

appreciated.

I

## The changing modalities of production

### and the emergence of labour competence at enterprise level

The concept of labour competence has emerged in various industrialized and developing countries as a basis for training policies and for regulating the internal and external labour market of firms. The concept is directly related to the changing modalities of production which began to appear in the early 1980s. The relationship can be seen in several aspects of the new approach to production: i) the creation of competitive advantages in a global market place; ii) the dynamics of technological innovation and the organization of work; iii) the management of human resources, and iv) the perspectives of the social partners.

In this chapter we will analyse the relationship between labour competence and each of these dimensions of production, although in practice these relationships cannot be separated out.

#### **1. Dynamics of Competitiveness and Labour Competence**

The changes which firms are going through cannot easily be characterized. There is a consensus amongst researchers that the world in which businesses evolve today is increasingly competitive, with more firms trying to increase their share of the global market. There is also a consensus about the demand for higher quality products and services, so that companies have to focus more on client needs, without

overlooking the criterion of low prices, and therefore the need to minimize costs.

The trend towards high quality and low cost was initially led by Japanese firms, which had pioneered new production methods termed “slim” or “lean production”. The principles and techniques of lean production, based on continuous improvement of the whole process, broke the relatively static framework of quality norms and efficiency which had previously governed production. As a result of globalization, these practices spread rapidly amongst “Western” firms, which imitated or adapted them.

By the beginning of the 1990s most leading world firms had introduced lean production, which had thus ceased to generate a competitive advantage in the market. On the one hand this strategy has a natural limit,<sup>1</sup> and on the other hand, competing firms followed the same strategy, reducing the possibility of getting ahead in the market by introducing better techniques: *“the old (sic) strategies seem to have reached their limits and now there is no reference or clear example to follow”* (De Meyer, 1992). The problem can be formulated as follows: how can we *differentiate* firms in an increasingly global market which facilitates speedy and massive diffusion of better organizational practices and technological innovation? While globalization helps firms gain access to technical and organizational advances, this enables them to do no more than keep up with the competition. It does not give them an advantage (Luhmann, 1991).

Responding to customer needs has been the first step for many firms aiming to offer unique products or services which can generate a market advantage. However, this movement is limited by considerations of production, which tend not to differ significantly amongst competitors. Furthermore, it has turned out to be counterproductive in the development of new technologies in highly dynamic areas, such as the computer industry: by being so close to the customer, distributors of key computer components did not take into account the innovations that emerged in inferior segments of the market, but which in a short time became industry standards, displacing firms producing older technologies (Bower, Christensen; 1995).

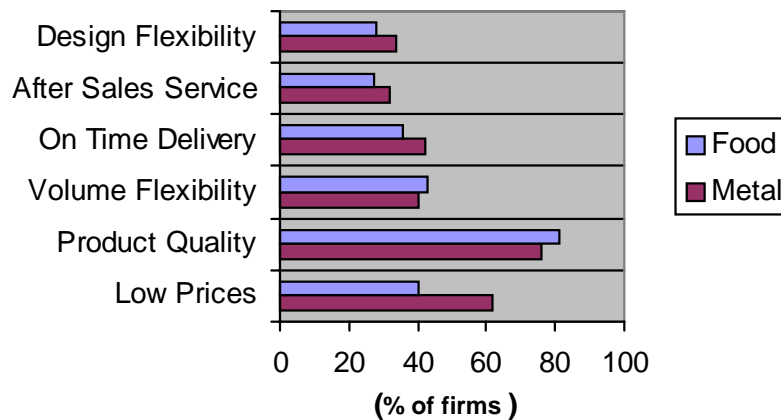
According to a study carried out in 1992 amongst 108 managers, the response of leading European firms was to aim at generating quality products at a low cost at the same time as adapting products to client needs (De Meyer, 1992). However, this does not seem to be the case in Latin American firms, which at best are still in the previous phase of combining low prices with high quality, as indicated by the

1 For example, the concept of “just in time” to reduce inventories and speed up deliveries, can generate important savings when it is first introduced; however, there comes a point where the improvement that can be obtained is minimal and the cost of achieving it is greater than the benefit obtained.

2 Under the auspices of the regional ILO/CIDA Project “Technological Change and the Labour Market”, which was based at the ILO’s Multidisciplinary Team in Santiago, Chile, studies on patterns of innovation and human resource management were conducted in six countries of the region (Argentina, Brazil, Bolivia, Chile, Colombia and Mexico) during the period 1992-1996. A set of data collecting instruments was designed and applied in both employer and labour sectors in two industrial branches, food products and metal-working. For managers, an extensive questionnaire on productivity and human resources management was developed. For union leaders, a research

## COMPETITIVE CAPABILITIES Metal and Food Industry

(N metal=189; N food=134)



The results of a survey among 323 food and metal firms, in six Latin American countries, indicated that in both, competitive strategy emphasized the combination of quality and low price, although the latter was more important in the metal industry. This is to say: the topic of quality is spreading amongst organizations.

Punctual delivery, after-sales service and changes in design receive less emphasis. However, these are the areas which permit firms to differentiate themselves from their competitors and have the potential to generate a competitive advantage. Leading international firms are in this phase.

Source: Own calculations based on data from the ILO/CIDA project *Technological Change and the Labour Market*.

results of research undertaken by an ILO/CIDA regional project.<sup>2</sup>

The “virtual organization” generates added value for its clients, using resources beyond the static function of production; resources that are not directly controlled by the management of the firm, but which are mobilized by suppliers, workers, marketing and engineering departments, research institutes and consumers. The organization actively includes part of what previously constituted its environment, and the strategy is to generate a competitive advantage by building networks between the actual manufacture and the other functions

workshop was organized along with an instrument to gather information. The sample that resulted for the total of the six countries consisted of 345 and 118 cases of

involved in production.

According to some analysts, the emergence of this new type of business organization is due to the fact that it is the *architecture of the organization* which gives a unique and flexible character to the firm. The architecture comprises the set of relations, both internal and external, which the business has developed in its past activities. This network constitutes a *distinctive* capacity which is very difficult for competitors to reproduce, thus becoming a competitive advantage when actively put into operation and introduced as an asset in the market. The competitive position, from this point of view, is the result of investment in the firm's network of contacts (Lane, 1995).

Instead of focusing on their financial and physical assets, firms should pay more attention to those elements which do not appear on balance sheets: unique technological capacity; knowledge bases; training; experience; innovative capacity; market knowledge; expert software; motivational systems; distribution of information; intangible images; long-lasting alliances. In short they should place more emphasis on the *core competencies* of the organization, concentrating on those which distinguish them from their competitors. The focus is no longer on managing physical and capital assets, but on managing the intellectual processes which in the final analysis are the most valuable assets of the firm (Quinn, 1995-96).

An important component of the internal architecture of the business is the competence of the workforce, that is to say, the contribution which employees can make to reaching the firm's objectives. Traditionally, organizations used this competence in only a few dimensions, generally the amount of effort realized. The *amount* of effort is a relatively easy factor for managers to control and for competitors to match. Not so the *quality* and *direction* of the effort, which reflect the architecture of the organization. Management has to *invest* in the firm's architecture in order to achieve the maximum effect from the efforts made by the workforce. The effort made by workers depends greatly on the rules, which are generally based on accepted criteria, with a strong dose of tradition, forming the *social* interchange of the work contract, which is the complement of the *economic* part (Christis, 1988).

Social interchange refers to the relationship based on the work contract, which largely determines the quantity and quality of effort which workers will make. In this relation there are two important factors. The first is the working environment. Given the element of continuous negotiation between managers and workers, transparency

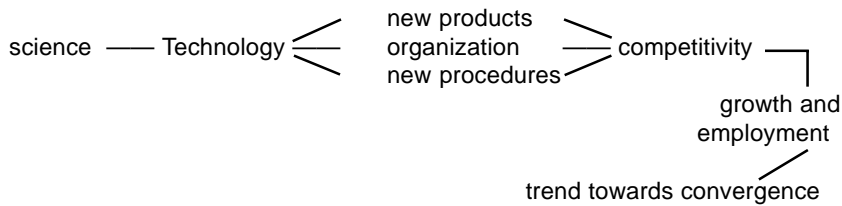
and internalization by personnel of the firm's objectives will help ensure that this latent conflict does not become adversarial. The second is workers' understanding of the results which are expected of them. If the firm's objectives are not well-defined, not adjusted to changing circumstances, or not shared by the workers, then they will not know how to direct and develop their efforts. Conversely, if clear objectives exist in the organization and if these are internalized by all employees, their efforts will become more effective.

The location of a firm plays a strategic role in human competency development, particularly through the quality of the education and training of the workforce. Studies in the United States have revealed that in the decision on where to build a new plant, fiscal incentives play a much less important role than the skills of the workforce in the area or region. The relationship between the firm and the local education system is thus one of the networks which determines the distinctive capacity of the firm in the global market (Kanter, 1995).

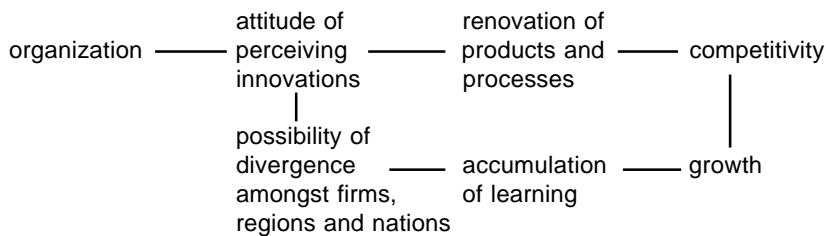
In conclusion, the emergence of labour competence has to do with the need of firms to differentiate themselves in the global market. It

**INNOVATION AND ORGANIZATION:  
THE EMERGENCE OF A NEW MODEL**

**The sixties: linear relationships**



**The eighties: synergy between organization and innovation**



Source: Boyer; Amable, 1993.

also has to do with the new parameters of competitiveness which have become more demanding and complex, combining low prices with quality and adaptability, as a means of generating greater added value for the client. These parameters are projected onto the tasks and the people performing them, who thus need new skills.

## **2. Strategies for improving productivity and labour competence**

The twin objectives of improving quality and reducing costs has led firms to focus their productivity strategy not only on the technology involved but also on the organizational requirements (Womack et.al., 1990).

Some analysts believe that between the 1960s and the 1980s a fundamental change took place in the relationship between science, technology, organization and competitiveness (Boyer; Amable, 1993).

They postulate that in the past, innovation arose from advances in science and technology, which moulded the organization of production and labour. This created employment and increased enterprise competitiveness, with a trend towards the convergence of innovation models in firms.

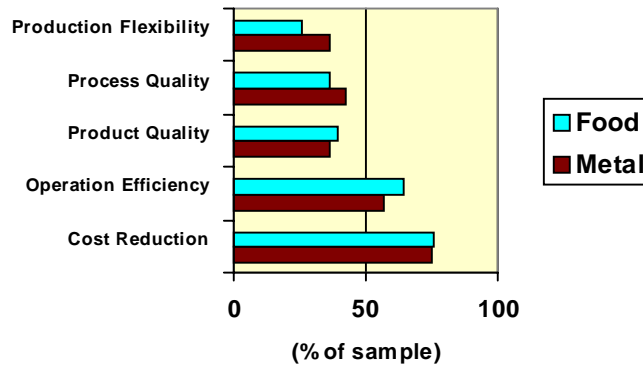
By the 1980s-90s, this linear relationship had been transformed into a synergy between organization and innovation, in which the structure of the organization is the base for technological innovations. The organizational structure or architecture gives the possibility of divergence between firms and regions; this proposal is therefore congruent with the architecture of resources as the basis of competitive strategies (ibid.).

It should be pointed out that the emphasis of Latin American firms seemed to be more on the management of production than on the organization of work and human resources, at least at the onset of organizational innovation (1989-1992). In the second phase considered in the investigation (1993-1995) the opportunities for improving productivity had been fully exploited. The next step in the modernization process was to restructure the organization of work, as a necessary complement to innovations in managing the productive process. In spite of the fact that management "gurus" recommend the contrary, the development of human resources still tends to be neglected.

### **2.1 Technological innovations**

Recognition of the value of innovations in the management of human resources as part of the productivity strategy does not imply a

**PRODUCTIVITY OBJECTIVES**  
**Food and Metal Industry (1993-1995)**  
(Nfood=134; Nmetal=189)



Quality played a predominant role in the competitive strategy. Nevertheless, in the objectives of the strategy reduction of costs prevailed in the sample of Latin American firms. This has to do with commercial openness in the countries where the study was carried out and the policy of controlling exchange rates in order to reduce inflation. This is a defensive strategy which sooner or later will have to be replaced by one which is more proactive, based on quality and flexibility.

Source: Own calculations based on data from the ILO/CIDA project.

reduction in the importance of technology. In fact, the firms studied have typically shifted their emphasis between different areas: if in the first period the organization was emphasized, in the second they moved to technology or human resources (at least 70 per cent of the sample show this behaviour). Some analysts point out that information technology (IT) is a critical element in redefining and recreating the organization. IT allows power, functions and control to be redistributed until they respond to the firm's objectives in the most effective way (Scott, 1991).

In Latin America, the technical base of firms shows an increasing use of microelectronics, although the degree of diffusion is still limited. Thirty per cent of the enterprises studied in the metal industry and in foodstuffs, were planning to introduce microcomputer-controlled equipment in the period 1993-1997. The business environment of the

nineties demands quicker and more efficient responses from firms, so that they have to accelerate their decision making. This is possible, partly because of the dynamics of the environment and partly because IT has changed the way in which work is done. In effect, IT is the technological base of a modern organization. Managing the numerous interdependent factors which prevail in the 1990s and the dynamic environment, requires new systems and processes. The measurement of work, compensation and salaries, incentives and qualifications all require rethinking in the world of IT (ibid.).

The accelerated introduction of information technology has focused attention on the need to achieve its full potential. Studies have shown that the success or failure of its adaptation or installation depends very much on the complexity of the human resource system in place. Information technology has a considerable impact on the firm's personnel but at the same time the culture of the organization and the management of human resources has an effect on the technology. Management policies and norms determine how and what type of technology is chosen, how it will be implemented and how successful it will be in achieving the proposed objectives (ibid.).

## 2.2 New organizational forms

Although there may be consensus on the broad paradigms of technological and organizational innovation, and the need to synchronize the two, there is less agreement among researchers and business analysts on the best practices of the moment. *"The problem facing firms wishing to change is that there is no clear blueprint available to define the new organizational forms or technological configurations that are needed -*

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### EVOLUTION OF COMPETENCE IN CLOSED SYSTEMS COMPARED TO OPEN SYSTEMS

Closed:	Open:
Technology, organization	Results
x	x
Functions/competencies	Functions/competencies
x	x
Task	Technology, organization
x	x
Results	Tasks

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*any more than earlier paradigms were articulated at their start. Instead, there is a need for experimentation, innovation and learning, as new options are tried and evaluated as models for 'best practice' as alternatives to the increasingly appropriate 'Fordist' model. One of the phrases beginning to enter the manufacturing language of the 1990s is the concept of 'the learning organization'" (Bessant, 1991).*

Besides the fact that there are no clear formulae, problems of *interpretation* have arisen with regard to firms' understanding of the different concepts of organizational innovation: *"What is most perplexing and most exciting about the current era is the multiplicity of competing ideas about the 'proper' way to organize work. Everyone, it seems, is talking about becoming a 'world-class' manufacturer dedicated to 'lean production', 'total quality', 'continuous improvement', and 'organizational learning'. But the meanings people attach to those terms, the routes they plan for achieving them, and the resources they have for seeing them through to fruition are often quite different"* (Thomas, 1994). To understand the process of innovation it is convenient to start with the details because that is where the "devil" lies, as those in charge of production engineering say (*ibid.*).

Organizational innovations have in common the fact that they are open systems: their limitations and scope are imposed by the organizations themselves. With the closed technological and organizational systems of the past, there was a direct relationship between the system and the results: machinery had a production standard and a standard output "x" per hour for the operator. The basis of the system was that the sum of efficiencies in each post would result in efficiency for the flow. The paradox which resulted was that when the Taylorist method sought to reduce wasted operator movement in each post (Bluestone; Bluestone, 1992), waste started to accumulate along the length of the flow and in relation to the client, rendering the method counterproductive. However, the greatest paradox was that this method wasted the education, knowledge, creativity and intelligence of the worker; i.e. the very basis of a strategy of sustainable increased productivity in complex production systems (Cepal-Unesco, 1992).

The opening of technological and organizational systems means that their linear relationship with predetermined results is lost. The wide variety of options for innovations in technology and organization extends the range of results that can be obtained with a predetermined technological and organizational package. Results will depend more and more on the capacity to coordinate organization, technology and

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**Effort required for organizational and technical innovation:**

The effort required to implement organizational change is much greater than to instal a new machine. In the case of equipment, the firm knows the challenges indicated by the specifications of the machine. With people it is not so clear. The dilemma continuously arises: how far to go? and how fast? The *modus operandi* has to be changed, that is, production practice. This requires personnel who a) are committed to the objectives of the firm; b) are flexible in the face of adaptations; c) identify with the idea that quality comes first. These points create a new culture in the firm, at all levels of the organization.

*Interview with manager in metal industry. Mexico, 1993.*

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personal development, systems which in turn are made up of a great variety of equally open subsystems. The consequence is the loss of the traditional “driving” relationship which went from the machine and the organization, to the task and finally to the desired result.

In an open system with many subsystems, technical and/or organizational innovations have the potential to produce many results. The question is: which result is wanted? It is necessary to work backwards: first define the result, then identify the functions linked to the organizational and technological options and, finally, specify the type and content of the tasks.

However, it is not enough to reverse the relationship between results, functions, technology-organization and tasks. Modern firms tend to increase the number of elements which must be kept together in order to survive in a global market which is also composed of an increasing number of united elements. For example, the twin objectives of productivity and quality output represent a combination of demands in terms of price, volume, quality, design and service to the client; demands which have evolved, not separately, but jointly, with a variety of possible options for the firm.

The innovation strategies that firms follow to respond to these changing and growing demands are characterized by initiatives in technology, production management, work organization and human resources. In the firms studied in Latin America, the average *number* of initiatives per firm increased from 14 to 20<sup>3</sup>, between the periods 1989-1992 and 1993-1995. It seems that increasing the number of initiatives causes firms to reach a point where it is no longer possible to relate each one of the elements. In function of an inherent limitation

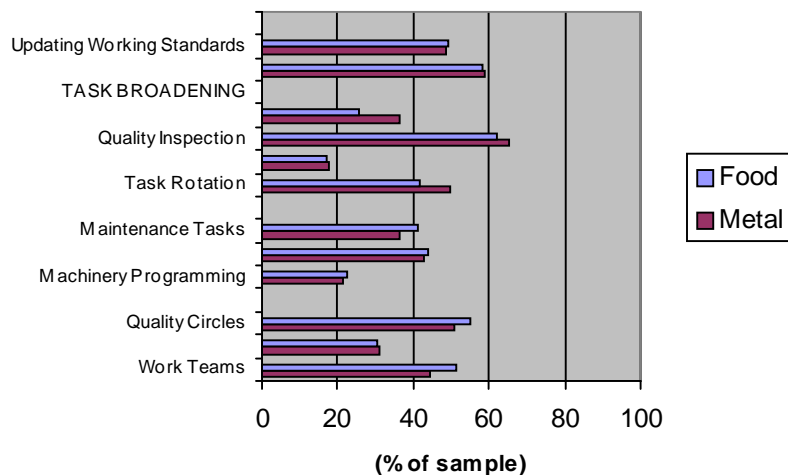
managers and union responses respectively.

3 In the case of the metal firms, the increase was from 14 to 20, and in

in the capacity of adjustment a complex relationship develops, in which it is no longer possible for each element to be related to every other at all times (Luhmann, 1991).

The fact that the firm as a system becomes more complex imposes the need for *selection*, which converts the firm into an organization where selection occurs in a coactive way, which in turn means contingency and risk. Selection places, qualifies, and orders elements even if there are *other* possible relationships. This “possibility of other forms” and the possibility of failure even with the most favourable configuration of elements is the contingency and is what characterizes

### WORK ORGANISATION INNOVATION Food and Metal Industry (1993-1995) (Nfood=134; Nmetal=189)



In both branches, the innovations in work organization were concentrated, in the period of reference, on: the simplification of tasks and updating of work norms; the assignment of inspection tasks and statistical process control to operators; multiskilling; teamwork and quality circles. Less present were the assignment to operators of maintenance, programming and similar tasks, and reduction in the number of hierarchical levels. In the trajectory of change, these last initiatives will probably come later.

Source: Calculations based on data from the ILO/CIDA project.

the complex organization (ibid.).

Greater complexity in the innovation systems and consequently in the operation of the firms demands selection, and it also demands greater adaptability in personnel systems. This greater adaptability is translated into the requirement for *learning capacity*, which must be available on a permanent basis (Luhmann; Schorr, 1993).

In the context of work organization based on maximum division of tasks and specialization, and minimum cooperation and autonomy, the complexity of the functions, and therefore of the organization, is reduced. This is the basis of the Taylorist model of work organization, which in its assessment of standardization and specialization of techniques and operations is still valid and “modern” today (Christis, 1988).

However, the strategy of reducing complexity has lost validity by reducing the parameters of competitiveness to a single dimension (price) which is no longer relevant in most segments of the global market. It also attempted to reduce the complexity of production systems through the technical and social division of work, which generated a series of dysfunctions in terms of waste and operations of little or no added value. These were the windows of opportunity for improvement on which “lean production” and the system of continuous improvement concentrated later (Womack et.al., 1990).

Particularly in the case of Latin America, the need to comply with various dimensions of productivity at the same time -costs, quality and customer service (in industrialized countries we may add design)- has led firms to change the organization of work.

Differentiating between principal and peripheral tasks, a tendency is observed to simplify the principal tasks through greater standardization of the operations, in order to reduce costs. The principal task is extended by the inclusion of quality inspection functions and the introduction of multiple skills in a single level of complexity of the tasks. Additionally, we can observe an enrichment of peripheral tasks, both socially (working teams, reduced hierarchy) and technically (statistical process control, preventive and corrective maintenance, administration), in order to reduce operations of little added value and improve productive flow. This is accompanied by a wider autonomy in the realization of tasks.

The combination of these elements is accompanied by new functions for workers. In other words, multiple productivity objectives are projected in multiple tasks for workers. However, there are *limits* to the widening and enrichment of tasks, because in the end there are abilities and specific knowledge that are not easily transferable within

the production process.

The complexity and openness of the tasks that workers must carry out in order to comply with their new functions make the details of the operations less controllable and predictable. Contingency increases, that is, the possibility to arrive at an objective in more than one way, and also, the possibility of failure even with the most favourable configuration of operations and their elements (Luhmann, 1991).

Besides the need to set new limits for the functions themselves, this trend of openness and complexity of functions means that the tasks are no longer synonymous with skills, as in the Taylorist model. The need arises to start from the *competence* before describing the task; allowance has to be made for an open range of possible routes which will arrive at the desired competence. This can become a motivational tool for personnel, in that it represents an obtainable objective. Although workers' performance is more effective when the objectives are clear and simple, in practice objectives are not presented in this way and often a balance is required between competing interests or mutually conflicting objectives. In this sense, competence can help reconstruct the limits of functions, thus becoming an attractive tool for the strategic planning of human resources.

The innovative capacity of the productive apparatus means that the trajectory of change must be understood in a context of *heterogeneity*. The results of the ILO/CIDA project indicate that, even if there is a difference between sectors in terms of the *rhythm* of innovation, the *direction* does not differ greatly between industries as distinct as food and metal. It may be proposed that the concepts of change corresponding to the lean production model apply independently of the type of activity. Firms are distinguished by subtle differences in the type of initiative, the profundity of its application and its links with other initiatives, particularly in the management of human resources. They are also distinguished by the sequence of initiatives and the moment at which implementation begins (Mertens; Palomares, 1993).

Firms have different strategies for implementing change. Some stress the symbolic aspect of the change, emphasizing the mission statement of the organization, transforming managers into "preachers" of new symbolic systems based on a vision of the 'ideal' organization, as is the case with total quality philosophy. Others emphasize the development of new meanings in the areas of quality, costs and customer service, with precise and sometimes complex methodologies, as in the ISO 9000/2 series and ISO 14000 (standard

which focuses on the environment). The challenge for the firm is to strike a balance between efforts to develop the vision and the symbolism, and the system of meanings. This is translated into the problem of leadership change in which managers and union leaders are the protagonists.

### **2.3 Innovation and heterogeneity of the production structure**

The principal factor in heterogeneity is the *size* of the firm, at least in Latin America. Small firms have advanced the least in initiatives related to lean production and they have made little progress in the corresponding productivity indicators. This conclusion agrees with the results of research on productivity dynamics in Mexican industry, where small firms have evolved more slowly than large ones (Brown, 1995). It also agrees with the results of an ILO questionnaire: "Technological change, work and employment in the manufacturing industry of Gran Santiago, 1988-1990". This survey led to the conclusion that *"technological heterogeneity seems to have deepened in the period of reference, even though some small firms showed very innovative behaviour. In general they faced the known difficulties of accessing information sources and suppliers of technological changes, or lacked the resources to introduce them. For the same reasons but acting in the opposite sense, the adoption of combined productivity strategies (simultaneously applied to the technological base and to the organization) was more frequent in large firms"* (Geller, 1994). Contrary to what happens in other industrialized countries, the emergence of dynamic small firms has not yet been seen in the region, although there are some individual cases of success.

Large firms are just beginning to draw closer to the supplier and to subcontract production to smaller, specialist forms. Even if in Argentina, Brazil and Chile these phenomena have been observed more than in Mexico, the main reason for subcontracting seems to be the reduction of labour costs, and the increase in volume in the Chilean case (Geller, 1994), more than the specialization and learning capacity of small firms.

In this last aspect, a difference was noted between sectors: whilst subcontracting production occurred in more than 25 per cent of cases in the food industry, in the metal industry almost 40 per cent of firms planned to do this in the period 1993-1995; in technological assistance to suppliers the figures were 40 per cent and 50 per cent respectively. Managers in the food industry were jealous of their production processes and resisted a closer link with suppliers. However, in the

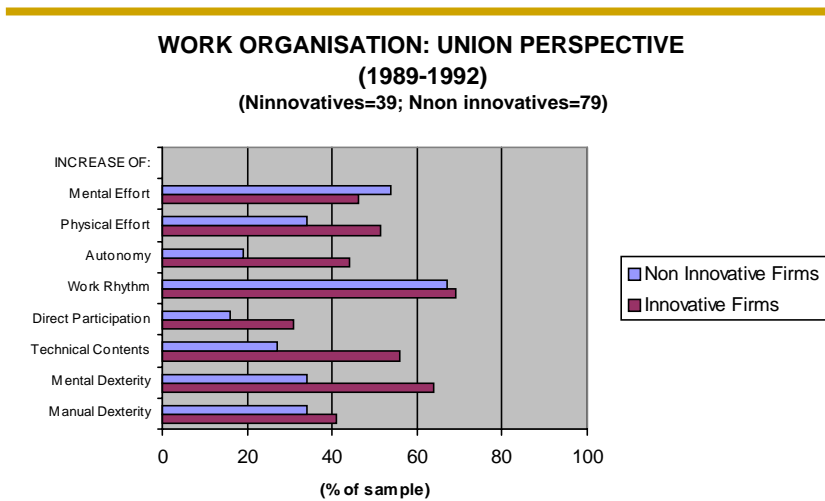
metal industry, and especially in auto parts, there are signs that the new concepts are filtering down the production chain towards the small supplier. In this case, one could venture the hypothesis that certain basic competencies would be shared amongst firms of different sizes, and, further, that the small firm could become empowered with the labour competencies of the larger firms if transfer costs were low.

## 2.4 Work organization and union vision

The response of unions to changes in work organization is varied and depends on the direction of change. However, various studies have found little difference between unions' perceptions and interpretations of changes in work organization and changes in the required competence. For example, it is proposed that increased autonomy be limited to the post itself, covering the sequence of operations, but rarely going

food the number rose from 13 to 20 initiatives.

- 4 These authors propose that traditional occupational qualifications were portable in their time and that multiple skilling would



From the results of research with union leaders we can see that the trajectory of modernization followed by food and metal firms has led, in more than half of the cases designated as innovators, to an increase in the manual and mental skills required; this is not so in terms of technical knowledge. The rhythm of work also increased and, although to a lesser degree, the physical and mental effort. Meanwhile, participation and internal autonomy with respect to the capacity to regulate increased in fewer cases.

Source: *ibid.*

beyond the post, which transforms it into a controlled autonomy (Christis, 1988; Parker; Slaughter, 1994; Garcia et al., 1994). Complexity does not usually go beyond resolving routine problems; the work cycles in the principal task are short with rhythms of work tending to increase (ibid.). This is to say that unionists question the limited advance of openness and complexity in functions and tasks. They also argue that multiple skilling in factories does not necessarily lead to portable training that can be taken to other firms<sup>4</sup> (Parker; Slaughter, 1994).

From a union perspective, the identification and definition of labour competence opens up the possibility of re-establishing workers' functions in the plant, taking into consideration the technological and organizational factors of the particular case. In this way one can propose more external autonomy and jobs which involve solving non-routine problems, which demand abilities beyond carrying out simple operations. One can also propose alternatives in the context of accelerating work rhythms, which is a constant in the majority of firms (ibid.).

Part of the research of the cited project was carried out with union leaders in Latin America. They pointed out that changes in firms have had an impact primarily on the mental and manual skills required. This is partly because of the extension of tasks in terms of quality inspection and multi-functioning, but also because of the more intense rhythms of work resulting from the slimming down of functions and operations. Workers are required to make greater mental and physical effort, but enjoy little participation and autonomy in the realization of tasks.

From the union perspective, the definition of labour competence will require the revision of functions and also of the technological and organizational context in which these exist. The aim will be to generate greater depth in the technical content of tasks and to avoid the negative impact on working conditions (Parker; Slaughter, 1994). In this sense, the definition of labour competence becomes a forum for negotiation and for potential conflict. The labour climate in firms will determine the capacity of the organization to cope with this latent conflict; this variable thus becomes a strategic factor when labour competence is introduced in the organization (Mertens, 1992).

### **3. HUMAN RESOURCE MANAGEMENT AND LABOUR COMPETENCE**

The role of human resource management (HRM) in productivity strategies, although it appears in the management literature, is not observed with the same vigour in practice. This is the case in industrialized countries and it is even more striking in Latin America. However, there are studies that demonstrate the preponderant role of HRM in productivity improvement, particularly in the lean production model (Womack et al., 1990).

In 1974 the analysts Ruch and Hershauer, from the United States wrote: *“it appears that technological variables are a prerequisite to determining potential productivity, but that the human or attitudinal variables are the more powerful in determining actual productivity. A lack of motivation can negate the effect of technologically advanced equipment more easily, more quickly, and more thoroughly than the reverse, whereas a high degree of motivation can effectively overcome a slight deficiency in technological progress”* (Bluestone; Bluestone, 1992).

A questionnaire survey of 1800 directors of leading firms in industrialized countries revealed that leadership is critical at all levels of the enterprise in the context of new definitions of the organization and of new information and communication structures. Leaders have to know how to communicate objectives and values, moulding the behaviours that correspond to the restructured tasks. They need to promote two-way communication and greater participation by personnel in general. Although the directors acknowledged these elements, the same study pointed out their admission that firms still have many difficulties in communicating with personnel and involving them in decisions, as well as in acting on their suggestions. After a decade of restructuring and re-engineering, the challenge is the workforce. Employees continue with basically the same behaviour as in the past and do not act as protagonists. In order for employees to

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**On the order of innovation efforts:**

Some firms will go for vast improvements in machinery with vast investments. But in general, firms will have to dedicate themselves to working with people. In some form this will be the innovation of the organization of work, not to be understood only as the distribution of work, but above all as its direction. This means improving labour force management. Today, workers are badly paid. This must start changing, increasing salaries, giving something extra. Personnel arrive with little training, so the firm ought to invest in training, in education and in the retention of personnel.

*Interview with manager in metal industry, Mexico (1993)*

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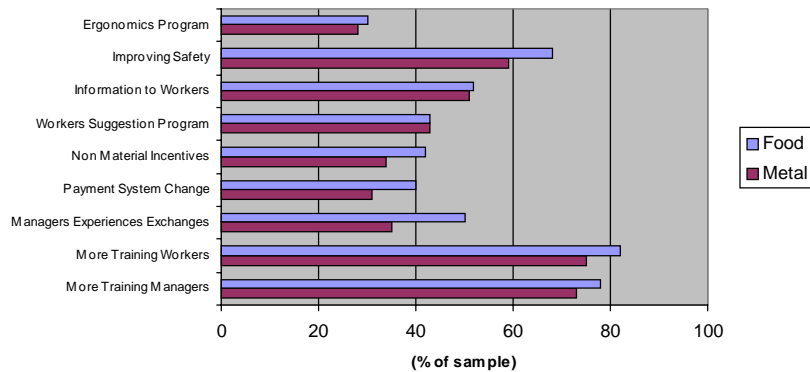
join the new world of business, the leaders of organizations must create a *social architecture* in which the workforce is no longer the principal challenge to change but the beneficiary and driver of change (Watson Wyatt, 1995).

Research in the United States points in the same direction: changes in the organization of work through the introduction of work teams lead to improvements in productivity and the quality of work, when accompanied by and/or inserted into worker participation in company decisions, when there is job security based on training, and when there are systems of payments and incentives based on group results (Levine, 1995).

The term “social architecture” indicates that it is not sufficient to act on a single aspect of human resource management. The results of the cited project confirm this thesis: the firms with the best performance had carried out simultaneous initiatives in diverse fields of HRM, namely: in training, participation and involvement, payroll

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**HUMAN RESOURCES MANAGEMENT INNOVATION**  
**Food and Metal Industry (1989-1992)**  
(N<sub>food</sub>=134; N<sub>metal</sub>=189)



Projection of initiatives in the development of human resources in the food and metal industries for the period 1993-1995 shows a lag in the participation and involvement of personnel, changes in the system of payment and ergonomics. It also shows that organizations in Latin America have difficulties with improving their social architecture, which is the basis for restructuring the firm through mobilizing the human resources at its disposal

Source: *ibid.*

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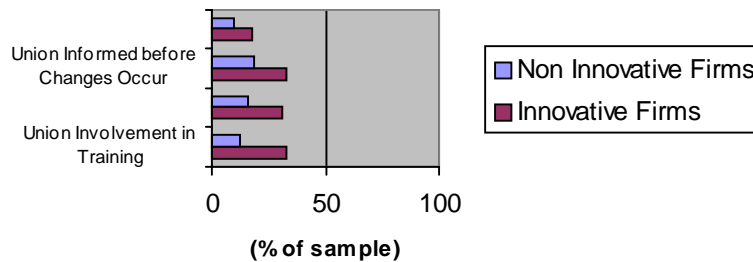
systems and ergonomic programmes. Whilst the least dynamic firms had applied an average of three initiatives in the development of human resources, the most dynamic had introduced an average of four initiatives in the period 1989-1992.

Nevertheless, the results also indicated that few firms gave priority to their human resources and that one of the main difficulties was to link the initiatives in different areas, to arrive at a social architecture that would support the innovation strategy of the organization.

The social architecture is the link between the different subsystems of human resource management and tends to become complex because of the number of superimposed innovations. As in all architecture, there must be axes or backbones which give substance to the structure. The definition of competence norms or standards for personnel can play this role, because finally all innovations in HRM must produce results in order to justify the investment. The link between innovations and results at firm level is not direct but mediated by the workforce. The best way to ensure the result is probably to formulate it as the content of the desired competence.

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### WORKER PARTICIPATION: UNION PERSPECTIVE (1989-1992) (Ninnovatives=39; Nnon innovatives=79)



From the union point of view, worker participation in areas directly related to productivity improvement is rare. However, it occurs more in innovative firms, becoming an attribute of these. That is, the trajectory of innovation would point towards worker and union participation.

Source: *ibid.*

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However, if competence is a basic component of the social architecture, it is clear that competence must be defined jointly by management and workers, so that there is a consensus on the objectives to be reached. This is not a consensus by lecture or by pronouncement, but a consensus derived from experience (Pritchard, 1990).

In relation to this last point, the practice of Latin American firms is quite poor. In very few firms do workers and unions participate in decisions about change, work routines and in the management of training; and even when this does occur, in the opinion of unionists, it happens only when management has an urgent need for workers to help solve a problem (Garcia et al., 1994). Furthermore, union leaders pointed out that participation is of a *consultative* nature and rarely achieves a *substantial level*.

Studies carried out in the United States indicate that consultative participation at plant level does not lead to a sustained improvement in productivity. Consultation has to be combined with the reorganization of work and the widening of worker participation in decision making (Levine, 1995).

Labour competence would have a greater impact on productivity if it were jointly defined by management and workers-unions. That is, the possibility of productivity improvement increases to the degree that worker participation in defining competence is *substantial*.

Labour competence, seen this way, becomes an opportunity for unions and workers to take the first steps towards substantial participation in the firm.