The Modelling Phase

Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ Perform a what-if analysis to improve your processes
- ✓ Identify the steps involved in iterative design testing

The Modelling Phase

Performing What-if Analysis

What is What-If Analysis?

What-if analysis is a brainstorming approach intended to visualize potential problems with your process. By thinking ahead and visualizing what problems may arise, you are also thinking about solutions to these problems before they happen. Then, you can build appropriate safeguards to ensure your process will be successful.

Aside from preventative problem solving, what-if analysis focuses on looking at variables within your process. Ask questions like:

- What if we extended our banking hours by two hours daily?
- What if we cut food costs by 20%?

Essentially, you are defining and changing a variable and deciding how a potential change in your process will impact your business. What-if analysis is a vital tool to employ in the modeling phase as it helps to identify potential risks and opportunities.

Steps to Performing a What-If Analysis

The first step in performing a what-if analysis is to set up a brainstorming session. Since the generation of ideas is such an important component of what-if analysis, we will offer a brief explanation of the concept and some basic guidelines or rules for conducting a brainstorming session.

Brainstorming can be an individual activity or a group discussion centered on creating ideas or solving a problem. One requirement for brainstorming is that there needs to be a safe environment for people to share their ideas. Members of the group should all feel comfortable in contributing their thoughts. A way to create this safe environment is to have some ground rules for your group brainstorming sessions. These rules can be created by the group. Some sample rules could be:

- Everyone must contribute.
- No idea gets criticized, no matter how unconventional.
- Be considerate of those around you. Allow a person to finish their thought before jumping in.
- One person speaks at a time.

Having guidelines in place will enable you to get the most from your brainstorming session.

The next step in the what-if analysis is to determine what ideas you will brainstorm. When analyzing your process, you need to examine opportunities for improvement and potential roadblocks.

Ask questions like:

- What if we offered clients a service at a discount? Would they be more inclined to buy? What might be some roadblocks to implementing this idea?
- What if we could reduce our expenses by 10%? Where could these savings be better spent? Would this cause a problem by compromising the quality of our service or product?
- What if we reduced costs by having online meetings and saved on travel? What issues may arise if we chose this option? How can we brainstorm solutions to these issues in the effort to cut costs?

The third part of what-if analysis is to develop answers to these questions. You will need to consult with other members of the organization to get enough information. Additionally, you may need to consult with others to develop an idea of the impact your changes will make.

For example, if you plan to reduce costs within your organization, you would need to consult with the people directly involved in the process. What are their recommendations for where you can cut costs without compromising the quality of the product and the process itself? Answering these questions will give you a more comprehensive picture of the issue you are dealing with and whether or not the change you seek to make will be feasible.

Case Study

Julie is the operations manager at a bottle production plant. Julie's company has decided that it would like to offer more environmentally friendly products by increasing the amount of recycled materials used in production. This goal will save money by cutting down on the amount of new materials purchased for production and enhance the image of the company.

Julie has been informed of the new direction of the company and she has been asked to think about how this goal can be achieved. Luckily, she has just taken a course on business process management and she realizes that a change in the manufacturing process is needed. She assembles a team to brainstorm possible solutions. First, Julie defines the issue facing her organization: the strategic goals of the organization have taken a new direction. The issues that they are trying to generate ideas for are:

- How can we change our manufacturing process to ensure 10% of our product is made from recycled materials?
- What challenges might we face from making this change?

Julie explains the concept of what-if analysis and encourages her team to brainstorm freely, with no idea being off-limits. Many ideas are generated and Julie uses the results to gather more information.

Based on her team's suggestions and Julie's consultations with in-house and external experts, Julie advises the executive team that the process of incorporating more recycled material into products is feasible and cost-efficient. Her plant will need machinery to melt and sort glass products in order to accomplish this goal. Additionally, people within the plant will need to be trained on how to use the new

machinery. Furthermore, a role within the plant may need to be created to monitor, facilitate, and oversee the recycling process to ensure that the changes will transition smoothly into current production procedures.

Test Driving

Testing the Design

The next step in the Modeling phase of the business process life cycle is to test your design. This stage involves analyzing and refining the design to improve its quality and functionality before implementing your process.

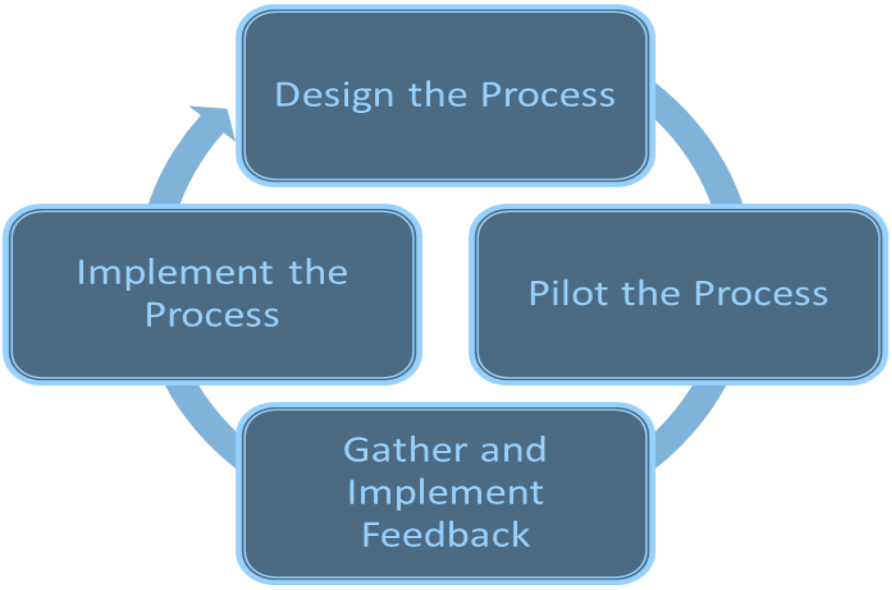
What Does it Mean to Test the Design?

Process testing usually uses an iterative method. This means that you need to update and improve your design in a continuous, cyclic manner. Let's say that you want to use a new recipe for a big family reunion you are attending next month. You follow the steps to complete the recipe. While you are cooking, you continuously check the taste of your dish to check for quality. Then you pilot your creation by testing it out on your immediate family. Based on their recommendations and feedback, you alter and improve your recipe for the reunion.

This example illustrates how you followed a designed process (the recipe) and iteratively improved on the design of this process before implementing it by taste testing while cooking it and seeking your immediate family's feedback. Once you perfected the dish, you cooked it (implemented the process) for the reunion.

Steps for Design Testing

There are four steps for iterative design testing:



Breaking Down the Model

Design the Process

The first step in the model is to design the process you will be working with.

Pilot the Process

Next, you need to pilot the process to test the design. This allows you to see the process in action before it gets fully implemented. It also offers you the opportunity to continuously improve the design of your process by manipulating variables.

Gather Implement Feedback

Once your piloted process is complete, get feedback from people working with the process. Ask:

- How successful was the pilot?
- What can be changed for improvement?
- How can we make these changes?

Then, take these recommendations and implement the suggestions. Next, continuously repeat steps two and three until the people involved with the pilot have no further suggestions on how to improve the process.

Implement the Process

Once you have tested the design and made incremental improvements, it is time to implement the process within the organization.

Benefits of Iterative Design

Risk-Free Environment

The biggest benefit of iterative design testing is that it allows you to test your process in a risk-free environment. You can also fine-tune and modify the process without affecting business operations and costing the organization time and money.

Better Understanding of Process

The iterative design approach allows you to incrementally build on your process. This gives you time to develop a better understanding of what you are working with.

Changes Culture

Adopting the iterative design approach communicates to everyone that your organization is focused on continuous improvement and learning. By being committed to testing and retesting your design, you are also showing that your business is committed to excellence and high performance.

Summary

The iterative design approach is structured to ensure you test your process in a cyclic manner. Feedback from the piloted process allows you to incrementally build upon and improve your design. This method also gives you the chance to optimize your process in a risk-free environment. This is a key component of the approach as any organizational change can be a costly undertaking. Making sure your process is the best it can be before companywide implementation gives your process the best opportunity to have a real impact on your business' performance.

Further Reading:

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