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The Innovative Role of Human Resources  
in Service Oriented Manufacturing Firms

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Abstract

The authors describe an innovative way of conceiving the role of both internal and external human resources in service oriented manufacturing firms. The analysis is developed using three reading keys: 1) a "high touch" approach, in line with the typical logic of a service factory; 2) a high degree of professionalism and of specialisation of personnel, according to a "brain intensive" approach within the firm; 3) a solid "trust" between the firm and outside contractors, within a "virtual factory" approach. The reflections are supported by the analysis of Benetton Group, a leading company in the casual clothing industry which operates on the international market.

1. FROM THE TRADITIONAL FACTORY TO THE SERVICE FACTORY

The culture, and the operational methods of service management have become a formidable weapon even for large manufacturing firms (Quinn et al., 1988).

Many manufacturing firms seek to become more competitive not only by increasing efficiency through reduction of costs, but also by improving their performance with regard to the services offered to customers, such as delivery times, reliability of deliveries, product innovations and post-sales service.

This process of change must necessarily be of a holistic nature in order to determine a new way of operating which overcomes the simplistic and obsolete distinction between goods and services. This integration of products and services achieved by excellent manufacturing firms has been termed the "service factory" (Chase and Erikson, 1988).

The creation of a service factory necessarily implies a radical change in the operational and organizational characteristics of the firm (De Toni et al., 1993).

Starting from the traditional factory (dominated by a production logic that pays little attention to the needs of the final customer, organized into functional work shops, usually with little integration at the organizational level and with a low "level of contact" not only in intrafirm relations but also in relations with customers) one arrives, through successive steps, at the service factory. The service factory is characterised by an operating logic that prioritises the customers' needs. Furthermore, production is organised in order to facilitate the



flow of products, and those aspects, that are linked to human resources in general, and to services offered to customers in particular, are crucial factors for the success of the firm. The service factory can be seen as the current frontier of the evolution of the manufacturing firm which began as a "craft", then became firstly "labour intensive", then "capital intensive" and finally a service factory.

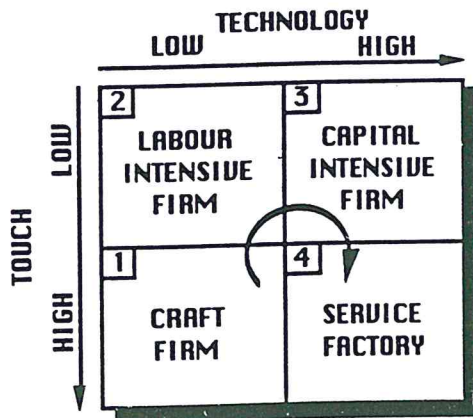


Figure 1 - Stages in the evolution of the "service factory".

This latter links the "high touch" characteristics, which are typical of the craft firm and of service firms in general, to the "high tech" characteristics, typical of firms that use advanced technology within the production process. This is summed up in the matrix in Figure 1, which shows the service factory in relation to other types of firm: "craft", "labour intensive" and "capital intensive".

The types of firms described above are characterised by different manufacturing tasks (see Figure 2). In the craft manufacturing firm, definition of the product has always been associated with a creative process that lends the product a unique, or even artistic, characteristic, perfectly in tune with customers' expectations. Whereas in the traditional labour intensive and capital intensive manufacturing firms, production is carried out within a system whose main features are the high degree of standardisation and cost reduction, even at the price of lowering the final customers' satisfaction. The pressures of competition have made the synthesis of production and service aspects more and more important for manufacturing firms: production aims to include an element of service within the product, that is production seeks "to serve a product".

TYPE OF FIRM	MANUFACTURING TASK
CRAFT FIRM	TO CREATE A PRODUCT
TRADITIONAL FACTORY	TO MANUFACTURE A PRODUCT
SERVICE FACTORY	TO SERVE A PRODUCT

Figure 2 - Evolution of manufacturing tasks.

As said before, the setting-up of a service factory necessarily implies a radical change in both the operational and the organisational characteristics of the firm, and it presupposes a profound re-thinking of the logics and methodology of the management of human resources.



## 2. THE INNOVATIVE ROLE OF HUMAN RESOURCES IN BENETTON

Benetton is an industrial group leader at the world level within the casual clothing industry. In 1991 its turnover was more than one thousand million pounds sterling (up twelve per cent on the preceding year) with a net profit of 73 million pounds sterling (up 23.6 per cent on the preceding year). In 1991, Benetton produced more than 83 million items of clothing in its 14 factories, which have been set up in six different countries in Western Europe, the US and South America. Each year the firm prepares 5,000 models for its various collections which are then sold in 6,500 retail outlets distributed between approximately 100 different countries.

Eighty per cent of production is carried out by outside contractors, who are linked to the head office through relationships that have been established over the years. Not only the collection design, but also the advertising campaign, commercial distribution, planning and the management of the production of outside contractors are all coordinated centrally. According to Luciano Benetton (1991), the group's founder and current vice president and managing director, human resources are the key factor in the system. What is innovative here in the management of human resources is the fact of looking beyond the confines of the firm, involving external human resources, then creating a stable business coalition with them and exploiting the soft skills (cultural identity, common values etc.), of both the internal and external resources.

Since eighty per cent of all production is carried out externally, one could almost say that the firm has moved its management focus from the inside to the outside. In practice, Benetton manages resources that are not directly subject to the company but that are nevertheless integrated into the organization.

The analysis of the innovative role of human resources in Benetton is developed using three reading keys that analyse three different aspects of an innovative way of conceiving the role of both internal and external human resources in service oriented manufacturing firms:

- a "high touch" approach, in line with the typical logic of a service factory;
- a high degree of professionalism and of specialisation of personnel, according to a "brain intensive" approach within the firm;
- a solid "trust" between the firm and outside contractors, within a "virtual factory" approach.

The proposed reading keys permit the functioning of the Benetton Group to be fully analysed as they broaden the subject of the investigation so as to take into account not only the firm but also the environmental context in which it operates. This process cannot but tend to relocate the firm's organisation within a far wider network of economic, social and personal relationships, one that goes beyond the traditional lines of demarcation between the organisation and the market, between the economy and society.



## 2.1 "High touch" approach according to the service factory logic

In all firms, management of human resources has become crucial for operational effectiveness. In traditional manufacturing firms, programmes for personnel training are often restricted to foremen and management, while, in service oriented firms, attention is paid to motivation, training and career planning for all personnel, on the grounds that no, one, human resource is any more "crucial" than another.

Benetton's management methods are innovative because they are faced with, and must deal with, a series of relationships with a high degree of contact, and, a situation where there are many different actors, for example, the entrepreneur, management, the firm's structure, the outside world, etc.

Management rewards and encourages behaviour based on personal initiative and on relationships rather than that based on the hierarchy. The opportunity of putting "something of yourself" into your work is enhanced and developed. This has important consequences for the whole system: despite the fact that this is a large firm, the employee feels that he/she is working in a small, more personal environment, with little hierarchy, with a fast decision-making process and where the quality, rather than the quantity, of interpersonal interaction between everyone involved is high. In this way we can say that the firm is characterised by its "high touch" approach, that is, by the high degree of contact not only between the firms and the outside upstream and downstream actors, but also among the employees within the firm.

This is reflected in the careers of individual employees. An employee's career not only unfolds within the firm itself, as part of the usual process of internal growth, but it also develops within the Benetton "circuit", with persons who move around to take up posts in other parts of the network of firms, or with persons who, while they may not change their formal position within the firm for years, change both their performance and their activities, thus advancing their career even though they ostensibly remain in the same position. Understanding this industrial system, means effectively, understanding how to create, buy and assimilate "personnel ideas" (Normann, 1984).

In other words, in order to understand this industrial system we must find the answer to the following question: Is it possible to plan or buy the ability to create and manage the relationships that represent the most valuable asset of these firms? (Nahavandi and Malekzadeh, 1988). In order to grasp the real revolutionary import of this question, we must ask ourselves whether we have ever been able to buy someone's friendship? This makes it easier to understand Luciano Benetton own words that neatly sum up the reason for the Group's success on the market: "the key to our success lies in our relationship with the people who work with us" (Benetton, 1991).

Thus here, in the manufacturing sector the situation is not unlike that of a professional studio or office, or, more generally of a service firm, where the premises but not the reputation can be bought: relationships are, and remain, those of



persons. Organisational changes that take place alter the nature of the problem to the point where eminently quantitative criteria no longer suffice and the subjectivity of the person who analyses, plans and manages the organisational processes plays an increasingly important role as does the ability to learn about and manage others' culture (Schein, 1985).

One must be aware of the fact that here soft skills are being dealt with, and that the management of this patrimony opens up areas of risk that are very different from the more traditional ones. Furthermore, the fact that these skills represent one of the reasons for the firm's competitive advantage on the market, and that not to take such skills into account or not to manage them effectively means weakening, or even losing, the ability to appropriate this wealth which is the basis of all the positive economic results.

## 2.2 High level of professionalism and of specialisation of employees, within the "brain intensive" approach

Within the industry Benetton is seen as a firm which, with a small workforce and with a low level of investment in plants, succeeds, from the standpoint of economic evaluation, in managing a disproportionate turnover with optimum results. Disproportionate, that is, if we compare it with other firms, active in the same sector, but with traditional commercial and production facilities (see company balance sheets published in *Mondo Economico*, 1991). This possibility of managing, hence of generating what seems to be a disproportionate value in terms of classical economic parameters, is based on the capacity to be the main firm within a network of firms, that is, to be the central body which defines the principles of the policy and the strategies for the whole network and to be able, in some way or another, to manage and direct all the firms.

This makes one think that here we are not faced with either a "labour intensive" or a "capital intensive" firm, rather with a "brain intensive" firm that manages and augments, with the collaboration of other outside units, value added that is generated by others.

The "brain intensive" type manufacturing firm could thus be compared with a firm in the advanced tertiary sector, such as an engineering firm which is characterised by the high level of specialisation and professionalism of the human resources.

As well as these two characteristics which relate to personnel, the brain intensive type firm is also characterised by the low level of capital invested per employee in fixed assets, the opposite of the case of capital intensive firms.

The three variables that have been introduced - professionalism, specialisation and fixed assets per employee - permit a correlation between the brain intensive, the craft, the labour intensive and the capital intensive firm, as shown in Figure 3.



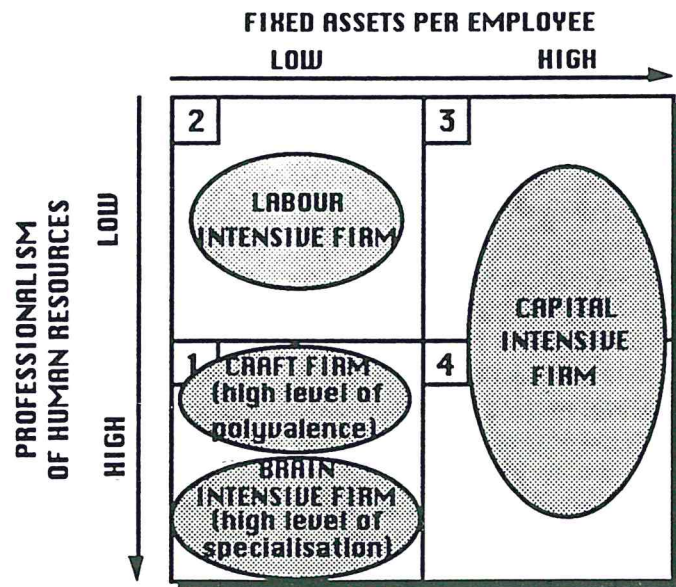


Figure 3 - The "brain intensive" type firm in relation to other types of firm.

One can see that both the craft firm and the brain intensive manufacturing firm are in square 1 of this matrix, which is characterised by high level of professionalism and low level of fixed assets per employee. However, the craft firm is characterised, at all levels, by the high level of polyvalence of each employee: the artisan may carry out all operations of the production cycle. Whereas the brain intensive firm is, by definition, characterised by a preponderance of personnel offering a high level of professionalism. Here, at the higher and managerial levels, there is a marked degree of specialisation within the professional sphere, with a concentration on highly complex, specific activities, while at the lower levels, there is the same marked degree of polyvalence as in the craft firms. Lastly, one can see that capital intensive firms occupy both square 3, characterised by the presence of unskilled personnel, who carry out repetitive manufacturing operations, and square 4 (with high fixed assets per employee and high professionalism of human resources), because they have highly professional, technical and managerial personnel, even though these may represent a small percentage of the total workforce.

### 2.3 Solid "trust" in relations between the main firm and outside contractors within a "virtual factory" logic

Because Benetton has shifted its management focus from the internal to the external, it now manages resources that are no longer directly dependent on the firm, but which are, nonetheless, integrated into its organisation. Benetton could thus be called a network firm, however, it is not possible to interpret its functioning only of the basis of models of network firms: one fundamental variable that must be taken into account when analysing its network is the "trust" factor.

Trust is the fundamental characteristic of the relationship between Benetton and its outside contractors. Such trust clearly has an economic basis due to the profit external entrepreneurs have made in the past, but it is also founded on the feeling among outside entrepreneurs that they are part of the main firm, that, in some way or another, Benetton has directed them towards, and helped them on the way, to an entrepreneurial success that would otherwise have been difficult for them to achieve.

The feeling of belonging can also be explained in terms of cultural recognition (Schein, 1985). Hence, it is easy to see why the majority of outside contractors are in the Veneto Region (North Italy) despite higher production costs in comparison with their direct competitors in the Far East or even in the South of Italy. But these higher costs of production are offset by other advantages: the higher propensity to accept technological innovation among these outside, autonomous, but integrated, producers and the higher quality and greater reliability of these outside contractors. Basically, the benefits derived from this relationship of trust are greater than its costs.

The crucial importance of the trust relationship in this network of firms leads one to define the Benetton way of operating as that of a "virtual factory". This term is used to mean a network of firms which, as well as having the typical functioning characteristics of the network, also has reciprocal trust between all members as the driving force behind their common economic aims. In this way, trust shows itself to be the reason behind a firm's decision to place a large part or all of its production outside of the sphere of its own direct control. In the latter case, there is no internal production and the factory becomes a "virtual factory".

		TRUST BETWEEN "ACTORS"	
		LOW	HIGH
MANAGEMENT FOCUS ORIENTED	INTERNALLY	2 TRADITIONAL CENTRALIZED FIRM	3 CENTRALIZED FIRM WITH COMMON VALUES
	EXTERNALLY	1 NETWORK FIRM	4 VIRTUAL FACTORY

Figure 4 - Trust as a fundamental characteristic of the "virtual factory".

Figure 4 shows the virtual factory in relation to the following variables: "management focus oriented internally or externally" and "trust between internal and external actors".

In the case of a virtual factory, the organisation of relationships between production units requires, on the one hand, information, means and integration with the values of the main contractor firm and, on the other, a different equilibrium, between the autonomy and integration of the main actors, which generates the need for management procedures and mechanisms



that may well be radically different from those used in the traditional firm.

In other words, for the virtual factory, any damage inflicted on the cultural identity of external subjects could run the risk of provoking the loss of parts of the production and commercial network and not simply changes in suppliers or customers as in more traditional firms (Hirschman, 1970): it could mean suddenly losing its own production capacity, that is, suddenly losing parts of the virtual factory.

But even a simple fall-off of the level of trust could create difficulties in dialogue, connection, and focus within the aims of the whole network and hence lead to less willingness to innovate or to keep to quality specifications and, hence to an increase in the overall costs of the system. Thus, in the long term, less trust could make it impossible to create and manage organisational systems that are characterised by the soft factors that are connected to the role of human resources.

In conclusion, it is as if the organisational focus of the virtual factory has moved from "how" it functions (organisational structures, operating mechanisms and management techniques) to "why" it functions (personnel behaviour, relationships and culture). Hence, one could say that in the traditional manufacturing firm it is possible to plan for the functioning of the firm using structured techniques and methodologies, but in the case of the virtual factory it is only possible to understand, influence and direct, with greater or lesser effectiveness, those aspects that are not only organisational but also the fruit of cultural and symbolic identity.

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