



UNIT-11

Process Improvement with Gap Analysis

Learning Outcomes

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

- ✓ Define the term “gap analysis”
- ✓ Identify different types of gap analyses
- ✓ Perform all stages of the gap analysis process
- ✓ Create a gap analysis report

Unit 11

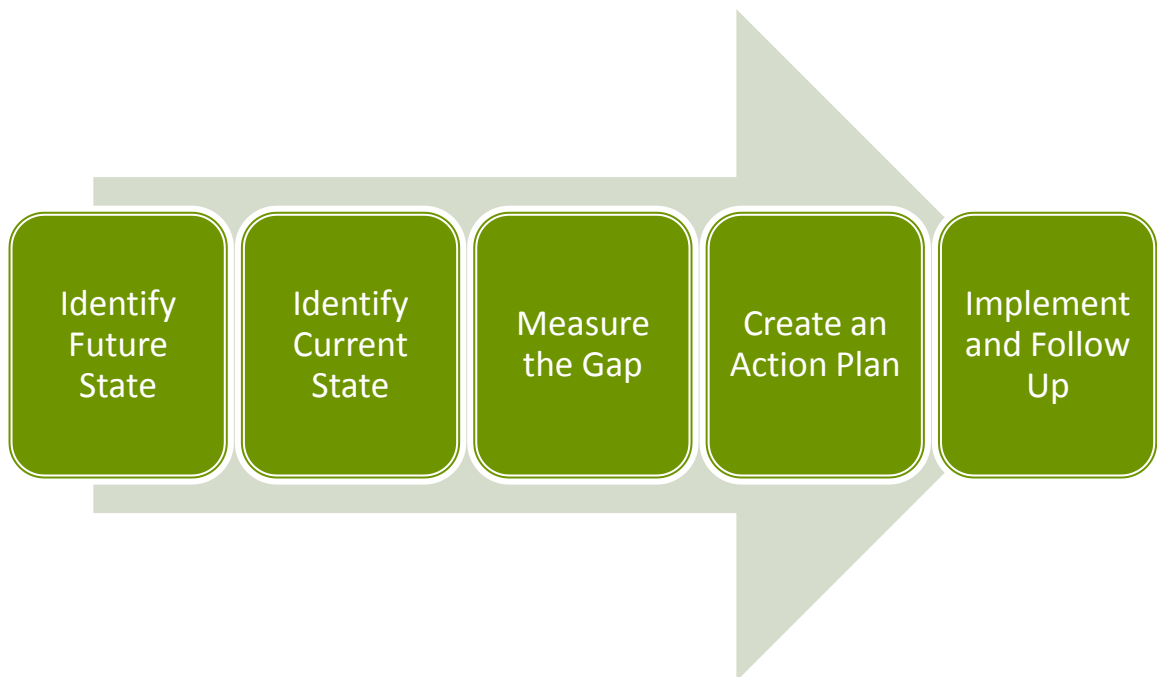
What is Gap Analysis?

Defining Gap Analysis

What is Gap Analysis?

Gap analysis is a process tool that allows you to compare actual performance with desired performance. For example, let's say that your customer service department is currently taking 80 calls an hour but their expected volume is 100 calls per hour. Gap analysis can give you the tools to identify why this gap exists and help you identify ways to bridge it.

Gap analysis consists of five basic steps.



Gap analysis can also be cyclical, returning to the first stage to seek further improvement once the initial analysis has been done and the action plan has been implemented.

Where Gaps Occur

Typically, gaps can occur in three areas. Successful gap analysis looks at each of these areas to see how it affects the current and future state of the process being examined.

People

If people do not have the right skills, are not properly trained, and/or do not have proper leadership in place, gaps can be created between their actual and desired performance.

Processes

Effective, consistent, measurable processes are another key ingredient for success. This includes the way that work is performed as well as the processes used to manage staff and the business.

Technology

The final element of success is having the right tools in place to support the work being done.

The Business Case for Gap Analysis

Gap analysis can be a valuable tool to help businesses define areas for improvement and then create an action plan to get there. It is also an extremely flexible tool that can be scaled up or down depending on your needs.

Here are a few examples of how gap analysis might be used in the business world.

- A project manager trying to set their project's scope might perform a gap analysis on their own.
- A support business seeking to improve their call response time might create a gap analysis team.
- A government healthcare re-organization project might use gap analysis as the first stage of the process.

Types of Gap Analyses

The gap analysis tool has been customized for many different applications and industries. Let's look at a few of these customizations.

Skills Gap Analysis (AKA Training Analysis)

This type of gap analysis helps to identify desired skills and current skills for a particular person or a team. Frameworks like industry requirements or educational certifications might help to determine the desired future skills. The plan of action to overcome the gap typically involves some type of training, such as instructor-led workshops, mentoring, or self-study programs.

Human Resources Gap Analysis

An HR gap analysis is often part of succession and/or strategic planning. It looks at what competencies are currently required, what skills will be required for the future, and what resources the company currently has on hand. This information is then used to help determine staffing levels, budgeting priorities, training needs, and hiring methods.

IT Gap Analysis

As you might guess, this type of gap analysis focuses on information technology processes and procedures. Frameworks like the Information Technology Infrastructure Library (ITIL) or Control Objectives for Information and Related Technology (COBIT) are often used to set the desired future state. As well, gap analysis is often cyclical due to the ever-changing nature of this industry.

Project Management Gap Analysis

Gap analysis can help project managers identify the tasks that will help them complete the project's objective. It can also help determine the root cause of problems so that the correct activities are completed. Project management frameworks like the Project Management Body of Knowledge (PMBOK) and PRINCE2 do not explicitly discuss gap analysis but its concepts can support the process areas outlined in these frameworks.

Functional Gap Analysis

This type of gap analysis focuses on systems (both technology and people driven). When analyzing the current state, you look at what the system currently does. Conversely, when you look at the future state, you identify what the desired features of the system are. This framework can be used to analyze process changes and proposed software implementations.

Making Connections

Identify the appropriate type of gap analysis for each case study listed here.

Ahmed is leading a new project to decrease the defect rate of a product. However, the project team can't agree on the causes of the defects or how to remedy them.

Michael has just started his own business. He needs to purchase accounting software and is trying to decide between two packages.

Renée is the human resources leader for a small business. Her organization has just purchased a competing business and she has been asked to review their employee structure.

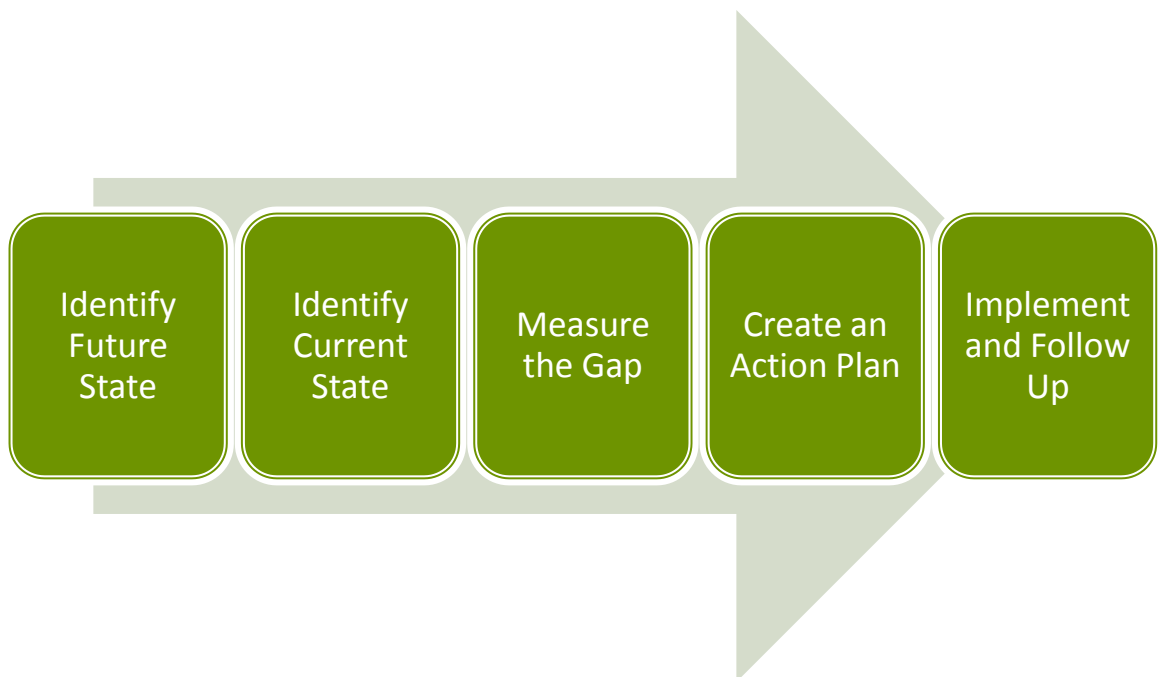
Susan leads a team of four graphic design specialists. She wants to upgrade their image editing software to the newest version but she isn't sure how much training will be required.

The Gap Analysis Process

Process Overview

Introduction

Gap analysis works best with straightforward, quantitative issues. Multiple gap analyses may need to be done if the issue is more complex. The basic gap analysis process consists of five basic steps.



Recording the Data

There are a wide variety of templates and tools available to help you track the information gathered during the gap analysis process. The tool that you choose will depend on the complexity of your analysis.

Here is a simple template that we will work through in the following sessions.

Future State	Current State	Gap	Action Plan

Steps One and Two

Step One: Identify the Future State

The first step in the gap analysis process is to identify your future state. What do you want the process, project, or system at hand to look like when the gap has been bridged? Good future state summaries are objective, realistic, and quantitative.

You may choose to use industry benchmarks, best practices, or standardized guidelines to help set your future state. For example, if you are performing a gap analysis on your organization’s project management processes, you might use a project management framework as your target.

In either case, here are some questions that can be used to narrow down the characteristics of the desired future state.

- What would the ideal outcome of this process be?
- What metrics and results will help us measure the success of this future state?
- How will activities, processes, and employee tasks look in this state?
- What will business results look like in this state?

Sample Project: Improve Response Times to Customer Inquiries

Future State	Current State	Gap	Action Plan
Customer e-mail inquiries will be replied to within 24 hours on average			
Customer telephone inquiries will be answered within 5 minutes on average			

Step Two: Identify the Current State

Next, identify how things currently look. This involves gathering data from as many sources as possible, such as statistics, reports, interviews with stakeholders, surveys, etc. Focus on quantitative measures that are equivalent to the desired future state. For example, if your future state focuses on response time to customer inquiries via e-mail, the data that you gather for the current state should focus on that as well.

Here are some questions that you can use to identify the current state.

- What is happening that makes us want to improve this situation?
- What metrics can we gather about this situation?
- What steps take place in this process?

Sample Project: Improve Response Times to Customer Inquiries

Future State	Current State	Gap	Action Plan
Customer e-mail inquiries will be replied to within 24 hours on average	Average response time is 32 hours		
Customer telephone inquiries will be answered within 5 minutes on average	Average hold time is 8 minutes		

Note

These first two steps can be reversed depending upon the situation at hand. For example, if you have been tasked with something vague like “improving customer service” and you are not familiar with that department, you may need to first identify where things currently stand before looking at the future state.

Steps Three, Four, and Five

Step Three: Measure the Gap

Now that you have two points of comparison, it should be easy to measure the gap. This will help you prioritize action items and focus on high-value items.

Sample Project: Improve Response Times to Customer Inquiries

Future State	Current State	Gap	Action Plan
Customer e-mail inquiries will be replied to within 24 hours on average	Average response time is 32 hours	8 hours	
Customer telephone inquiries will be answered within 5 minutes on average	Average hold time is 8 minutes	3 minutes	

Once you have identified the gap, you can perform additional interviews and analysis to identify causes of the gap. You can use the five whys technique, fishbone diagrams, and other problem-solving tools to help you in your investigation. (See Session Four for more information.)

Continuing with our customer service example, you might gather the following information.

- Review e-mail response statistics, which show that e-mail inquiries are responded to within 15 hours on the weekdays and within 40 hours on the weekend.
- Review e-mail response team staffing levels: 15 members on weekdays, 5 members on the weekend.
- Review telephone response statistics, which show that the average hold time skyrockets to about 12 minutes during the lunch and shift changeover periods. The average hold time outside of these periods is about 4 minutes.

Step Four: Create an Action Plan

It is now time to create an action plan to bridge the gap. Ensure that you have a clear idea of what resources are available so that your action plan is realistic. A multi-phased action plan may be appropriate depending on your project.

Sample Project: Improve Response Times to Customer Inquiries

Future State	Current State	Gap	Action Plan
Customer e-mail inquiries will be replied to within 24 hours on average	Average response time is 32 hours	8 hours	Increase staffing levels on weekends to match weekdays
Customer telephone inquiries will be answered within 5 minutes on average	Average hold time is 8 minutes	3 minutes	Stagger lunch and shift changeover times

Step Five: Implement and Follow Up

The final stage of the process is to implement the action plan. After the gap-reducing measures are in place, gather data and evaluate the new metrics. It may also be appropriate to re-perform the gap analysis to ensure that the gap has been successfully bridged.

Making Connections

Read the case study below and complete the task.

Case Study

You have just been hired as the Chief Operating Officer for the fast-growing software company GoGo Base, which provides enterprise-level dashboard software for e-commerce businesses. The company was founded three years ago and is ready to start working on their internal structure to ensure that they can support future growth.

Technology consulting firm BizMetrics has just released a definitive list of ten best practices for software businesses:

1. Strategic plan in place for the next five years, reviewed and updated annually
2. Technology roadmap created and reviewed annually
3. Company-wide and department budgets created annually and reviewed quarterly
4. Talent management plan in place to cover growth needs for the next 12 months
5. Succession plan in place for the top-level executive team
6. Crisis management plan in place outlining key vulnerabilities, risk assessment, and potential action plans
7. Backups of all servers performed at least once every 24 hours
8. Quadruple redundancy on all servers

9. Marketing plan in place that encompasses both online and offline channels

10. At least three human resource programs from the following list:

- Diversity
- Bullying/Harassment
- Stress Management
- Workplace Wellness
- Workplace Safety
- Ergonomics

GoGo Base is currently performing the following activities:

- Strategic plan was created three years ago but has not been reviewed or updated
- Technology roadmap is updated semi-annually
- Company budgets are created annually and reviewed semi-annually
- All servers are backed up every eight hours; quadruple redundancy in place
- Social media marketing plan is managed and implemented by marketing team
- Requires all employees to take training on ergonomics and stress management
- Workplace wellness program is also offered

Note: If an item is not listed above that means GoGo Base does not have that element in place.

Task

Use the template below to perform a gap analysis in order to bring GoGo Base in line with the best practices outlined by BizMetrics.

Future State	Current State	Gap	Action Plan

Future State	Current State	Gap	Action Plan

Supporting Tools

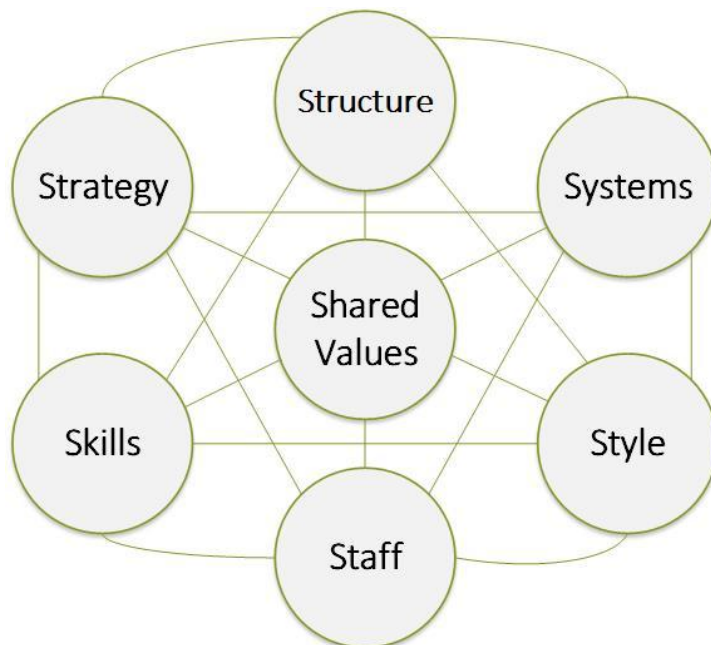
The McKinsey 7S Model

About the Framework

There are many moving parts in an organization that must align in order for it to be successful. All of these parts should be examined and addressed in a gap analysis to ensure that a long-term solution can be put in place.

The McKinsey 7S model can help us identify all of these elements and make sure that we have addressed all possible issues. It presents seven elements of an organization as interdependent entities, where one change affects all systems.

The 7S Framework



About the Elements

Let's break down each of the elements in the diagram.

Shared Values

A shared set of values and focused goals are at the heart of any successful organization. These are typically laid out in the mission statement and brought to life through the strategic plan.

Strategy

This element outlines how all other elements will bring the shared values to life. This includes overall business strategy as well as the strategy of specific teams and departments.

Structure

This encompasses how the organization is laid out, including reporting hierarchy.

Systems

This refers to the processes and procedures used by the organization's members to get work done and achieve the goals laid out in the strategy to fulfill the shared values.

Style

What is the general attitude and feel of the organization, in particular its leadership style and work ethic?

Staff

Of course, the specific people working for the organization are a key part of its success.

Skills

Last but not least, the skills of the staff are also an important part of organizational alignment. In most positions, people need a particular set of core skills in order to be successful.

SWOT Analysis

What is SWOT Analysis?

SWOT stands for:

- The strengths of the business or project
- The weaknesses of the business or project
- The external opportunities that could strengthen the business or project
- The threats facing the business or project that could weaken it

A SWOT analysis is often organized using this type of matrix:

	<i>INTERNAL</i>	<i>EXTERNAL</i>
<i>P O S I T I V E</i>	Strengths	Opportunities
<i>N E G A T I V E</i>	Weaknesses	Threats

SWOT analysis is a valuable tool that you can use during gap analysis to map out the current state as well as the possible future state.

Sample SWOT

You are the training director for a small accounting firm. You are about to develop the company's training roadmap for the next year in order to align with the local regulatory body. You plan to use gap analysis to help with this process. To begin, you use SWOT analysis.

	<i>INTERNAL</i>	<i>EXTERNAL</i>
<i>P O S I T I V E</i>	<p>Strengths</p> <ul style="list-style-type: none"> ● Existing training materials cover a wide range of topics ● Team has two full-time trainers with accounting background 	<p>Opportunities</p> <ul style="list-style-type: none"> ● May be able to leverage new eLearning system purchased by the IT department ● Possible partnership with local community college to update training materials
<i>N E G A T I V E</i>	<p>Weaknesses</p> <ul style="list-style-type: none"> ● Training materials need to be updated to reflect new regulations ● One of our trainers may retire next year 	<p>Threats</p> <ul style="list-style-type: none"> ● New regulatory standards are coming into place at the end of next year ● Possible company budget cuts may reduce training staff

From here, we can easily identify the future state that has top priority (bringing training materials into line with the new standards) and develop an action plan. Related items (such as budget and resources) can be addressed as part of the implementation phase.

Five Whys

The Five Whys Technique

Another helpful technique that can be used during gap analysis is the five whys. This technique is simple: keep asking “why” to get to the root cause of a problem or gap. (Five is a good number of “why” questions to ask, but you may need more or fewer questions than this.) Each answer should be factual and precise to ensure that you get to the true cause.

Example

Here is a simple example of the five whys technique.

Why were you late for work today?

I was late for work because my car ran out of gas.

Why did your car run out of gas?

My car ran out of gas because I didn't put gas in it.

Why didn't you put gas in your car?

I didn't put gas in my car because I didn't have any money.

Why didn't you have any money?

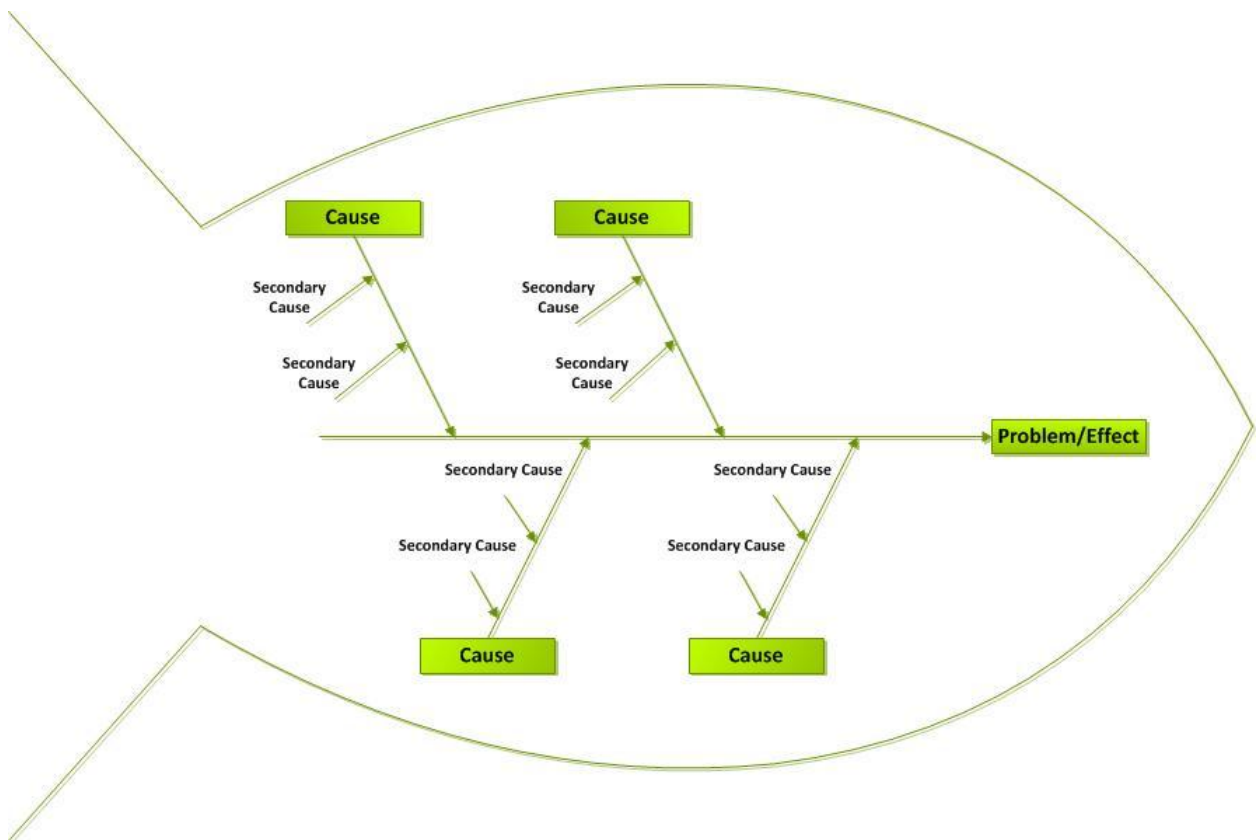
I don't have any money because I spent it all on the weekend.

Can you think of any other situations that could use the five whys technique?

The Fishbone Diagram

Looking at the Fishbone

The fishbone problem-solving tool visually organizes information and can also help us get to the root cause of a problem:



About the Diagram

This tool is also called the **Ishikawa diagram**, after the Japanese quality management consultant who created it. It is an excellent method for solving complex problems, and for identifying the root cause(s) associated with it. It is most effective when used by a group. The facilitator starts the discussion by drawing the outline of the diagram, and then asks for assistance from the group to identify the main causes. Each cause is listed separately (one per fishbone). The team continues making suggestions to fill out the entire diagram. Once the problem is laid out in this visual way, the team can decide what the root causes of the problem are. The causes are highlighted, and then can be acted upon.

One advantage of the fishbone diagram is that we can clearly see the reasons that a situation or problem exists, because we list all the factors that influence it. This can help you clearly outline both the future and current states, and may even help you identify possible solutions for bridging the gap. This diagram can be used as a one-time exercise, or it can become a working document that is updated as various solutions are tried or more information becomes available.

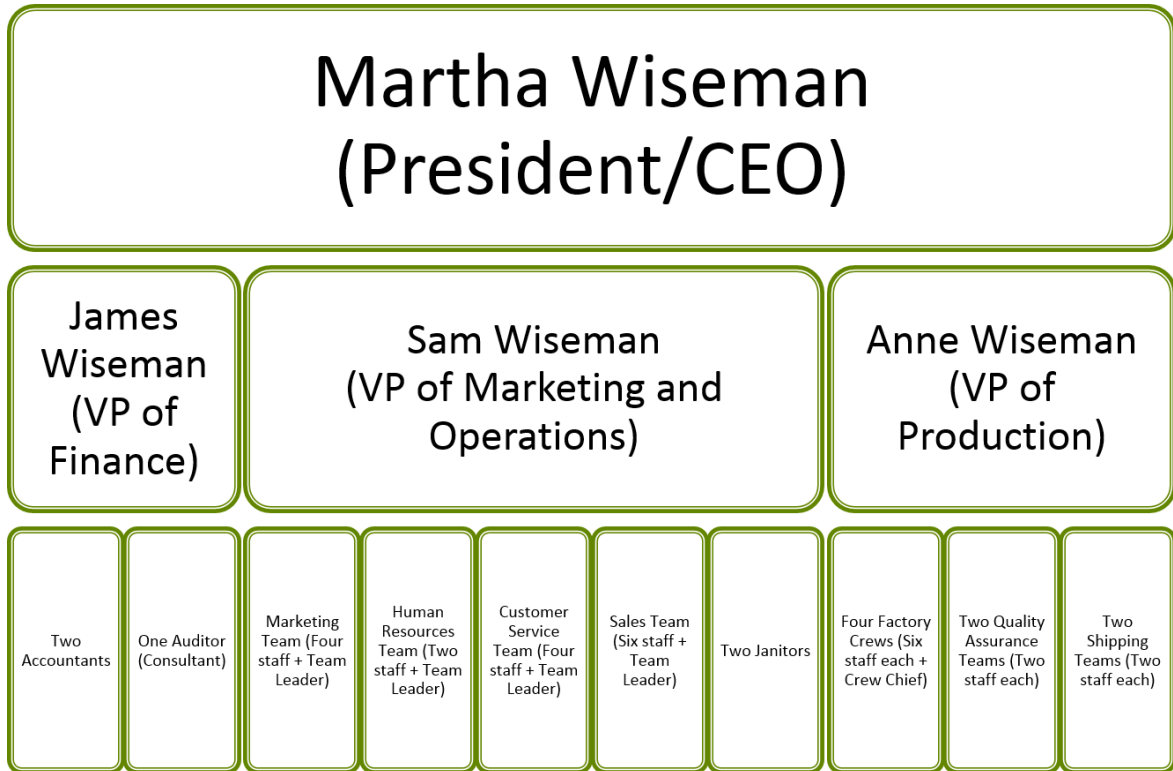
Making Connections

Read this case study and complete it.

Case Study

OptiTech Inc. is a family-owned company that has been in business for over 75 years. They manufacture a variety of basic stationery supplies, including pens, pencils, highlighters, erasers, markers, and notepads. They have focused on growing this core business and providing quality materials. A multi-stage production process with specialized equipment, highly trained staff, and detailed quality assurance procedures have helped OptiTech rise to the top of their market.

OptiTech has a traditional operating hierarchy that looks like this:



OptiTech has always had a steady stream of revenue and solid profit margins. However, they were recently approached by the state Department of Education to participate in a partnership where they would manufacture all school supplies for over a million schoolchildren. Clearly, this is a great opportunity for the company.

However, the following issues must be considered:

- The production team has had trouble with an increasing defect rate in erasers over the past several months and is still working on a solution.
- Production is currently at 90% capacity with the existing staff. Manufacturing equipment could be used for an additional six hours at night if more staff were hired. This would provide enough capacity to meet the additional demand.
- If production were to be expanded, an additional quality assurance team and shipping crew would also be needed. One more staff member would need to be hired for both the human resources and the customer service teams.
- There has been a movement to unionize the factory crews. If this happens, crews would receive more vacation time, additional health benefits, and a significant pay increase. This would impact both scheduling and profits. Product prices may need to be increased to compensate for the losses.

Task One

First, describe the organization using the McKinsey 7S framework.

Shared Values

Strategy

Structure

Systems

Style

Staff

Skills

Task Two

Next, perform a SWOT analysis for the proposed project.

	<i>INTERNAL</i>	<i>EXTERNAL</i>
<i>P O S I T I V E</i>	Strengths	Opportunities
<i>N E G A T I V E</i>	Weaknesses	Threats

Task Three

Finally, bring all of the information together into a gap analysis.

Future State	Current State	Gap	Action Plan

Debrief

Here are some possible answers for the case study.

Task One

First, describe the organization using the McKinsey 7S framework.

Shared Values

OptiTech is a family company that prides itself on steady growth, quality, and stability.

Strategy

OptiTech focuses on a core line of basic yet high quality stationery products.

Structure

OptiTech has a traditional, three-tiered operating structure of a president who oversees three vice-presidents. Each vice-president oversees a particular area, with staff that report directly to them and indirectly via team leaders.

Systems

OptiTech's core processes focus on manufacturing. They use a multi-stage production process that includes detailed quality assurance procedures.

Style

OptiTech has a collaborative, team-focused leadership style that values input from all levels of staff.

Staff

OptiTech relies completely on in-house staff for all of its functions.

Skills

OptiTech relies on the skill set of its production technicians as well as specialized skills for other departments (marketing, finance, etc.).

Task Two

Next, perform a SWOT analysis for the proposed project.

	<i>INTERNAL</i>	<i>EXTERNAL</i>
<i>P O S I T I V E</i>	<p>Strengths</p> <ul style="list-style-type: none"> ● Proven business with well-trained staff ● Solid revenue stream ● Well-established processes 	<p>Opportunities</p> <ul style="list-style-type: none"> ● Partnership with Department of Education
<i>N E G A T I V E</i>	<p>Weaknesses</p> <ul style="list-style-type: none"> ● Production at 90% capacity ● Employees are highly trained, making it more difficult to increase staffing levels 	<p>Threats</p> <ul style="list-style-type: none"> ● Movement to unionize factory crew ● Defect rate of erasers could be a problem

Task Three

Finally, bring all of the information together into a gap analysis.

Future State

Provide school supplies for approximately 1 million students serviced by the Department of Education.

Current State

OptiTech currently focuses on businesses and does not serve the educational market.

Gap

In order to bridge the gap, the following additional staff will be needed:

- One overnight factory crew (seven people)
- One quality assurance team (two people)
- One shipping team (two people)
- One additional human resources person
- One additional customer service representative

We will also need to confirm with our suppliers that they will be able to meet the additional demand.

Action Plan

- VP of Production will determine new production levels and supply requirements, and then set up meeting with suppliers to confirm that this additional demand can be met
- VP of Production will work with quality assurance teams to find a solution for eraser defect
- VP of Production will monitor unionization effort and discuss with CEO if situation changes
- VP of Marketing and Operations will work with human resources team leader to hire and train 13 new employees

Creating a Gap Analysis Report

After the gap analysis has been completed, you may be asked to present your findings in a report. Although the contents and length of this report will vary depending on the complexity of the gap analysis, there are some essential elements that should be included.

Executive Summary

Although this will be the first part of your report, it should be written last. This section will summarize the current and future state, gaps, and the action plan. It should be no longer than one page. You may also want to include the overarching goal of the gap analysis project.

Reason for Analysis

If the goal for the gap analysis is complex or requires background information, you can present that data in this section. If the reasons are simple, this information can be included in the executive summary.

Description of Future State

In this section, describe the desired future state. Remember, good future state summaries are objective, realistic, and quantitative. Industry benchmarks, best practices, or standardized guidelines can help you craft these statements.

Description of Current State

Next, describe the current state. Back up statistics and data with sources and let the reader know where to find this information. (If your source list is lengthy, use footnotes and add a bibliography to your report.)

Description of Gaps

Now you can compare the current state to the future state. Make sure that you are comparing similar metrics with similar samples when drawing conclusions. State each gap in neutral terms that do not imply a solution or make an assumption. Use facts and data rather than opinions.

For example, rather than saying, “Customers wait on hold longer when employees are at lunch,” state, “On average, customer hold times are eight minutes longer between noon and 1 p.m.”

Recommendations and Action Plan

If appropriate, include your recommendations and action plan for bridging the gap. This is also the place to identify possible risks and barriers (although if this list is lengthy it can be included as a separate section.) Be clear about what is realistic and what additional resources will be required. You may want to list your recommended actions in priority order.

This is also where you can suggest follow-up measures and metrics to track that will evaluate how successful the company has been in bridging the gap.

Conclusion

Wrap up the report with a conclusion that sums up the gaps, recommended actions, and next steps.

