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### Re-engineering Processes for Competitive Advantage. The Empirical Evidence of Montella Limited Liability Company

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**Abstract:** The paper shows the re-engineering process of a firm operating in the house furnishings industry. It arises from the consultant activities realized in a small Italian firm, operating within the house furnishings industry.

The shift from a functional approach to a Process-Based approach allowed us to highlight both obstacles and limits to firm's value creation. At same time, the paper points out how the BPR – Business Process Reengineering – may be applied even in the smaller firms thanks to non-invasive technics, as well as by focusing on single processes. The development of an efficient informative system plays a very important role in supporting firm's analysis and its organizational and operational changes, thus underlining the relevance of ICT based innovations for business success.

**Keywords:** Business process re-engineering; Supply chain; Logistics; Business-process Approach

#### 1. Introduction

The paper shows the re-engineering process of a small Italian firm – Luigi Montella – operating in the house furnishings industry. The re-organization of firm's processes has been realized during to the consultant activities conducted, within the firm, from January to December 2012.

The shift from a functional approach to a *Process-Based Approach* has been necessary to identify and analyze limits and obstacles to firm's value creation and to its competitiveness. Not surprising, the processes analysis allowed us to highlight firm's operational errors and inefficiencies. All of them could be brought back to one or more processes, mainly to the logistic processes. As a consequence, the last ones have been re-built, according to a completely new approach, in order to apply methods, techniques and tools of *Business Process Re-engineering* (*BPR*)<sup>1</sup>, aimed at overcoming the existing limits to firm's competitiveness.

In order to support the re-engineering and firm's re-organization, a new software system has been projected and then developed within the firm. Even if It has been inspired by the ERP systems, our software/application differentiated by it in many aspects, thus better answer to firm's characteristics and necessities.

According to the above considerations, the following sections describe the consultant activities developed within Montella, their aims, the way each step has been managed, and the gained results.

Sections 1 and 2 show the theoretical background about the supply chain and the role of logistic activities within the firm by focusing on the traditional literature, as well as on the re-engineering approaches; in the section 3, we describe the empirical evidence and the way the consultant activities have been developed within Montella. Some conclusions are presented at the end.

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<sup>&</sup>lt;sup>1</sup> The re-engineering is defined as a deep re-thinking of the organizational processes aiming at improve firm's performance, by reducing costs, times, and by improving services, and quality HAMMER M., CHAMPY J., *Ripensare l'azienda*, Sperling e Kupfer Editori, 1995, pag. 37. Some Authors consider the reengineering only a little step necessary to the organizational change DAVEMPORT T.H., *Innovazione dei processi*, Franco Angeli, 1997, pag. 22.

#### 2. THE ROLE OF SUPPLY CHAIN AND LOGISTICS WITHIN TRADE COMPANIES

Supply Chain refers to those activities thanks to which the material inputs – necessary to firm's production process – are always immediately available at an adequate cost. Depending on the underlined perspective, logistic activity plays a role of horizontal coordination among the major business functions. Because of its inner linkage with firms' production system<sup>2</sup>, the Supply Chain has been deeply analyzed at both theoretical and empirical level.

The Supply Chain starts from the supplier's warehouse and ends when the finished product is available for the customer. That means, It refers to flows and warehouses management<sup>3</sup>. It is usually made up by the following operational activities:

- Unloading and storage of inputs;
- Management of buffer for intermediate products;
- Storage of output;
- Loading and delivery of outputs for sale.

The Supply Chain does not refer to the only manufacturing firms. It is present in each organization that move and store materials, even if no production process is set out. We particularly refer to Trading Company or Logistic firms whose Core Activity is the effective and efficient Supply Management. From this perspective, logistic activity needs to be managed as an horizontal function, wholly integrated with all the other firm's activities.

Because of the environmental complexity and the rising importance of firms' relations for business success, the Supply Chain Management get more and more importance for Trading Companies. Not surprising, new theories soon develop about the organization and re-organization of firms' processes and both Academics and Practitioners rapidly interest into the topic.

Depending on the above observations, we distinguish an Organizational Logistic from a Trading Logistic.

The first one refers to the plan, organization and control of all activities necessary to move and stock inputs and components – and information flows, as well – from the supply stores to the final client, after being turned into outputs through the production process.

The Trading Logistic refers to the all activities that link, with efficacy and efficiency, firms and customers, as well as industries and markets. Within the trading companies, logistic (as finance) affects every other firm's activities, often turning into one of the most important driver of value creation.

We may refer, for example, to the logistic activities of many industries – like house furnishings industry. The efficacy of delivery service is a fundamental factor of the so called "expected product" (Kotler, 1993), thus suggesting firm positioning and its competitive stand; similarly, the efficiency of logistic activities may shape cost structures (both fix and variables) deeply different from other firms operating into the same industry<sup>4</sup>.

Agreeing to the underlined considerations, we focus on the logistic activities of a Trading Company, from the supply to the delivery, according to the orders of final customers.

<sup>&</sup>lt;sup>2</sup> We refer to "production systems", as a way firms create economic value, and not to the only input-output production process.

Stock Management belongs to two main groups:

<sup>&</sup>quot;look-back", namely "pull"; and

<sup>&</sup>quot;look-ahead", alternatively namely "push".

For reference look DA VILLA F., Logistica manifatturiera, Etas Libri, Milano, 1991, pag. 68.

Brandolese A., Ferrata R., "La produzione", in Guatri L. (a cura di), Economia delle aziende industriali e commerciali, Egea, Milano, 1992.

Inefficacy in picking control systems may have negative consequences on the general costs of delivery. They may negatively affect firm image and put down the whole sale margin, at least. Other risks belong to the damage of firm' future and potential sales.

## 3. THE RE-ORGANIZATION OF LOGISTIC ACTIVITIES THROUGH THE BUSINESS PROCESS RE-ENGINEERING

The re-organization of logistic is often linked to another instrument adopted to allow firms' management changes: the *Business Process Reengineering* (BPR). From both of them, firms may advantage of the re-organization of its own processes. The BPR requires a long time to be implemented within a given organization, because of the changes it imposes on the way people work, as well as because of the difficulty in foreseeing the consequences of such radical changes. Employees need to be trained according to the new procedures. The organizational change is quite often driven by external specialists or consultants, which are able to objectively analyze the firm conditions, without being involved in social relations arising from organizational *embeddedness*. This is the reason why the BPR is often outsourced, transferring to an external partner the responsibility of the whole change process.

But What does mean BPR? And What does link BPR to Outsourcing?

The *Business Process Reengineering* may be considered a new business philosophy, developed along the last twenty years. It aims at re-invent firms' process and the way they are executed, as well as the way employees work. From a theoretical perspective the BPR has been cited for the first time in 1990, by Michael M. Hammer, in a paper published on the Harvard Business Review. The concept has been then deeply investigated in a book entitled "Reengineering The Corporation". Its theoretical background arises from the empirical evidences collected by Hammer and Champy, which are nowadays considered the founders of the BPR approach.

According to Hammer (1990) the BPR leads to new ways of working, by re-engineering the whole firm's processes. It refuses any traditional and consolidated management approach in order to give rise to a new work organization, the last one essentially oriented to customer satisfaction. In this sense, the BPR aims at re-shaping firm's economic performance, by reducing the time and costs of the execution activities, and by improving firms' quality and services.

BPR and outsourcing show, therefore, a same, common aim. BPR differs from the outsourcing, since the recourse to external experts refers to the only change stage. After the "transition phase", firm management exclusively belongs to the client.

Time by time, however, the differences between BPR and outsourcing seem to disappear and consultant societies very often propose themselves for a stable and long time management of services outsourced to the client (Palmieri, 1997).

The BPR refers to a panel of coordinated activities that produce a significant value for the end user, starting from a given value. What is valuable for the end user (He may be the user or end user of the process; He may be external or internal to the organization, when, for example, He acts down into the process) is the process output.

The processes may be intra-functional (when they are wholly involved into only one organizational function) or Inter-functional (when a given process undergoes only one function in order run over different organizational functions, as well as under different hierarchical levels of control).

Generally speaking, the inter-functional processes very often include superfluous activities, which add no value to the output.

Both intra-functional and inter-functional processes may be outsourced.

In the first hypothesis (outsourcing of intra-functional process) the decision is undertaken by the head of department, which knows, better than the others, what are the costs of both human and other resources – economic and time – employed into his department and into the sub-process that belongs to it. Cost comparisons for these kind of processes are easy to do, thus the head of department outsources the process every time the cost of outsourcing is lower than that of managing it internally. The process is outsourced in any case of firm clear inefficiency, or it would be. Far from theory, the real decision of outsourcing depends by a lot of features, among which, firm's economic and financial conditions, as well as organizational culture play a very important role.

On the contrary, the decision of outsourcing for inter-functional processes is up to the top manager because of its relevance for the whole organization.

In any case, the outsourcing decision needs two different steps in order to avoid shock and the initiative failure.

Firstly, the organization would be modified according to business process re-engineering criteria, thus putting the management process under one function only. Only after that, the outsourcing can take place. Upon the underlined mechanism, the outsourcing turn into a BPR option or a goal reaching through the BPR methods.

Finally, we may analyze the linkage between outsourcing and business process reengineering according to three different point of views:

- 1. The outsourcing allows us to overcome the difficulties of the traditional BPR solutions. New difficulties, however, may arise (when It happens, Outsourcing and BPR became competitors);
- 2. The outsourcing turns into the consequences or into the aims to be gained through the BPR (when It happens, Outsourcing and BPR became complementary one to each other);
- 3. The outsourcing turns into a rank used to evaluate the organizational inner processes (When It happens, the outsourcing is useful/ functional to the BPR).

# 4. RE-ORGANIZE THE LOGISTIC ACTIVITIES INTO THE HOUSE FURNISHINGS INDUSTRY. THE EXPERIENCE OF LUIGI MONTELLA

The following section describes the empirical evidence of Luigi Montella, a little Italian firm competing into the house furnishing industry. The case study shows how BPR methods and techniques may be applied to re-organize firm's logistic activities. The contemporary development of an efficient informative system supported the efficacy of the planned and implemented changes.

#### **4.1 Society Picture**

Luigi Montella is a distribution firm actually operating into the non- grocery industry, namely into the house furnishings industry. It has a sale store in Ponticelli, near Naples and It boast about a strong trading tradition thanks also to the stable relationships with the leaders for house furnishings production (mainly with Del Tongo Group).

Montella has a strong competitive position within his industry; among its strength points, the most important are:

- 1. High Range Assortment, mainly focused on kitchens (accounting for the 50% of total volumes) and composed by products of the highest "technical quality". Thanks to the high quality of its products and to the good focus of its assortment Montella acquired a leader position into the market segment "kitchen".
- 2. Wide availability of pre and post-sale services, that reinforce the after-sales quality perception by customers. Montella takes care of all its customers offering a "one to one" pre-sale consultancy: great attention is given to the plan of internal design for which the firm dedicates a lot of time and resources.
- 3. Great attention to the suppliers selection. For the segment "kitchen" Montella has only one supplier: Del Tongo. For the other business library, living rooms, bed rooms, children rooms, sofas, and complements, the society applies to four or five suppliers.
- 4. Establishment of an "exclusive" relationship between the firm and its supplier with reference to the marketing policies of the purchasing phase. Depending on the cited "exclusive relationship", the end market is less able to compare the alternative offers by competitors.
- 5. Availability of Financial Services for the end customers. Montella address the whole financial advantages to the end clients, without keeping intermediate margins for itself.

The market positioning looked for by Montella is very clear: offering a high value for money, by means of brand selection (aiming at assuring the high quality of products), the availability of pre

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and post-sale services, and high competence of the human resources employed into commercial activities.

The family firm is managed by the architect Luigi Montella with the collaboration of an external staff: some consultants, and an architect. The entrepreneur's son plays a key role in many organizational processes.

The underlined organizational structure has been established over the years: the chief Luigi Montella concentrated, more and more, operating loads in his owner, thus limiting the governance capacity of the other human resources. This situation often leads to inefficient and self-referential governance systems, particularly dangerous for the future development (even dimensional development) of the firm.

In order to avoid the emerging risks, firm's strategic management undertakes a deep reorganization of firm's logistic activities through a Business Process Re-engineering.

#### 4.2 The Logistic Difficulties

Collecting data at both macro (firm structure) and micro (job organization) organizational structure required 8 weeks<sup>5</sup>, and it was carried out according to a defined timetable.

The employees of the different firm's department (trade, logistic and administrative) have been personally interviewed.

The interviews have been conducted into two steps:

- 1. During a first, one day, each employ has been interviewed. It has been an introductive interview aiming at collecting general information about the activities carried on by each employ inside the firm:
- 2. During the second, or more following days, deep interviews have been used to collect more detailed information about the activities carried on by the employees, as well as about their role within the firm.

The organizational structure, as it was pictured during the firm screening and compared with the prevailing literature, shows the relevant role played by the "governance body". It takes part into a lot of firm's processes, It coordinates and directly controls the others' activities, thus allowing firm to achieve both efficacy and efficiency.

From a structural point of view, the Luigi Montella is organized according to a "functional" approach: each function acts to gain firm's strategic goals.

Particularly, the following "functional areas" and functions may be distinguished:

- Governance Body (strategic committee)
- General Management

Administrative Function 0

Sales Administrative Management;

Payments Management, 0

Documental Control, 0

Trade Function 

Sales 0

**Purchasing Management** 0

0 Reception

 $\Box$ Logistic Function

Supply Reception 0

Stock Management 0

Home delivery 0

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<sup>&</sup>lt;sup>5</sup> This step allow us to collect data about all the activities carried out by the firm's employees.

According to the above defined functions, the following figure shows the firm's organization chart. It highlights firm's hierarchical levels mirroring "who depends by who".

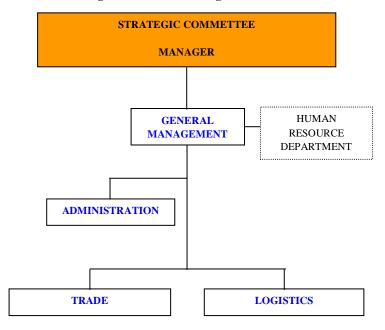


Figure 1. Montella's Organizational Structure

Source: our elaboration

During the screening we particularly focused our attention on the logistic, that is one of the most important activities for the firm, even if Montella has given always little consideration to it.

We realized of the negative impact of an inefficient logistic management on the market position desired by the firm.

Our investigation revealed a negative correlation between firm's turnover (reduced during the last years) and the logistics' costs, constantly increasing. Our results came out from the detailed examination of: warehouse, volume of cargo and unloading for time unit and carriers' organizations.

#### Warehouse

Montella has four warehouses and one exhibition. The warehouses are: one central warehouse<sup>6</sup> of about 150 square meters, one warehouse for components<sup>7</sup>, of about 160 square meters, and two other warehouses, of about 100 square meters and 250 square meters, respectively (this last one is used to store the unsold). The exhibition accounts for four levels, each of which is of about 300 square meters, for a total amount of about 1.200 square meters exhibition place.

#### Cargo and Unloading Volumes for Unit Time

Cargo and unloading volumes vary along the time, as it happens for the other firms that compete in the same sector. Thus they are not significant. Cargo and Unloading Volumes of Montella are about 300 for week<sup>8</sup>.

#### Carriers' Organization

The three Carriers are not well managed. They do not act according to a given program, but alternatively work in order to gain their own results.

<sup>&</sup>lt;sup>6</sup> This warehouse is very difficult to manage since no formal procedure actually exists. It means that no one may manage it without understanding the way it works.

<sup>&</sup>lt;sup>7</sup> This warehouse is managed through standard procedures (that may be improved): the different components are matched according to their destination (end customer to which they are addressed). In spite of this, the different components are so near one to each other that it is always necessary read the destination on the packing.

<sup>&</sup>lt;sup>8</sup> The number of the parcels is not significant since sometimes a given room needs for a lot of components (for example the children rooms); other times It needs very few components.

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The only standard available is that for the delivery: when a carrier has parking problems, because of the large dimension of a camion, an employee arrives with a smaller camion; after delivery He come back to the firm, driving the bigger camion.

Referring to supply, the firm's employees are not involved in any activities: the suppliers deliver the goods directly at Montella's warehouse, through their own employees.

According to the collected data:

- 1. Six employees belong to logistics (total employees: 9);
- 2. The main work flows and operative procedures, useful to shape firms' processes are:
- 2.1. SOM Supply Orders Management,
- 2.2. *ILM Inbound Logistic Management*,
- 2.3. *GEM Goods Exhibition Management*,
- 2.4. *OLM Outbound Logistic Management.*
- SOM Suppliers Order Management. The inputs of the process are: sales data, sale' commissions, technical project and the exhibition's specifications. The outputs it produces are: the order data, the sending of the order to the supplier, and the plan for the goods delivery.
- $ILM-Inbound\ Logistic\ Management$ . The inputs of the process are: the plan for the goods delivery, the confirmation for the order of goods. The outputs it produces are all the information about the Inbound logistics and the goods exhibition.
- $GEM-Goods\ Exhibition\ Management$ . The inputs of the process are the information about goods' exhibition. Its outputs are the exhibition's specifications.
- *OLM Outbound Logistic Management*. The inputs of the process are: the information about the clients and his references, as well as the delivery program. Its outputs are: the Delivery Document for the outgoing goods; the phone appointment for the goods delivery, the assembly of the furnishing and the Delivery Report.

#### 4.3 The Reengineering of the Organizational Structure and Supply Chain

During our consultant activity, we identified some goals and turned them into practice within the firm.

We, particularly, aimed at:

- 1. Increase the relational competences of the all human resources employed in both back an front office activities. According to the underlined aim, we developed an Information System<sup>9</sup>, in order to manage the organizational knowledge flows in the best way.
- 2. Support the establishment of new Process Management and Process Ownership approaches, in order to improve the self-satisfaction of both employees and firm's stakeholders;
- 3. Ri-define the organizational governance, by reducing supervision mechanism. The last one has been replaced by standardization mechanism.

Operational standardization allowed us to identify both activities and the relationship among the different job potions; at same time it led to the specific definition of job roles and firm's competences (Organization chart  $\rightarrow$  responsibilities  $\rightarrow$  task). Our activity aimed to support production efficiency by limiting:

- the duplication of activities. After the reengineering intervention each goal is reached through a different activity;
- operational dispersion (that means more than one employ work on a single task), and
- competences overlapping (it happens when some employees' competences interfere on the other ones).

 $<sup>^{9}</sup>$  It was necessary to increase the informative track , mainly arising from managing customer relationships. Similarly it has been necessary improving the recourse to the CSCW (Computer Supported Collaborative Work).

When we cannot standardize activities, we standardized outputs (allowing control mechanisms on the output, as well as on its relation with firm's goals). Alternatively, we standardized the inputs (by controlling human resources employed in the firm).

4. Improve firm's whole economic condition (by totally or partially outsourcing some firm's activities, particularly referring to logistic).

The underlined aims have been reached, firstly, by re-defining the main firm's processes, as well as by improving communication and collaboration among the employees. Secondly, we standardized the job's procedures (linked to the processes) in order to identified which employees would have been responsible for one or more task, and which of them would have needed to be trained. Each task has been defined by considering the processes and the weight of job deriving from procedures. As a consequence, the "book of tasks" has been totally re-organized. It has been "objectively" planned, without any references to particular "subjectively identified employees". Each human resource has been coupled to one or more task only by valuing His/Her attitudes, competences and motivation. At the end of our consultant activity a new organizational model – process-based – has been developed within Montella. The new organizational model is quite different from the original one, since a new intermediate, responsibility area, has been identified. It located between the *Governance Area* and the *Operational Area*. We particularly refer to the so-called *Management Area* (Fig. 2).

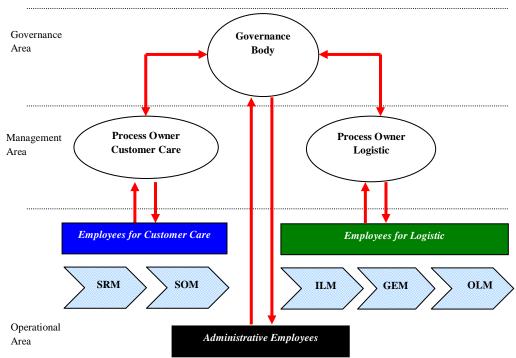


Figure 2. The New Organizational Model

Source: our elaboration<sup>10</sup>

The Management Area is made up by two *Process Owner*: the *Customer Care Process Owner* and *Logistic Process Owner*. The introduction of the new two roles has been useful to overcome the problems arising by organizational structures too flat, as well as the inefficiency of direct control mechanisms.

Intermediate responsible (responsible for Area and Process) play an important role. They became "guide" and a reference for all firm's employees. This support the efficiency of both delegation processes and performance control.

Referring to the *Logistic Process Owner* (LPO), His activities are:

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<sup>&</sup>lt;sup>10</sup> SRM: Sales Relationship Management.

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- Plan the supply (of inputs): collect information to manage logistic in the most efficient way; optimization of available resources; formalization and draft up the program for the logistic employees, execution plan control, analysis of the emerging gaps between plan and execution;
- Inputs Management assistance and supervision for supply activities;
- Strategic Management for exhibition linkage between trade/marketing and Logistic activities;
- Operational Management of exhibitions;
- Planning and Management of deliveries;
- Management of other logistic activities the LPO is the main responsible for the management of firm's spaces, as well as of the deliveries (of outputs).

It has been very difficult to identify the logistic responsible for Montella, because of the competences required by the role. After having identified the employee, He has been trained for a long time<sup>11</sup>.

The introduction of an intermediate responsible, the standardization of both activities and informative flows allowed us to avoid informality and improvisation, that are often difficult to be managed.

#### 4.4 The New Firm's Information System

After re-engineering the firm's organizational structure, our consultancy activity has been addressed to the development of a new software for resource planning. Even if the planned software belonged to the ERP (*Enterprise Resource Planning*), it had some diversities and innovative characteristics.

First of all, the planned software qualified itself for its verticality, since it has been specifically developed to manage activities for the house furnishings industry, according to Montella's necessities.

Really, only one software is actually suitable within the industry: we refer to the Easy Store System 2000 realized by the Sintesys Informatica and developed by the collaboration between Montella and Federmobili.

Generally speaking, the ERP software are used to automatize the "organizational routines". The last ones are those activities responsible for costs and productivities of firm's processes.

According to our project, we added to the software a suite able to integrate new solutions: every firm's strategic processes – from finance to sales, from ingoing logistic to outgoing logistic – has been turned into a model in order to share information both within the different organizational levels, and between the firm and its partners.

Thanks to the model, the business processes are mathematically represented, thus reducing the organizational complexity. The model provides some tools useful to analyze, verify and control firm's actions, thus supporting management decision. Starting from the proposed model, new performance indicators may be also obtained.

The second innovative characteristic refers to the informatics infrastructure thanks to which an organizational learning mechanism starts.

From a technical point of view, we projected a "Neural Network". It is an informatics model "able to learn" from past events, thus managing growing data and information over time.

A "Neural Network" is made up by a certain number of neural cells, that are connected one to each other through "weighted connections" like the neural cells of human brain. The "Neural Networks" are similar to human brain: they have learning capabilities, but a very scarce precision. Additionally, the "Neural Networks" show a high elasticity to interpret inputs, as well as to

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<sup>&</sup>lt;sup>11</sup> The training activity developed into two steps: a) General Training and Focus Groups; b) Specific Training about procedures and tasks (individual meetings and work groups).

extrapolate results. The elasticity (of a *Neural Network*) in interpreting data is called "noises resistance" or "capacity to interpret noises". The "*Neural Network Based*" systems are very different from that generally used by the AI (artificial intelligence) to manage data and to support decisions. Within a "*Neural Network Based*" system, complex information are decoupled into simple data (each data is located into a single neural cell). A Neural Network may be considered a system able to answer to a question, that means to give an output in answer to a given input. The couple in/out cannot be programmed totally a priori. It arises from a "trial and error" process developed through empirical data. The data are collected through past experience. In other words, the network learns the causal connection between input and output, whatever is its complexity. The learning process starts from the correct examples of couple input/output. For each input, the Network gives an output that differs for a given quantity DELTA by the desired output: the algorithm of training modifies some parameters of the network in order to gain the aimed goal.

Every time that we show an example to the network, however, the algorithm rounds the parameter near to the optimal one for the example's resolution: in this way, the algorithm tries to solve all the examples.

The parameters are mainly: the weight and the connections between neural cells of a network.

A traditional ERP system is totally programmed ex-ante, thus it has a very precise algorithm, that is also more rigid, and even more "stupid". This kind of algorithm needs of a precise input to give up the right answer. If it has precise inputs, also its answers will be highly reliable, but it cannot give out acceptable answers if the inputs are not extremely precise.

Far different from the ERP, the informatics system that we elaborated for the Montella is based on the "Neural Network" model (as we already noted above). It is able to give out satisfactory answers even if the inputs are not extremely precise. At same time, our system is cheaper than the traditional ERP system. It will support the governance of the all firm's interdependences (generic, sequential and reciprocal), without modifying their nature. In this sense the software, that we developed within Montella, will also facilitate the born of new work groups.

Referring to its technical characteristics, the developed software is made up by the following "moduli":

- 1) **Data Storage**. It provides sharing functions, storage, administrations, reports and security functions. Differently from a traditional data base, the modulus allows us to manage all firm's data and firm's information (storage, backups, updating, etc.). The records extracted by the database become the inputs for the second modulus, that gives rise to the organizational learning;
- 2) Organizational Learning, based on a search engine. The search engine is made up by a neural network to which are addressed a lot of information about firm's decisions and actions. Thanks to this technology, the General Management improves its management and control abilities, since it became the crossroad of the feed-forward and feed-back coming from all firm's activities (activities planned and realized over the time). Even the firm's performance improve thanks to a more efficient management of Inbound and Outbound logistic, as well as a better customer relationship<sup>12</sup>.
- 3) **Process Design.** It supports the management of the procedures and the integration of the new applications, thanks to an outline of the all firm's information flows. As a consequence, the costs for the system maintenance significantly reduce;
- 4) **Process analysis**. It allows to outline and to optimize all the organizational procedures (through an Activity Based Analysis and an Activity Based Costing), it also allows to eliminate the duplication of firm's activities, and to model firm's processes to the industry best practices. Finally, It permits to adequately integrate all the sale stores differently located on the territory (if new stores should be opened).

In conclusion, the developed informatics system allows Montella to make faster the value chain connections, at a cost lower than that proposed by the traditional ERP systems. At same time, it

<sup>&</sup>lt;sup>12</sup> Thanks to the organizational learning, allowed by the implemented software, every resource employed in the customer care may access to a data base about the "consumers behavior". through the collected information, the employees may simulate and choose the best sale and communicative solution for a given customer.

provides Montella sr.l. with a sustainable competitive advantage, with reference to those players that have not implemented the same system, or are not able to correctly use it.

#### 5. CONCLUSIONS

The paper describes the empirical evidence of a small Italian firm competing into the house furnishing industry and the consultancy activity developed within it during the 2012. The BPR methods and techniques have been applied to re-organize firm's logistic activities and a more efficient informative system, based on Neural Network, has been projected to replace the traditional one. Montella was conscious about the difficulties connected to the firm's re-organization, as well as about the technical hitches linked to the adoption of the new software: the re-engineering leads to new ways of working, by radically changing the whole firm's processes. It refuses any traditional and consolidated management approach in order to give rise to a new work organization. For the underlined reasons, it needs for an open-minded behavior able to support the development of the planned organizational changes. Thanks to the BPR, Montella has reanalyzed its strengths and weaknesses, took advantage of the existing resources, has improved the necessary changes, thus pursuing a sustainable competitive advantages in the marketplace.

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