SELECTION, JUSTIFICATION AND CHOICE OF SIX SIGMA PROJECTS, TO BE IMPLEMENTED IN THE AUTO SERVICE BUSINESS

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Abstract: Implementation of the Six Sigma improvement projects, well defined, selected and grounded, helps the auto-service managers to meet and even to exceed the customer expectations by providing the high quality services. In the first part of this article, we tried to identify the “circuit” to be covered to reach a correct selection of the Six Sigma projects. I am referring to the possible sources of ideas for this project, how to “qualified” project such as a Six Sigma improvement and some of the possible criteria taken into consideration in selecting of these projects. Next, I made reference to the role of the “Background Note”, at the common elements of a project mission statement and the “DMAIC” Six Sigma favourite model. To highlight the applicability of the Six Sigma type projects, that targeting the stimulation of the automotive service efficiency, we presented an example of the possible Six Sigma project.

Keywords: client, management, design, auto service, six sigma.

INTRODUCTION

The modern auto service activity involves more than ever, a radical improvement of relations with the customers. Perhaps more than any other field, in the auto service business the success means to have the right person, "equipped" with the necessary skills at the right workplace, while the main cause of the failure is the “lack concern for understanding the new conditions imposed by the change” (Androniceanu, 1998). Six Sigma invented in 1986, by the engineer Bill Smith, is at this moment, a statistical measure and a philosophy of management, with focus on the quality, whose strength of implementing lies in the fact that Six Sigma project leaders are mid-managers who are the best able to combine the power given by people in the organization with the power process. In this sense, for implementing the Six Sigma projects are required a general effort to change the organizational culture in order to a better satisfaction of the customer needs and it is seen as a comprehensive and flexible system, designed for achieving, sustaining and maximizing the business success. Based on the customer needs, each effort will be directed by a disciplined use of the facts, information and the statistical analysis, paying a special attention to the management, improvement and the remodelling of the business process (Dobrin et al., 2008). Efficiency of the management of the auto service activities, involves the initiatives to improve the processes, in order to obtain an optimum ratio between the efforts and the effects of the activity (Vasilescu et al., 2000); the decisive activities proved to be selection to the launch of the Six Sigma project, because we have a fairly simple equation: the properly and defined selected projects, leading to the better and faster results, while the selected and poorly defined projects, leading to the delayed results and frustration.
SELECTION OF THE SIX SIGMA PROJECTS

Before to start the investigation of the specific processes in this area, we shall analyze, in detail, the processes and the customer requirements and the issues that affect them, because an uncertain vision over them, can lead to the projects or initiatives to improve the activity, which is not very well defined. Therefore, I can say that the discipline of the effective project selection and of the problem definition is essential in the beginning of the Six Sigma implementation, because a possible improper definition will have an immediate negative impact. In this regard, to ensure that what we do it is correct, we shall need to consider the following recommendations:

- **Simultaneous launch of a reasonable number of the projects**, because a too bigger "wave" of them lead to dissipation of the attention, a poor implementation, and lacking the ability of the leaders to track and guide them;

- **The correct sizing of the project**, means the adopting of the “Significant” and “Achievable” formula, which implies the need to propose some small but very focused tasks;

- **Focus on the efficiency and the customer benefits**, in other words, on its satisfaction, on the service and the quality of the provided service, in terms of the increased productivity, profitability and competitiveness.

Therefore, a successful project selection is a process and if it is followed correctly will result a substantial improvement of the success rate. And as in any process, input is the key to an effective result, I present below, the possible sources of ideas for Six Sigma projects, which have the objective to improve the auto service activity:

**► External sources: Customer Voice, Market Voice and Comparison with Competitors.**

Such information may come either from the newspaper articles or from the market and the competition research, or from the feedback received from the sales staff. I shall present below some questions arising from these sources:

- Where do we fail to meet customer needs?
- Where are we from the competition?
- How will the market evolve?
- Are we ready to adapt?
- What new needs will have the customers in the near future?

**► Internal/external sources:** Input helps to identify the company challenges in defining and/or implementation the market strategies and on the client. Among the frequently asked questions that may help to find the viable solutions include:

- What barriers can prevent us to meet our strategic objectives?
- What new profitable purchases in concordance with the wanted image on the market must be achieved?
- What new services we hope to launch to provide more value to the customers and the shareholders?

The answers to these questions offer us the best opportunities to improve the processes, because they relate the valuable aspects both to the company and for its relations with the external environment.

**► Internal sources:** Frustrations, issues, problems and the visible opportunities during/content of the operations, which we could call suggestively the “Process Voice” and the “Employee Voice”. Questions that are taken into account after listening of these voices, include:

- What major delays in the supply of the spare parts do the processes slow down?
- Where do we have the increased costs because the poor productivity of the mechanics teams?
• What are the operations that record repeated complaints from the customers and who runs them?
• What concerns or ideas do the employees and the managers have?

In this context it is important to pay more attention to the perspective mentioned by the different persons on the ways in which processes can be improved for the benefit of the business, customers, shareholders and employees.

“To qualify as a Six Sigma improvement project, the answers to the next three questions will have to be Yes, Yes and No.

1. Is there a problem or an opportunity?
2. Is the cause of the problem unknown?
3. Is there any predetermined or obvious solution?” (Pande et al., 2009)

One of the selection process challenges of the Six Sigma project is to agree not just on what to do, but also on what not to do, because it is obvious that we can’t do everything, so that to consider the priorities. Therefore, the selection is based on the identifying the projects that are best fitted to the needs, capacities and our current objectives. Next, I shall list some of the possible criteria to be taken into account for selecting the projects, grouped into three categories:

A. Criteria related to the business outcomes or benefits
   ◦ The impact on the customers and the external requirements refers to how useful or important is this problem/opportunity for the paying customers and for the other external agents, such as: the supply chain partners, the regulatory bodies and others;
   ◦ The impact on the strategy and the competitive position of the organization indicates what it will be the potential project value to achieve the business vision, to implement the marketing strategy or to improve the competitive position;
   ◦ The financial impact (reduces costs, improve efficiency, increase the market share, etc.) is to evaluate the financial gain both on the short and the long term and how we can correctly extrapolate these values;
   ◦ Trends, in time, the problem, the issue or the opportunity become more or less important? What will it happen if we do nothing at the moment?

B. Criteria related to the feasibility
   ◦ The needed resources – how many people, how long and how much money may require this project?
   ◦ The available expertise – what knowledge and technical skills are needed for the project and if these are available or accessible?
   ◦ Probability of the success – based on what we know, what do we estimate the probability that a project to be a success, in the reasonable temporary period?
   ◦ Support or acceptance – what level of support do we anticipate to get for this project and if we are able to mobilize those interested in the implementation of this project?

C. Criteria related to the impact on the organization
   ◦ Learning – what new knowledge about the business, customers, processes and/or Six Sigma system can be obtained from the project?
   ◦ The trans-departmental benefits – how will the project help us to raise the barriers between groups in the organization and to create a better management of the process as a whole?

Obviously, for the projects selection it will not use all these factors. In general, there are opted for a number of five to eight of the most relevant criteria for organization and for which we have the most reliable information. To obtain a more objective assessment of the projects from a longer list, the evaluating of each potential project in each of the chosen criterion will provide us a comparison and show which of them support the best all the relevant factors for a project but the two major criteria that we must operate in choosing of the best project, remain Significant and Achievable.
SUBSTANTIATION AND CHOOSING THE SIX SIGMA MODEL

The project selection activity has a final product, called The project substantiation note which describes the mission and expectations beside the designated team to implement the project, providing a starting point for this team to create the Project Charter. The common elements of a project mission statement include:

- Description of the issue or of the concern;
- The aim of the project;
- The overall objective or the type of the results that will be achieved;
- Overview of the campaign value (financial benefit, strategic or referring to the customers and why this should be done now);
- The project parameters and expectations (the team “get acquainted” with the resources that are available, getting clear indications about the direction and expectations of the project, without to reduce its options or to dictate the solutions).[Pande, Newman et Cavanagh, (2009)]

Another element to define the Six Sigma approaching relates to the way of the improvement that must be adopted. DMAIC the favourite model for Six Sigma, use the five steps in the improvement projects such as: Defining, Measure, Analyze, Improve and Control. Among the advantages of this model, I shall mention:

- A start “from zero” – Six Sigma is presented as an approach quite different and much better for the organizational improvement;
- A new context for familiar tools – the opportunity provided for the people to learn and use the common tools and to learn new ones (Six Sigma);
- Creating a consistent approach – within an organization, a method and a common vocabulary are essential;
- Focusing on the “Client” and “Evaluation” – the model focuses on these two critical components of the Six Sigma system because “a customer easy to please is a source of prosperity, while a difficult client is a source of progress” (Nicolescu et al., 2003);

Practically, for the Six Sigma, there is not a right or wrong improvement model as long as in an organization, the five steps of the “DMAIC” works.

EXAMPLE OF THE SIX SIGMA PROJECT
AIMED TO STIMULATE THE EFFICIENCY OF THE AUTO SERVICE

Management of the auto service aimed the entire flow of servicing, which starts when the customer agrees to make an order of service and ends once the invoice to the customer. But, unfortunately, in the “AAA” auto service unit, in the “W” town, due primarily to a poor management of the schedule and the ramps, but also because of completing by hand and slow of the final estimate expenditures, more and more customers have come to express dissatisfaction because they lost a lot of time when they uses the services of that entity. For this reason, some of them preferred to carry out overhauls and repairs to other service units, where the services quality is much higher.

Thus, the manager of the “AAA” auto service came to see a decrease in the number of customers, unknowing the causes of this unpleasant situation for his own company and decided closer supervision of the employees during the working hours, being convinced that they are the main cause of the customers loss.

In this regard, one of the many Six Sigma projects that could be launched to stimulate the efficiency of the “AAA” auto service could be called Modernization of the processes for acquisition and execution of the orders, including the implementing of a new software to perform the orders, “XYZ2011”, which will reduce the execution time of the technical
revisions, repairs and maintenance of the vehicles, the waiting time for the customers, and will ensure the definition, detail and planning of the operations that can be done in this service, the schedule management of the programming, management of the landfills, printing the machine sheet and to generate the final estimate which will contain all the motor vehicle parts mounted, the workmanship and the person/team who performed the operations. It will also be ensured the uniformity of the data at the level of the document management system for the products, the reference prices, manufacturers, agreed suppliers, sales stock, the granted discounts, the data management in a centralized basis and that integration for reporting and analysis. “Constructively, the information system should be linked to the organizational structure, taking into account the using of the organizational particular divisions of the company, especially jobs and organizational relationships, for the collection, recording, sending and processing the information” (Nicolescu & Verboncu, 1999).

Given the above, we check whether the project is qualified as a Six Sigma improvement by answering at the following three questions:

1. **Is there a problem or an opportunity?**
   
The answer to this question is *Yes* because the problems facing of the auto service are really leading to the customer dissatisfaction and then, to their loss.

2. **Is the cause of the problem, unknown?**
   
   And at this question the answer is *Yes* as being more concerned about the profit, the manager of the organization fails to understand the real cause of the sharp drop in the number of customers.

3. **Is there any predetermined or obvious solution?**
   
   On this question, the answer is obviously *No*, because for the existing problems, the solution found by the manager, certainly, is not the best.

   Because the answers of these three questions are *Yes, Yes and No*, this project may qualify as a Six Sigma improvement.

For selection of this Six Sigma project, we shall take into account that an effective management of the auto service business involves a precise planning of the operations and the necessary resources for each order, along with a strict control of the parts allocated for these. Other essential issues are represented by defining the nomenclature of the specific operations of each brand; establishing the load schedule and monitoring the productivity at the service operation level for each mechanics team, thus seeking to maximize their productivity. So, there are many Six Sigma projects, which could be launched to improve the “AAA”, service's activity which eventually leads to the customer satisfaction and to achieving, sustaining and maximizing the profits.

**CONCLUSIONS**

For the most businesses, so, and for the auto service business, the early benefits from Six Sigma implementation arise from the internal cost reduction and improving the efficient processes. This desire to save more is a good thing, as long as it is accompanied by an understanding that such short-term financial gains are only a part of the benefit that can be achieved in the long term, because Six Sigma is a greater potential to improve competitiveness and a market position, even if such rewards arrive a little later.

Aspiration towards the short-term gains means restricting to the other Six Sigma benefits on the longer term, which target the client, namely: satisfaction, service and quality of the provided service. The topic “centring on the client” is one of the Six Sigma power source and directing the energy on the short-term savings will only reduce the chances of increasing the customer satisfaction and his loyalty. The relevant background of the project
may provide a good start by clearly defining the topics and objectives. I think it is preferable a smaller project, with faster implementation and significant results than a large project, whose implementation is more expected.

The commitment to make from the customer a target for the selected processes of the project require the managerial vision qualities, and, in this regard, I recommend a content balancing of the Six Sigma project, so that, to aim both the improvement opportunities of the activities oriented towards the outward, and those inside the company. Therefore, I consider important the attention that must be given to the mentioned perspectives by various people on the ways in which the processes can be improved for the benefit of the business, customers, shareholders and employees.

REFERENCES