ORGANIZATIONAL CHANGE: BUSINESS PROCESS REENGINEERING OR OUTSOURCING?

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This article will analyze the logic behind the adoption of Business Process Reengineering and outsourcing. The first part analyzes Business Process Reengineering as a technique for analysis and for defining the business processes implemented by organizations in order to make the achievement of corporate objectives more efficient and effective. Nevertheless, this approach has some limits when the reengineering project aims solely at cost reduction. In any event, for several activities management must constantly evaluate the alternative to turning to outsourcing. In the second part we thus observe what should be the evaluations of management in order to pursue the objectives of maximum efficiency, economic efficiency, and productivity. Starting from the methodological assumptions that aid our understanding of the outsourcing of processes and that represent the operational and conceptual framework for the existence of this approach, several models will be analyzed held to be significant for determining those processes that can be outsourced, from a "strategic" point of view, and that are useful for deciding on the shift from BPR to outsourcing.

Keywords: business process reengineering, outsourcing, BPR success, BPR limits, outsourcing models.

JEL Code: L24, L25, L26

1. Business process reengineering (BPR)

The term Business process reengineering (BPR) was first introduced by Hammer and Champy (1990, 1993), Short and Davenport (1990) as a methodology to manage firms' transformations in order to analyse processes and discover new ways to raise performance.

For this reason, BPR could be part of a change management process.

Hammer and Champy (1993) believe that BPR is "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical modern measures of performance, such as cost, quality, service, and speed" (p. 1-9); Davenport and Short (1990) believe it could also be interpreted, not only, as an "analysis and design of processes in order to maximize customer value while minimizing the consumption of resources required for delivering their product or service" (p. 5) but also as a method which "encompasses the envisioning of new work strategies, the actual process design activity, and the implementation of the change in all its complex technological, human, and organizational dimensions" (p. 7).

Other authors, such as, have focused on the rethinking, restructuring and streamlining of the business structure, processes, methods of working, management systems and external relationships through which value is created and delivered.

It is clear that the first goal of BPR is to support a firm's organizational change in order to achieve viable improvements and raising of critical processes.

We believe that a firm, in order to answer to environmental changes, needs not only to set objectives which have to involve stakeholders' satisfaction but also, following Day (1994), to analyse activities and to manage them in a way able to generate an organizational learning process in a feedback perspective (Mella 2008; Senge 1990). This proceed of analysis and redesign must take into account the logical need to define the boundaries of observation and the connections with the culture which surrounds the organization and is part of it (Senge 1990).

In fact, Gulden and Reck (1991), observe that the success of a designed process does not lie in what a firm is performing today, but rather in being aware of the necessity to rebuild projects for tomorrow's business.

From this point of view, what we want to highlight, following Schaffer and Thomson's thinking (1992), is that the better is the concentration on outcomes rather than singular processes the better would be the possibility to embark a program of business success and improvement (Senge 1990; Deming 1993).

Davenport (1993) and Janson (1993), focus on the fact that a change management process never happens bottom-up and it is necessary to embark a way top-down in order to answer change needs and improve processes quality (Champy and Arnoudse 1992).

In this context it would seem to be less important to mention the concept of leadership, but from our point of view, it is necessary that management owns it since who have comprehension of the firm's needs must have the authority to coordinate different interest groups (Senge 1990).

Hammer and Champy (1993) pointed out some enterprise features more suitable for the application of a BPR project, namely: 1) the urgent need for change to recover low levels of competitiveness or to reduce costs, under penalty of exclusion from the market; 2) the need for change to avoid having to deal with probable future problems; and 3) the need for change to seize opportunities that will give the company a competitive advantage position.

Therefore, many authorities (Klein 1994; Grover and Malhotra 1997; Stoddard and Jarvenpaa 1995) recommend a full comprehension of current business processes before deciding to start a BPR project.

2. BPR success and limits

But it is due to point out BPR cannot be considered a managerial approach which is a panacea for all business problems. A successful company is the one who is able to change and continuously innovate competences, at all levels of the organization, promoting firm culture (Senge 1990) focused on performance and value creation (Pellicelli 2007).

A successful BPR is involved with organization participation to the goals that should be achieved. Getting support from all areas involved in the project is, surely, a winning approach (Berman 1994). All segments of the organization must impropriate the need to do the best to achieve corporate goals (Campbell and Kleiner 1997).

We present anew, at this point, the need for an effective leadership, connected to motivational and creativity aspects of the people involved in a BPR process, who is developed thanks to their detailed knowledge (King 1994).

As Campbell and Kleiner (1997) pointed out, many BPR projects have failed because they did not recognize the importance of the human element in implementing.

Following Davenport (1990) when BPR is involved mainly in cost reductions, it could lead to failure since that reduction made alone is not a sensible goal. Therefore management should understand the need of leaving such a reengineered process and take a decision based upon rational economic principles, of outsourcing what is not able to improve on its own.

In fact, outsourcing than reengineering is a better solution since when the organization is not able to assess an efficient BPR project, such reengineering initiative is wasteful and steal resources from other strategic projects (Covert 1997).
When a firm believes to start a wasteful BPR process (as described above), embarking an outsourcing decision rather than a reengineering one, it should allow the organization to focus on core competencies areas and to achieve business improvements. For a firm a better solution is to understand what are the criticalities and find out if it is able to do reengineering in a successful perspective discussed above.
It is thus necessary to pay attention to the limits of BPR, especially when the reengineering project only aims at cost reduction. In any event, based on the activity in question management should constantly assess the alternative to outsourcing. Thus the second part of this article will analyze the operational and conceptual framework for the existence of outsourcing along with several models held to be significant for determining the processes that can be outsourced, from a "strategic" point of view, and which are useful for the deciding to shift from BPR to outsourcing.

3. The premises for outsourcing

Outsourcing is the "purchase of components, finished products or services from outside suppliers rather than their production within the firm" (Dictionary of Business, Collins 2005).
According to Prahalad, firms should outsource only those processes and activities they know well; he asserts that they should not outsource to resolve problems they are unable to solve internally (Prahalad 2004).
In general, the more that processes and functions are easily replicable and standardizable the greater are the advantages from outsourcing. With regard to the standardizing function of processes, outsourcing can concern the production of goods or services and be divided into four typologies: a) industrial outsourcing in the manufacturing sector; b) industrial outsourcing in the service sector; c) the outsourcing of services in the manufacturing sector; d) the outsourcing of services in the service sector.
In fact, outsourcing more frequently concerns: the production of parts, components and finished products; the production of industrial services, such as maintenance, quality control and the manufacturing of accessories; the research and development of new products and services; planning and design; administrative services, such as accounting, management control, auditing, personnel management; the sector of computer systems, which represents one of the focal points of outsourcing processes; managerial consulting services; logistical services and transport; canteen and cleaning services; the distribution network, promotions, advertising, and other marketing services; the management of fluid assets and the corporate treasury; receipts and payments services; the search for financing sources.
When comparing outsourcing processes with BPR we must make several assumptions that justify the rationality of the choice between two alternatives.
The first premise is that the management of organizations must always undertake decisional processes based on the criterion of maximum efficiency (Pellicelli 2009b). This criterion translates into the correlated ones of maximum economic efficiency (maximizing operational results) and maximum profitability (maximizing the Return On Equity). These two criteria are indissolubly linked and form the ultimate criterion of corporate rationality, according to which each managerial action must be decided on by choosing the alternative that maximizes both the ratio between revenues and costs (maximum economic efficiency) and that between profits and own capital invested (maximum profitability on invested capital). The second premise is that firms operate in a capitalist economic system where there is capital available to invest in business, the freedom to invest is guaranteed, thereby favoring the spontaneous creation of new firms and competition between the existing ones, and greater productivity and economic efficiency are rewarded (Mella 2005). These premises represent the operating and conceptual

framework to assess whether it is convenient to turn to BPR for problematic processes to be carried out in-house, even if this requires a considerable and costly change, rather than to outsource these processes.

4. How to decide when to turn to outsourcing: a series of models

Quinn and Hilmer (1994) have stated that in order to make rational decisions regarding the adoption of outsourcing from a "strategic" perspective firms must first of all identify the sources of competitive advantages in order to: 1) concentrate resources on the core competencies that create value for the client in a distinct and inimitable way; and 2) outsource those processes and activities for which the firm has neither particular strategic needs nor particular competencies, which often include many that in the past were, by tradition, considered an integral part of any strategy.

In order to highlight the criteria that can be adopted for outsourcing decisions, various models from the literature have been proposed for choosing the processes and functions to outsource rather than keep in-house (Pellicelli 2009a).

We feel it is useful to present two other models significant for identifying processes to outsource from a "strategic" perspective.

We must state beforehand that these models must be viewed more as instruments of diagnosis than as decisional criteria and that rarely do they give rise to a "creative" idea that leads to drastic innovation. The first model relies on general strategy concepts and the value chain and is based on a matrix that compares the firm's core competencies and competitive advantages. The second model, proposed by Cordon *et al*. (1998), goes further and considers the various types of competencies.

Regarding the first model, Kedia *et al*. (2005) adopt the general strategies concept developed by Porter (1985); this model is useful for assessing the advantages and risks in general from outsourcing production.

The authors maintain that outsourcing can give the firm the possibility to combine and obtain advantages from all three dimensions of general strategy: cost leadership, differentiation and focus.

Competitive advantages derive from cost leadership when the firm is the lowest cost producer in its sector (Porter 1985). Nevertheless, even if at some point the firm achieves this position it is still threatened by its competitors, who can "do them one better". Thus, outsourcing can allow the firm to maintain its cost leadership for a long time.

The firm's advantage ceases when another firm can produce at lower costs or set up an outsourcing network that pushes costs even lower.

To regain its cost leadership the firm must look for new outsourcees and new distributors capable of offering lowers costs than their rival; thus, in this repetitive process the search for the outsourcee with the lowest costs is continual and endless.

With the general strategy of differentiation the firm builds competitive advantages when it tries to be unique in fields the buyer evaluates positively (Porter 1985).

In this situation outsourcing allows management to concentrate resources and attention on the core competencies of the firm, using the cost economies obtained from outsourcing to increase the value added from production; for example, by investing in R&D, with the chance to obtain advantages from new products or services or from new production processes.

On the other hand, the firm can adopt the "focus" strategy to excel in a segment or group of segments. This strategy is profoundly different from the other ones as it is based on the choice of a very restricted competitive arena within a sector (Porter 1985).

This strategy has two variants: focus on costs and focus on differentiation. The firm exceeds its competitors either because it better serves its clients by offering them products or services at

lower prices or because it offers them products and services that are new and different from those of its rivals.

By outsourcing the simplest activities and the repetitive processes management can concentrate more on the client relationship.

Kedia *et al*. (2005) deal with the problem of how to select the functions, processes and, in general, the activities to outsource by noting that in order to so choose management must carry out a detailed analysis that: 1) clearly specifies the firm's value chain; 2) distinguishes the core competencies from the non-core ones; 3) defines the value chain of the core competencies; 4) distinguishes the essential from the non-essential activities; 5) separates the core or almost-core activities from the non-core ones.

Management must above all deal with the problem of defining the characteristics of the core competencies.

In order to do so Quinn and Hilmer (1994) have identified a series of requisites: 1) the core competencies should produce distinctive skills or knowledge, not only products or functions; 2) they should not be restricted to areas in which the firm excels but entail broad, flexible platforms capable of adapting to change and of evolving; 3) they should be limited in number; 4) they should entail unique sources of advantages for the value chain; 5) they should represent areas in which the firm can maintain a dominant position; 6) they should represent elements the potential client considers important even in the long term; 7) they should be deeply coupled with organizational culture.

For Prahalad and Hamel (1990) the distinctive competencies are the collective know-how of the organization, in particular with regard to coordinating the various forms of production know-how with the technology flows.

The authors point out that in order to be defined as core a competence must have several features: 1) it must give access to a variety of markets and segments; 2) contribute to creating benefits for the client; 3) be difficult to imitate; 4) act across all the firm's functions, products and markets; 5) be rooted in the organization and thus persist even when certain individuals or groups of people leave the firm.

To carry out the analysis they propose, Kedia *et al*. (2005) suggest using the value chain instrument and the "competencies/competitive advantages matrix".

The value chain, which, as Porter states, divides a firm into its relevant strategic activities in order to interpret cost behavior and the present and potential sources of differentiation (Porter 1985), includes five primary and four support activities. The primary activities are: incoming logistics, operational management, outgoing logistics, marketing and sales, and services. The support activities are: supply management, technology management, human resource management, and infrastructure. The value chain – precisely because it represents the link between the various activities and expresses the potential synergies between products and services – allows the firm to express the value of a given product or service in terms of the value of the activities necessary for its production, thereby distinguishing between primary and support activities.

The analysis of the value chain is thus fundamental to identifying the nature of the competitive advantages and the strategic actions to protect and strengthen these advantages.

Kedia *et al*. suggest dividing each primary and support activity into sub-activities in the attempt to identify: 1) the contribution each sub-activity makes to the firm's competitive advantages; 2) the contribution each sub-activity makes to the core competencies; and 3) which sub-activities should be outsourced to maintain and/or achieve the competitive advantages.

To carry out this analysis the sub-activities identified in the value chain can be placed in a "competencies/competitive advantages matrix" (Figure no 1) to examine how each contributes to the firm's core competencies and competitive advantages.

The joint examination of the value chain and the matrix should provide the elements needed to decide which sub-activities or activities to outsource.
The activities placed in the low-low position are potential candidates for outsourcing, since they contribute modestly to both the core competencies and the competitive advantages. These activities consume unnecessary resources without bringing any competitive advantage to the firm. The reverse holds for the sub-activities in the high-high position in the matrix; these are the principal source of the competitive advantages and must therefore be maintained, protected and strengthened within the firm.
The central position represents the sub-activities that do not contribute significantly to either the core competencies or the competitive advantages of the firm; these activities can either be developed through investment so that they become long-term strategic resources and are placed in the high-high position of the matrix, or considered as candidates for outsourcing.

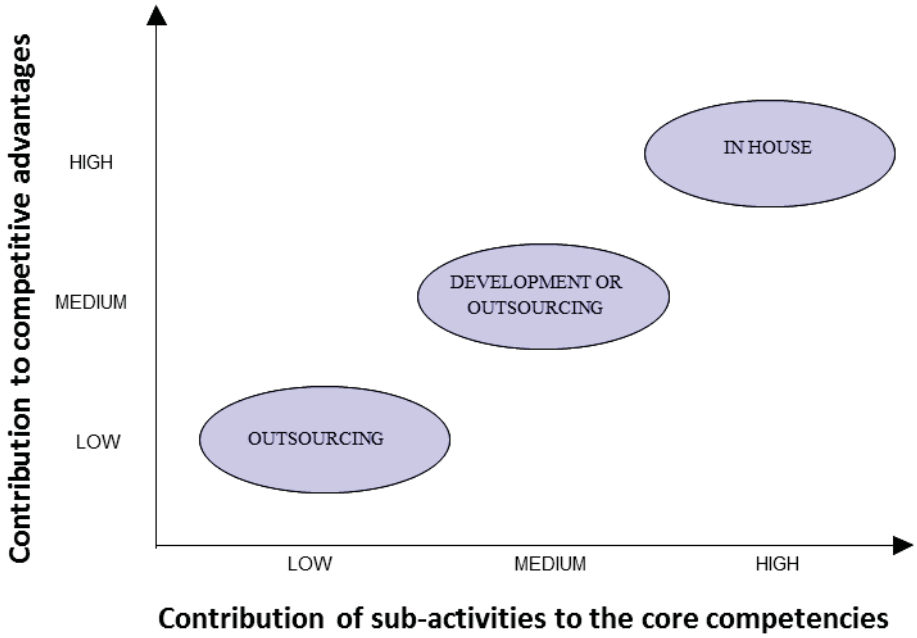

Fig. no 1 – Competencies-competitive advantages matrix – adapted by the Author, source: Kedia B., Lahiri S., Lovvorn A., Seeking competitive advantage on distant shores, EBF, 21 spring (2005).

The value chain analysis and matrix construction techniques are necessary to outline the problem of determining which activities to outsource, but they are not sufficient to arrive at a solution; in fact, management must identify through other precise analyses the sources of the "core competencies" and the competitive advantages and the links between these sources. In any event, these analyses present some obvious limits. Above all, changes in the economic and competitive environments impose frequent revisions of the outsourcing decisions. Outsourcing is not a one-off decision. Therefore it brings out a weak point regarding both the value chain and the "competencies/competitive advantages matrix". These instruments identify current positions, while every competitive strategy must result from a future projection and consider as well the likely response of competitors. Outsourcing, as all the firm's activities, cannot be ascribed to a map. The decisions made and activities undertaken by both parties continually extend or reduce their field of action.
Keeping the core competencies in-house and outsourcing the non-core competencies is a decisional criterion few question.

Cordon *et al*. (1998) go against the flow and consider this distinction an excessive simplification of reality that can lead to serious mistakes, asserting that the non-core competencies do not necessarily have to be outsourced. They clarify they do not question the concept of core competencies made popular by Prahalad and Hamel, considering it, in fact, a useful concept for defining a strategy and concentrating the effort of management on actions that strengthen the core expertise.

How then do we decide what to outsource and what not to outsource? Moreover, given that outsourcing can take many forms, which is the one most suited to the activities of a given firm?

To answer this we consider the model proposed by Cordon *et al*. (1998) for making this decision. This model sets out the assumptions for constructing a scale of priority among the various types of competencies, dividing these into five categories.

1. Distinctive competencies: these are the "most important" ones for an organization.
2. Essential competencies: these are the activities the organization is in need of in order to operate.
3. Spillover competencies: these are those that allow a firm to maintain its economic efficiency through an activity linked to the distinctive competencies.
4. Protective competencies: these concern activities without which, or in the case of bad management, the success of the entire organization would be at risk.
5. Parasitic competencies: these involve activities that "waste" resources if carried out within an organization. Often they are the heredity of past decisions. An activity becomes parasitic if there are firms in the market that can provide these at much lower costs.

The authors arrive at the following conclusions. At the extremes of the classificatory scale, the distinctive competencies must be maintained in-house and strengthened, while the parasitic competencies must be outsourced.

The essential competencies and the protective competencies can be outsourced if the firm ensures, through the proper mechanisms, continuity in supplies and the minimization of the risk of a worsening of quality.

The spillover competencies, precisely because they are fundamental in the value chain, can be outsourced only if the firm can acquire the value created through outsourcing.

The authors warn that the model must be understood in a dynamic sense, since a firm's competencies can shift from one category to another based on the evolution of the organization and the market. An essential competency can become parasitic when a market develops that regularly offers better products/services at lower prices, as occurs, for example, when the firm enters the market in an emerging country that has no reliable suppliers of components or accessory services. The firm that enters such a market must therefore deal with its production needs through its own activities, which come under the essential competencies category. If subsequently there is an adequate supply in the local market the competencies can be outsourced, and they thus cease to be considered essential.

A more detailed version of the model of Cordon *et al*. (1998) orders an organization's activities or processes along two correlated dimensions in a matrix (Figure no 2): the risk relative to transferring activities outside the firm (vertical axis) – such as the loss of know-how and the loss of competitive capacity – and the efficiency of the activity produced in-house compared to that carried out in outsourcing (horizontal axis).

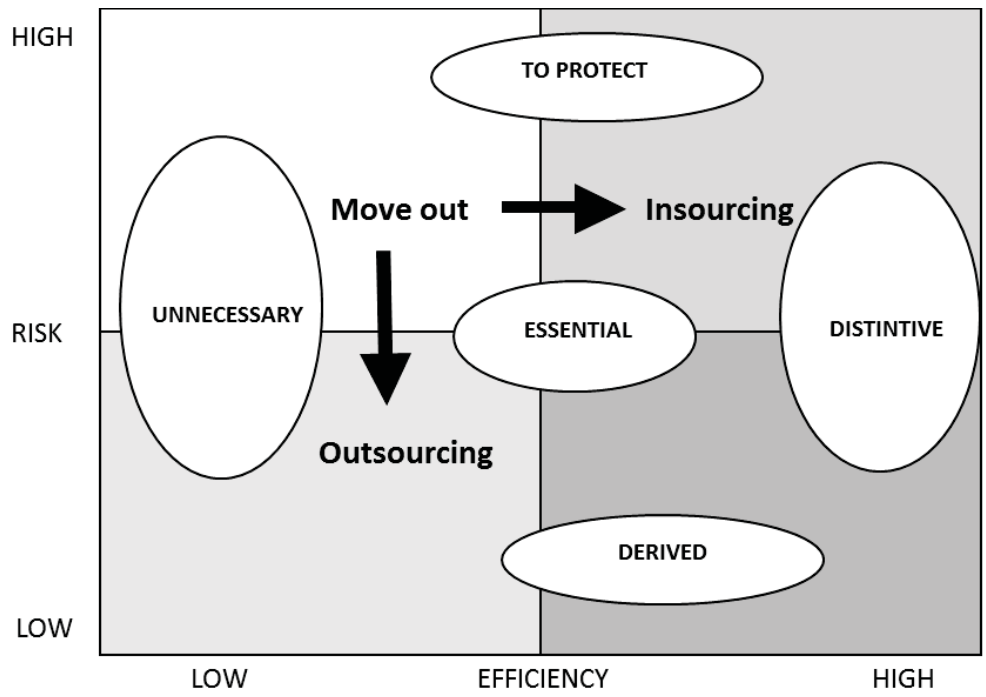

Fig no. 2 – Efficiency matrix and outsourcing risks – adapted by the Author, source: Cordon C., Vollmann P., Hekkilä J., "Thinking clearly about outsourcing, Mastering in Global System", Financial Times, 19th Feb (1998).

If in-house efficiency is high and the risks from outsourcing activities are high (top-right) then the activity should be carried out internally, at least until the firm is able to maintain a high level of efficiency.
If in-house efficiency is low and the risks of outsourcing are low (lower-left) then it is logical to turn to outsourcing.
The most difficult situation is when in-house efficiency is low and risk is high. In this case management should reconfigure the activity (as indicated by the arrows) either to make it more efficient (shifting it toward the right) or to reduce risks (shifting it down). If the reconfiguration allows the firm to reposition the activity in the lower-left quadrant then it can be outsourced.

5. Conclusions

BPR is a powerful tool to embark on a process of change in organizational management, in order to maintain processes in house that require a radical change.
Galliers (1998) stated that only 30 percent of reengineering projects were regarded as successful since they provided low benefits. When an organization is aware that something is not going well but does not know what it is, the need to change could move the firm towards a BPR project of change (Covert 1997).
Since BPR is not a short-term efficiency exercise, as authoritatively stated by Berman (1994), firms will have to decide whether or not to reengineer or to outsource in order to be coherent with their abilities and realistically evaluate costs, timetables and performances.
When top management understands, thanks to the feedback loop systemic thinking, that the BPR process is not a feasible and economic solution, the result should be to outsource the capability which cannot be reengineered.

In order to decide when and how to shift from BPR to outsourcing, several models examined above, in particular that by Cordon *et al*. (1998), present the need to assess the importance, core or non-core, of the different processes.
The problematic core business processes that cannot, or must not, be outsourced must necessarily be subject to the BPR in order to restore the levels of economic efficiency that have deteriorated or to carry out a refreshing of their functions and of the organizational structure that produces them.
The models in Fig. no 1 and Fig. no 2 can be useful in defining the criteria for choosing between activities and processes to keep in-house and in which to invest with BPR processes and those which, instead, it is useful to consider for outsourcing. Starting from the assumptions of these models, investments in BPR should be held useful when the in-house efficiency and risks are both high (in particular, in the case of protective, distinctive and essential activities), while it is logical to turn to outsourcing when in-house efficiency and risks are low.

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