
<td>43.5</td>
</tr>
<tr>
<td><strong>Resource Balance:</strong></td>
<td>-1.4</td>
<td>-2.2</td>
<td>-7.8</td>
<td>-2.1</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Exports of GNPS:</strong></td>
<td>6.3</td>
<td>4.8</td>
<td>4.4</td>
<td>20.4</td>
<td>27.8</td>
</tr>
<tr>
<td><strong>Imports of GNPS:</strong></td>
<td>7.7</td>
<td>11.0</td>
<td>14.2</td>
<td>22.4</td>
<td>22.0</td>
</tr>
<tr>
<td><strong>Total Expenditure:</strong></td>
<td>101.4</td>
<td>102.2</td>
<td>107.8</td>
<td>102.1</td>
<td>97.9</td>
</tr>
<tr>
<td><strong>Total Consumption:</strong></td>
<td>86.5</td>
<td>83.2</td>
<td>85.9</td>
<td>73.4</td>
<td>79.4</td>
</tr>
<tr>
<td><strong>Private Consumption:</strong></td>
<td>74.2</td>
<td>70.7</td>
<td>73.4</td>
<td>67.1</td>
<td>64.6</td>
</tr>
<tr>
<td><strong>Government Consumption:</strong></td>
<td>12.3</td>
<td>12.3</td>
<td>12.6</td>
<td>9.1</td>
<td>8.7</td>
</tr>
<tr>
<td><strong>Gross Domestic Investment:</strong></td>
<td>14.9</td>
<td>19.0</td>
<td>21.9</td>
<td>25.4</td>
<td>23.9</td>
</tr>
<tr>
<td><strong>Fixed Investment:</strong></td>
<td>14.5</td>
<td>20.1</td>
<td>20.0</td>
<td>24.2</td>
<td>24.6</td>
</tr>
<tr>
<td><strong>Changes in Stocks:</strong></td>
<td>0.4</td>
<td>-1.0</td>
<td>1.9</td>
<td>1.3</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Gross Domestic Saving:</strong></td>
<td>13.3</td>
<td>14.8</td>
<td>14.1</td>
<td>23.4</td>
<td>26.0</td>
</tr>
<tr>
<td><strong>Net Factor Import:</strong></td>
<td>0.6</td>
<td>-0.6</td>
<td>-2.0</td>
<td>-2.9</td>
<td>-3.0</td>
</tr>
<tr>
<td><strong>Net Current Transfers:</strong></td>
<td>0.0</td>
<td>5.9</td>
<td>3.8</td>
<td>3.0</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Gross National Saving:</strong></td>
<td>13.9</td>
<td>22.1</td>
<td>15.9</td>
<td>23.5</td>
<td>23.5</td>
</tr>
</tbody>
</table>

*In billions of L.C.L. (as constant 1977 prices)*

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>17,124</td>
<td>29,077</td>
<td>38,559</td>
<td>58,299</td>
<td>60,468</td>
</tr>
<tr>
<td>27,099</td>
<td>60,468</td>
<td>61,299</td>
<td>60,468</td>
<td>61,299</td>
</tr>
<tr>
<td>20,348</td>
<td>20,348</td>
<td>20,348</td>
<td>20,348</td>
<td>20,348</td>
</tr>
<tr>
<td>11,187</td>
<td>23,866</td>
<td>38,760</td>
<td>56,580</td>
<td>58,423</td>
</tr>
<tr>
<td>32,913</td>
<td>30,513</td>
<td>30,589</td>
<td>34,580</td>
<td>58,850</td>
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</table>

## B. Growth Rates (% per annum)

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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP:</strong></td>
<td>6.6</td>
<td>4.7</td>
<td>5.6</td>
<td>3.7</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>GNP:</strong></td>
<td>6.6</td>
<td>6.7</td>
<td>6.7</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>Interest Rates:</strong></td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td><strong>Inflation Rate:</strong></td>
<td>8.2</td>
<td>8.2</td>
<td>8.2</td>
<td>8.2</td>
<td>8.2</td>
</tr>
</tbody>
</table>

## C. Price Indexes

*1965 = 100*

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<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Consumer Prices (IFS 64):</td>
<td>10.6</td>
<td>53.5</td>
<td>72.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Wholesale Prices (IFS 63):</td>
<td>12.3</td>
<td>58.3</td>
<td>75.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Impact GDP Deflator:</td>
<td>10.9</td>
<td>55.0</td>
<td>72.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Implicit Expenditure Defl:</td>
<td>11.1</td>
<td>54.3</td>
<td>72.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

## D. Other Indicators

### Growth Rates (% p.a.):


<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Population:</strong></td>
<td>2.6</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Labor Force:</strong></td>
<td>9.8</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Gross National Income:</strong></td>
<td>3.9</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Private Consumption:</strong></td>
<td>3.8</td>
<td>1.3</td>
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</tbody>
</table>

### Import Elasticity:

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Import Elasticity:</td>
<td>1.6</td>
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</table>

### Marginal Savings Rates:

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Gross National Saving:</td>
<td>35.2</td>
</tr>
<tr>
<td>Gross Domestic Saving:</td>
<td>32.2</td>
</tr>
</tbody>
</table>

### I/C OR (period averages):

<table>
<thead>
<tr>
<th>1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.3</td>
</tr>
</tbody>
</table>

### Share of Total Labor Force:

<table>
<thead>
<tr>
<th>1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>74.3</td>
</tr>
</tbody>
</table>

### Source:

<table>
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<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>E. Merchandise Exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Value at Current Prices (millions US$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agric. &amp; Hunt</td>
<td>54.4</td>
<td>91.7</td>
<td>106.9</td>
<td>100.0</td>
<td>122.0</td>
<td>1.541</td>
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<tr>
<td>Forests</td>
<td>70.4</td>
<td>100.0</td>
<td>113.7</td>
<td>100.0</td>
<td>89.9</td>
<td>191.0</td>
</tr>
<tr>
<td>Livestock &amp; Fishery</td>
<td>30.2</td>
<td>70.4</td>
<td>93.8</td>
<td>100.0</td>
<td>67.0</td>
<td>131.3</td>
</tr>
<tr>
<td>Manufactures</td>
<td>11.1</td>
<td>76.6</td>
<td>70.6</td>
<td>100.0</td>
<td>101.6</td>
<td>1.041</td>
</tr>
<tr>
<td>Total Exports FOB</td>
<td>84.8</td>
<td>200.2</td>
<td>279.3</td>
<td>100.0</td>
<td>107.2</td>
<td>2.910</td>
</tr>
<tr>
<td>F. Merchandise Imports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture &amp; Hunt</td>
<td>1.2</td>
<td>48.6</td>
<td>56.1</td>
<td>100.0</td>
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<td>Forests</td>
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<td>81.3</td>
<td>91.2</td>
<td>100.0</td>
<td>111.6</td>
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<td>Other Consumer Goods</td>
<td>144.1</td>
<td>119.1</td>
<td>165.2</td>
<td>123.4</td>
<td>179.1</td>
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<tr>
<td>Other Intermediate Goods</td>
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<td>100.0</td>
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<tr>
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<td>44.8</td>
<td>71.4</td>
<td>128.2</td>
<td>100.0</td>
<td>102.3</td>
<td>7.909</td>
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<tr>
<td>G. Merchandise Terms of Trade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merchandise Export Price Index</td>
<td>1.190</td>
<td>98.7</td>
<td>94.6</td>
<td>100.0</td>
<td>106.7</td>
<td>104.6</td>
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<tr>
<td>Merchandise Import Price Index</td>
<td>124.3</td>
<td>112.2</td>
<td>94.6</td>
<td>100.0</td>
<td>91.9</td>
<td>190.4</td>
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<td>95.5</td>
<td>87.9</td>
<td>99.9</td>
<td>100.0</td>
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<td>104.2</td>
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<tr>
<td>H. Balance of Payments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US$ millions (at current prices)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Merchandise (FOB)</td>
<td>2.910</td>
<td>8.255</td>
<td>7.583</td>
<td>10.322</td>
<td>11.846</td>
<td>11.331</td>
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<td>Non-Fuel Services</td>
<td>710.0</td>
<td>2.589</td>
<td>2.696</td>
<td>3.520</td>
<td>3.197</td>
<td>3.959</td>
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<tr>
<td>Merchandise (FOB)</td>
<td>7.513</td>
<td>11.220</td>
<td>10.544</td>
<td>11.571</td>
<td>13.646</td>
<td>15.972</td>
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<tr>
<td>Non-Fuel Services</td>
<td>569.0</td>
<td>1.332</td>
<td>1.349</td>
<td>1.995</td>
<td>1.925</td>
<td>2.567</td>
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<td>Remittance Balance</td>
<td>-460.2</td>
<td>-1.490</td>
<td>-1.734</td>
<td>-1.404</td>
<td>1.472</td>
<td>-371.0</td>
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<td>Net Factor Income (interest per D.L.)</td>
<td>-1.118</td>
<td>-1.338</td>
<td>-1.743</td>
<td>-1.996</td>
<td>-2.139</td>
<td>-2.219</td>
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<tr>
<td>Net Current Transfers</td>
<td>506.9</td>
<td>1.318</td>
<td>1.495</td>
<td>1.877</td>
<td>2.436</td>
<td>2.231</td>
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<td>Net Reserve Transfers</td>
<td>2.152</td>
<td>1.762</td>
<td>1.703</td>
<td>2.066</td>
<td>1.806</td>
<td>3.125</td>
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<tr>
<td>(workers' remittances)</td>
<td>2.071</td>
<td>1.714</td>
<td>1.634</td>
<td>2.021</td>
<td>1.755</td>
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<td>Credit A/C Balance before Off. Trans.</td>
<td>-3.472</td>
<td>-2.266</td>
<td>-1.774</td>
<td>-1.324</td>
<td>-1.139</td>
<td>543.0</td>
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<td>Net Official Transfers</td>
<td>18.0</td>
<td>2.236</td>
<td>2.264</td>
<td>3.52</td>
<td>3.44</td>
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<td>Credit A/C Balance after Off. Trans.</td>
<td>-3.609</td>
<td>-2.030</td>
<td>-1.528</td>
<td>-0.952</td>
<td>-0.693</td>
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### 1. Central Government Budget

<table>
<thead>
<tr>
<th>Year</th>
<th>Share of GDP (%)</th>
<th>Growth Rate</th>
<th>(1985)</th>
<th>(1986)</th>
<th>(1987)</th>
<th>(1988)</th>
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<tr>
<td>Revenue</td>
<td>21.1</td>
<td>16.7</td>
<td>18.2</td>
<td>17.9</td>
<td>17.4</td>
<td>17.9</td>
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<tr>
<td>Tax Revenue</td>
<td>17.1</td>
<td>13.1</td>
<td>15.2</td>
<td>15.5</td>
<td>14.1</td>
<td>15.0</td>
</tr>
<tr>
<td>Non-Tax Revenue</td>
<td>3.8</td>
<td>2.6</td>
<td>3.0</td>
<td>3.4</td>
<td>3.3</td>
<td>2.9</td>
</tr>
<tr>
<td>Expenditure</td>
<td>24.9</td>
<td>19.6</td>
<td>21.8</td>
<td>22.4</td>
<td>21.3</td>
<td>21.7</td>
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<td>Current</td>
<td>11.4</td>
<td>7.6</td>
<td>7.8</td>
<td>7.8</td>
<td>7.4</td>
<td>9.2</td>
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<td>5.1</td>
<td>4.5</td>
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<tr>
<td>Transfers</td>
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<td>5.5</td>
<td>5.3</td>
<td>6.2</td>
<td>5.4</td>
<td>4.7</td>
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<td>-2.9</td>
<td>-3.4</td>
<td>-3.9</td>
<td>-3.8</td>
<td>-3.9</td>
</tr>
<tr>
<td>Cash Balance</td>
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<td>-3.3</td>
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<td>-3.9</td>
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<td>3.3</td>
<td>4.1</td>
<td>4.4</td>
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<td>3.9</td>
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<tr>
<td>Foreign Borrowing (net)</td>
<td>0.4</td>
<td>-4.8</td>
<td>0.0</td>
<td>-0.5</td>
<td>0.2</td>
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<td>Domestic Borrowing (net)</td>
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<td>3.6</td>
<td>3.4</td>
<td>3.7</td>
<td>3.5</td>
<td>4.2</td>
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<tr>
<td>Other</td>
<td>0.0</td>
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<td>0.5</td>
<td>1.1</td>
<td>0.3</td>
<td>-0.1</td>
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</table>

### J. External Capital Flows, Debt and Debt Service Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Public &amp; Privately Guar. LT</th>
<th>Official Credits</th>
<th>Multilateral</th>
<th>of which IBRD</th>
<th>of which IDA</th>
<th>Bilateral</th>
<th>Private Credits</th>
<th>Suppliers</th>
<th>Financial Market 2/</th>
<th>Private Non-guaranteed</th>
<th>Total LT</th>
<th>IMF Credit</th>
<th>Net Short-Term Capital 1/</th>
<th>Total excl. IMF &amp; Net ST</th>
<th>Bank and IDA Ratios</th>
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</thead>
<tbody>
<tr>
<td>1980</td>
<td>1.825</td>
<td>1.636</td>
<td>0.156</td>
<td>0.656</td>
<td>...</td>
<td>...</td>
<td>0.071</td>
<td>0.679</td>
<td>0.157</td>
<td>0.459</td>
<td>0.006</td>
<td>0.922</td>
<td>0.102</td>
<td>1.064</td>
<td>1.720</td>
</tr>
<tr>
<td>1985</td>
<td>1.625</td>
<td>1.636</td>
<td>0.156</td>
<td>0.656</td>
<td>...</td>
<td>...</td>
<td>0.071</td>
<td>0.679</td>
<td>0.157</td>
<td>0.459</td>
<td>0.006</td>
<td>0.922</td>
<td>0.102</td>
<td>1.064</td>
<td>1.720</td>
</tr>
<tr>
<td>1986</td>
<td>1.625</td>
<td>1.636</td>
<td>0.156</td>
<td>0.656</td>
<td>...</td>
<td>...</td>
<td>0.071</td>
<td>0.679</td>
<td>0.157</td>
<td>0.459</td>
<td>0.006</td>
<td>0.922</td>
<td>0.102</td>
<td>1.064</td>
<td>1.720</td>
</tr>
<tr>
<td>1987</td>
<td>1.625</td>
<td>1.636</td>
<td>0.156</td>
<td>0.656</td>
<td>...</td>
<td>...</td>
<td>0.071</td>
<td>0.679</td>
<td>0.157</td>
<td>0.459</td>
<td>0.006</td>
<td>0.922</td>
<td>0.102</td>
<td>1.064</td>
<td>1.720</td>
</tr>
<tr>
<td>1988</td>
<td>1.625</td>
<td>1.636</td>
<td>0.156</td>
<td>0.656</td>
<td>...</td>
<td>...</td>
<td>0.071</td>
<td>0.679</td>
<td>0.157</td>
<td>0.459</td>
<td>0.006</td>
<td>0.922</td>
<td>0.102</td>
<td>1.064</td>
<td>1.720</td>
</tr>
</tbody>
</table>

#### Notes

1/ Data reflects OOT reserves of short and long-term debt. MLT debt now includes refinanced foreign military sales (FMS).
2/ Financial markets include Dremitz, Bonds, and other forms of private financing.
3/ 1989 debt is estimated. The corresponding net flows are not available.
APPENDIX D

FREQUENCY DISTRIBUTION OF SURVEY INSTRUMENT
Work practices are different in foreign firms than Turkish firms, specifically:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>hours of work.</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>C2</td>
<td>scheduling of work.</td>
<td>41</td>
<td>28</td>
</tr>
<tr>
<td>C3</td>
<td>how I'm paid.</td>
<td>49</td>
<td>31</td>
</tr>
<tr>
<td>C4</td>
<td>benefits.</td>
<td>45</td>
<td>31</td>
</tr>
<tr>
<td>C5</td>
<td>mobility within the company (promotions, etc.)</td>
<td>40</td>
<td>32</td>
</tr>
<tr>
<td>C6</td>
<td>discipline.</td>
<td>36</td>
<td>29</td>
</tr>
<tr>
<td>C7</td>
<td>vacations and holidays.</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>C8</td>
<td>job design and responsibilities.</td>
<td>44</td>
<td>29</td>
</tr>
</tbody>
</table>

C9  If a foreign firm in a particular industry has a new idea or starts a new employment practice, it won't be long before the Turkish firms in the same industry do the same thing.  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17</td>
<td>19</td>
<td>26</td>
</tr>
</tbody>
</table>

Foreign investment is good:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C10</td>
<td>for Turkish society as a whole.</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>C11</td>
<td>for Turkish business people.</td>
<td>37</td>
<td>29</td>
</tr>
</tbody>
</table>

C12  Turkey seems to be doing a good job at attracting foreign investment.  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23</td>
<td>22</td>
<td>24</td>
</tr>
</tbody>
</table>

C13  Labor disputes are better decided by a government agency, like an Arbitration Board, than by strikes or industrial conflict.  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>15</td>
<td>23</td>
</tr>
</tbody>
</table>

C14  Employees prefer to work for private industry, rather than state-run firms.  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>44</td>
<td>29</td>
<td>17</td>
</tr>
</tbody>
</table>

C15  State-run firms offer the same opportunities as private industry for employees.  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

Foreign investment provides new ideas in:

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<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>C16</td>
<td>education and training.</td>
<td>47</td>
<td>32</td>
</tr>
<tr>
<td>C17</td>
<td>compensation.</td>
<td>33</td>
<td>31</td>
</tr>
<tr>
<td>C18</td>
<td>management opportunities.</td>
<td>49</td>
<td>33</td>
</tr>
</tbody>
</table>

C19  Employees are paid more at foreign companies.  

<p>| | | | |</p>
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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>46</td>
<td>33</td>
<td>15</td>
</tr>
</tbody>
</table>

C20  Employees are paid more at foreign companies.  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>46</td>
<td>33</td>
<td>15</td>
</tr>
</tbody>
</table>

C20  Employees have better working conditions at foreign companies.  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>40</td>
<td>32</td>
<td>19</td>
</tr>
</tbody>
</table>

Unions have significant effect on:

<p>| | | | |</p>
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<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C21</td>
<td>employment practices.</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>C22</td>
<td>society as a whole.</td>
<td>14</td>
<td>18</td>
</tr>
</tbody>
</table>

C23  I have some control over or choice in what I do at my job and how I perform my job.  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>42</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Employees in the artisan or small manufacturing sector do not benefit from improved working conditions and higher wages of the large-scale manufacturers.</td>
<td>24 30 25 5 6</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>C25</td>
<td>If there were enough jobs, Turkish employees would prefer to work for Turkish firms.</td>
<td>17 22 25 21 15</td>
<td></td>
</tr>
<tr>
<td>C26</td>
<td>Turkish companies are competitive because of the lower labor costs here.</td>
<td>21 24 23 19 13</td>
<td></td>
</tr>
<tr>
<td>C27</td>
<td>The large multinationals provide new opportunities for small businesses here to supply locally the parts and materials the multinationals need locally.</td>
<td>31 29 24 12 4</td>
<td></td>
</tr>
<tr>
<td>C28</td>
<td>Employees will start their own businesses if they do not believe they are treated fairly by the big companies.</td>
<td>12 15 25 26 22</td>
<td></td>
</tr>
<tr>
<td>C29</td>
<td>Turkey could use more foreign technology.</td>
<td>43 32 17 6 2</td>
<td></td>
</tr>
<tr>
<td>C30</td>
<td>Technology transfer improves the working conditions for employees in Turkey.</td>
<td>39 31 29 8 3</td>
<td></td>
</tr>
<tr>
<td>C31</td>
<td>If an employee has a good idea, managers in this company will readily listen to it.</td>
<td>16 17 26 22 19</td>
<td></td>
</tr>
<tr>
<td>C32</td>
<td>The machines or technology employees use in this company are easy to train on or understand.</td>
<td>27 28 27 14 4</td>
<td></td>
</tr>
<tr>
<td>C33</td>
<td>Foreign companies provide new jobs for Turkish employees who might otherwise leave Turkey for employment elsewhere.</td>
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<td>The type of industry I work in determines how my day is planned and how my work is organized.</td>
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<td></td>
<td>Employees get a better deal at companies making products:</td>
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<tr>
<td>C35</td>
<td>for export.</td>
<td>39 31 23 7</td>
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<td>for the home market.</td>
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<td>for producer-goods sector.</td>
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<td>for consumer-goods sector.</td>
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<tr>
<td>C39</td>
<td>no difference.</td>
<td>11 19 31 23 16</td>
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In general, I believe that employees here would prefer to work for:

<p>|   | Turkish companies.                                                                                                               | 6 19 32 25 18 |
| C40 | foreign multinationals.                                                                                                          | 42 31 18 7 2  |
| C41 | My family is more important than my work.                                                                                         | 32 30 21 13 4 |
| C42 | Technology transfer from the West may drive up the wages of employees.                                                           | 34 32 21 8 5  |</p>
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<td>I prefer to work with Turkish managers.</td>
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<td>If employees have a problem at work, they will:</td>
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<td></td>
<td></td>
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<td>C51</td>
<td>tell their union.</td>
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<td>27</td>
<td>22</td>
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<tr>
<td>C52</td>
<td>keep quiet.</td>
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<td>22</td>
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<td>C53</td>
<td>leave and find another job.</td>
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<td>I am asked my opinion on the work that I do.</td>
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<td>Decisions here are made jointly between the workers and managers.</td>
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<td>The peace of the work here is considered:</td>
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<td>slow.</td>
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<td>C58</td>
<td>just right.</td>
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<td>C59</td>
<td>fast.</td>
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<td>This company seems very concerned with productivity.</td>
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<td>C61</td>
<td>I would not want to leave this firm for another company.</td>
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APPENDIX E

DISTRIBUTION OF SURVEY QUESTIONS BY DIMENSION
INDEPENDENT VARIABLES

Legal Traditions

Work practices are different in foreign firms than Turkish firms, specifically:
C1 hours of work.
C2 scheduling of work.
C3 how I’m paid.
C4 benefits.
C6 discipline.
C7 vacations and holidays.
C8 job design and responsibilities.

C13 Labor disputes are better decided by a government agency, like an Arbitration Board, than by strikes or industrial conflict.

Socio-Cultural Traditions

C22 Unions have significant effect on society as a whole
C25 If there were enough jobs, Turkish employees would prefer to work for Turkish firms.
C28 Employees will start their own businesses if they do not believe they are treated fairly by the big companies.
C31 If an employee has a good idea, managers in this company will readily listen to it.

In general, I believe that employees here would prefer to work for:
C40 Turkish companies.
C41 Foreign multinationals.
C42 My family is more important than my work.
C47 I prefer to work with Turkish managers.
C48 I prefer to manage Turkish workers.
C49 I prefer to work for foreign managers.
C50 I prefer to manage foreign workers.
C54 I am asked my opinion on the work that I do.
C55 Decisions here are made jointly between the workers and managers.
Political Traditions

Foreign investment is good:
C10 for Turkish society as a whole.
C11 for Turkish business people.

C12 Turkey seems to be doing a good job at attracting foreign investment.

Foreign investment provides new ideas in:
C16 education and training.
C17 compensation.
C18 management opportunities.

If employees have a problem at work, they will:
C51 tell their union.
C52 keep quiet.
C53 leave and find another job.

Economic Conditions

C14 Employees prefer to work for private industry, rather than state-run firms.

C15 State-run firms offer the same opportunities as private industry for employees.

Unions have significant effect on:
C21 employment practices.

C24 Employees in the artisan or small manufacturing sector do not benefit from improved working conditions and higher wages of the large-scale manufacturers.

C33 Foreign companies provide new jobs for Turkish employees who might otherwise leave Turkey for employment elsewhere.

C46 If I leave this company, I will be able to find another job of equal or greater value.

The pace of the work here is considered:
C57 slow.
C58 just right.
C59 fast.

C60 This company seems very concerned with productivity.

C61 I would not want to leave this firm for another company.
Technology Conditions

C9 If a foreign firm in a particular industry has a new idea or starts a new employment practice, it won't be long before the Turkish firms in the same industry do the same thing.

C29 Turkey could use more foreign technology.

C32 The machines or technology employees used in this company are easy to train on or understand.

C43 Technology transfer from the West may drive up the wages of employees.

C44 Technology transfer is best used to substitute Turkish products for imports.

C45 Technology transfer is best used to increase the export capabilities of Turkish firms.

C56 My company offers me the opportunity to learn new skills.

Market Conditions

C5 Work practices are different in foreign firms than Turkish firms, specifically mobility within the company (promotions, etc.).

C19 Employees are paid more at foreign companies.

C20 Employees have better working conditions at foreign companies.

C26 Turkish companies are competitive because of the lower labor costs here.

C27 The large multinationals provide new opportunities for small businesses here to supply locally the parts and materials the multinationals need locally.

Employees get a better deal at companies making products:
C35 for export.
C36 for the home market.
C37 for producer-goods sector.
C38 for consumer-goods sector.
C39 no difference.

Dependent Variables

Individual I have some control over or choice in what I do at my job and how I perform my job.

Industry The type of industry I work in determines how my day is planned and how my work is organized.

Technology Technology transfer improves the working conditions for employees in Turkey.
APPENDIX F

FREQUENCY DISTRIBUTION BY DIMENSION
Response by % for each question in each dimension, with means

### Legal Traditions

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APPENDIX G

STATISTICAL COMPUTATIONS BY DEMOGRAPHICS
### GLM INDIVIDL

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Analysis of Variance for individl

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Unusual Observations for individl

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R denotes an obs. with a large st. resid.

x denotes an obs. whose x value gives it large influence.
### GLM INDUSTRY

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#### Analysis of Variance for industry

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#### Unusual Observations for Industry

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x denotes an obs. whose value gives it large influence.
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Analysis of Variance for technol

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Unusual Observations for technol

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<td>-1.54 x</td>
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R denotes an obs. with a large st. resid.

x denotes an obs whose x value gives it large influence.
APPENDIX H

STATISTICS FOR LOGISTICS REGRESSION
Variables Introduced for Model Building

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Stepwise Logistic Regression

Display of Stepwise Model Building

The following variables do not meet the .0500 significance level for inclusion in the model and are removed (Backward elimination stepwise logistic regression, “Backwd”):

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<th>c78 Backwd</th>
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The final parameter estimates suggest the following variables for inclusion in the regression model:

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Stepwise Logistic Regression Procedure

Dependent Variable: c77

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31 c77 = 0
85 c77 = 1
49 observations deleted due to missing values

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Step 0. The following variables are entered:

Intercep c80 c81 c82 c83 c84 c85 c62 c63 c65 c67 c69 c86

Model Chi-Square = 27.28 with 12 D.F. (Score Stat.) P=0.0070.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c81

Step 1.

Model Chi-Square = 27.27 with 11 D.F. (Score Stat.) P=0.0042.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c85
Step 2.

Model Chi-Square = 27.09 with 10 D.F.  (Score Stat.) P=0.0025.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c63

Step 3.

Model Chi-Square = 26.86 with 9 D.F.  (Score Stat.) P=0.0015.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c67

Step 4.

Model Chi-Square = 26.71 with 8 D.F.  (Score Stat.) P=0.0008.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c84

Step 5.

Model Chi-Square = 25.97 with 7 D.F.  (Score Stat.) P=0.0005.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c86

Step 6.

Model Chi-Square = 25.55 with 6 D.F.  (Score Stat.) P=0.0003.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:
Step 7.

Model Chi-Square = 25.29 with 5 D.F.  (Score Stat.) P=0.0001.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c82

Step 8.

Model Chi-Square = 24.72 with 4 D.F.  (Score Stat.) P=0.0001.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c62

Step 9.

Model Chi-Square = 24.01 with 3 D.F.  (Score Stat.) P=0.0000.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c80
Step 10.

Model Chi-Square = 22.46 with 2 D.F.  (Score Stat.) P=0.0000.

Test for all variables not in the model
Residual Chi-square = 4.99 with 10 D.F.  P=0.8920

No additional variables met the 0.0500 significance level for entry.

Final Parameter estimates

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
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Stepwise Logistic Regression Procedure

Dependent Variable: c78

115 observations
32 c78 = 0
83 c78 = 1
50 observations deleted due to missing values

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Step 0. The following variables are entered:

Intercep c80 c81 c82 c83 c84 c85 c62 c63 c65 c67 c69 c86

Model Chi-Square = 56.68 with 12 D.F. (Score Stat.) P=0.0000.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c82

Step 1.

Model Chi-Square = 56.53 with 11 D.F. (Score Stat.) P=0.0000.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c63
Step 2.

Model Chi-Square = 56.50 with 10 D.F.  (Score Stat.) P=0.0000.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c62

Step 3.

Model Chi-Square = 56.50 with 9 D.F.  (Score Stat.) P=0.0.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c65

Step 4.

Model Chi-Square = 56.31 with 8 D.F.  (Score Stat.) P=0.0.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c71

Step 5.

Model Chi-Square = 55.71 with 7 D.F.  (Score Stat.) P=0.0.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c81

Step 6.

Model Chi-Square = 54.82 with 6 D.F.  (Score Stat.) P=0.0.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c69
Step 7.

Model Chi-Square = 53.69 with 5 D.F.  (Score Stat.) P=0.0.

Test for all variables not in the model
Residual Chi-square = 6.51 with 7 D.F.  P=0.4812

No additional variables met the 0.0500 significance level for entry.

Final Parameter estimates

<table>
<thead>
<tr>
<th>Variable</th>
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Stepwise Logistic Regression Procedure

Dependent Variable: c79

116 observations
45 c79 = 0
71 c79 = 1
49 observations deleted due to missing values

<table>
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Step 0. The following variables are entered:

Intercep  c80  c81  c82  c83  c84  c85  c62  c63  c65  c67  c69  c86

Model Chi-Square = 40.06 with 11 D.F.  (Score Stat.) P=0.0000.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c67

Step 1.

Model Chi-Square = 40.05 with 10 D.F.  (Score Stat.) P=0.0000.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c85

Step 2.

Model Chi-Square = 40.04 with 9 D.F.  (Score Stat.) P=0.0000.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c80

Step 3.

Model Chi-Square = 39.92 with 8 D.F.  (Score Stat.) P=0.0000.

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c84

Step 4.

Model Chi-Square = 39.25 with 7 D.F.  (Score Stat.) P=0.0000.
The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c65

Step 5.

Model Chi-Square = 38.72 with 6 D.F. (Score Stat.) \( P=0.0000 \).

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c86

Step 6.

Model Chi-Square = 38.26 with 5 D.F. (Score Stat.) \( P=0.0000 \).

The following variables do not meet the 0.0500 significance level for staying in the model and are removed:

c63

Step 7.

Model Chi-Square = 36.69 with 4 D.F. (Score Stat.) \( P=0.0000 \).

Test for all variables not in the model
Residual Chi-square = 4.69 with 7 D.F. \( P=0.6972 \)

No additional variables met the 0.0500 significance level for entry.

Final Parameter estimates

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Chi-square</th>
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----------. *Turkey*. Ell-Suppl. 26 (August 1982).


_________________ Eros and Civilization.


_______________. "Industrial Relations Theory and the Comparative Study of Industrial Relations and Industrial Conflict." British Journal of Industrial Relations. 18 (1980).


