# THE TRANSFORMATION OF LABOR-MANAGEMENT RELATIONS IN POST-INDUSTRIAL SOCIETIES\*

Assoc. Prof. Dr. Numan KURTULMUŞ Department of Industrial Relations and Labor Economics School of Economics University of Istanbul

#### I. INTRODUCTION

The forces shaping industrial relations may be characterized as economic, socio-political and technological, all of which are interlinked with their relative importance changing over time. With few exceptions, industrial relations system did not fundamentally change during the period of postwar reconstruction and economic growth until mid 1970's. But since then, all advanced industrialized societies have been influenced by severe pressures of external and internal factors. During the past two decades, competition in the world market has been intensified basically because of the spread of high technology. This phenomenon has caused significant structural changes in the world economy ranging from labor-management relations to production technology and organizational structure.

<sup>(\*)</sup> This paper is the result of a research which was conducted by the author during his visiting professorship at Comell University, School of Industrial and Labor Relations. An earlier version of this paper was presented at the Annual Meeting of Academy of International Business at Scrauton, PA, USA, June 2-3, 1993.

First of all, as the United States and several European countries saw a decline in their global competitiveness, Japan and some other pasific countries have and emerged as new economic superpower. On the other hand the dramatic shift from production to service sectors and increasing demand for high skilled workers have changed the labor-markets as well as the dynamics of whole industrial relations system. Although the advanced industrialized countries are sufficiently different in their historical and political backgrounds and show substantial legal, social and economic differences, they respond similarly to the global forces of change. This paper examines the extend to which macro and micro factors influence the current structural changes in labor-management relations. This study reflects general trend of transformation in the advanced economies towards post-industrialization. The first section reviews the factors which have been found as the most influential dynamics of changes. The second part examines the outcomes of above mentioned factors on labor-management relations.

### II. THE FACTORS INFLUENCING CURRENT CHANGES IN LABOR-MANAGEMENT RELATIONS

#### ILL The Structural Changes in World Economy

During the last 15-20 years, intensified world market competition with the spread of high technology has caused structural changes in the global economy. These two interconnected forces have been the basic motivators behind the changes. Indeed, competition drives the development of technologies and consequently new technologies become established as an instrument to create opportunities and to respond to the changes in the markets. So, transition in the economy is often thought to be driven by technological development (Cohen and Zysman, 1987; p. 81).

The major change in the world economy during the last two decades is the power shift from western societies to Japan, i.e.; Japan has risen as the dominant worldwide industrial power. Secondly, the globalization of business, either by multinational companies or subsidiaries of national finns in overseas has extended change treds to the multicultural environments. Change in the characteristics of global markets, spread of technologies and success of Japanese management (particularly on labor-technology combination) have transformed the task facing advanced industrial countries and have created new managerial imperatives to re-organize the work-place. The literature dealing with the changes in industrial relations can be divided into three areas. First body of literature examines changes within the dynamics of international political economy and the effects of these changes in micro level operations, such as changes in production strategies or organization (Piore and Sabel, 1984; Cohen and Zysman, 1987). Second type of literature stress on the effects of changes on national political-economies with special interest in changes in the power of institutions (Beaumont, 1987). Third category of literature reviews, the trend of transition within the traditional three-actor structure framework of industrial relations system and focus on strategic changes in the role of these actors (Kochan, et. al., 1986).

Due to Japanese success and the rise of South Asian rapidly developing countries such as Taiwan, Singapore, Hong Kong and the succesful export strategies of some West European firms, the United States has lost its dominant position in the world economy (Turner, 1990; p. 18) In addition since the global competition has intensified, the markets became more independent and rival.

As a result of these macro changes in the world markets, the major attention has been given to the re-organization of work and production systems. As the workers have been loosing their power under the current circumstances in the advanced industrialized countries, the outcomes of collective bargaining have tended to be less favorable for the employees (Plownan, 1990). This is one of the challenges for unions in responding changing dynamics of the world markets. So, unions have shifted their strategies from conventional "wage bargaining" to the "work re-organization". Their new policy in advanced industrialized societies is to affect the restructuring by involving process voluntarily. Therefore, to develope responses to managerial reorganization strategies, protect workers 'interest and defend unions' institutional security have become dhe major objectives for unions in the industrialized world (Turner, 1990; p. 20).

#### II.2. Technological Change

Although the term of "technology" has been used in different meanings, there are four discernible elements within the varying definitions: technology as hardware (tools, machines, etc.), technology as technical knowledge, technology as technique (routines, methods, etc.) and finally technology as social organization (factories, bureaucracies) (Aungles and Parker, 1988; p. 105). In this regard, the concept of technological change has been developed within discussions

around the term of automation (Sorge and Streek, 1988; p. 21). Thus, the term "automation" replaced mechanization and currently the term "new technology" is used for identifying new form of mechanization and electronic processes (Op. cit., p. 106). In principle, basically the amount of R & D expenditures, the percentage of research and technical personnel and complexity of product make any particular industry a part of high technology sector (Richard, Hecker and Burgan, 1985; p. 44).

Among other high tech industries, computer and telecommunication industries have played the crucial role in transition towards post-industrial societies. These technologies, contrary to the previous technologies, with their speed in evolving and spreading throughout the world are described as the "mega technologies" (Lund, 1985; p. 369). The concentration in investment priorities on brain power rather than capital goods or manpower is another characteristic of new technologies (ILO, 1985; p. 13). Furthermore, mega-technologies have some other advantages such as high capability of integration, pervasiveness and convergence (Levitan, 1982; p. 13).

In market economies, the ultimate goal of corporate managerial strategies is the maximization of profit, which is the basic condition for survival of an enterprise. Management invests in new technology to attain this goal, hoping for competitive edge over its rivals (Ozaki, et. al., 1992; p. 2). New technologies basically serve to the goals of the finn and contribute to the enhancement of managerial efficency. As production and management strategies are related to strategic decisions of the company, labor unions traditionally try to have influence on long tenn policies as much as they can. However, the desires and priorities of workers and management are different. The main objective of management is to respond changing demands in the higly competitive markets. So, management must create optimum products and production strategies to meet the demand in the market, whereas union's basic incentive is to control the process by organizing labor force in the finn (Sorge and Streek, 1988; pp. 19-21).

The direction of technological development is not determined by inherent technical characteristics or by any economic advantage that will accrue to all producers. Instead, it is inherently uncertain. It depends, in critical ways, on social conditions, corporate strategy and choice, and government policy (Cohen and Zysman, 1987; p. 95). In this sense, technological and social development are interlinked and interactive shaped by and shaping each other.

The introduction of new technology in work-place has affected labor-management relations in various ways. The causal relations between technological change and labor relations is usually indirect, and is subject to the influence of a number of intervening factors, including features of work organization and of product and labor markets (Ozaki, 1992; p. 34).

The basic influence of new technology on labor-management relations is its pressure on both sides which creates substantial changes in the positions and powers of parties in the negotiation and management processes.

Another issue related to technological change is the way in which workers react to the implementation of new technology in the work-place. It is generally described that workers respond to the technological innovation in five different ways; participatory involvement, negotiated trade-offs, unconditional acceptance, reluctant acquiescence and open opposition. The strength of union, general economic conditions, structure of labor market and political trends are basic determinants which influence labor-union behavior (Bamber, 1988; pp. 208-210).

#### **II.3.** Sectoral Shifts in Employment

The concept of post-industrial society has been explained by "three-sector economic development" hypothesis since the early studies of the subject (Fuch, 1968). According to this theory, labor force shifts from agricultural production to industrial production and then to the service sector as the economy progresses (Leach and Wagstaff, 1986; p. 64).

h addition to this theory, two other economic hypotheses help to explain the structural changes in advanced industrial countries. The first one, points out that as average earnings increase, the demand for services increases to the larger extend. The idea is that, as people become better-off economically, they spend their additional earnings to buy more services rather than more goods. The second theory describes faster productivity growth in service sectors than in manufacturing. Since these two trends exist in the economy, it is obviuos that the employment in service sectors will grow faster than actual demand for services in the post-industrial societies (Scharpf, 1990; p. 17). The decline in manufacturing employment as a proportion of aggregate paid employment has been a feature of advanced economies in recent decades (Tailby and Whitson, 1989; p. 9). Table 1 shows changes in employment rates in agriculture, industrics and service sectors in some OECD Countries.

		I	Agriculture	. I		I	Industry	I		رب	Services	
			Changes	Changes			Changes	Changes			Changes	Changes
	1982	1991	1973-82	1982-91	1982	1661	1991 1973-82	1982-91	1982	1991	1991 1973-82	1982-91
Australia	6.4	5.5	-3.3	-14.0	29.8	24.0	-7.1	-19.5	63.8	70.5	+23.6	+10.5
Austria	10.0	7.4	-17.9	-26.0	39.9	36.9	-3.1	-7.5	50.0	55.7	+15.2	+11.4
Canada	5.2	4.3	-2.6	-17.3	26.5	23.2	+5.1	-12.5	68.2	72.5	+32.0	+6.3
Finland	13.2	8.7	-15.4	-34.0	33.8	28.2	+4.2	-16.6	53.0	63.1	+23.5	+19.0
France	8.3	5.7	-26.5	-31.4	34.6	29.4	-12.3	-15.0	57.2	65.0	+17.8	+13.6
Germany	5.5	3.2	-28.2	-41.8	42.7	38.7	-14.6	-9.3	51.8	58.1	+8.9	+12.2
Italy	12.4	8.6	-27.1	-30.6	37.0	31.9	-1.7	-13.8	50.6	59.4	+28.4	+17.4
Japan	6.7	6.3	-22.3	-35.0	34.9	34.6	-1.4	6'0-	55.4	59.2	+20.4	+6.9
Norway	8.0	5.6	-17.5	-30.0	29.4	23.2	-2.1	-21.0	62.5	71.1	+34.4	+13.8
Portugal	25.3	17.3	-23.9	-31.6	37.3	33.7	-13.2	-9.7	37.5	48.9	+28.1	-30.4
Spain .	18.3	10.2		-44.3	33.9	33.1	•	-2.4	47.8	56.8		+16.8
Sweeden	5.6	3.2	-14.5	-42.8	30.3	27.7	-10.6	-10.2	64.1	69.0	+24.5	+7.6
Swetzerland	7.1	5.0	-13.4	-29.6	38.4	33.7	-17.5	-12.2	54.5	61.3	+7.3	+12.5
U.Kingdom	2.7	2.3	-12.3	-14.8	34.7	28.2	-21.9	-18.7	62.6	69.5	+9.9	-11.0
U.S.A.	3.6	2.8	-0.1	-22.3	28.4	25.0	+0.1	-11.9	68.0	72.2	+27.1	+6.2

1991-4, Paris 1992.

Table 1: Employment Changes in Agriculture, Industry and Services; Some OECD Countries

As employment shifts from production to service sector, the required skill formation of labor force rises. The skilled workers are generally not in favor of collective behavior. Thus, as the total number of employee increases in service sector, the total demand for collective actions decreases. Because of this change, labor unions loose their power bases among the high skilled workers. On the other hand, qualified professionals, especially in high-tech industries may find better contracts using their relatively higher bargaining power.

#### II.4. Changes in The Characteristics of Labor-Force

The fundamental changes in the economic environment driven by competitive international markets and evolving high-technology necessitate some structural changes in the labor markets. Structural changes is a dynamic response to external changes and requires an adjustment process in nonnative orientations of the current structures (Schmid, 1990; p. 122).

First of all, increasing demand for high-skilled workers has been forcing the upward mobility in skill formation of employees. In other words, the company should either recruit high skilled workers or improve the ability and skills of its own employees. There has been a growing interest in advanced industrialized countries for on-job training or continuing education. For example, in Germany while 4.5 Billion DM (2.1 B in private, 2.4 B in public and 0.5 % of GNP) was spent in 1972 for this purpose, the number increased to 17.6 B DM (10 B in private, 7.6 B in public and 1 % of GNP) in 1985 (Ibid., p. 23). On the other hand, as the success of Japanese firms in education and after-job training is generally accepted one of the advantages of Japan over other industrial nations (Hodgetts and Luthans, 1989), they concentrate on betterment of their training programs.

Since high level qualifications have been required by jobs in microcomputerized advanced industries and service sector, the years spent in education have increased. The new generation of employees intend to have better qualifications to pursue their career in highly competitive work environment. So, they participate in the work-force in later ages than their predecessors used to.

Changes in occupational structures also affect the general trend of upward mobility in skill-formation of labor force. In fact, technological development causes change in occupational structure and affects the distribution of labor force in different sectors (Bamber, 1989; p. 62).

#### II. 5. Changes in Organization and Management

Edwards describes managerial control function in the free market economy in a progressive way that has changes as economy developed (Edwards, 1979). These stages are as follows.

Entrepreneurial control
Hierarchial control
Technical control
Bureaucratic control
Structural control
Corporate culture

According to his explanations historical development of capitalism is very much linked to the development of technology. In the beginning of industrialization, the manager and boss is the same person who had entrepreneurial control over organization. As technology became more complex, to handle all functions of organization -planning, forecasting, coordination, organizing, execution and control- tend to be too impossible for one single individual. However, as the nature of capitalism has changed, so has the nature of management. Since modem organizations have emerged, there has been a major decline in old style capitalist-owner-entrepreneur type of managers and these people have been replaced by specially trained, well educated and salaried managers (Aungles and Parker, p. 130). Parallel to the growth of managerialism, the management turned to a kind of joint-task function. On the other hand, industrial democracy as a notion has gradually became one of the dominant issues on the work-organizations (Davis and Lansbury, 1986). At the general level, industrial democracy could be described as a movement towards giving all employees the right to access to information and activity in the important decision-making procedures within the organization (Op. cit.; p. 150). In this regard, different fonns of employee participation such as joint consultation committees have become the central theme in current trend of participatory management. Industrial democracy primarily is based on the concept of delegation of "sovereignty" in the work-place. The main obstacle on the way of industrial democracy is the natural conflict between the strategies of the firm and workers demands.

Although managerialism has risen as a new feature in the modern organizations, Toffler claims that the new type of management control (professional managerialism), unlike the general expectations, have created new kind of bureaucracy in the work-place. According to him, this phenomenon, strengthens the power of the managers over the control of management functions (Toffler, 1990; pp. 25-45).

The fundamental changes in the economic environment necessitate significant changes in the strategy, culture, structure and working arrangements of organizations (Beaumont, 1987; p. 11). The environment in terms of organizational change consists of everything outside of organization that can affect organizational performance and outcomes directly or indirectly. This could include, for example, external agents such as suppliers, customers, regulators and competitors, as well as cultural, political and economic forces in the wider societal and global context (Cummings and Huse, 1989; p. 397). The general direction of organizational change in the post-industrial countries is towards the most adaptive way to competitiveness of markets and technological developments. Therefore, the new objectives of organizations are more flexibility in production and marketing and relatively short product life cycles. The Table 2 compares the features of traditional and modern organizations. As a result, the pressures of changing economic environment force the changes in the organizational structure towards more flexibility and h organization culture towards more corporatism between management and employees. These trends definitely affect the nature of labormanagement relations.

Traditional	New
The technological imperative	Joint optimization
Man as an extension of the machine	Man as complementary to the machine
An expendable spare part	A resource to be developed
Maximum task breakdown, single narrow skills	Optimum task grouping, multiple broad skills
External controls (supervisors, specialist staffs, procedures)	Internal controls (self regulating sub-systems)
Tall organizational chart, autocratic style	Flat organizational chart, participative style
Competition, gamesmanship	Collaboration, colligiability
Organizaton's purpose only	Members and society's purposes also
Alienation	Commitment
Low risk taking	Innovation
Individual Utility Maximization	individual satisfaction
Basic and	Corporate Culture
Structural Control	Management by Objectives and Organizational Synergy

Table 2: Features of Old and New Organizations

- Source: Work Description and Work Design Michael Cross, "Flexibility and Integration at the Workplace", Employee Relations, vol. 7, no. 1, 1985, p. 4.

## III. THE EFFECTS OF CURRENT CHANGES ON LABOR-MANAGEMENT RELATIONS

#### III.1. Changes in The Role Of The Institutions

Prior to 1960's the role of state in industrial relations within plural democratic systems was to organize the legal and judiciary systems (Beaumont, 1990; p. 191). After 1960's in most of the industrialized countries governments apparently became the regulator of industrial relation system that seek to achieve their global goals. Since the beginning of 1980's the role of government has changed due to changing economic environment of the world. The new role of government is to develop and integrate the "corporatist strategy" throughout the industries which creates a peaceful industrial relations system. Therefore, the governments have been more actively involving in the system, contrary to their previous liberal positions, as a regulator of corporatist labor-management relations.

The labor unions have been experiencing the changes in their traditional roles in advanced industrial countries (Huang, 1989; Beaumont, 1987; Kerr and Staudohar, 1986). Basically, unions have been loosing their competitive powers in terms of membership and political influence. According to OECD reports, the union membership rates have been declining in most of the industrialized countries since 1980's (OECD, 1991). although during 1970-79 only three countries (USA, Austruia and Japan) saw a decline in union membership rates, between 1979-86 the trend extended to other countries such as France, New Zealand and Belgium (Bureau of Labor Statistics, 1986). As figures show the trends of decline in advanced countries between 1970-88, USA represents a very sharp decline in union membership. However, only France among EC countries has an unionization rate (18 %) as low as that found in the US (Dworkin and Lee, 1991; p. 4). Other European countries such as the UK, Italy and Spain have also been experiencing decrease in unionized labor rates (OECD, 1991).

The differences in unionization rates in post-industrial countries are because of several reasons. Among them, international competitiveness, unemployment rate, the amount of foreign investment in the country, the distribution of labor force in the sectors are the most important factors.

The second important change which affects the role of labor unions is the increasing trend towards corporatist unionism. The changes such as that in global market conditions, needs of deregulation, increasing mobility of international

CD Co	untries,	1970-1	989		
Union D	ensîty (%)			Chang Density	е іт (%
1975	1980	1985	1988	1970-80	19

Table 3: Union Membership and Union Density in OECD Con Change in

Union Membership

		(thousands)	-		rship (%)	Onion Densky (20)			Density (%)			
	1970	1980	1989	1970-79	1980-89	1970	1975	1980	1985	1988	1970-80	1980-88
Canada	2.231.0	3,487,2	4,030,8	56,3	15.6	31.1	34 4	35,1	35.9	34.6	12,9	-1.4
U.S.A.	21,248.0	22.377.0		5,3		30,0	29.1	24.7			-17,7	
Јарап	11,604,8	12,369,3	12.230.0	6,6	-1,1	35.1	34 4	31,1	28.9	26.8	-11.4	-13.8
Australia	2 331.0	2.955,9	3.410.3	26,8	15.4	50,2	56,0	56,4	56,5	53,4	12,3	-5,3
New Zeland	-	678,0	61 (.3		-9,6	-			54.1	50,5		-6.7
Austria	1,520,3	1.661.0	1.644.4	9,3	-1.0	70,4	67.0	65,3	60,8	58.2	-7.2	-10.9
Belgium	1,605,0	2,310.0	2.291.4	43,8	-0.8	54,9	69,0	75.7	80,9	77,5	37.9	2,4
Denmark	1,143,4	1,795.8	2,033,6	57.1	13.2	62,2	74.2	91.4	90.8	86,0	46.9	-5,9
Finland	950.3	1,646,4	1,895.0	73.3	15.1	58.8	78.3	85.8	86,6	90,0	45.9	4,9
France	3.549.0	3,374.0	1.970.0	-4.9	-41.6	22.3	22,8	19.0	16.3	12,0	-14,8	-36,8
Germany	8.251.2	9,645.5	9.637.0	i 6.9	0.0	37.9	41.7	42.9	44,0	40,1	13.2	-6.5
Спессе		556.6	650.0				35.8		36.7	(25.0)		
Iceland		60.6	103.1		70.1			68,1		78,3		15.0
Ireland	422.9	544.5	474.0	28.7	-12.9	59.0	61.3	63.4	62,2	58 4	7.5	-8,2
Italy	5.224,5	8,772,0	9.568.2	67.9	9,1	40.8	54,2	60.5	59.6	62,7	48.3	3,6
Luxembourg	524	72.0	75.0	37,5	4,2	46.8	45.8	52,2		49.7	11.5	-4.8
Nethedands	1.585.4	1,740.8	1.635.9	9.8	-6.0	40.5	42,7	39,9	34,1	30.2	-1,5	-24.3
Norway	759.2	1.049.1	1.203.5	38.2	14.7	58,1	60,4	65.3	65,4	67.7	124	3.7
Portugal	730.9	1,669.7	1.463.0	128.4	-12.4	59,0	524	58.8	51.6	(30.0)	0,3	-12.2
Spain		1.703.0	1.163.0		-31.7		30.4	22,0	16.0		. 1	-27.3
Sweden	2,546,4	3,486,4	3,855,1	36.9	[0.6	74.2	82.1	89.5	94,2	96.1	20.6	7.4
Swîtzerland	842,9	954.3	899.9	13.2	-5.7	34,2	36.6	34.5	32.6	30.0	0.9	-13,0
Turkey	9734		1,493,1				18,1			19.2		
U.K	11.178.0	12,947.0	10,238,0	15.8	- 20,9	49.7	53,6	56,3	50,5	46.1	13.3	-18,1

Source: This table was prepared on the data in; OECD, Economic Outlook 1991: 101.

capital, force labor unions to review their strategies and change their behaviors towards corporatist type.

The third trend is the decrease in the influence of labor unions. Although unions have been adopting new policies towards corporatist strategies and participating in collective decision making processes voluntarily, researches show that labor unions have the least influential role in the process of strategic decision.

The growing trend of non-union firms is another issue which reduces the power of unions, especially in the US. Most of the industries have been experiencing either increase in the number of non-union companies or in the demand for replacement of industrial relations by non-unionized work relations since 1980's (Verma, 1985; pp. 395-405).

# III.2. Increasing Importance Of The Individiual In New Work-Organizations

The historical progress of industrial relations systems can be reviewed in three consecutive stages that reflect the general trends. First phase represents the beginning of industrialization. During this period, the emergence of mass production limited less rigid manufacturing technologies which primarily were craft systems (Piore and Sabel, 1984; p. 6). Labor-management relations were basically defined within purely individualistic framework. In other words, collective bargaining and labor institutions were not existing or organized enough. The labor markets were based on the vast amount of low-skilled workers.

The second stage was the "golden age" of unionism throughout the westem countries. During this period, workers gained more power and benefits such as better wages, compensations and working conditions. As workers satisfied their basic needs, they tend to achieve more complex needs such as security and social needs. This trend was the basic motive behind the emergence of labor institutions during the era. As a result, purely individualistic character of bargaining shifted towards collectivist structure. On the other hand, the institutional economic approaches which accept labor organizations as an engine force for industrial democracy, contributed very much to this trend (Kaufman, 1993; p. 77).

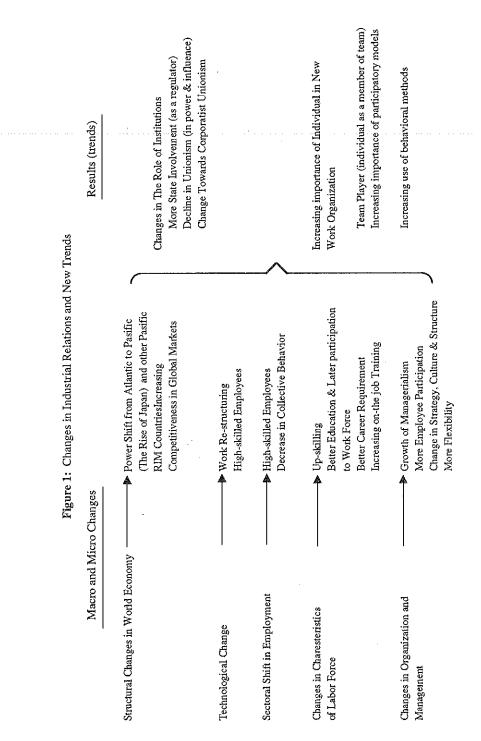
The third stage represents the ongoing trends of transformation towards post-industrialization. The general characteristics of production technologies, work-place organization, international markets and labor management relations have been dramatically changing since early 1980's because of severe macro and micro pressures. As Piore and Sabel named current era of transition as "second industrial divide", it leads to substantial shifts in the above mentioned areas. Firstly, the evolution of megatechnologies and work re-organization have required high-skilled labor force and therefore transformed the social relations of production. Nevertheless, a number of craft and other traditional skills, which used to give their holders a certain discretion in work organization, have mostly been eliminated by the computerization of work. Furthermore, new skills which are needed to operate complex machines are increasingly under management control (Ozaki, et. al., 1992; p. 3). There seems to have been a transfer of sources of skills and knowledge from workers to management. On the other hand, the effect of Japanese "corporate culture" and extensive use of participatory models and behavioral techniques created an increasing trend toward individualism in labor-management relations. But, this time individualistic approach of new work organization differs from the purely individualistic framework of phase one in a way that it treats an individual as a member of a team as shown in Table 4.

	Phase	Production Technology	Labor Markets	Bargnining & Contracts
1.	Early Industrialization	Mass production	Blue-collar workers (low-skilled)	Purely individual contracts
2.	Industrialization	Mechanized mass production (assembly lines)	Blue collar workers (average skill)	Collective bargaining & collective contracts
			Inerceasing power of labor unions & parties (emergence of institutionalism)	
3.	Post- Industrialization	Megatechnologies (Microelectronics, telecommunication	White-collar workers (high-skill)	Trend towards individual contracts
		& Robotics)	Decrease in the importance of labor institutions	
			Increase in non unionized Industrial Relations system	

Table 4 : Changes In Dominant Characteristies Of Industrial Relations

#### **IV. CONCLUSION**

This paper examined the extend to which macro and micro factors influence structural changes in labor management relations. The following factors have been found as the most influential dynamics of the current change. Figure 2 summarizes basic macro and micro changes in industrial relations system and its outcomes as recent trends in post-industrial economies.



During the past 15-20 years, intensified world market competition with the spread of high-technology has caused *structural changes in the world economy*. At macro level, during this period, Japan has become the dominant industrial power. The breath taking success of Japan has put their corporatist labor-management system in the focus of academics and policy makers of other industrialized countries. On the other hand, the globalization of business require existing management systems and work organizations to be reviewed. As a result, at micro level, change in the structure of global markets, emergence of new technologies and charm of Japanese system in management and labor-technology combination have transformed industrial relations and have created new managerial imperatives to re-organization of production and work. Another issue which causes structural change in world economy is *the shift in employment from production to service sectors* parallel to technological progress.

The impact of technology is solely the most important factor to change the labor-management relations. Besides, the dispute that whether new technology causes skilling or de-skilling, it is obvious that it requires re-structuring in labor-management relations.

Under the very strong influence of the general driving forces of world market changes and new technologies the configuration of labor market has been changing and *the demand for high-skilled employees has been increasing*. As their education and skill grades increase, employees behave less favourable to collectivity. It consequentially changes the nature of labor-management relations by reducing potential power of unions.

The dramatic *changes* in technology and other socio-economic environment has brought new concepts *in management and organization* into the agenda. In explaining the control function, the "corporate culture" is the new key concept in modem organizations. Evidently, new approches such as professional managerialism, more flexibility, organization development, team-work and employee participation have become more important.

After reviewing changes in industrial relations in general, the outcomes of these changes have been examined particularly form the perspective of the role of individual in new system. Two major co-existing trends have been discovered: the decreasing importance of collective institutions (diminishing power o labor unions) and increasing importance of individuals in new organizations. Additionally, the extensive use of behavioral techniques in modem workplaces increases the importance of individiual and reduces the role of conventional industrial relations features such as collective bargaining. On the other hand, the emergence of human resources management tends to be the basic challenge for Industrial relations in the near future.

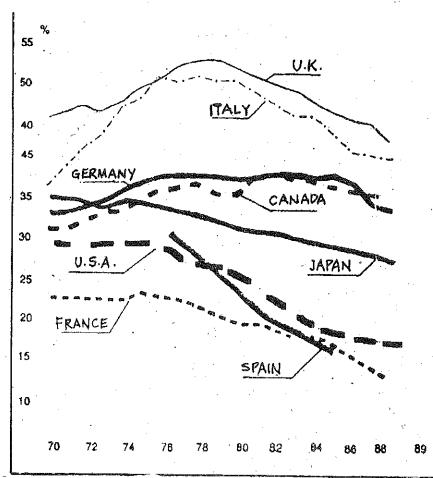


Figure 2: Decline In Unionization; The Trends In Some Advanced Industrialized Countries, 1970-88

Source : OECD, Perspectives de l'Emploi, Juillet 1991.

#### REFERENCES

- Aungles, S. B. and Parker, S. R.; Work, organizations and Change; Sydney, Boston: Allen & Unwin; 1988.
- Bamber, Greg; "Technological Change and Trade Unions", Hyman and Streek (edts.), New Technology and Industrial Relations; Oxford: Basil Blackwell; 1988.
- Beaumont, P. B.; Change in Industrial Relations: The Organization and Environment; London, New York: Routledge; 1990.
- Beaumont, P. B.; The Decline of Trade Union Organization; London: Croom Helm; 1987.
- Berg, Ivan; Industrial Sociology; New Jersey: Prentice Hall; 1979.
- Cohen, Stephen S. and Zysman, John; Manufacturing Matter: The Myth of the Post-Industrial Economy: New York; Basic Book; 1987.
- Cummings, Thomas G and Huse, Edgar F.; Organization Development and Change; St. Paul: West Publishing Company; 1989.
- Davis, Ed and Lansbury, Russel; Democracy and Control in the Workplace; Melbourne: Longman Cheshire; 1986.
- Dworkin, James B. and Lee, Barbara A.; "The Implication of Europe 1992 for Labor Management Relations" in Katz., Harry C. (edt.), The Future of Industrial Relations; Ithaca, NY: Cornell University; 1991.
- Edwards, Richard C.; Contested Terrain; New York: Basic Books; 1979.
- Funch, V.R., The Service Economy; National Bureau of Economic Research, New York; 1968.
- Huang, Wei-Chiao (edt.); Organized Labor at the Crossroads; W.E. Upjohn Ins.; 1989.
- ILO; Technological Change: The Tripartite Response: 1982-85; Geneva, 1985.
- Kaufman, Bruce E.; The Origin and Evolution of the Wield of Industrial Relation in the United States; Ithaca, New York: IL R Press; 1993.
- Kerr, Clark and Staudohar, Paul D. (edts.); Industrial Relations in a New Age; San Francisco: Jossey-Bas Pub.; 1986.
- Kochan, Thomas; Katz, Harvey and Mc. Kersie, Robert; The Transformation of American Industrial Relations; New York: Basic Books; 1986.
- Leach, Donald and Wagstaff, Howard; Future Employment & Technological Change. Worcester: Kogan Page; 1986.
- Levitan, Sar A. and Johnson, Clifford M.; "The Future of Work: Does it Belong to Us or Robots?", Monthly Labor Review, vol: 9, no: 105; 1982.
- Lund, Robert T.; "Manufacturing Technology and Human Resource Policy" in Rowan, Richard (edt.), readings in Labor Economics and labor Relations; Illinois: Richard D. Irwin Inc.; 1985.

OECD; Perspectives de l'Emploi; Juillet; 1991.

- Piore, Michael J. and Sabel, Charles; The Second Industrial Divide: Possibilities for Prosperity; New York: Basic Book; 1984.
- Plownan, D. H.; "Introduction" in Bulletin of Comparative Labor Relations, special issue, Economic Restructuring and Industrial Relations in Industrialized Countries, Blanpain, R. (edt.), Deventer, Boston: Klumer Law and Taxation Pub. 20, 1990; pp. 1-16.
- Richard, Richer W.; Hecker, Daniel E. and Burgar, John U.: "High Technology Today and Tomorrow: A Small Slice of Employment Pie" in Rowan, Richard 1 (edt.) Readings in Labor Economies and Labor Relations; Illinois: Richard D. Irwin, Pub.; 1985.
- Scharpf, Fritz W.; "Structures of Post-Industrial Societies or Docs Mass Unemployment Disappear in the Service Economy?" in Appalbaum, Eileen and Ronald, Schellat Labor-Market Adjustments to Structural Change and Technological Progress; New York: Preager; 1990.
- Schmid, Günter; "Institutions Regulating the Labor Market: Support or Impediments for Structural Change" in Appalbaum, Eileen and Ronald; Schellat, Adjustments to Structural Change and Technological Progress; New York: Preager; 1990.
- Sorge, Arnolt and Streek, Wolfgang; "Industrial Relations and Technical Change; The Case for and Extended Perspective" in Hyman, richard and Streek, Woltgang (edts.): New Technology and Industrial Relations; Oxford-Basic Blackwell 1988.
- Tailby, Stephanic and Whitson, Golin; Manufacturing Chane: Industrial Relations and Restructuring; Cambridge, MA: Basic Blackweil; 1989.
- *Toffler*, *Alvin*; Power Shift: Knowledge, Wealth and Violence at the Edge of the 21th Century; New York: Bantham Books; 1990.
- Turner, Lowell; The Politics of Work Re-Organization: Industrial Relations Under Pressure in Contemporary World Market; un-published Ph. D. dissertation, UC at Berkeley, Dept. of Political Science; 1990.
- U.S. Department of Labor, Bureau of Labor Statisstics, Office of Productivity and Technology, Division of Foreign Labor Statistics and Trade; July 1986.
- Verma, Anil; "Relative How of Capital to Union and Non union Plants Within a Firm", Industrial Relations; vol. 24, pp. 395-405; Fall 1985.