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1.
What is Operations Management?

The Basics

Operations is often called the heart of a business, because it describes all the activities that happen in your business to develop a final product or service. For example, if you own a small grocery store, the business operation includes how you source and transport grocery items, manage the store and inventory, and how you handle sales and distribution, etc. If you make bicycles, the business operation includes how you source the metal frame, the gears, and the tires, etc. to make the bike, and how you manufacture it and distribute it to the retail store or consumer. If you consider a big company like Coca Cola, it is the operations function that plans and coordinates all the resources needed to design, produce, and deliver the various soft drinks to the stores. Without operations, there would be no Coke products to sell to customers.

Operations management is the business function responsible for managing this process of the creation and delivery of goods and services. It involves the planning, organizing, coordinating, and controlling all the resources needed to produce and deliver a company's goods and/or services. Because operations management is a management function, it involves managing people, equipment, technology, information, and all the other resources needed in the production of goods and services. Operations management is the central function of almost every company. This is true regardless of the size of the company, the industry you are in, whether it is manufacturing or service, or whether it is for-profit or not-for-profit.

What about the concept of project management – is that similar to operations management? No, they are two separate functions - but they often work together for a common goal. A project is something that has a specific goal or outcome, to be completed in a limited timeframe. For example, if you own a bakery and you are looking to expand your business, a goal for a project could be the installation of a bigger bread-making oven within three months. Another project for your bakery could be: to identify, within two weeks, at least three new suppliers of flour, so that you can make more bread in the new oven. As you can see, project management can become a part of your operations or this function can be separate from operations.

Returning to the function of operations management, it includes managing every element in the process to ensure that each activity is completed as efficiently as possible and delivers on the customer's expectations. In order for a business to be profitable, owners should work to ensure that all important operational activities are done with as much quality and little expense as possible. Operational activities that are important to the business should be written down so that they can be clearly communicated, learned by all employees in the same way, and measured for effectiveness. When a business is run efficiently, it is more likely that the product/service will meet the needs of the customer. Mistakes are minimized, and costs made as low as possible to support the level of quality needed. The business owner will see the results of effective operations management in their increased sales and profits.

Operations management is the same concept whether you are selling products or selling services. A company that sells products must find a way to deliver what their customer wants – often trying to make their product with the highest quality for the least cost. Companies that provide a service also must provide what the customer wants - often trying to deliver their service with the highest quality for the least cost.

Businesses that regularly improve processes to increase the quality of their product/service often stay in business longer. This is because effective operational management saves the business money and delivers a more consistent product or service to the customer.

Tell Me More

Operations management must look at a broad range of activities and processes that need to happen so that the business can make money. These activities include: manufacturing, managing suppliers, managing customer orders, marketing, sales, managing finances and managing human resources. Effective operations management creates value for the business by finding the most efficient ways for the company to deliver its products or services with the highest possible quality, for the lowest possible cost.

Any business owner/entrepreneur can add value to their business by making sure that all the operational processes are effective, efficient, and well planned. To do this, the business should look at each step of every process to find and fix any issues/weaknesses that are negatively impacting productivity. There are many actions involved in operations; several actions taken together to accomplish a task make up a process. Thinking through each step and each process and monitoring the outcome provides numerous cost advantages to the business owner. For example, look at what steps should be followed in the manufacturing process:

Step 1: Identify all the raw materials needed to create a finished product or service. For example, if your business makes kitchen products, like dishwashing liquid, you will search out options for the supply of bottles and caps, fragrances and cleaning agents, labels, etc. If you are in a service business, like a consulting company, you will need to search out qualified people. You will then have to decide the level of quality that you want to provide (based on your customer's needs) and identify where these materials/people can be found and at what price.

Step 2: Identify who will supply each raw material and at what cost and amount of time. This is called sourcing. If you are making dishwashing liquid, remember to think about any transportation or warehousing costs. If you are running a consulting service, think about any recruiting and training costs. You could develop a simple spreadsheet that identifies each supplier and their costs, so that an easy cost, time, and quality comparison can be made between possible suppliers.

Step 3: Identify how you will manufacture your product or deliver your service – will you do it in your own facility or outsource all or part of the needed work to another company? Take into consideration any special skills that may be needed to produce the product/service. For example, do you have enough space in your building to make and bottle the dishwashing liquid? If you decide to make the product yourself, you will need dishwashing liquid making and bottling equipment. You will need to hire and train people to run the equipment – do you have that knowledge and skills? You will also need a business license or governmental approval to conduct business in a legal manner.

Step 4: Find a building or location that best fits your needs. The location of the business is important. For example, if the location of the business is closer to its market, this may reduce shipping costs and transportation time; but that location may also be more expensive for the business owner. If you rent a space in an expensive area such as Share Naw and produce there, you will incur unnecessary rent costs. You may choose to have a location in the outskirts of Kabul where rent is cheaper, but manage transportation in such a way that you minimize frequent commute to the market i.e. Share Naw. In the beginning, it is very common for a business to be run out of the owner's home. At the start, it is recommended that the business try to find the lowest cost facility that is closest to your customers. This process may take time and persistence but may be worth the investment.

Step 5: Organize the arrival of raw materials and the people doing the work to make the finished product/service in a way that maximizes quality and reduces the time to make the finished product. For example, a business owner who makes large quantities of dishwashing liquid will likely want to organize their manufacturing activities in an assembly line. An assembly line is a process that will allow the employees to work on separate parts of dishwashing liquid making and bottling in a very orderly way.

Step 6: Manufacture the product, package it, label it and send it on the way to the customer. Depending on the customer's' needs, the product may be sent to your warehouse, where it becomes part of the inventory, awaiting being sent to the customer. For your consulting business, you would finalize your specific area of consulting focus (marketing, finance, new business venture advice, etc.) and start to promote and sell the service to potential clients.

All processes, from the identification and purchasing of raw materials up to the delivery of final product/service, come under the responsibility of operations management.

Glossary Terms from this Section

Assembly Line - An efficient method to produce large quantities of relatively uniform products.

Inventory - Items being held in storage by the business which can include raw materials as well as finished products.

Operations - All the activities associated with delivering a business's product or service to the customer.

Productivity - A way to measure the efficiency of an operation.

Sourcing - Negotiating with different suppliers to find the best combination of price, quality, and timing.

For More Information Related to this Topic See

- What are the best practices in operations management? 5. *Operations and Project Management*
- What are the roles of other people in operations management? 5. *Operations and Project Management*
- What is Project Management? 5. *Operations and Project Management*
- What are the best practices in project management? 5. *Operations and Project Management*
- How can I make my business's operations more efficient? 5. *Operations and Project Management*
- How can I increase my customer's satisfaction through effectively managing my operations? 5. *Operations and Project Management*

Additional Tools Available

Setting Up Your Operations Worksheet

2.
What are the best practices in operations management?

The Basics

Operations are often called the heart of a business, because operations management describes all of the activities that happen in your business to develop and deliver a final product or service. Over recent years, many smart researchers have developed several best practices to maximize the efficiency of business operations. Here is a review a few of the most common:

1. Continuous improvement. This is the idea to motivate people to think about how they are working and how to improve it. If you are the owner of a school, you should be constantly evaluating the ability of your teachers to deliver the level of education expected by the students and their parents and improve it. To do this, you might conduct periodic exams to measure how well students are learning. In some locations, there may be a standard test, used by all schools at all levels, so you can measure how your school rates against what other schools are delivering. Once you see how you are rated, you can make changes to your curriculum or teaching staff to improve the learning environment and outcomes.
2. Lean production. This is the idea that, by identifying and cutting waste across your operations, you will improve efficiency and quality.
3. Simplify processes. This is the idea that everything should be made as simple as possible. For example, if you have a retail clothing store, you might consider having separate sections for men's and women's clothing, so that customers can more easily find what they are looking for. Or you might decide not to open your store on Friday, as it is often more difficult and costlier to find people to work on that day.
4. Machines, facilities, and people should work together to add value. This is the idea that owners can maximize profits by ensuring that all parts of the organization are working together towards a common goal. For example, Zeba Amarkhail runs a printing house where she prints advertising material and paper boxes. She has organized her facility in such a way that the warehouse, machinery, and packaging sections are located in each other's proximity and her staff can easily move between the sections. She has one engineer that knows how to operate the machinery. Her two relationship managers work with customers and place orders through a software that all of her staff use. She has analyzed her operations and designed the facility efficiently so her staff, machinery, and facilities work together to add value.

Tell Me More

One of the most easily identifiable best practices in operations management is reducing waste. A Japanese engineer identified seven types of waste that might occur in every business. Explore each one in your business and find how to improve your profits by reducing that waste.

1. **Overproduction** – producing too much above the actual demand. Many manufacturers tend to mass produce items in advance of their sale. These companies try to forecast what they hope will be the demand for their product, and then make goods they hope to be able to sell. The main problem is that forecasting is very difficult to do accurately. It is often wrong. If the forecast is too high, the company is left with lots of unsold products sitting in inventory. If the forecast is too low, the company may not be able to meet demand. To overcome the possibility of waste from overproduction, companies try to use just-in-time production. This means they try to produce only what is being immediately demanded by the customer and order raw materials to arrive as close to the production time as possible.

2. **Inventory** – carrying too much or too little finished goods and/or raw materials. In addition to possible unsold finished product, many companies keep stocks of raw materials and work-in-process to reduce the risk of production being halted. To find and fix this type of waste, the just-in-time process mentioned above is utilized to link raw materials and production schedules as closely as possible, minimizing inventory costs.

3. **Movement –** having badly designed work stations or work flow. In some companies, the employees spend time doing things that do not add value to the product/service. For example, if you own a coffee café, some owners will have each person do everything for the customer: they will take the order, brew the coffee, serve the coffee, and accept payment and give change to the customer. This may mean the employee can only serve one customer at a time and this may lead to long waits and frustrated customers. Another owner's approach might be to have one person responsible for just the coffee-making process and have another person facing the customer to take the order, deliver the coffee and accept payment. One of these approaches may work better for you, depending on the design of your café. The idea is that owners must closely review each step in the product/service production process and product/service delivery process. Owners should look to streamline the process, looking to eliminate all unnecessary steps that add cost but do not add value.

4. **Waiting –** having the customer wait because of delays in the process. Delays may occur for any number of reasons. If you are a doctor giving medical treatment, it may be that one patient's case has been more serious and time-consuming, and you are running behind all your appointments. Owners should develop a communication process so that their clients/customers that are waiting are alerted to any delays. While this will not solve the waiting problem, it will make the customer feel valued.

5. **Transportation –** time and money spent moving things adds costs. Owners should realize that simplified operations, located close to the customer, will reduce transport costs and improve profits. For example, Coca Cola has long shifted its production to Afghanistan under a licensing agreement so as to avoid huge transportation costs and tariff payments. In addition to massive savings on transportation costs, the company realized further savings on raw materials, labor, facility rent, tariffs, etc.

6. **Over processing –** producing overly complex products/services that may not be needed. Smart companies identify which of their product/service features create costs but do not offer value to the customer. For example, if you produce agriculture tools such as shovels, plows, sprayers, etc. and offer them in a variety of colors, this probably adds expense to you (carrying multiple paint colors), but does not create more value or quality for the tool. Afghan farmers would pay for the actual functionality of the tools as opposed to the color, especially if the price is higher than common tools.

7. **Defects –** producing substandard product or services. High product quality leads to lower costs and by solving problems that cause defects, companies will spend less time and money re-working or replacing goods or refunding services that were not up to standard.

By working to eliminate waste, companies who adopt these best practices will improve their operations management efficiency and improve profitability.

Glossary Terms from this Section

Continuous Improvement - The process of constantly looking for ways to eliminate waste and streamline operations.

Lean Production - The situation where operational costs are kept at a minimum.

Just-in-Time - A technique of trying to match the timing of your production with the demand to minimize storage or inventory expenses.

Work-in-Process - The products that are being worked on in the production process, but are not yet finished goods.

For More Information Related to this Topic See

- What is Operations Management? *5. Operations and Project Managemen*t
- What are the roles of other people in operations management? *5. Operations and Project Management*
- How can I make my business's operations more efficient? *5. Operations and Project Managemen*t

Additional Tools Available

Best Practices in Operations Worksheet

3.
What are the roles of other people in operations management?

The Basics

Small business owners often take on several roles within operations management. No one person in a small business usually has just one role. In any business operation, there are multiple responsibilities, duties and tasks that need to be managed well by one or more people. These tasks may include: purchasing, product development, maintenance, scheduling, and quality control.

It is important for business owners to recognize there will always be overlapping duties and tasks within operations. The owner is often the key employee who can complete many of the above tasks within operations management, but they should also realize that other key employees need to be trained in multiple tasks to ensure the success of the business. Businesses need to have their employees capable of completing multiple tasks and overlapping one another when busy times demand it - this is called cross-training. This process allows for several people to understand and respect the duties of others. When there is cross-training in an organization, there are many benefits: increased communication between employees, increased understanding as to the complexities of other functions, increased appreciation of the responsibilities that others have, and, finally, an increased spirit of co-operation among employees.

Another operations management concept seen in many organizations is called delegation of authority. This means that an owner gives – or delegates – his/her authority to act on an issue to another person. For example, if you own a restaurant, perhaps you personally open the restaurant at 7 AM for breakfast on Monday, Tuesday, and Friday. And you delegate the authority to someone else to open the restaurant on every other day. Your decision to delegate your authority gives other people opportunities to take on new roles and may help them and your company grow.

Tell Me More

There are several responsibilities within operations management that are often not the sole responsibility of the owner. Here are a few of these management roles and some of their specific tasks, using a clothing manufacturing company as the practical business example.

- Supply Chain Manager: this person is responsible for the acquisition of raw materials - possibly from several suppliers - such as cotton, zippers, and buttons. This person is constantly negotiating for the specific quality of the raw materials and is looking for lower prices. Often, this person is called a Purchasing Manager, who may be tasked with not only sourcing the raw materials from several venders but also negotiating prices, delivery times, logistics, quality, etc.
- Store Manager: this person is responsible for the managing and monitoring of the inventory of work-in-process and finished goods whether in the company's warehouse or store. They make sure that the cloth, buttons, and finished clothing pieces are stored in a way that prevents them from getting dirty or damaged. This person is also responsible for ensuring that there is a system in place to keep track of the inventory, so that the business knows exactly what it has where and how much is being sold in the store.
- Quality Control Manager: this person inspects each raw material, finished good, packaging, measures the speed it takes to produce a product, the labor overtime, etc. to maximize quality and consistency. He/she looks for any defective products before the clothing can be delivered to clients. They would look for any flaws in the dresses or shirts, such as a missing button or zipper. They would report any quality issues with materials to the supply chain manager and report warehouse or store-related issues, such as unsuitable storage facilities that could damage products, to the store manager.
- Creative Designer: this person creates new products for the market or creates new variations of current products. They usually get their direction from any marketing people in the company, based on feedback

from customers or new trends in the industry. They would work with the Quality Control manager to monitor product effectiveness. They also would be working with any marketing people to understand the latest clothing fashion trends and how those trends might be impacting the company's styles.
- Facilities Manager: this person manages all those people who would maintain, repair, and improve the property, plant, equipment, and all tools that make and package the clothes.
- Information Technology Manager: this person is responsible for maintaining the technology and data systems. This would include any in-store ordering systems, computer driven machinery, payroll systems, payment systems or any on-line presence.

There are many responsibilities within operations management and each duty may have several individuals capable of completing tasks. The responsibilities are varied and include gathering and interpreting facts and data, statistical analysis, managing employees, and a technical expertise with respect to the product or services created by your business. In smaller and medium businesses, which are common in Afghanistan, you may not see too many people working in the operations. Rather a couple of staff take forward the company's operations and recruit short-term staff, such as day workers, to complete the rest of the work. It's important in smaller companies to ensure, despite having fewer employees, that roles and responsibilities of each staff is clearly communicated to them.

To effectively fulfill their operational responsibilities, the business owner must decide what business structure will give him/her the greatest chance at success. There are two opposing options to choose from: Top down or Bottom up.

Top down is the most common practice of managing a business operation, especially in Afghanistan. In this option, it is the owner of the business who makes all the decisions. The other people in the business simply follow the direction/desires of the owner. The benefit of this type of structure is that it is very clear who is the boss. In this structure, funding requests for new equipment are sent to the boss and he/she responds quickly and decisively to all requests. This means that projects can move along quickly and there is clarity in how decisions are being made. However, in this scenario, individuals in the company often have limited opportunities to contribute their ideas to operations or offer solutions to operational issues. Unfortunately, in many situations, it is these very people who have the most insight on process improvements and customer desires, because these people are often directly involved in customer sales or the production process.

Another downside to this management structure can be the formation of barriers between business units where employees do not communicate with each other and can be duplicating work and not sharing knowledge that would benefit other business areas, wasting valuable resources.

For small businesses, the top down approach may be the only management option that makes sense. However, as a business grows, the owner can start to delegate responsibilities and move to a bottom up approach.

The bottom up structure occurs when most decisions are delegated by the owner to those closer to the customer or to the operation. This option allows for more communication and collaboration of employees, regardless of their education, rank, pay, etc. In this structure the business leader values the insights and observations of their employees at every position, empowering employees who deal directly with customers and those at even the most basic steps of production or support to propose ideas to improve the business. The bottom up style is conducive to more communication and collaboration and often allows small businesses to react and create products better matched to customer desires. There are usually fewer silos and less internal competition.

A downside to this structure is that, many times, all the information needed to make the most informed decision does not exist at the lower layers of the organization. As well, decision-making often takes more time and people tend to be very protective of their own ideas.

Both structures include the formation of teams. This is where people from different skill sets, backgrounds and genders work together on short-term time frames to attack operations management issues. These teams often make decisions, identify problems, and brainstorm potential solutions to the business challenge. In the top down structure, these teams are simply executing the boss's decisions, whereas, in the bottom up scenario, they may be developing solutions to present options to the boss for a final decision.

Identifying key individuals to take on operational management responsibilities - that they can excel at - is crucial to efficiently managing a small business.

Glossary Terms from this Section

Bottom Up Structure - A way of describing how information flows where the ideas come from people other than the boss.

Cross Training - Training employees in more than one role, so that they better understand their part in the business and can cover for others when needed.

Delegation of Authority - The decision to yield some authority and give it to others.

Top Down Structure - A way of describing how information and decisions flow where someone in authority makes all the decisions on issues.

Silos - Invisible divisions that may exist between areas of functions inside a company that can limit communication.

For More Information Related to this Topic See

- What is Operations Management? *5. Operations and Project Management*
- What are the best practices in operations management? *5. Operations and Project Management*

4.
What is Project Management?

The Basics

A project is something that has a specific goal or outcome, to be accomplished in a limited timeframe. For example, if you own a bakery and you are looking to expand your business, a goal for a project could be the purchasing of a bigger oven within three months. Another goal for a project could be to identify, within two weeks, 2- 3 new suppliers of flour, so you can make more bread in the new oven. Business owners often manage most projects themselves or they can designate people to be project managers. These people make sure the project outcome is satisfactory to the owner and has been completed within the specified period.

What about the concept of operations management – is that similar to project management? No, these are two separate functions that often work together for a common goal. Operations management is the business function responsible for managing the whole process of the creation of goods and services in a business. It involves the constant planning, organizing, coordinating, and controlling all the resources needed to produce a company's goods and/or services. Often, projects occur within operations, so it is good for a business owner to understand both functions.

Most projects have a very specific goal and a time frame, such as: I want to expand the bread-making capacity of my bakery within 90 days. To have successfully completed project like this one, there are several steps to follow:

Step #1: Clearly identify the goal and the desired timeframe.

Step #2: Clearly identify who will be responsible for the project – will it be managed by the owner or will there be a project manager.

Step #3: Clearly identify all the resources needed to accomplish the project by the desired deadline. The required resources may be financial, equipment or technology, or they may be human. Usually, they are a mixture of more than one of these. For example, on the financial side, to build your new oven you will need to borrow money from a relative or a bank to purchase and install the oven. Therefore, part of the project will be to secure a loan on the most favorable terms. On the human side, to maximize the use of the new oven, you will need to conduct training of your bakers on how best to use the new oven.

Step #4: Monitor the progress of the project on a regular basis. For the new oven, the project manager might want to check every day on the status of the installation of new wiring for the increased electrical needs or track the estimated arrival of the new oven every other day. The project manager might report his/her results to the owner on a regular basis.

One tool that is often used in the planning/tracking of projects is a Gantt chart. A Gantt chart is a tool used to graphically track all the elements of each project and their estimated timelines. Using a Gantt chart allows the business owner/project manager to visually display each step of project and see when it should be completed. The Gantt Chart, if shared, will help show the employees what needs to be completed, what their responsibilities are and when each task that needs to be finished. This way, they understand what part they are playing in the project, and have a better understanding of what the goals are.

A Gantt chart template is available in the tools section of this guide.

Tell Me More

Every project will be different and often the business owner will have several projects running at one time. One of the frequently used methods to help owners and project managers better manage the project management process is: Define, Measure, Analyze, Improve, Control, Communicate and Reward.

- **Define** – Outline exactly what is the project's goal and why it is important to the business to complete the project. For example, for the bakery, one possible goal could be: After arrival on site, install the oven in less than two days.
- **Measure** – Establish the criteria for success and spell out how we will monitor the performing of each of the tasks. "Monitor the installation progress every four hours" would be the relevant wording in this example.
- **Analyze** – Be sure to examine carefully anything that went wrong in completing the task(s). This will be helpful in planning of any future projects. Perhaps you discovered that there was insufficient supply of electricity or that there was not enough counter space because of the bigger oven. Learning to see what went right and wrong is key to project management improvement.
- **Improve** – Once this analysis has been done, act to fix what is wrong either through training or getting a better understanding of what you should or should not do. "Next time, involve an electrical engineer sooner" might be an example for any future projects involving the bakery.
- **Control** – Establish a system or process to ensure that all improvements captured and implemented in a timely manner. Gantt charts are helpful as a part of your system or process.
- **Communicate** – Be sure to communicate to all members of the company the progress and results of the project. Share the project's success and acknowledge the helpfulness of the team members. Perhaps you could hang a banner in the bakery thanking everyone for their help in getting the new oven installed and working on time.
- **Reward** – Give people a reward for the successful completion of the project. This can be a monetary reward, a trophy, a certificate, etc. What matters is that owners/project managers should always recognize the successful completion of each project publicly. Maybe, you could hold a pizza party for all employees to celebrate the installation of the new oven.

This methodology helps owners/project managers to create standards of quality by controlling each step of projects and measuring outcomes as they happen.

Glossary Terms from this Section

Gantt Chart - A tool used to graphically track all the elements of each project and their estimated timelines.

For More Information Related to this Topic See

- What are the best practices in project management? *5. Operations and Project Managemen*t
- How do I organize a project and set my priorities? *5. Operations and Project Managemen*t

Additional Tools Available

Gantt Chart Template

5.
What are the best practices in project management?

The Basics

Success in project management means accomplishing the stated goals of a project on time and within the budget allowed. In many small businesses, the project may have a very short time frame to be accomplished and the resources may be limited. For example, if you own a carpet company, you may have a project to decrease, within the next seven days, the amount of time it takes to make an item, such as a rug. This project is created because you just received a large order that can't be filled within the required timing with the resources you have today.

Implementing best practices in project management can help you better manager your projects to be more successful, efficient, and deliver results in a timely manner.

Tell Me More

To become a more effective manager of projects, consider how you can implement the following best practices in your business.

Best Practice #1 – Match resources with priorities. Good managers ensure that the highest priority projects get the most top management attention and funding. The more important the project, the more resources should be used to manage the challenge. In our carpet company example, if you assign the highest priority to increasing the speed of the rug-making, then this task should receive the most people and financial resources.

Best Practice #2 – Assign clear responsibilities. People will respond best when the lines of responsibility are clearly drawn. In any project, it is likely that different areas of the company may have to work together to accomplish the goal. When someone is clearly in charge, this eliminates most infighting and project delays.

Best Practice #3 – Have clear and open communication. People are more productive when they are kept informed about the status of the project they are working on. For example, if the rug manufacturing process must be re-defined within seven days, it may be a good idea to have a short update meeting with all key employees at the end of every day. In this meeting, all the problems and accomplishments can be discussed, so that everyone is working together with the same information.

Best Practice #4 – Monitor your progress. People tend to focus more on tasks/jobs that are being frequently monitored. One well-known tactic is to post the project's progress on a bulletin board, showing how, each day, you are getting closer to achieving your goal. In this way, people see the steady progress that they are making toward accomplishing the challenge. In another example, if you are running a taxi company, you could have a chart at the front door that shows how many rides have your drivers made each day. The chart will show how close – or far – the drivers are from reaching the project's goal of making certain number of pick-up and drops. Usually you would a minimum number of rides per day, week, or month to keep your company going.

Best Practice #5 - Identify the bottlenecks. We can call any specific issue that limits the productivity of a business a bottleneck. Where a block or back-log of work exists in your processes, find a way to change or adjust that activity to open the bottleneck, allowing more or faster production. To do this in a systematic way, you should first identify the areas that have the longest/largest delays. An example of a bottleneck in a carpet company might be the lack of raw materials on hand to create the finished rug. To clear this bottleneck may take more work to identify new suppliers or it may mean finding a larger room to store the needed raw materials between deliveries. This is a never-ending process, as there will always be areas in the business processes that limit your output.

Best Practice #6 - Define the major issues that require help to be more productive. For example, the carpet company might experience a backlog of orders waiting to be filled, have too much raw materials inventory, or not have enough space for the employees that they need to fill orders. This role of defining major problem areas is usually done by the owner, and he/she must be honest about the limitations of the business. They should be aware that, if they are not buying enough raw materials for the rug manufacturing process, they are still having to pay their idle employees - and this bottleneck will cost them money in increased labor. As well, the company will not have any rug sales until the raw materials are turned into a finished product. It is important to understand that the capacity of a business is equal to the capacity of the bottleneck—meaning, the slowest or least efficient part of the business will define the maximum capacity your business can produce.

Best practice #7 – Map out your process. Try to describe each step in your operations process in detail. Starting from the very beginning where you obtain the raw materials up to the delivery of your finished good/service. Think about what is needed for each step: what kind of raw materials, how much labor and at what points in the process, what kind of equipment and tools are needed, how much power, what kind of transportation, etc. Try to determine how much time each step will take and map it all out. Owners are often not aware of how each part of the business process connects to the next. By using this mapping technique, you will gain a much better understanding of your operations process. For example, if you own a modern carpentry company that produces desks, tables, chairs, couches, and other home and office furniture, you could map out how often you purchase raw material such as various kinds of wood and lumber, depending on the level of orders you receive every month. You will need to consider seasonal changes in market demand, such as Eid Holidays or wedding season in summer, and see how they affect your processes.

Best practice #8 – Map out the customer journey. The insight here is to place yourself in the role of your customer/client and think about each time that the customer/client interacts with your business. For example, in the carpet company, the first time your customer will interact with you (begin their journey) is probably a visit to your store, website or meeting you at a business exposition or other industry event. Once you have mapped out the customer journey for your business, you need to evaluate how easy or hard it is for your customer to deal with you. For example, are your prices clearly posted and easy to understand; do you have places for people to try clothes on; do you offer a variety of ways to people to pay for their purchases; do you have a clear policy for returned purchases; are you open during the times when customers shop the most? These are some of the questions you should ask, so you can have a clear picture of how your customer sees you. Then, you can find and fix any problems in this journey.

How well you manage the problems in your production process will tell you how well you are utilizing your resources. The future of your business is dependent on recognizing problems, finding potential solutions, and fixing the problems so that the bottleneck is eliminated and production capacity increases. Every part of the business, from the training of employees to the tools that they have, can improve productivity. The more you and your employees understand limitations, the more productive you will be. Often, finding the cause of delay or waste is the hardest part of creating a quality product or delivering a superior service efficiently.

Glossary Terms from this Section

Bottleneck - Any blockage to efficient operations.

Customer Journey - A description of all the interactions a customer has with the business from the first awareness of the business's product or service to the final sale.

Work-in-Progress - Incomplete products or components of products that are no longer considered raw material but have yet to become finished products.

For More Information Related to this Topic See

- What is Operations Management? *5. Operations and Project Management*
- What are the best practices in operations management? *5. Operations and Project Management*
- What is Project Management? *5. Operations and Project Management*

Additional Tools Available

Project Management Best Practices

6.
How do I organize a project and set my priorities?

The Basics

Most small businesses have limited financial and human resources, but must still complete projects on time and within budget. The business owner can help improve the likelihood of success by setting clear project priorities and timelines on a regular basis and clearly communicating priorities to all employees.

The first part of organizing any project is always to identify the goal of the project and the time frame in which it needs to be accomplished. For example, if you are running an elementary school and kindergarten, a possible project might be the creation of a new playing field before the start of the next school year. You may have several other projects, such as increasing the number of books in the library before year end or adding new teachers before the start of this semester. Each project needs to be assigned a priority, as people will need to allocate their time and effort in helping to accomplish each one. Sometimes resources will be too little to accomplish everything at the same time and having clearly set project priorities helps employees know where to put their energy first.

To set priorities on how projects should be completed, business owners should ask the following questions:

1. Importance: How important is this project to the short/long term health of the business?
2. Money: How much money is needed to accomplish the project?
3. Time: How much time will it take to get it done?
4. Resources: Do we have all the physical resources we need to accomplish the task, or do we need help from outside of our organization?
5. Expertise: Do we have all the knowledge we need, or do we have to get help from outside our organization?
6. Profit impact: How will the successful completion of the project impact our profits?

It is up to the business owner to rank each project's importance and communicate the decision to all employees. One option is to use a simple ranking system. For example, you might assign the highest priority project an "A", the next priority a "B" and the next priority a "C". This priority setting process should happen whenever new projects appear, so that everyone is clear about what projects have the highest and lowest priorities and why.

Tell Me More

Here are some more detailed steps to help prioritize your projects.

Step #1: Establish how much money is needed to accomplish the project. This important step often determines the priority of any project, as those projects that require large funds are often postponed while capital is found or saved from profits. For example, a restaurant owner may be considering taking orders online, but to do this, she would have to invest in a computer system, hired a programmer, and train employees how to use the system. She needs to consider the cost of the project against the benefit. Once she realizes how much money that project may cost her, she might lower that priority and postpone accepting on-line orders.

Step #2: Estimate how much time it will take to get it done. Usually, projects with shorter time frames get higher priority, as long as they also have a significant potential impact. For example, if you run a dried fruits packaging and retail company and it is coming close to harvest time, the project of hiring temporary workers to collect raisins, almonds, pistachios, and other fruits might be your highest priority because of the urgent nature of the harvest.

Step #3: Determine if you have all the physical resources you need to accomplish the task, or do you need help from outside of our organization. Many times, you can increase the priority of a project if someone else is doing it. In the example where you run an elementary school and kindergarten, the project of getting more kids to your school cheaper and faster by hiring an independent bus service, may have high priority because it does not require use of your own employees or the use of large amounts of capital to purchase the buses.

Step #4: Decide if you have all the knowledge you need, or do you have to get help from outside your organization. Projects that require raising the education level of employees or the training of employees often are given a low priority because it is harder to measure their impact. Companies that invest in their people often reap the benefits of a better educated employee. These people tend to work for the company longer, reducing turnover. They also become more loyal to the organization, because the company has invested in them.

Step #5: Decide how important the project is to the short and long-term health of the business. Projects with an immediate or short-term payback period are given higher priority because businesses usually have limited financial resources and want to see results quickly. However, companies that ignore long term projects often suffer loss of business from competition that has made those investments. For example, Honda, Nissan, and Toyota invested in electric cars years ahead of Ford. As a result, today, the vast majority of sales in that growing market segment are going to Ford's competition. In the context of Afghanistan, a local taxi company had some initial capital to buy brand new cars and use them to provide taxi services to people. This was a short-term solution and to get started. However, as the business grew, the owner, who was well aware of the competition, increased the number of her company's cars by renting cars from outside and attracting other car owners to provide their cars in a profit-sharing scheme. She knew that in the long-term she needed more and more cars as demand for taxi services grew.

Step #6: Estimate how the successful completion of the project will impact your profits. In most cases, the projects that increase profits the most will get the highest priority. As the owner, you are trying to be very careful with how you invest your money, and by focusing on the most profitable projects first, you are maximizing your return on invested funds.

Glossary Terms from this Section

Capital - The money needed to start and operate a business.

Profit - Any positive amount of money left over after subtracting expenses from revenue (income).

Turnover - The cycle of employees leaving and needing to hire new employees to replace them.

For More Information Related to this Topic See

- What is Project Management? *5. Operations and Project Management*
- What are the best practices for successful project management? *5. Operations and Project Management*

Additional Tools Available

How to Organize Projects and Set Priorities

7.
How can I make my business operations more efficient?

The Basics

Efficiency means taking the lowest amount of time/effort and creating the highest quality/quantity possible. Becoming more efficient means creating predictable results in every operational activity in your business. When your processes provide the same outcome every time, your overall operations become quicker and your products/services will be more uniform. For example, suppose you manufacture a jewelry box with a specific design carved into the lid. If your processes are set up so that every jewelry box is exactly the same size with exactly the same image on the lid, it will be faster for your employees to pack the boxes into the shipping crates, and there will be fewer customer returns because the top image was wrong.

Constantly improving the speed and quality of these activities is the best way to become more efficient. There are several operational activities that should be looked at when focusing on improving efficiency. The most important of these are:

- Purchasing
- Labor
- Overhead
- Production methods and processes

Purchasing
One of the most critical activities for many operations is sourcing of the raw materials needed to create a finished good or service. For example, if you own a dairy farm, ensuring that you have enough good quality water for your animals and fodder crops are critical to your business. Providing the purest quality water at the lowest price will increase the quality of your product. If you run a service business, such as an internet café, you will want to purchase electricity from a reliable supplier and have a back-up power generator to ensure customers are able to use your café whenever they want.

Labor
Your labor force is extremely valuable, as your employees are the effort that make your product or deliver your service. Your employees often also represent how your company is seen by the public, such as when you own a retail store. In a store, how your employees act and talk will represent how the customer views your business. If they are friendly, your customers will feel welcome. If they are rude or inattentive, then your customer will feel they are being treated badly and will likely not come back again in the future. Generally, customer service in Afghanistan is not given a priority and many small, medium, and large companies lose customers for their employees do not treat customers with respect. Training employees on how you want them to act is an important part of managing operations, because employees are often the most valuable part of the business' operating ability. Proper training on how to do something better or faster or how to work better with customers will give them more skills and help them to become more efficient. Small businesses that provide good training to their employees will save money and time.

Overhead
Overhead is a term that refers to the ongoing costs of running your business. If you own a food processing business, examples of your overhead costs are your factory/office rent, electricity and phone bills. Reducing your overhead is a key part of making your business more efficient. One way to do that is establish a budget for your overhead expenses once a year. Then track (monthly or quarterly) the actual expenses against that budget. When you see there are costs that are above your budget, it is time to negotiate with your various suppliers for lower rates or identify practices in your business that might decrease your costs in that area. Start by comparing the costs from each of your service providers, such as telephone and security. Your goal should be to minimize these costs and still get the quality of service that is right for your business.

Production Methods
Finding a way to make your production process more efficient is the most common way to make your operations more efficient. For example, if you own a handicrafts business, it may be that most of your products are being produced one-at-a-time by a small number of very skilled long-time employees. To make this process more efficient, you might look at how much time it takes to make the goods at the quality level you desire. Once you see where your highly-skilled employees are spending their time, perhaps there is a way for some of the tasks (such as initial fabric cutting) to be given to other employees, freeing up your highly skilled artisan to focus on the more important creative part of the process. Your goal should be to find way to deliver the quality that you promise to the customer in a way that simplifies how the handicraft is made.

Measuring these Activities
Leading organizations all focus on measuring activities to see how they can increase their efficiency. For purchasing, monitor all purchases so you can compare your costs from one month to the next. For labor, you can measure how many items are produced by how many people in a specific time period. You know efficiency has improved when you have more items produced by the same number of people over the same amount of time. For overhead, you should track all your fixed costs and be open to negotiate every time you renew a lease or contract. It is a constant and never-ending job.

Tell Me More

Working to make your business more efficient is a never-ending process, but it pays off by increasing your profits and making your employees more effective and motivated. For every operational activity, you must find a dependable way to measure output, time, and other standards so that you will know when processes are truly improving and becoming more efficient.

Here is an in-depth look at these areas to help you better manage your business' efficiency:

Purchasing
Identify the minimum amount of your raw materials that are needed to make the product or fulfill the service for one week or one month; try to predict what your sales volume is likely to be over that same period. Ensure you have the minimum amount of resources you need, and that you can access more resources if sales volume increases. Regular negotiations with suppliers and good research about quality and availability should bring the price of the materials down and the quality up. Most businesses seek to buy raw materials from several suppliers so that, if one runs out of what you need, you have others to work with. Purchasing only what you need will make your company more efficient and save storage costs.

- Measure: Monitor all raw materials purchases and uses carefully so that you can compare amounts used and prices per unit from month to month. This will allow you to plan into future months how much you will need to buy and what cost you can reasonably expect to pay.

Labor
Labor can be expensive, and it is important to train your employees to do fast and efficient work. Eliminate as many forms of wasted time and effort as possible by paying attention to where the production process is delayed and implementing changes to lessen the problem.

Employees can be motivated to improve their personal efficiency when owners set goals for quality and production time and provide rewards for when these goals are met. The standards of quality and time should be clearly set by the business owner, so employees know what they are responsible for. Businesses should train employees to meet a high standard of quality – because a higher quality product will be more favorable to customers and may be able to get higher prices, increasing a company's profit.

- Measure: How many employees does it take to complete your product or service in a week? Carefully track the time it takes each employee to complete each task in the process. You will quickly discover which employees are the most productive and which employees need more training. Provide targeted training to minimize the time needed to complete tasks well.

Overhead
Your overhead may include many necessities to your manufacturing or service-based business (i.e. rent, electricity, security, etc.). Some overhead costs you will not be able to negotiate regularly - but you should try - so that your costs are more predictable over time. If there is any overhead cost that varies a great deal from period to period, you should find out why and try to find opportunities to regulate that bill or to re-negotiate costs with the supplier.

- Measure: Set up an annual budget. Analyze overhead costs from month to month and monitor patterns so that you can predict future costs and business needs. Negotiating for predictable overhead costs, as well as keeping these costs as low as possible, will allow you to accurately predict costs and minimize their impact on profit.

Production Methods
The idea of efficiency is to take the least amount of time and materials to create the highest quality/quantity of product or service. Efficiency also creates predictable results in every activity. Understand that the most important operational activities need to become as efficient as possible: reducing waste, increasing quality, improving service, and lowering expenses/costs.

- Measure: Set up an annual budget. You should then look at all the operation's resources and activities and measure them by comparing them every month to the budget. When you compare the amount of resources needed (monthly) with the demand (monthly) of your product or service, you will be able determine if you need greater capacity and be able to budget your future costs more accurately.

Glossary Terms from this Section

Efficiency - Taking the lowest amount of time/effort and creating the highest quality/quantity possible.

Labor - Employees that are paid a fair wage to do the work needed to produce the finished good or service.

Measure - Monitoring or recording each activity to ensure efficiency.

Overhead - Fixed costs or costs that will not fluctuate much every month and are not attributable to any specific product-related activity.

Raw Materials - The basic material from which a product is made.

For More Information Related to this Topic See

- What is Operations Management? *5. Operations and Project Management*
- What are the best practices in operations management? *5. Operations and Project Management*
- How can I make my business's operations more efficient? *5. Operations and Project Management*
- How can I increase productivity? *5. Operations and Project Management*
- How can I increase my customer's satisfaction through effectively managing my operations? *5. Operations and Project Management*

8.
How can I increase productivity?

The Basics

Productivity refers to the amount of work/output you are able to get out of your resources, whether these are human or machine or monetary. To increase productivity, the owner's attention usually focuses on the capacity of the business. Capacity is the maximum amount of product or service that a business can produce over a specific amount of time. Capacity is directly affected by things that you can control, such as having enough raw materials/inventory to meet production needs and being sure that your employees are well trained and have the tools they need to be efficient. If your production capacity is too low to meet customer demands, your customers will find somewhere else to buy from. Another important point to consider is the ability of your employees. Are employees working with materials and tools that help them create high quality results? Can they accomplish the necessary tasks with the resources and skills they have? A business must manage both materials and the work flow to determine where efforts are needed to increase productivity.

It is important to understand that a constant increase in capacity is not always good for your business. To be the most efficient, a company should have a capacity that matches the projected demand for the product or service that they provide. Small businesses can increase productivity through small batch manufacturing, which is a productive way of making only what your customers want in small groups. These small batches of products can help eliminate some of the risk if consumer demand changes or if you need to change or make improvements to your product to keep customers interested.

Often, when you try to buy a raw material or finished good from a supplier, they will set a minimum amount you need to buy from them. We call these minimum order quantities. For example, if you sell clothing in your store, your minimum order from a supplier might be 100 dresses. This means that it is not profitable for them to make a batch of less than 100 dresses due to their costs. As a small business, you should keep this mind and find a supplier that can meet your customer demand needs effectively. Finding multiple suppliers is often recommended, so that if one is experiencing a shortage or delay, you have other partners to meet your need without disrupting your business.

Another way to look at productivity is to ask: "What do my customers want? How much do my customers buy in a week? A month?" This is how you can identify not only the products or services customers want but also what your capacity should be to meet customer demand. By identifying these, you can eliminate all the other products or services that do not sell enough volume to make a profit.

Producing in small batches has several benefits, including the ability to make new products in very small quantities to test the market's reaction. Small batches give the business the flexibility to change or create products quickly to meet customers' demands.

- Example: A business makes textiles, such as shirts, dresses, suits, etc. The business owner has recently identified a new style of shirts that are in demand. First, they source the raw materials to create a minimum quantity of this new style of shirt. Once the business has created a few shirts, they can test them by selling a few of them in the marketplace to see how well their customers like the new style. If they sell well, the business can increase production to meet the anticipated demand.

Tell Me More

Every business should look at how to improve productivity and what to improve first. When looking at productivity, one approach is to look at the cost of productivity. There are a few primary costs involved in productivity:

- Prevention Costs: these are costs that prevent defects and problems with your product or service. These costs prevent higher costs and loss of customers that often result from defective products or service. The goal is to minimize the costs that arise from re-making goods or services by designing better goods, using higher quality raw materials, or using better tools and skilled employees to deliver higher quality to the customer.
- Evaluation Costs: these are costs that occur from inspecting and testing the product. High quality standards will eventually bring about fewer defects and reduce the final cost of goods. Inspecting and testing the quality of work will expose patterns of defects or mistakes, enabling the business to fix those problem areas, decreasing the number of mistakes over the long term.
- Capacity Costs: this is the cost associated with acquiring new equipment or skills to allow products or services to be created faster, of better quality, or in larger quantities. As the quantity produced increase, the cost per unit usually decreases.

A major cause of low productivity is variability, which is the differences in the quality of the finished goods and the variation of products/services offered. There are two types of variability: 1) variability in the quality of the finished product/service, or 2) variability in the number of items offered by the company. The variability of the finished goods quality is where the prevention costs and evaluation costs are used. For example, suppose an entrepreneur produces jars of pickled vegetables, but she doesn't realize that one of her machines is attaching the jar lids wrong. The jars with the crooked lids aren't sealed properly causing the food to spoil at the stores. When the store owners return the defective products, it costs the entrepreneur time, money, and the goodwill of her customer. If she hired a mechanic to calibrate her equipment once a week (a prevention cost) and hired a quality control inspector to randomly check the seals on the jars (evaluation cost), she would reduce the losses from product defects and improve her overall productivity.

As a small business, it is often good to sell many unique items, but this variability often impacts the productivity of the business. Usually, the more differences a business tries to offer in their products, the higher the cost per unit, and the lower volume that can be produced. For example, if you offer a product (i.e. paper boxes for delivery of fresh fruits) in multiple sizes, you may need multiple machines to make the different sizes, or you may have to stop production to make adjustments to your equipment in order to change to producing a different size. Often, a business must decide if it is better to make a large number of fairly uniform products/services, or if they should specialize in creating smaller numbers of highly customized products or services.

A business needs enough capacity to meet demand. In the beginning, a business will almost always have excess capacity, meaning the business may have extra manufacturing space or extra labor that is not being used all the time. To increase the productivity of this space, the owner usually tries to increase sales. Eventually, successful businesses will grow to the point that they need to increase their ability to produce goods and services. There are many things a business can do to increase productivity. Some practical examples include:

Concept # 1- Find a location where you have the capacity to meet your demand. Often, at the beginning of a business, the owner operates out of their own home. As sales increase, a new space will need to be found to enable the business to continue to grow. Owners should ask: Is there a place that would make it easy for new customers to find us, or for raw materials to be delivered more easily or cheaply? Think about the safety of your business and employees as well.

Concept # 2 - Focus on the right products. Determine what products can be made that meet the market demand. What sells best? What is your business known for? Are there products that are not selling well? Work to eliminate products or service options that customers do not purchase often – this tells you that they do not value these things. Concentrate on creating goods and services that your customers have shown that they value.

Concept # 3 - Train employees on production techniques with the right tools and help them build their problem-solving techniques. Productivity will be partly determined by how well your employees are trained. Good training leads to lower costs due to fewer defects and better quality—which will make customers willing to pay higher prices. Better trained employees also may increase customer satisfaction. Provide your people with training on safety and quality, ensuring employees will have the knowledge and skills to produce goods and services that meet the needs and expectations of customers.

Concept # 4 - Create a minimum batch size to allow for the business to meet the demand of low volume customers. Analyze how much you need to make at one time to minimize costs and resource use. Manufacture only the amount of product that you know you can sell. Also, be aware that manufacturing a small number can reduce productivity and may not be cost-efficient. A balance must be found that is right for your business.

Owners should look at the productivity of their business very carefully. Once a business has a solid control of productivity, they have a strong foundation for operational excellence.

Glossary Terms from this Section

Appraisal Costs - Cost of inspecting and testing the quality and utility of a product or service, or the processes and parts.

Batch - Small quantities of units made at the same time.

Capacity - The maximum amount of product or service that a business can produce over a specific amount of time.

Capacity Costs - Costs incurred through the acquisition of new equipment or skills which will allow products or services to be created faster, of better quality, or in larger quantities.

Small Batch Manufacturing - Minimum quantities of product made in a single production run to meet market demand.

Prevention Costs - Costs associated with reducing the potential for defective parts or services, such as training, quality improvement, raw materials testing.

For More Information Related to this Topic See

- How can I make my business's operations more efficient? 5. *Operations and Project Management*
- How can I measure the productivity of my operations? *5. Operations and Project Management*
- How can I increase my customer's satisfaction through effectively managing my operations? *5. Operations and Project Management*

9.
How can I measure the productivity of my operations?

The Basics

There are several ways that owners can measure the productivity of their operations. There are three terms that will be used in this section to illustrate how to measure productivity.

- Activity - the process/action being measured, such as the producing of one dress.
- Metric – the term to describe how the activity will be measured, such as XX AFN per dress produced.
- Measurement – the actual number measured, such as 400 AFN per dress.

Many businesses choose to establish specific metrics to measure overall business activities. These are called key performance indicators or critical success factors. Each business will have different key indicators based on the type and size of the business. The specific metrics chosen by the owner will be the ones that they believe will evaluate the success of the most important activities of the business.

Here are a few examples of the most used indicators of productivity and what metrics should be measured to understand productivity.

Metric # 1 – Cost of goods per item sold (also called gross margin). This metric measures all the costs associated with the making of the product, divided by the selling price. This metric is important as it reveals two key components of business success- are your costs too high and is your price too low. For example, if you make summer shoes and each approximately costs you 500 AFN and you sell each at 700 AFN. When you divide 500 AFN by 700 AFN and multiply by 100, you get about 71%. It means a major part of the product's price goes to the cost of producing the goods. To become more productive, you will need to reduce your costs.

Metric # 2 – Average cost per item sold. This metric measures the total profitability per unit of your entire business. It is calculated by taking the sum of all business costs (including marketing, finance, human resources, etc.) and dividing this total divided by total number of units sold. This metric is important because it shows how price must be set to ensure the profitability of each unit sold. In the example above, you will need to add the extra 100 AFN of your other business costs (marketing, finance, etc.) to the 500 AFN, and that gives you 600 AFN per pair of shoes that you produce. That way you will know that your average cost is 600 AFN per item, and you can decide to keep the price at 700 AFN or increase it, depending on your competition and market demand.

Metric # 3 – Manufacturing costs per employee. This metric measures the productivity of your work force, by taking the total production cost and dividing it by the number of employees. In most case, the lower the cost per employee, the more productive the operation is.

Metric # 4 – Sales per employee. This metric is calculated by taking total sales and dividing it by the total number of employees. This metric will reveal the productivity of your entire company, not just the work force dedicated to production. In this case, the higher the sales per employee, the more productive the business is.

Tell Me More

Each business will have to determine their own mix of key performance indictors and metrics. One way to help you identify the right indicators for your business is to ask yourself and your team several questions surrounding what makes your business stand out. Some of the questions you might ask are:

- What are the 3 main things that impact the profitability of the business?

- What are the 3 key factors that drive our customers to buy, and stay loyal to, our product/service?
- How will we differentiate our product/service to grow profitably in the future?

Once you have the answers to these questions, you should take two steps:

Step # 1 - Create metrics to establish your benchmark and then measure your progress on each answer. For example, if you run a coffee café, you might decide that the most important metric is sales per employee, as employee costs represent your highest expense. If you decide that you want to increase your sales per employee, you could look at several options. You could open the café for a few more hours, you could offer food in addition to coffee, or you could increase prices. Each of these actions would impact this metric.

Step # 2 – Gather information. The second step to help you measure your productivity is to gather the needed information and display the metric and measurement in a way that gets the attention of all employees. Many business owners display the key indicators – and any progress toward a goal - in the office or factory in a form called a dashboard. The business form of a dashboard is just like the one in a car that shows your car's speed, the amount of fuel remaining, the mileage driven, etc. Each of these dashboard elements gives you information about the car's performance. The business dashboard does the same thing. You can measure and display important information about your business's performance on the dashboard. A typical dashboard would show each of the metrics decided on above. You can motivate your employees to help you achieve goals for improvement by posting the results for everyone to see, and providing incentives when goals are met. It is motivating for everyone to understand how the business is being evaluated and to understand how they are progressing toward goals. Once all employees can see how their work is contributing to achieving the business goals, this should mean a happier and more productive work force. However, as you are creating your dashboard, consider what metrics make the most sense to share, and what information might be too sensitive to share. For instance, you may want to share your sales goals on the dashboard, but you may want to keep your profitability private.

Glossary Terms from this Section

Key Performance Indicators - Specific metrics to measure overall business activities.

Profit - Any positive amount of money left over after subtracting expenses from revenue (income).

For More Information Related to this Topic See

- How can I make my business's operations more efficient? *5. Operations and Project Management*
- How can I increase productivity? *5. Operations and Project Management*

10.
How can I increase my customer's satisfaction through effectively managing my operations?

The Basics

Businesses know that customers will always look to get the best value for their money. When paying a higher price for a good or service, customers will expect higher quality, the ability to customize a product or service to meet their needs or a higher level of personal service. When paying a lower price, they might accept lower quality and a lower level of service. Customers will often try to negotiate lower prices with you, based on a personal relationship or based on their willingness-to-pay. Research has shown that price is only one of many things that are important to customers. Other things that can be important to customers are: customer service, delivery times, warranties or guarantees, and the ability to customized goods.

As a business owner, you must know what makes the customer most likely to buy your product or service and what will get them to become a repeat buyer. Highly satisfied customers will return again and again and recommend your business to others, which forms the basis for the long-term success of your business.

There are many approaches to satisfying the customer. These are three main ways you can increase a customer's satisfaction.

First, you can provide a product/service that is better than their expectations for a price that matches what other companies are charging. Your operations would have to be designed to provide a high-quality product at a reasonable cost, with few defects and regular monitoring of customer perceptions.

Second, you can provide a custom product/service at a higher price, especially suited to customer needs, something that other businesses cannot do. In this case, your operations have to be designed in a very flexible manner, to provide the many options you are selling. This may mean hiring more high-skilled workers or using more expensive ingredients, all of which may increase your costs. For example, a clothing company may need many skilled tailors in order to produce custom suits to meet the individuals needs of customers. On the other hand, a clothing company may produce standard products and sell in the market, requiring a standard production process and limited interaction with customers.

Third, you can provide a product/service that meets all their needs for a price that is less than what the other businesses charge. In this case, your operation must be low cost, as you will be competing on price alone. This requires an operation that is simple, often automated to some degree and with low-cost overhead.

Every small business should think about which approach will work best for their business. Each business owner needs to decide how much service/product customization you are willing to provide and at what pricing level you want to compete.

Tell Me More

There are many things other than price that people value, and each one will increase the satisfaction of your customers. The business must understand what their customers think is important and find ways to link these important desires to their delivered products and services. Here we will look at what customers' value (not in any order) and how any operation could be managed to increase a customer's satisfaction:

Consistency: Customers value being able to predict the quality and usability of products and services. They value knowing what to expect from a business and will return to give you more business because they know they will not be disappointed. To deliver consistency in your operations, you should consider implementing the concept of continuous improvement. Each time your customers receive your products, they should see consistent quality that improves but never deteriorates.

Customer Service: Good service is highly valued by most customers, especially for service-oriented businesses, or where there are highly customizable products such as tailor shops that make customizes suits and dresses. To manage this, your operations should be highly customer-centric, with regular training to ensure employees that interact with customers represent you in the best way possible.

Experience: When you and/or your highly skilled employees have experience in your industry, this should result in better quality products/services. This is often one of the most valued things by customers in service industries as well as businesses with highly specialized products. If you own a bakery, customers will highly value the experience of receiving quality products but also a good buying or ordering experience. Regular training and cross training should be emphasized to ensure your expertise is being shared with your employees.

Functionality: The more useful or easier to use, the more value a customer may perceive in a product/service. This means the owner should look to simplify the production process.

Price: While not always the most important factor, you must keep the customer's ability to pay in mind. If price is a factor in the buying decision, your operation must run efficiently, so you can offer your service/product at the right price and still make a profit. The more competition there is in your industry, often the more important price is to customers.

Speed: If a business can respond to the market demands faster than competitors can, the business will have an advantage. Customer satisfaction is often directly linked to the amount of time it takes a business to deliver its service/product. If you own a beauty salon and you can finish a haircut in a short period of time, that higher speed will be valued by your customer. If speed is a key factor in your business, the simplification of production, the reduction of bottlenecks, and the clear definition of responsibilities will work together to improve the speed of your business operations.

The expectations of a customer are linked to several variables and the business owner must identify which variables are most important to customer satisfaction and deliver on these consistently. This will result in your customer's increased willingness-to-pay the needed price because you are responsive to your customers' needs and wants.

Glossary Terms from this Section

Profit - Any positive amount of money left over after subtracting expenses from revenue (income).

Willingness to Pay - The maximum amount an individual is willing to hand over to buy a product or service.

For More Information Related to this Topic See

What are the best practices for successful project management? *5. Operations and Project Management*

11.
What are distribution channels and how do I best set up and manage my distribution?

The Basics

The term distribution means how you plan to get your product/service into the hands of the end user or customer. Growing distribution of your product/service is one of the largest challenges any business will face. For some businesses, such as a beauty salon or a restaurant, the distribution issue does not represent any challenge at all. Your beauty salon or restaurant is all the distribution you need. You sell to directly to customers who come into your shop. But if you manufacture a product such textiles or handicrafts, you want to reach/sell to as many customers as you can.

There are two types of distribution channels or distribution methods that businesses traditionally use:

1. **Direct –** This where you sell your product/service directly to the end customer. A business that does all its business through the Internet is a great example. If you run a gym for women, you sell your service directly to women in your neighborhood.

2. **Indirect –** This is a process where you sell your product to third parties – often called agents, wholesalers, distributors, or retailers, who then sell to others who then sell to the end user of final customer. If you own a livestock business or are involved in agriculture, it is likely that you sell your product to another company who packages it and then brings the product to market themselves or sells it to restaurants or food stores.

One of the big decisions a business must decide is whether to sell direct or indirect.

Direct sales are usually more profitable because the producer or manufacturer sells directly to the customer without a middleman. When you sell direct, you must invest in sales employees and often a storefront where customers can find your product/service. While your business gets to keep all the profits from the sales, you are also doing more customer service, which can be time consuming and costly. Also, by selling direct, you may have a limited geographic reach - as there may be demand for your product/service in another city or country that you cannot reach directly.

Indirect sales allow a business to sell products to more customers via a middleman. In the consumer products business, such as selling Coca-Cola, this middleman is often called a wholesaler who buys the products from the manufacturer, adds a profit to cover his services and then sells the goods to retailers. Using a middleman has the advantage of giving the product wider distribution. This usually results in more sales for the manufacturer. The manufacturer does not mind selling to a middleman for this reason - the number of units sold increases, generating more profit. It is good to remember that once you sell your product to a middleman, you do not have control over the price and how it will be displayed in any store.

The highest profit margin will always come from direct sales to customers by a manufacturer. But if the manufacturer uses good middlemen, the total amount profit earned may be higher, due to the higher numbers of product sales.

Tell Me More

There are various advantages and disadvantages of each distribution approach. It is important to identify and use the approach that is right for your business.

Direct Selling Channels
Advantage # 1: Sales are made with a higher profit margin. Using the example of a handicraft business, you

have two options when selling direct to customers – a retail shop and a website. For both channels, you are dealing directly with the customer, with no middleman. This keeps the cost of your handicrafts lower, enabling you to price more economically, and, ideally, attract more customers to your goods. If you need to keep your selling prices low, then this is the best approach.

Advantage # 2: You have more face-to-face contact with the customer. This can be the most enjoyable part of your business – meeting and talking with customers. This part of the job usually brings great joy to people who own retail stores or provide services such as consulting. If you like this interaction, then selling direct is a good choice for you.

Advantage # 3: You have control over the price and display of your product/service. In your retail store and on the internet, you set the final price for your product/service. If you like having control over the price of your product and how it is displayed, then selling direct is a good choice for your business.

Disadvantage # 1: You have limited distribution reach. With only one handicrafts store, you are not able to place your product/service in front of all potential consumers. There may be people in neighboring cities and countries that would love to buy your product, but they do not have access to it. Selling direct limits the reach of your sales. If you want to grow quickly and sell your products or services over a large geographic area, direct selling is probably not the best choice for your business.

Disadvantage # 2: You are fully responsible for all sales, marketing, and customer service functions, which may cost you a lot in terms of time and labor. Logistics facilities can be very expensive and organizing logistics can be costly. If you have limited funds or availability for this kind of business growth, direct sales is probably not a good choice for your business at this time.

Indirect Selling Channels
Advantage # 1: There is the potential of higher sales and greater profits. This is the number one reason businesses choose to sell through middlemen. Middlemen enable a business to expand the scale of their production because they can put your product/service in front of more people. In the case of the owner of an agricultural business, a middleman can arrange for the sale of your fruit, wheat, or rice to their regular customers, usually food processors that turn these crops into goods for sale in the grocery store. The people that the middleman sells to are likely people that you have no knowledge of or any relationship with. If expanding your product reach is important to you, the selling indirect will help achieve that goal. Many potato chip production companies distribute their products to retail stores through wholesalers, who have relationships with hundreds of retail stores.

Advantage # 2: You have a partner (the middleman) who has sales, marketing, and customer service expertise that you might not have. In addition to providing you with more reach, middlemen often have other skills that you might not have. They often provide logistics (transportation of your goods to market for example), have their own sales force, and may provide customer service to your final customer. Using an example of a company that makes suits and dresses, if you used a middleman to get your product into a wide number of retail stores, it likely would be a wholesaler that would buy suits and dresses from you (as well as other clothing items from other producers) and then sell these clothes to several retailers. It will be those retailers that sell your product and deal with any customer service issues, such as returned goods. If you lack the resources to provide all these services, then selling indirect is probably a good option for you.

Disadvantage # 1: You have limited control over the price. Once you sell your product to a wholesaler, you lose the ability to control your final price. Because the middleman needs to make a profit, they will increase the price that the final consumer will pay. This may mean that your product might sell for different prices in dif-

ferent stores. If you want total pricing control, then selling indirect is not a good option for you.
Disadvantage # 2: You are disconnected from direct contact with your final customer and you may lose touch with how your customers think and feel about your product or service. Even though the middleman can increase the sales of your product and earn you higher sales, it may mean that you no longer interact as often with your customers. If regular interaction with customers is important to the success of your product or service, then selling indirect is not a good choice for your business.

Glossary Terms from this Section

Direct Sales - Selling directly to consumers.

Indirect Sales - Selling to middlemen - wholesalers, distributors, and retailers - who will, in turn, sell to customers.

Logistics - The process of transporting goods or services to and from your business efficiently with the lowest costs; the planning, implementation, and coordination of the details of any operation.

Middleman - A person or business who buys products directly from a producer and then sells it to their own customers.

Profit - Any positive amount of money left over after subtracting expenses from revenue (income).

For More Information Related to this Topic See

How do I best manage my inventory? *5. Operations and Project Management*

12.
What is my supply chain and why is it important to manage it efficiently?

The Basics

Supply Chain is a term to describe all the various resources that are used in an operation to create a finished good/service. If you are running a dried fruits export company, your supply chain starts with the farmers who grow the fruit and ends with your distributors in the destination countries that deliver your products to the stores where the fruit is sold. In this case, your supply chain might look like this: the farmers, your processing facility, the transportation vehicles, the storage facility, shipping to destination countries, and finally the retail stores or showrooms where customers buy your fruit.

As you can see, there are many elements to the supply chain. It is important to manage the supply chain well because there are so many opportunities for costs to be either increased or decreased in your supply chain. If costs increase, you might be forced to charge more for your packaged dried fruits than your competitors, which may cause you to lose customers.

When we look at the business as a whole entity, the supply chain is seen as part of the Value Chain. The Value Chain is a term to describe how owners look at every company activity to ensure that it provides value to the customer. This includes all the activities of a business, including, the supply chain, finance, marketing, human resources, customer service, etc. The Value Chain consists of all the functions, all the tasks, all the people, and all the assets used in managing a business that creates and sells goods/services. The idea behind the Value Chain is that each function should add value to the business.

In the example of the dried fruits exporter, finance may be instrumental in getting money for your marketing activities or to buy more dried fruits. Marketing will develop pricing models and help to create brand awareness to improve sales and attract new customers to buy from you. Human resources may help you recruit the best available salespeople to find you buyers in other countries. All the functions in the Value Chain work with the supply chain to deliver your product/service.

One operations concept that works hand-in-hand with the supply chain is workflow. Workflow specifically describes how the various resources mentioned in the supply chain work together to deliver the final product or service. In the case of the dried fruit exporter, workflow would describe how the dried fruits are collected from farmers until they are delivered to buyers in export destinations. In a smaller scope example, you could describe how the workflow is organized inside the processing facility of the exporter: how are dried fruits stored, sorted, and processed; how is packaging done; how do you manage international orders; how are consignments prepared, who manages the customs, etc.? When looking at your workflow, pay attention to areas that take longer, or that seem to create a backlog – this workflow may need to be changed so that it works more smoothly with the activities before and after it.

The business owner wants to have an efficient supply chain and workflow because it simplifies the operations process, reduces opportunities for errors, improves product quality and increases profits.

Tell Me More

The goal is to have an efficient supply chain and work flow. Pay attention to what things hurt the smooth flow of work at your business. By understanding and acting to reduce those barriers, you will have a more efficient operation. Here are a number of such challenges and one action you can take to overcome each.

Barrier # 1 – Defects in your product/service. This shows that somewhere in your work flow there has not been enough quality control to deliver on customer expectations.

Action: Make someone responsible to test the quality of the product/service all along the supply chain. That person should be empowered to stop the process if they can find the cause of defects, so that the problem can be fixed as quickly as possible. For example, the quality control manager for a company that makes honey noticed that the labels of the jars were being applied crooked. She had the authority to stop production, identify the broken equipment, and call the engineer to fix the problem.

Barrier # 2 – Waiting. This means that your work flow is being held up for the lack of resources – this can be waiting for raw materials, waiting for labor to arrive, or waiting for third parties to deliver their services.

Action: Chart the timing required for each resource in your supply chain, using tools such as the Gantt chart mentioned in the answer to Q. # 4. See where you can better allocate resources, reschedule operations or materials deliveries, and simplify your supply chain to reduce any waiting.

Barrier # 3 – the need for heroic effort. This means that, only with heroic effort, can your operation work successfully. The constant need for heroic effort puts too much strain on people to perform at very high levels for extended periods of time. For example, if you run a restaurant and have only one cook who must prepare meals for breakfast, lunch and dinner, your meal quality likely will suffer over time.

Action: Regularly review your work flow and check for points of stress. Be open to adding resources to ensure that normal work flow does not require heroic efforts. In the restaurant example, hiring another cook to train should be a top priority for your business.

Barrier # 4 – the lack of actionable information. The best decisions are those that are based on having all the facts. A company that invests in collecting operations data will be more efficient.

Action: Develop a process to collect data throughout the supply chain, including collecting data after the sale. If you the owner of a handicrafts business, you could track the cost of each raw material from each supplier, you could track the amount of time it takes to complete an item, and you could track the price of your items vs. the competition. In each case, having this data will help you make better decisions.

Glossary Terms from this Section

Supply Chain - All of the various resources that are used in an operations needed to create a finished good or service.

Quality Control - Inspecting each product for defects or issues before it is used in production or sold to the customer.

Value Chain - The combine value of all of the functions, tasks, people, assets, and distribution of creating and selling goods or services.

Work Flow - How the various resources in the supply chain work together to deliver a final product or service.

For More Information Related to this Topic See

- What is inventory and how do I best manage my inventory? *5. Operations and Project Management*
- What are distribution channels and how do I best set up and manage my distribution? *5. Operations and Project Management*

13.
What is inventory and how do I best manage my inventory?

The Basics

Businesses generally have three types of inventory:

1. Raw materials
2. Finished goods
3. Equipment, tools, computers, desks, etc. used in the business.

One simple way to think about inventory is that your inventory is a list of all the things that you have purchased or made as you run your business. If you run a herbal medicine store, your finished goods are items such as, saffron, sesame seed, herbal tea and olive oil; your raw materials are flowers you make scent out of; equipment such as a water boiler and a tea brewing machine; cash register, air conditioner, movable shelves, etc. are also your equipment.

It is always a good idea to keep close records on what inventory you have. For example, you could record all your olive oil bottles (finished goods) purchases in a log book. This way, you can see how many bottles you sell every day, week or month and be sure to order the right amount from your supplier. This way you are managing your cash outflow for finished goods to match your demand.

Another best practice in inventory management is to minimize the amount of time that your finished goods sit around waiting to be sold. There are a few simple things you can do to try to predict what your inventory needs are going to be:

- Look at your sales in the past to see if there are any patterns – then try to predict sales for each day/week/month. Plan to have just enough raw materials available to produce enough finished products to meet the expected sales volume, and to hold just enough finished goods in inventory to meet demand as it comes in.
- Pay attention to delivery and transportation schedules, customer needs and limitations. If you can only have your products (i.e. olive oil, saffron, sesame seeds, scents, etc.) delivered on Mondays, then you need to be sure to plan to purchase enough to last for the entire week until another delivery occurs. Similarly, if you own food processing business and you can only ship your jam or chutney on certain days of the week, you need to plan to hold enough product so that you can send the goods on time to meet all the demand.

Tell Me More

Organizations carry inventory for many reasons. In fact, organizations cannot run without a certain amount of inventory. Some reasons that organizations carry inventory are as follows:

- Protect against being out of stock—One reason for carrying inventory is that a certain amount of lead time is needed for goods to be produced and delivered. You must make sure that you have enough raw materials inventory in stock to cover demand. Lead times will have a certain amount of variation, which may result from shipping delays, production problems at the supplier site, lost orders, defective materials, and many other problems - you have to plan to be prepared.
- Maintain independence of operations—During the production process the product is being moved through many different operations that often have different processing rates. The challenge is balancing all of these different processing rates to create a smooth workflow. To accomplish this, you often need a cushion of inventory between production activities so that production can occur at a constant rate.
- Balance supply and demand—Balancing supply on one side of the supply chain with demand on the other is always a challenge. Demand is never known with certainty and holding extra inventory enables an organization to meet unexpected surges in demand. Demand often occurs intermittently, rather than

on a continuous basis. Not having extra inventory might mean missed sales. Carrying inventory helps to manage these natural variations in demand.

Seasonal demand patterns also contribute to high and low periods of demand, such as ice cream sales in the summer or snow shovel sales in the winter. It would be costly for production facilities to produce products in unison with the seasonality of demand. This might mean closed facilities and unemployed workers during low seasons, and overtime production during high seasons. A more common strategy is for companies, and their supply chains, to produce at a more uniform rate during the year. In this case, extra products are stored in inventory and used during peak seasons. You may also temporarily increase your resources, such as workers or labor, during peak season. For example, before Eid holidays arrive many business recruit short-term labor to help meet increased market demand for products – i.e. food products are high in demand before Eid.

- Protect against uncertainty—Many unexpected events occur that impact both supply and demand. This is due to randomness - and this could be anything from a batch of damaged goods being received, to an unexpected delay due to weather, or a strike at a supplier's plant. Companies carry extra inventory in stock to protect themselves, or buffer, against these uncertainties.

There are several steps you can take to better manage the inventory of your business:

- **Step # 1 –** Put a system in place to track the arrival and use of raw materials. This can be as simple as making a paper list or as complex as using excel or special inventory management software for larger quantities.
- **Step # 2 –** Put a system in place to track the amount of finished goods on hand.
- **Step # 3 –** Establish a process where you identify and physically tag all the items owned by the business. It is good business to do a physical inventory count of all your items at least once a year.

An important aspect of managing inventory is to have a way to classify it based on its importance. All items in the supply chain are not of equal importance. The first step in managing inventory is to classify inventory based on its degree of importance. Classifying inventory based on degree of importance allows us to give priority to important inventory items and manage those with care. It also prevents us from wasting precious resources on managing items that are of less importance.

For More Information Related to this Topic See

- What is my supply chain and why is it important to manage it efficiently?
  5. Operations and Project Management
- How do I decide what activities to outsource and what to manage internally?
  5. Operations and Project Management
- How do I know if my operations should focus on customizing or standardizing my products/services?
  5. Operations and Project Management

14.
How do I decide what operational activities to outsource and which ones to manage internally?

The Basics

Optimizing operations means that, sometimes, there will be tasks or jobs that are outsourced to other companies or people. Outsourcing means hiring another company or person to complete a task or set of tasks for your business. For example, if you decide to sell your product/service on the Internet, there are companies that will create a website for you and manage the Internet sales function on your behalf. The decision to outsource or not to outsource is very complicated because it involves having others do work on products or services that will carry your name. An owner will have less control over anything outsourced, and that fact may be hard to accept for many business owners.

There are several reasons that a business may decide to outsource activities to another business:

- The business does not have the skills to perform the activity. Some companies may decide that they do not have the experience to perform specific activities, so they outsource these to a company that focuses in this task.
- Another business can do the task at lower cost. Sometimes, there may be a company that can provide a service or task at a lower cost than you can do yourself. For example, if you are a manufacturer and retailer of clothing and you decide to offer your customer the opportunity to buy shoes in your store, it is probably more efficient to buy the finished shoes from another company, rather than invest in shoe-making equipment.
- Another business can do the task with higher quality. Imagine you are a family doctor and have a patient that needs eye surgery. You may decide to outsource the eye surgery to a doctor who specializes in this field, thus giving your patient a higher quality of care in this situation than your service can provide.
- Another business can do the task faster than your business can. If you are the owner of a motorcycle courier business, you are likely the outsourced company - that means you are being used by other businesses who want their goods to be delivered faster than normal.

There are some major advantages and disadvantages to outsourcing operations tasks.

Advantages

- lower labor costs
- lower product costs
- increased flexibility
- more specialized knowledge
- frees up management time to focus on core competencies
- increase in the quality of the outsourced product or service

Disadvantages

- loss of control of a key business process
- problems related to quality and turnaround time

Tell Me More

Some of the reasons why it makes sense to choose in-house manufacturing over outsourcing include:

Situation # 1 - A company's manufacturing process is the source of its competitive advantage. One example of this case is Intel's microprocessors, where the ability to manufacture smaller and more powerful processors directly affects product performance. In another example, Coca Cola produces its own products in-house as it has a unique formula that constitutes the basis of the company's competitive advantage. If you believe your company's manufacturing process provides a true competitive advantage, there is a critical strategic implication: you must continue to advance the art and lead the technology curve for that manufacturing process.

Situation # 2 - A firm does something in a unique way and does not want competitors to know how to do it. A good example of this could be the recipe to a best-selling Baghlawa at a bakery. Trade secrets -- if they are really a source of sustainable competitive advantage -- should not be outsourced.

Situation # 3 – You cannot find a cost-efficient provider of the needed activity or service.

The choice to outsource should be both a thoughtful economic decision and a good strategic decision for the business.

Glossary Terms from this Section

Outsourcing – The decision to use a third party to provide or deliver goods and/or services on your behalf.

For More Information Related to this Topic See

- What are distribution channels and how do I best set up and manage my distribution?
  5. Operations and Project Management

Additional Tools Available

Deciding When to Outsource Activities

15.
Why is quality important and how do I create quality in my operations?

The Basics

Quality is important because it is the strongest signal about how much a business owner cares about the customer. People expect a certain level of quality from every product/service that they buy, and one of the strongest reasons a person might buy something is the quality of the product/service. For example, when faced with making a decision about buying a new car, many people will stay with the brand they are currently driving because they are pleased with the quality of their current car.

Years of research have shown that it is much more profitable for a business to focus on keeping current customers happy than it is to try to attract new customers. The best way to keep current customers coming back is to provide them with products/services that meet their quality needs and offer good value. Great value means offering them a product/service with the level of quality that they expect at a price that they can afford. In the end, all businesses want to have a positive reputation, one that will enable them to do business for a long period of time, and the most successful way of doing that is to deliver consistent quality over time.

Customers evaluate quality in many ways. One measure of quality is how long does the product last. Another measure might be determining if the product does what it claims to do – does the shampoo make my hair clean and shiny or does the detergent get the dirt out of my kid's Peran Tunban? In the world of services, it is the same idea.

For example, if you run a graphic designing firm where you help companies develop a brand identity and have visual representation of their company, your customer might evaluate the quality of your service by seeing how professional your designs are. Your customer may also get feedback from its team and partners as to the appeal and attractiveness of your designs. The key to delivering consistent quality starts from understanding exactly what quality level your customer expects and how your customer will evaluate your quality. You can find out that information by talking to your customers and conducting market research.

Quality must be perceived by the consumer. Find out what the customer values in terms of the quality of your product or service. Be sure to communicate or demonstrate how you are providing that aspect to the consumer often and in as many ways as you can.

Quality can always be improved. Good businesses are always looking for ways to have an advantage over their competitors. The constant search for quality improvements is one well-accepted way to accomplish that.

Quality must be reflected in everything you do. While this chapter is dealing with quality in operations, it is clear that quality of customer service, marketing, skilled workers, financial management, and other activities should also be pursued in order to increase the success of your company.

Tell Me More

The goal of every business should be to deliver consistent quality over time. That means that the operations function should be focused on this same goal. To create consistent quality:

Step # 1 – Establish quality standards for raw materials. Set up a process to ensure that the materials you buy meet the level of quality that you need. In an example of a tea house, if you establish a quality control policy where you will accept only the top 10% highest quality tea leaves and varieties from your supplier – and pay the higher price – you will ensure that the quality of the tea you sell will meet customer's expectations.

Step # 2 – Establish quality standards for workflow. This means diagramming the most efficient way to process the raw materials into the finished product. In the graphic designing business, you might establish quality standards for the conceptualization process, the graphic design, the peer review, the client feedback process, and producing final designs. An specific example would be: ask client for a concept, create thee sketches, make two designs from each sketch, review the designs with three colleagues, present the set of designs to client for feedback, export final design in high quality, and get client's approval in writing within one week of submitting a final design.

Step # 3 – Establish quality standards for the equipment. In most businesses, we rely on machines to help us achieve the level of production we need to meet the needs of the consumer. To create consistent quality, you should establish a level of output required from each machine. You should establish a schedule for regular maintenance to ensure the machine is running at peak efficiency. This may be especially important in a service business, such as the pizza restaurant, that relies on the oven to deliver consistent heat to cook the pizza. A standard here might be: clean the oven every night and inspect all the oven surfaces weekly for cracks.

Step # 4 - Establish quality standards for the labor force. One way to measure the efficiency of the labor force is by how many hours it takes them to produce any item. For example, in a carpet production business, it may take an artisan up to four weeks to make a 1m by 1.5m rug, with a 10% design variation. But, if the standard is to make the rug with 0% design variation, it may take six weeks. Setting the labor quality standard at 2.5 weeks will enable you to define your quality.

Step # 5 – Establish quality standards for the finished product. Whenever there is variation in the finished product/service, we don't deliver the consistent quality level that the customer is expecting. This task is to regularly check the quality of the finished product. As there will always be some variation, the important thing is to be establish clear guidelines as to what is and what is not acceptable.

For More Information Related to this Topic See

- How can I make my business's operations more efficient? *5. Operations and Project Management*
- How can I increase my customer's satisfaction through effectively managing my operations? *5. Operations and Project Management*

16.
What is consistency and predictability in operations and why are they important?

The Basics

Consistency and predictability are two things that may have a dramatic impact on your work force and your customer satisfaction. First, we must understand what is meant by each term: consistency means doing something repeatedly and at the same quality for an extended period. Predictability means people can depend on your product/service to deliver on its promise each and every time they use it. The business earns the trust of its customers with consistent and predictable results of its goods/services. Thus, keeping management practices and operational standards consistent and predictable is a competitive advantage in the marketplace.

Competitive advantages are how we differentiate our products/services from the competition. Often, this is what can make customers choose one company over another. This answer will discuss consistency and predictability in two areas that impact operations: management style and operational execution.

Management Style Many people live in unpredictable and uncertain times. When people go to work, they want as much certainty as they can get. This means leaders must be disciplined and need to be predictable in behavior and work attitude. When the boss acts in a predictable way, employees know what to expect and they can manage their work tasks accordingly. If a boss is inconsistent, people may worry that they are going to lose their jobs, or have their hours cut or their plant or office moved. If owners can be as consistent and predictable as possible, then employees will appreciate it and focus on the job.

Operational Execution Customers expect that you will treat them in a consistent way and that you will do what you say you will do. By acting in these ways consistently, you provide the customer with a sense of security and confidence in your company. This builds customer loyalty, one of the most important assets that company can have. You might have noticed that telecommunication companies in Afghanistan have a standard approach to solving your problems when you call them. They ask your name and confirm your account before requesting the details of your problem. Then they try to solve the issue and confirm with you if you are happy. Their process is standardized and that's why you can expect consistent service each time you get in touch with them.

Tell Me More

A risk of focusing on predictability is raising expectations. If you maintain a high degree of consistency, customers will experience breakdowns more severely. A common example of this is timetables. If a restaurant sets the expectations that it serves food in a maximum of 15 minutes after placing the order, then even a 5-minute delay can make customers unhappy. Yet, the exact service time can depend on how busy the kitchen is or the type of food you order. Some food takes longer than others to make. In the same example, customers expect a certain level of service from the wait staff of the restaurant – speaking, recoding accurate orders, delivering the food when it is hot, bringing the check promptly, and being friendly. If the restaurant changes staff too often, customer will not be able to predict how the waiter will behave, thus their affected satisfaction. There has been a lot of research to shows that many customers are not satisfied with their service providers or with the products that they use because of a lack of predictability.

Many companies, large and small, lose business as they fail to deliver a predictable experience to their customers. Common examples include: inconsistent levels of knowledge among staff, difficult to use products, and poor management of customer expectations.

Why is predictability such an essential component of the customers experience? The clear result of a positive, predictable experience is the effect it has on customer satisfaction. Generally, it improves the opinion customers have of the company, and affects sales growth positively.

Predictability often leads to loyalty. Customers that are loyal and happy with your services are more likely to recommend your goods or services to others, because they can tell them with confidence exactly what to expect. When existing customers tell others to buy your products, it is called a testimonial. Testimonials happen when customers tell their friends about how satisfied they are with your business. Testimonials give your business credibility and, often, a better reputation.

For customers, predictability provides them with three major benefits:

Benefit # 1 – A sense of control. Do you recall the last time you went grocery shopping? For items that you buy regularly, you know the exact location in which they can be found every time. This predictability gives customers a sense of control in a crowded environment. Any supermarket retailer will tell you, the one thing that causes more customer complaints is moving a product from one shelf to another or one area of the store to another!

Benefit # 2 – A feeling of trust and safety. The implementation of standards and/or guidelines in services or products will help ensure a predictable customer experience. There is less for customers to learn, so that they can predict the interaction more readily and feel safe. This predictable experience contributes to positive customer satisfaction and sale of their various products.

Benefit # 3 – Reliability. When customers encounter unpredictability, a business loses the trust of customers. When a normally predictable product or service becomes unpredictable, customers become extra stressed because their trust is violated. A business must take swift action to fix problems, regain trust of customers, and restore consistency.

The ability to provide a predictable, positive experience has a direct correlation with a company's ability to successfully match the customer's expectation of that product or service.

Glossary Terms from this Section

Competitive Advantage - When a product or service is better than its competitors and it's clear to others why the product or service is more desirable.

Differentiate - Offering something different from the people who are already selling a similar product or service.

Testimonial - Statement from current customers about how satisfied they are with your business.

For More Information Related to this Topic See

- How can I make my business's operations more efficient? *5. Operations and Project Management*
- How can I increase productivity? *5. Operations and Project Management*
- How can I measure the productivity of my operations? *5. Operations and Project Management*
- How can I increase my customer's satisfaction through effectively managing my operations? *5. Operations and Project Management*

17.
How do I know if my operations should focus on customizing or standardizing my products/ services?

The Basics

Standardized production means producing large numbers of relatively uniform items. Customized production usually means producing smaller number of relatively unique items. Here we will examine some of the reasons a business would choose product/service standardization versus customization.

Reasons for product standardization are:

1. You gain economies of scale. This means that your profits increase when you produce large quantities of similar goods. Put in another way, the more you manufacture, the greater the profit potential. When you have a standardized product/service, it is easier for you to produce more units at one time. By mass producing, you will be able to reduce the cost per unit. This concept also applies to when you are buying supplies or materials. For example, you might have seen that processing companies order large quantities of bottles or cartons for their product as opposed to small quantities. By ordering more at one time, they will be able to get a better price per unit. This is because the bottle manufacturer will have lower costs per bottle when they are manufacturing more of them. The company buying the bottles also benefits from the economies of scale by receiving a lower price per bottle. The logic is same when you order business cards for yourself; the more your order, the lower the cost.
2. Your customer behaves in a similar way. When it is raining, you can predict that most people will seek shelter, either under an umbrella, a raincoat, or in a building. The function is important, not the custom features, so an umbrella company does not need to have a lot of different designs.

Reasons for product customization are:

1. Consumer habits are different. In the example where you own a pizza restaurant, you likely would be familiar with the habit of some people wanting a particular type of pizza that others may not like. Some people may like a pizza with only vegetables and others want a pizza with only meat. A successful owner will develop a pizza menu to acknowledge these differences in consumer habits.
2. Customers use the product in different ways. Imagine you own a tailoring business. You notice that people wear suits for different reasons. Some wear them in weddings or celebrations while others wear them at work. To be more successful, you likely should be making different suits styles, tailored to the different use people have for your product.
3. Consumer expectations are different. Food service is a good example in this case. Many older customers in Afghanistan may prefer traditional food, but younger people like fast food such as burgers. A restaurant will consider the different expectations of customers and adjust its service accordingly.

Many companies have a wide range of products/services and some of them are standardized and others may be customized. You do not have to choose to follow one approach or the other. But you do have to understand which approach best suits the way you want to run your business. Larger businesses tend to focus on the standardization approach, while small businesses, especially those delivering services, tend to offer high amounts of customization. Generally, the more customized a product is, the higher a price customers are willing to pay per unit.

Tell Me More

To help you best understand the complexity of each approach, we will identify the areas most impacted by this decision-making process. Because of the complexity of this decision, each owner will have to weigh each of these factors for their individual situation.

Product/service Use: how the product/service is used, including its purpose and any observed advantages, conveniences, or other benefits to the user. In the case of a company that makes eye glasses, the stated use may be for reading, for sun protection, for driving, etc. The business owner would decide what type of glasses they want to offer and ideally, customize the lenses to fit each individual prescription. This would mean charging high prices. Or, they could mass produce standard non-prescription sunglasses and sell these at low prices.

Ease of Production: is it a product that can be simply manufactured in mass quantity or is it a complex product with many variations. For our pizza restaurant, the smart owner will clearly choose the customization route, as it is simple to customize each pizza, and is a highly desirable feature of your product.

Packaging: how the product appears to the purchaser. This means package design, label design, bar codes, shipping container, instructions for use, etc. Often a business must adhere to certain rules regarding packaging in order to sell products in specific markets, such as sanitation rules, label requirements, accurate ingredient lists, etc. Even though it is not strictly enforced, standards exist that businesses need to follow. Afghanistan National Standards Authority sets these standards and is responsible to enforce them.

Distribution: where, when, how, and to whom the product is delivered; its position while on display or in use; and the delivery frequency and any special handling procedures.

Pricing: how a product is priced, including any sales, guarantees and after-sale service procedures. In most instances, standardized products cannot require high prices, but customized products can. In an example where you make men's suits, a suit that is custom-made will always cost more than the one hanging in the store. You would have to decide if you have the resources to custom-make products at a higher cost and be able to charge the higher price.

Standardization and customization are two competing approaches for most businesses. Businesses want to customize, but they must standardize to be profitable and grow. When you standardize a process, you can repeat that process at a lower cost. Modern manufacturing has been built on the principles of standardization. But standardization, by definition, prevents customization. It's a difficult challenge.

Glossary Terms from this Section

Profit - Any positive amount of money left over after subtracting expenses from revenue (income).

For More Information Related to this Topic See

- What is Operations Management? *5. Operations and Project Management*
- What are the best practices in operations management? *5. Operations and Project Management*
- How can I increase my customer's satisfaction through effectively managing my operations? *5. Operations and Project Management*

18.
Is there an operations guide that I can use to organize my business's operations?

The Basics

An operations guide can be created and used when you begin to establish your operations, to ensure that all important operational decisions are reviewed from the beginning and all options are discussed with the best available information. The guide should be kept as a reference once the business begins to sell product/service. The guide should be designed to help you manage your operations in the most efficient way and help make your business profitable. Owners may have to challenge old habits and replace them with new ones. Owners should share the guide with all employees, so they understand their responsibilities and to better participate in the business.

Tell Me More

An operations guide will be different from business to business however it should describe each of the business' processes, demonstrate how to monitor/control/improve them, highlight the steps to accomplish each goal and establish the expected end result. A basic structure of what should be included in an operations guide are:

Section # 1 - Customer experience: This section explains exactly what type of experience you want for your customer and how the operations fits into that vision.

- What do you want the customer to experience when using your product or service?
- Lay out the ways that customers will evaluate how you are delivering on that experience and be sure that operational measurements are in place to understand each touch point.
- Discuss how you will use the results of those measurements to improve the operation's effectiveness in delivering that experience.
- Discuss how you will organize your operations to maximize the customer experience.

For example, if you run a health center where you and a number of other doctors provide medical counseling to women in your city, you may develop a customer experience guideline. The guideline would include how customers book an appointment, what would be their waiting time at your health center, who in your team engages with customers as they arrive, where do they wait, how long a session lasts, who ask customers for feedback, etc. The idea is to ensure your operations fit with the kind of experience you want your customers to have.

Section # 2 - Processes: This section explains the main operations processes, which could include: buying, inventory management, production, shipping, and billing.

- Buying – How will you obtain your raw materials? How will you source your labor? How will you evaluate and obtain your equipment?
- Production – Describe the work flow and how you want it to deliver the customer experience.
- Inventory management – How will you inventory raw and finished goods? Where will you store things?
- Transportation – How will you move things around? How often will you ship goods to your purchaser?
- Sales – How will you sell? Will you sell direct or indirect? If indirect, how will you manage your middlemen?
- Billing - Outline how you will charge the vendors and how you will charge your customers. Include how they will pay you.

Section # 3 - Systems: This section explains each of the systems being used in the operations process. These could include: automation in the manufacturing process, computerized material ordering or accounting programs, transportation, and sales.

- Buying – What system do you use to track your purchasing qualities and pricing? What system do you use to evaluate competitive bids?
- Production – What system do you use to plan your production schedule? What system do you use to plan your work force hours?
- Inventory management – What system do you use to monitor your raw material, fixed goods, and equipment inventory?
- Transportation – What system will you use to plan and monitor how you move things around? How often will you ship goods to your purchaser?
- Sales – What system will you use to record and track your sales accurately? If you sell indirect, what system will you use to manage your middlemen?
- Billing – What system will you use to bill vendors? What system will you use to record sales from customers and accept their payment?

Section # 4 - Monitor/Control/Improve: This section includes steps to monitor, control and improve each of the processes. The use of key performance indicators would be one way to organize this section. This section should be focused on assessing and improving quality.

- Buying – How will you reduce your purchasing price while still maintaining quality? How will you evaluate bids, so that you increase profit?
- Production – How will you streamline your production schedule to make it simple and defect-free? How will you train your work force?
- Inventory management – How can you reduce the amount of inventory while still meeting the needs of the customer?
- Transportation – How will you limit the transportation costs? How will you best deliver your product or service to the end customer?
- Sales – How can operations better support sales? Are operations meeting the demand that sales are creating? Can sales inform operations about customer requests or priorities?
- Billing – How will you reduce the costs of the system you use to bill vendors? What about the system in use to record sales from customers and accept their payment?

In the health center example, you would examine and improve qualifications of your staff, evaluate service delivery as customers arrive, set customer service goals, etc. You will ideally build a schedule to monitor your organization and its capacity to consistently and predictably delivery good customer experience. In the pizza shop example, you would examine the sources of your vegetables, meats and cheeses.

Section # 5 - Location and Environment: This section explains where the business is located and how the operation fits in with the local community.

- Why you are located where you are?
- What options for growth exist at the current location?
- Are you maximizing the customer experience at the current location?
- How do you want to interact/involve the business with the local community or larger area, if desired?
- Are there any environmental concerns arising from the business operations, such as air or water pollution? Give clear direction about how your business will deal with this issue.

In the case of a consulting business, it would have very different location needs versus an agricultural business. The consulting business should be located as near to the customer as possible, while the agricultural business should be located somewhere where good land and water resources are available.

Section # 6 - Legal and Regulatory: This section covers any local or national laws and restrictions that might impact the operations.

- Any permits, licenses or permissions required to operate within all local and federal laws?
- Any specific work force limitations, such as the minimum age of employees or any limit to the number of hours worked per day/week/month?
- Any agreements with labor unions or other service providers that may impact the operations?
- Any laws or customs that may impact the product, such as labeling restrictions or laws defining the legality of certain ingredients?

If you wanted to start a dairy farm and processing facility, you would need to check local regulations on environmental requirements and whether you could set up your facility in a residential or commercial area.

Glossary Terms from this Section

Key Performance Indicators - Specific metrics to measure overall business activities.

Vendors - People or organizations that provide products or services used to operate a business.

For More Information Related to this Topic See

- What is Operations Management? *5. Operations and Project Managemen*t
- What are the best practices in operations management? *5. Operations and Project Management*

Additional Tools Available

Operations Guide Worksheet

Tools