Project Management Approach for Business Process Improvement

By Gina Abudi

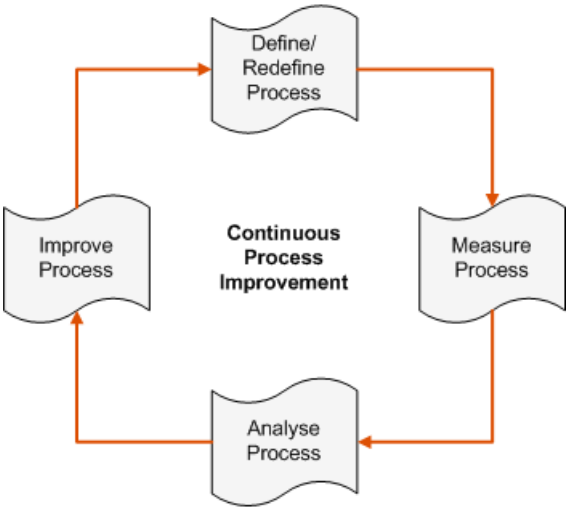
Process improvement initiatives are continuous. By ensuring that the initiative is managed as a strategic project, there are increased opportunities for success. As organisations grow, they need to continuously analyse and refine their processes to ensure they are doing business as effectively and efficiently as possible. Fine-tuning processes gives an organisation a competitive advantage in a global marketplace.

Process improvement is a strategy and a tool to help an organisation meet its long-term goals and objectives. One key goal for all organisations is to meet the demands of their clients, both internal and external. Clients' needs change, whether due to economic factors, new product introductions, mergers or acquisitions, expansion or contraction. Continuously reviewing processes for potential improvements and efficiencies enables companies to adapt effectively to their clients' changing needs.

Sometimes improving one process may inadvertently have an adverse affect on other processes. For example, let's say a company changes its sales order processing. Once that process is improved, it becomes apparent that the improvement in that process has created a backlog in order fulfillment in the manufacturing department. A project management approach would address such issues as part of the risk planning, and the order fulfillment process would have been reviewed as an extension of the sales order process. Or, the initial project would have been assessed to determine if making changes to the sales order process would be beneficial to the company as a whole, given investments needed for other parts of the company.

A lifecycle of a process improvement initiative includes:

- Define/redefine process.
- Measure process.
- Analyse process.
- Improve process.
- ...and back to define/redefine process etc. - a continuous process improvement.



Although a project has a defined beginning and a defined end, in this graphic we are depicting a cyclical environment for continuous improvement. While this may be confused for ongoing operations after deployment of the initial process improvement project, it should, rather, be looked at as a separate

project for each cycle of improvement. While monitoring is operational, once a need for improvement is recognised; a project with a defined beginning and a defined end and with set goals and objectives is established.

When process improvement initiatives are formally undertaken, by a project team led by an experienced project manager (experienced in process improvement-type projects), the following high-level overview steps will likely comprise the project work:

- Documenting the current process to be analysed.
- Measuring the current process (gathering metrics) and developing a baseline. Metrics may be customer-based or organisational-based.
    - Customer-based metrics may include:
        - Customer satisfaction.
        - Service level.
        - Time to market.
        - Accuracy of customer orders.
    - Organisational-based metrics may include:
        - Utilisation of resources.
        - Manufacturing line utilisation.
        - Cost per unit for development.
- Validating the documented current process and ensuring metrics are baselined appropriately.
- Setting new metrics for the process based on organisational long-term goals e.g., one improvement may be to go from 85% customer satisfaction to 93% customer satisfaction over a 9 month time period or to reduce cost per unit from $25 per unit to $15 per unit over a one year time period.
- Analysing the process as documented to make improvements.
    - This, along with documenting a process, can be the most significant amount of time on the project.
- Design and develop changes to the process to ensure improvements as desired.
- Validate the design to the process.
- Implement the new process change.
- Review and measure the results of the new process change.
    - Measure against baseline metrics in a designated time period.

Overview of a Case Study: Process Changes for a Manufacturing Company

This paper will provide a high level overview of a case study of a manufacturing company that saw the value in taking a project management approach to a process change initiative.

Overview

Company XYZ has been aware that their production of widgets will not continue to satisfy clients' demands. They have seen an increase of 10% year after year for widgets over the last 5 years with no end in sight for the increase in demand. The CEO had asked an internal team to review current manufacturing processes and propose changes to the processes, along with upgrades to equipment to meet the demands for the future. When the team's proposal was submitted to the CEO, it recommended an upgrade to manufacturing equipment and a redesign of the production line with no solid metrics relating to the number of anticipated increases. Also missing (and critical to the outcome) was an analysis of what would happen in procurement, delivery, as well as warehousing, if these changes were made to the manufacturing process, and whether these departments would be able to manage those changes. After seeing such deficiencies in the team's plan, and with past experiences in such projects at another company, the CEO chose to engage a project management consulting company, ABC Projects, to outline a project plan for this initiative. ABC Projects specialised in process improvement initiatives. The CEO knew that these efforts were more likely to be successfully implemented when run as a well-managed project.

The Project Plan

ABC Projects outlined a project plan with tentative timelines and cost ranges until discovery was completed. The project plan included the discovery and identification of needs for increased production, as well as identification of affected departments and/or processes if the increase in production were carried out.

ABC Projects knew from experience that other areas besides the manufacturing line would be affected. For example, procurement had a set budget for purchases. The expenditure necessary for materials that were not ready to be used in manufacturing would wreck havoc on cash flow and require consideration of how to store materials until they are ready to be used by manufacturing. Further, additional vendors from which to purchase the materials would need to be identified, should the current vendors be unable to meet procurement's increased demands. Alternative vendors needed to be in place before any supply issues arose. It was evident that the processes for procurement must be very closely integrated with the manufacturing processes to maintain an ongoing flow of materials to production.

The project team developed a detailed plan for identifying the stakeholders and how they would proceed to gather the data necessary to accurately document the manufacturing processes. The plan included a detailed list of questions to ask each stakeholder to ensure that all interviewers asked the same questions and gathered the same data. The project team knew from experience that documenting processes required a thorough understanding of the business, because, when being interviewed, individuals often unintentionally skipped relevant details. Thus, experienced people were required to extract information needed for an accurate and detailed documentation of processes.

The project team also developed a plan for potential risks and strategies for managing them should they come to fruition. They wanted to be sure that once they determined the options for making changes to the manufacturing processes, that they could accommodate potential changes to other processes. They knew that changing one process would likely have a domino effect throughout the company. For example, during one of the scenario planning sessions, the project team found that if procurement was unable to fulfill the material needs of manufacturing from one vendor, without a back up vendor in place, there would potentially be a shortage of materials which would cause a delay in production or costs would increase by at least 30%. This would be unacceptable and would ultimately cause customer dissatisfaction which could lead to a loss of business to competitors.

The team also put together a change management plan; because a major component of the project would be communicating changes company-wide and ensuring the appropriate people were on-board and prepared to work with the new processes. Additionally, the project team needed the individuals involved on the production line to be willing to test new processes as well as new equipment with no interruption in meeting current client demand. Without support from these individuals, this would be an impossible task and one that had a high potential of risk associated with it.

Additionally, the project team sent out a company-wide communication so that employees knew what was happening and why, and they asked for suggestions from employees. By getting the input of the individuals who were doing the job day in and day out, they increased the likelihood of success on the project.

The Work Breakdown Structure included several milestones to allow the company to move forward with working with new processes and upgrades to equipment without interrupting the current production schedule. At each milestone, there were several tasks for measuring progress and comparing it to expected results and baselines. Assessments were completed regularly to ensure the current plan held true to the objectives. At any point during the project, if the assessments showed deficiencies from the objectives, then an evaluation of the process design and, if necessary, a correction occurred. The Work Breakdown Structure included training time to get individuals up to speed on new equipment.

The Risk Management Plan included contingencies should current employees be incapable of learning the new equipment and performing their role in a timely fashion. Part of the contingency plan was to use employees who adapted quickly to the new equipment on the new production line and maintain the old production line with employees who learned less quickly, until they were able to get up to speed. An integrated team concept, including mentoring, was put in place to assist people in getting up to speed on new equipment.

Regular status meetings were scheduled with manufacturing, procurement, delivery and other departments to maintain lines of communication and general awareness of the project status. These meetings also served to ensure that employees were comfortable with change and were able to participate in decisions that would affect how they perform their job.

Project Results

Prior to undertaking the project, Company XYZ was producing 250 widgets per day. At the time of the undertaking of the process improvement initiative, client demand had just reached 250, and demand had increased by 10% annually over the last five years and it appeared that the increase would continue for the foreseeable future.

The directive from the executives was to improve manufacturing processes through changes in

processes as well as upgrading equipment, toward a goal of producing up to 400 widgets per day. Based on current projections, the company would experience a five year timeline before having to undertake another increase in production to satisfy growing client demand. At that point, if client demand continued to increase, the company would be in a better position to invest in another manufacturing site in order to meet demands after the five year mark.

Additionally, in the current production line there was, on average, a 3.6% defect rate in widgets produced. One of the directives specific to this project was to attempt to reduce this defect rate by at least half within the next two years.

The following were discovered during the project:

- Capacity for procurement was limited due to cash flow and budgetary issues, as well as storage. Any new process needed to take this into consideration once production increased and would have to allow for a smooth flow between procurement and manufacturing.
- It became apparent that once the number of widgets manufactured increased, demands on warehousing and delivery would increase accordingly. A plan was put in place to change warehousing and delivery processes to reduce the strain on these functions.

The project had run slightly over the projected timeline, but did remain within budget. The increase in the timeline resulted from an underestimate of the space required to store manufactured widgets prior to delivery. This occurred to a great extent because the decrease in the defect rate was .06%, significantly exceeding the goal of 1.8%, thus causing an increase in the number of widget units to be stored. Although this was not anticipated in a contingency plan it did not cause the executives to be unhappy. It was a good problem.

Summary

A project management approach enabled the company to meet their production needs for the future, while at the same time not disrupting their current production to fulfill client demand. There was never a glitch in the production line while new processes were being tested and evaluated. Continuous communication ensured that everyone was in the loop on changes to processes and actually had the benefit of increasing participation from employees on how to improve processes to better meet client needs. Additionally, continuous review and adjustments to the risk management plan ensured that the end result was well thought out and tested and ensured that any glitches in proposed changes were caught immediately and could be addressed.

Adhering to a standard project management methodology enabled this company to implement a very high risk project efficiently, on budget and within reasonable time to meet long term strategic goals.

Gina Abudi has over 15 years consulting experience in a variety of areas, including project management, process management, leadership development, succession planning, high potential programmes, talent optimisation and development of strategic learning and development programmes. She is Partner/VP Strategic Solutions at Peak Performance Group, Inc. in Gloucester, Massachusetts. Gina blogs at www.GinaAbudi.com. She has been honoured by PMI as one of the Power 50 and has served as Chair of PMI's Global Corporate Council Leadership Team. She has presented at various conferences on topics ranging from general management and leadership topics to project management. Gina received her MBA from Simmons Graduate School of Management.