

BUSINESS PROCESS REENGINEERING ON SME'S: EVIDENCE FROM ROMANIAN SME'S*Andrei Ionuț ȘERBAN¹*

ABSTRACT

In many countries, small and medium enterprises (SMEs) have played an important role in the economic growth. In the current situation, the contribution of SMEs to GDP is about 65%, considering that there are 427,000 SMEs in Romania in the early 2015.

Many organizations from our country need to reengineer their business processes to improve efficiency. The general objective of this study was to identify the impact of business process reengineering on SME's. The researcher has identified the factors impacting on BPR and possible causes of BPR failures. On the one hand, this paper will be of interest to the organizational managers, BPR implementers and the future researchers in a related area of study. On the other hand, the article points out some avenues for further research on this topic.

KEYWORDS: *business process reengineering, small and medium sized enterprises SME's, efficiency.*

JEL CLASSIFICATION: *M10, M19*

1. INTRODUCTION

Aggressive competition and globalization have led enterprises to reorganizing, focusing on processes and customer satisfaction. Business process reengineering (BPR) is an approach to business transformation that emphasizes customer-driven, business process improvement, often enabled by IT. Raymond et al (1998) state that the literature focuses on BPR in large firms and comes with the question whether if BPR success factors are the same for SMEs (firms with fewer than 250 employees (Government Ordinance no . 27/2006), as for large companies.

Reengineering is, in turn, a fundamental, radical and spectacular change of business processes and the manner of development of their material in order to improve the functionality and performance of the organization. The main objective of the specialists involved in running the action of reengineering, are the business processes. (Verboncu, 2013)

Many factors are inherent in successful BPR. First, it is important that top management commitment ensure the initiative that is maintained and focused. Second, BPR focuses on providing customers with greater value: fast delivery time, post-buy services, good quality of products, etc (Cameron and Braiden 2004). Third, reengineering places a major emphasis on employees and their role in resolving problems (Larsen and Myers 1999). Process improvement involves changes to jobs and social structure in order to increase motivation, reduce resistance and improve performance by empowerment (Wastell et al. 1994).

The elements that impose the essential managerial changes that can be realized only through managerial reengineering, are, mainly, forms of manifestation of numerous malfunctions of the managements and its components. In this category, the most significant are:

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- insufficient or inexistent exertion of the planning function;
- lack of a system of objectives at the company level laid out by processual and structural components;
- the insufficient delimitation and dimensioning of some processual components (functions, activities, competences and tasks), extremely important in the realization of the objectives.
- existence of an organizational structure insufficiently flexible, dynamical and efficient, that would permit and incite an "aggressive" behavior of the company toward the national and international environment;
- insufficient structuring of the authority and responsibility on hierarchical levels of the organization;
- lack of a clear concept, of a systematic vision concerning the conception and functionality of the informational system; (Verboncu, 2005)

BPR is vital for SMEs in particular, especially in UE, whereby continuous changes are becoming a rule. Most of SMEs are driven by the vision of the owner. The small-scale operational frame of SMEs should not discourage a company from undergoing radical change. A better organization of business processes and a strong culture can be beneficial towards any company, regardless of the number of employees.

However, there is a risk that smaller-sized companies may be faced with obstacles due to the limited number of staff, capital and resources which are necessary prerequisites for the adoption and implementation of BPR. The success of organisational restructuring in SMEs depends on whether the owner of the company has the determination to implement it and if it will be applied at the appropriate time in order to minimise the risk of failure. This process is clearly up to the company's manager and he must be the one who will direct the entire process from step one. Therefore, success is not only dependent on the availability of resources but is a function of the determination of the leadership and good communication.

Practical experiences in the companies in which reengineering of the business processes was conducted, have shown the following: the quality was improved by 84%, time to product appearance was decreased by 75%, communication was improved by 61%, development costs were reduced by 54 and profit was increased by 35%. (Erić, Stefanović, 2008).

BPR can be successfully implemented in any company no matter the size, as long as the company owner has the determination for making changes and the vision for creating a new culture focused on people and innovation.

2. METHODOLOGY

Based on the knowledge about business process reengineering, we developed 10 Hypotheses and we tested them by implementing a structured questionnaire:

- H1. Business Process Reengineering is a management concept used by Romanian SME's;
- H2. Process Mapping and Ultimate IT solutions are the primary tools used in BPR;
- H3. In the Romanian SME's, the main benefit from implementing BPR is cost reduction;
- H4. Active communication is essential for successful BPR project;
- H5. Unavailability of resources is the primary challenge for BPR teams in SMEs;
- H6. ROI is used to measure the effectiveness of a BPR project;
- H7. The implication of top management is crucial for BPR projects;
- H8. Most of the BPR projects exceeded deadline;
- H9. The investments in training increased;
- H10. The number of meetings did not increase.

Using data provided by Ministry of Energy, SMEs and Business Environment and by The White Paper of SMEs from Romania 2015 edition and correlating them with the demographics of

Romania we can state that in the south and Bucharest-Ilfov regions there are 35.43% of all SMEs from Romania. In the South Area there are 17.6 SMEs/1000 inhabitants (a total of 53.466 SMEs) and in the Bucharest-Ilfov Area there are 64 SMEs/1000 inhabitants (a total of 108.581 SMEs).

In order to test the proposed hypothesis we elaborated a structured questionnaire with close-ended questions. The questionnaire was implemented in 131 SMEs from Bucharest-Ilfov regions via e-mail, telephone or face-to-face meetings. This study has an error of 8% and a confidence level of 95%.

3. ANALYSES AND RESULTS

The main objective of this article is to examine business process reengineering (BPR) effects on Romanian SMEs. In order to perform the study we proposed 10 hypotheses and then we elaborated a questionnaire that was implemented in 151 Romanian SMEs.

The questionnaire was sent via e-mail to 1278 SMEs from the south and Bucharest-Ilfov regions (regions in which approximately 1/3 of the SMEs in Romania are operating) and we received 154 responses, of which only 131 could be counted (13 were incomplete or moved their activity in other regions), which led us to a 10.25% rate of reply. In order to obtain an error of 8% we also filled 20 more questionnaires face to face or via telephone. The characteristics of the analyzed sample are presented in Table 1:

Table 1. Characteristics of the analyzed sample

Domain		Number of employees		Age of the company	
Commerce	21.2%	<10	26%	< 5 years	18%
Services	28.5%	10 – 49	58.7%	5 - 10 years	45.3%
Industry	15.2%	>49	15.3%	10 - 20 years	26%
IT	12.6%			> 20 years	10.7%
Tourism	22.5%				

Source: Made by the author

H1. Business Process Reengineering is a management concept used by Romanian SME's;

Asked if business process reengineering is used or known by their companies, most of them responded that they were familiar with the concept. If we analyze the responses we can see that in fact 74.6% of SMEs are familiar with BPR and only 25.4% of them don't want or don't know the concept. Therefore, the hypothesis **H1** turns out to be **true**.

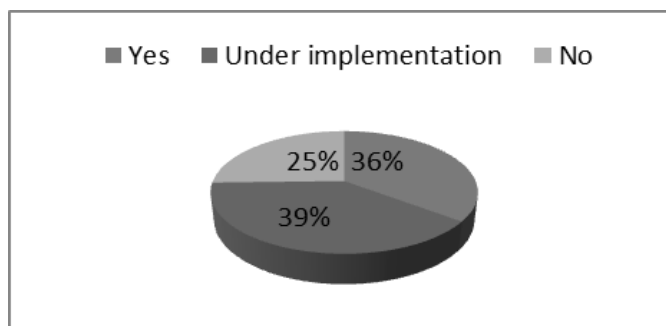


Figure 1. BPR is used by Romanian's SME

Source: Made by the author

H2. Process Mapping and IT solutions are the primary tools used in BPR in Romania

When it comes to identify the tools used in BPR implementation, we can distinguish the following important aspects: 35.2% of the respondents said that the IT is the solution of a BPR project, 22.5%

of SME's used KPI as a tool for BPR, while process mapping and working procedures for each process were the answer for 18% of respondents in each question. We want to mention that IT should not be a solution for reengineering process, but an enabler of it. Therefore, the hypothesis **H2** turns out to be **partial true**.

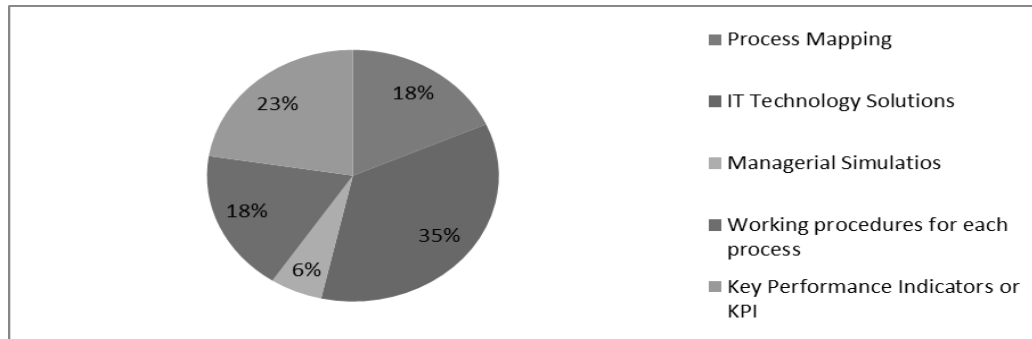


Figure 2. The primary tools used in BPR in Romania

Source: Made by the author

H3. In SME's from Romania, the main benefit from implementing BPR is cost reduction

In recent studies developed in Poland, Slovakia, USA, cost reduction is the expected benefit from implementing BPR. After a process of organizational change by reengineering costs must drop by at least 40%. Our assumption was false, 35% of the entrepreneurs stated that customer orientation is the main benefit, 26.8% stated that reducing costs is the most important, 21.8% stated that BPR result is improving the quality of products/services offered, which led us to the conclusion that **H3** is **false**.

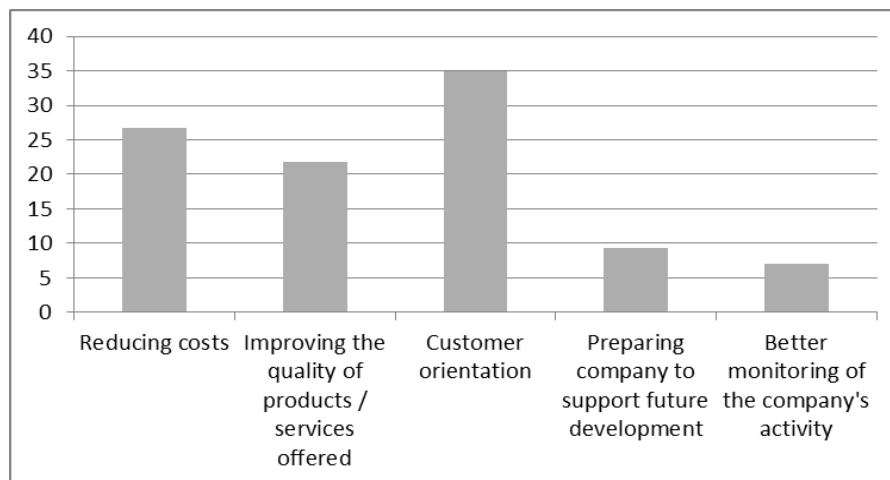


Figure 3. Expected benefits from implementing BPR

Source: Made by the author

H4. Active communication is essential for successful BPR project

Training, alongside active and effective communication are some of the top factors that have led to a successful BPR project development. In the surveyed companies 26.8% stated active communication is very important but there are other criteria with at least the same importance, 22.4% of them stated that Adequate Training is the most important factor. An interesting fact is that 21.7% of the firms believe that the involvement of external consultants is crucial for a BPR project and this can be explained by the fact that consultants bring managerial know-how and a plus of credibility as well as an impartial and independent opinion regarding the state of current processes.

H4 is **true**.

H5. Unavailability of resources is the primary challenge for BPR teams in SMEs

Many BPR Projects encounter organizational resistance. This resistance is faced from the organizational employees whose jobs are threatened by the BPR projects. After a process of reengineering, jobs are changing, people's role in the organization change, more jobs are integrated into one. BPR does not mean restructuring or restriction of activity, just means doing more with fewer resources (human, financial, material).

The biggest challenges for the team project are unavailability of resources (42.8% in the surveyed companies) and resistance to change (29.8% of respondents). Deficient communication follows next with 20.4%, being the result of inadequate project management skills and poor change management.

H5 is true.

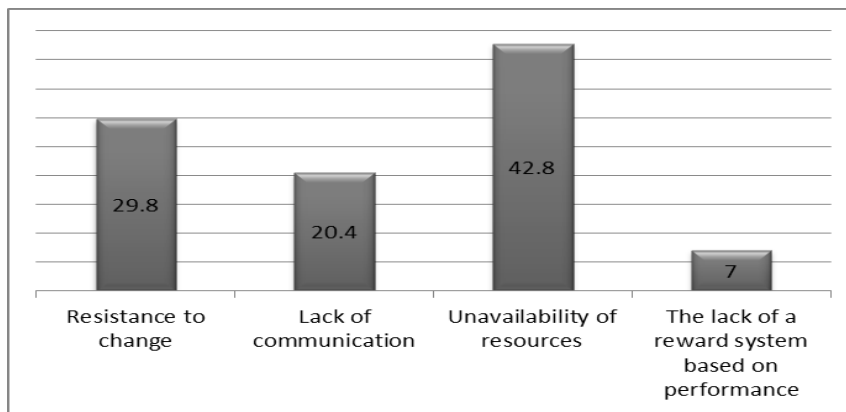


Figure 4. Most common challenges for BPR teams

Source: Made by the author

H6. ROI is used to measure the effectiveness of a BPR project.

When it comes to measure the effectiveness of a BPR project, we assumed that due to the fact that most SMEs have few employees, they prefer the easiest way to measure the effectiveness of a change program. If we analyze the responses we can see that in fact 44% of SMEs use the indicator of decreasing process time, 34.6 % use the level of cost reduction and only 21.4% prefer ROI and RIR formula. Unfortunately, 78.6% of companies have not made a return on investment analysis, this can be explained by the fact that most of them don't have accounting skills or certifications. We can conclude that **H6 is false.**

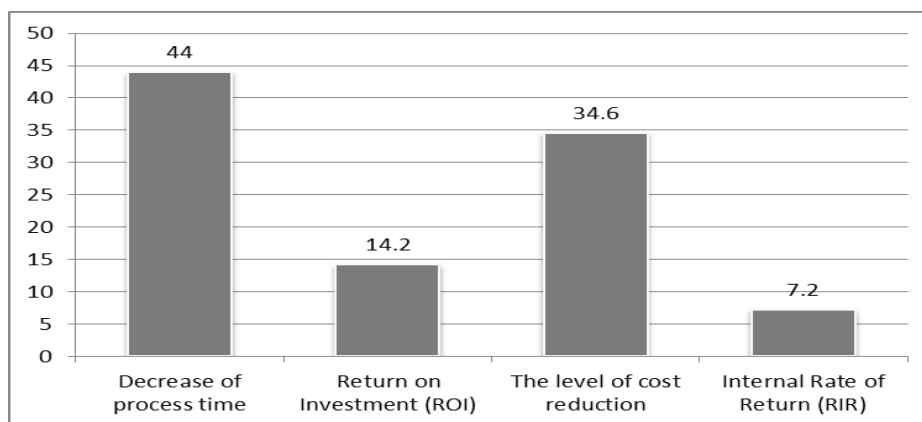


Figure 5. Metrics utilized to quantify success rate of BPR

Source: Made by the author

H7. The implication of top management is crucial for reengineering

A very important success factor is the implication of top managers. A BPR Project usually requires many resources, time, money and leadership, which can be assured only by a strong and consistent top management commitment. Returning to our hypothesis, the study demonstrated that the majority of SMEs agreed this hypothesis so **H7** is **true**.

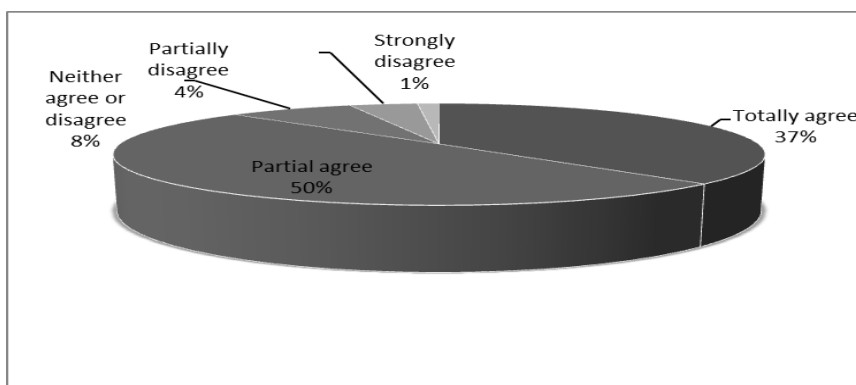


Figure 6. The importance of top management implication in reengineering
 Source: Made by the author

H8. Most of the BPR programs exceeded deadline

BPR initiatives are subject to the constraint triangle: time-cost-quality just as any other project. Consequently, the BPR’s project duration will depend on the cost and quality a company can or wishes to incur. Based on the surveyed companies’ experience we found that most projects do result in delays. Only 2% of companies managed to finish within the scheduled deadline while almost half of the companies had delays of 20-30% of the initial time estimates, which led us to the conclusion that **H8** is **true**.

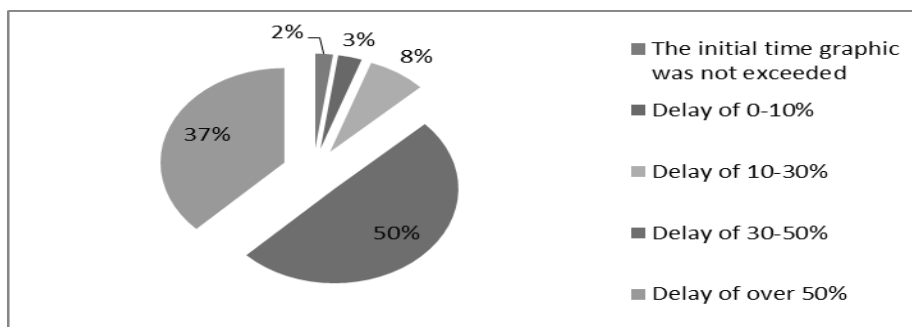


Figure 7. Overdue Projects
 Source: Made by the author

H9. The investments in training increased after a BPR project;

In the new economy context, continuous development is one of the most important aspects. Although many SMEs do not have big resources, in order to remain competitive they must not stop investing in training. Unfortunately, 7.6% of respondents told us that their company does not invest in training, a total of 32.4% said that investments remained the same, while 24.2% said that investments in training decreased, only 19.9% of them said that the investments in training increased therefore we can assume that **H9** is **false**.

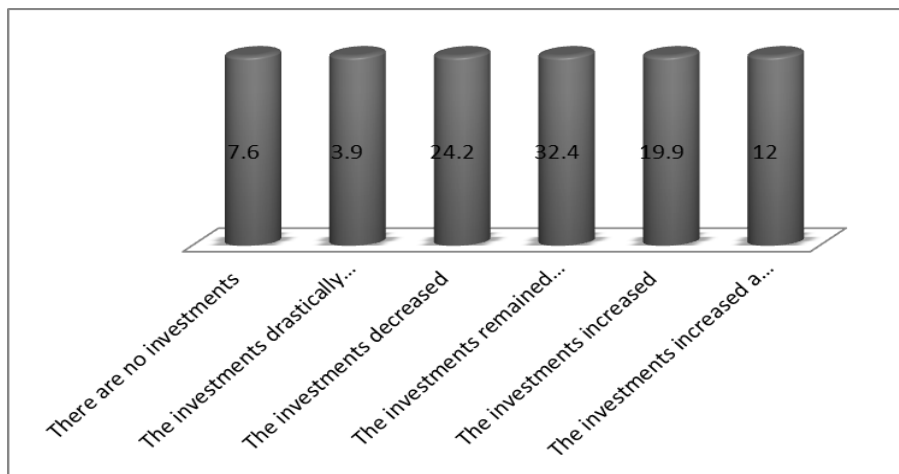


Figure 8. Investments in training

Source: Made by the author

H10. The number of meetings did not increase during implementation

The communication is very important for companies and face-to-face meetings are well received by employees. Given the fact that in only 11.8 % of the surveyed companies the meetings increased we can assume that most of the companies do not focus on direct communication, which is vital in organizational change projects. The collected data shows that in 48.9% of the companies the number of meetings remained the same and in 39.3% of answers this number decreased, therefore **H10 is true.**

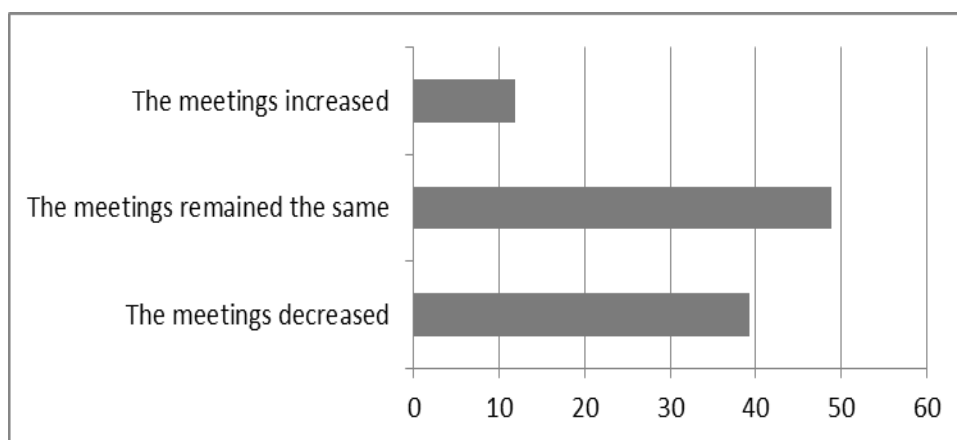


Figure 9. The importance of meeting in BPR projects

Source: Made by the author

4. CONCLUSIONS

This present study examines business process reengineering (BPR) effects on Romanian SMEs. The study was conducted on 151 SMEs from the south and Bucharest-Ilfov regions (regions in which approximately 1/3 of SMEs in Romania are operating) and aims to present the main characteristics of the Romanian SMEs in business process reengineering projects. In order to do so we elaborated 10 hypotheses and we tested them by implementing a structured questionnaire with close-ended questions.

From the historical data, the implementation of BPR in SME's has estimated that the unsuccessful rate could be from 40% to 60%, which can be considered as a high rate of failure. To achieve the objective of BPR, we need to identify the key success factors before real implementation.

Analyzing the results of this study we conclude that training and alongside communication are some of the top factors that have led to a successful BPR project development. Among the biggest inhibitors we have lack of leaders and existing organizational culture. Resistance to change is the greatest challenge of management consultants. It is very important to create an organizational culture based on innovation and decision-making freedom.

The overall conclusion of this study is that Romania presents great potential for performance improvements by means of BPR projects and their interest in such projects is high. Still, the level of BPR competencies in Romanian SME's is relatively low and the overall BPR concept is still empirical.

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