

RESOURCE MANAGEMENT PROFESSIONAL INSTITUTE

COURSE MANUAL

FOR

ASSOCIATE PROJECT MANAGEMENT PROFESSIONAL

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MODULE ONE

PROJECT MANAGEMENT CONCEPTS

LESSON ONE

Activity Based Costing (ABC)

Introduction

There are a number of costing models used in the domain of business and Activity-Based Costing is one of them. In activity-based costing, various activities in the organization are identified and assigned with a cost.

When it comes to pricing of products and services produced by the company, activity cost is calculated for activities that have been performed in the process of producing the products and services. In other words, activity-based costing assigns indirect costs to direct costs. These indirect costs are also known as overheads in the business world.

Let us take an example. There are a number of activities performed in a business organization and these activities belong to many departments and phases such as planning, manufacturing, or engineering. All these activities eventually contribute to producing products or offering services to the end clients.

Quality Control activity of a garment manufacturing company is one of the fine examples for such an activity. By identifying the cost for the Quality Control function, the management can recognize the costing for each product, service, or resource. This understanding helps the executive management to run the business organization smoothly.

Activity-based costing is more effective when used in long-term rather than in short-term.

Implementation in an Organization

When it comes to implementing activity-based costing in an organization, commitment of senior management is a must. Activity-based costing requires visionary leadership that should sustain long-term. Therefore, it is required that the senior management has comprehensive awareness of how activity-based costing works and management's interaction points with the process.

Before implementing activity-based costing for the entire organization, it is always a great idea to do a pilot run. The best candidate for this pilot run is the department that suffers from profit making deficiencies.

Although one might take it as risky, such departments may stand an opportunity to succeed when managed with activity-based costing. Lastly, this would give the organization a measurable illustration of activity-based costing and its success. In case, if no cost saving occurs after the pilot study is implemented, it is most likely that the model has not been properly implemented or the model does not suit the department or company as a whole.

Having a Core Team is Important

If an organization is planning to implement activity-based costing, commissioning a core team is of great advantage. If the organization is small in scale, a team can be commissioned with the help of volunteers, who will contribute their time on part-time basis. This team is responsible for identifying and assessing the activities that should be revised in order to optimize the product or service.

The team should ideally consist of professionals from all practices in the organization. However, hiring an external consultant could also become a plus.

The Software

When implementing activity-based costing, it is advantageous for an organization to use computer software for calculations and data storage. The computer software can be a simple database that will store the information such as customized ABC software for the organization or a general-purpose off-the-shelf software.

The Procedure

The procedure for successful implementation of activity-based costing in an organization is as follows:

- Identification of a team that is responsible for implementing activity-based costing.
- The team identifies and assesses the activities that involve in products and services in question.
- The team selects a subset of activities that should be taken for activity-based costing.
- The team identifies the elements of selected activities that cost too much money for the organization. The team should pay attention to detail in this step as many activities may shield their cost and may look innocent from the outside.
- The fixed costs and variable costs related to activities are identified.
- The cost information gathered will be entered to the ABC software.
- The software then performs calculations and produces reports to support management decisions.
- Based on the reports, management can identify the steps that should be taken to increase profit margins in order to make the activities more efficient.

The management steps and decisions taken after an activity-based costing experience is generally known as Activity-Based Management. In this process, the management makes business decisions to optimize certain activities and let some activities go.

Things to be Aware of

Sometimes, organizations face the risk of spending too much time, money and resources on gathering and analysing data required for activity-based costing model. This can eventually lead to frustration and the organization may give up on ABC eventually.

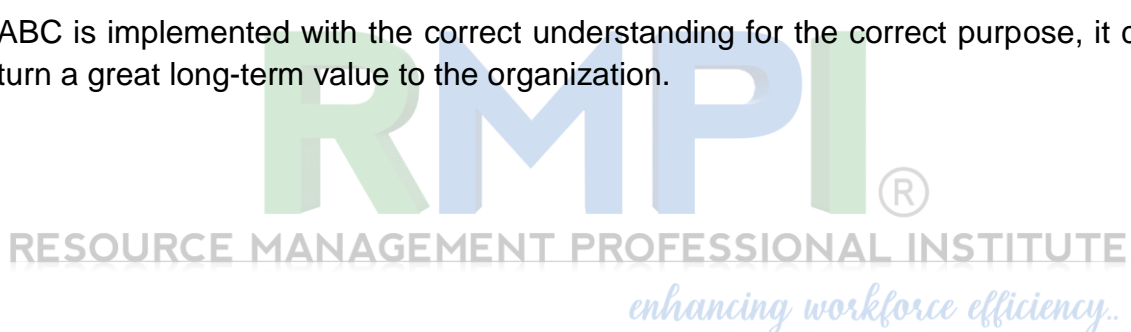
Failure to connect the outcomes from the activity-based costing usually hinders the success of the implementation. This usually happens when the decision makers are not aware of the "big picture" of how activity-based costing can be used throughout the organization. Understanding the concepts and getting actively involved in the ABC implementation process can easily eliminate this.

If the business organization requires quick fixes, activity-based costing will not be the correct answer. Therefore, ABC should not be implemented for situations where quick wins are required.

Conclusion

Activity-based costing is a different way of looking at an organization's costs in order to optimize profit margins.

If ABC is implemented with the correct understanding for the correct purpose, it can return a great long-term value to the organization.



LESSON TWO

Agile Project Management

Introduction

Agile Project Management is one of the revolutionary methods introduced for the practice of project management. This is one of the latest project management strategies that is mainly applied to project management practice in software development. Therefore, it is best to relate agile project management to the software development process when understanding it.

From the inception of software development as a business, there have been a number of processes following, such as the waterfall model. With the advancement of software development, technologies and business requirements, the traditional models are not robust enough to cater the demands.

Therefore, more flexible software development models were required in order to address the agility of the requirements. As a result of this, the information technology community developed agile software development models.

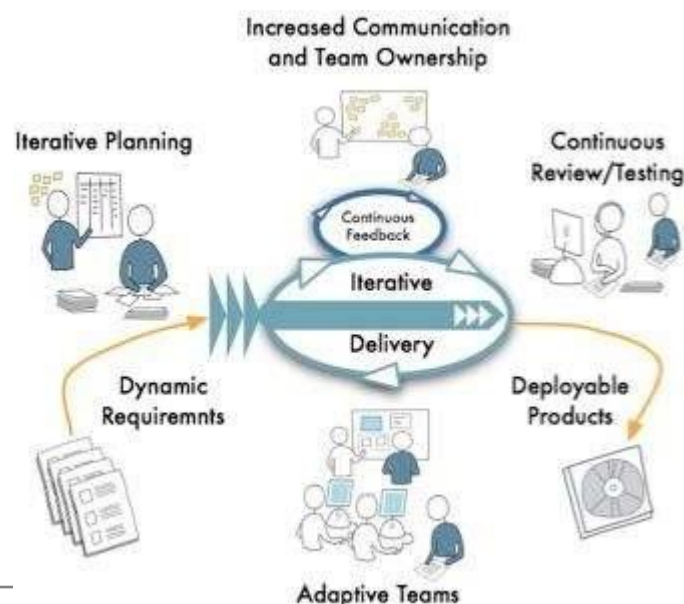
'Agile' is an umbrella term used for identifying various models used for agile development, such as Scrum. Since agile development model is different from conventional models, agile project management is a specialized area in project management.

The Agile Process

enhancing workforce efficiency.

It is required for one to have a good understanding of the agile development process in order to understand agile project management.

There are many differences in agile development model when compared to traditional models:



- The agile model emphasizes on the fact that entire team should be a tightly integrated unit. This includes the developers, quality assurance, project management, and the customer.
- Frequent communication is one of the key factors that makes this integration possible. Therefore, daily meetings are held in order to determine the day's work and dependencies.
- Deliveries are short-term. Usually a delivery cycle ranges from one week to four weeks. These are commonly known as sprints.
- Agile project teams follow open communication techniques and tools which enable the team members (including the customer) to express their views and feedback openly and quickly. These comments are then taken into consideration when shaping the requirements and implementation of the software.

Scope of Agile Project Management

In an agile project, the entire team is responsible in managing the team and it is not just the project manager's responsibility. When it comes to processes and procedures, the common sense is used over the written policies.

This makes sure that there is no delay in management decision making and therefore things can progress faster.

In addition to being a manager, the agile project management function should also demonstrate the leadership and skills in motivating others. This helps retaining the spirit among the team members and gets the team to follow discipline.

Agile project manager is not the 'boss' of the software development team. Rather, this function facilitates and coordinates the activities and resources required for quality and speedy software development.

Responsibilities of an Agile Project Manager

The responsibilities of an agile project management function are given below. From one project to another, these responsibilities can slightly change and are interpreted differently.

- Responsible for maintaining the agile values and practices in the project team.
- The agile project manager removes impediments as the core function of the role.
- Helps the project team members to turn the requirements backlog into working software functionality.
- Facilitates and encourages effective and open communication within the team.
- Responsible for holding agile meetings that discuss the short-term plans and

plans to overcome obstacles.

- ▣ Enhances the tool and practices used in the development process.
- ▣ Agile project manager is the chief motivator of the team and plays the mentor role for the team members as well.

Agile Project Management does not

- ▣ manage the software development team.
- ▣ overrule the informed decisions taken by the team members.
- ▣ direct team members to perform tasks or routines.
- ▣ drive the team to achieve specific milestones or deliveries.
- ▣ assign task to the team members.
- ▣ make decisions on behalf of the team.
- ▣ involve in technical decision making or deriving the product strategy.

Conclusion

In agile projects, it is everyone's (developers, quality assurance engineers, designers, etc.) responsibility to manage the project to achieve the objectives of the project.

In addition to that, the agile project manager plays a key role in agile team in order to provide the resources, keep the team motivated, remove blocking issues, and resolve impediments as early as possible. In this sense, an agile project manager is a mentor and a protector of an agile team, rather than a manager.

LESSON THREE

Basic Management Skills

Introduction

Management is a topic that is as vast as the sky. When it comes to the skills that are required to become a good manager, the list may be endless.

In everyday life, we observe many people considering management as - whatever that needs to be done in order to keep a company afloat - but in reality, it is far more complicated than the common belief.

So let us get down to the most basic skills that need to be acquired, if one is to become a successful manager.

The ABC's of Management

You will understand that management involves managing people and thereby, managing the output garnered in favor of the company. According to Dr. Ken Blanchard, in his famous book "Putting the One minute Manager to Work", the ABC's of management world are as below:

- **Activators** - The type of strategy followed by a manager before his workforce sets on with performance.
- **Behaviors** - How the workforce performs or behaves within the activity or situation as a result of activators or consequences.
- **Consequences** - How the manager handles the workforce after the performance.

Research shows that although we may be inclined to think that an activator's role brings about the most efficient behavior in a workforce, in effect; it is how managers handle the workforce after a particular behavior that influences future behavior or performance up to a great extent.

To quantify, activators' base behavior contribution is calculated to make up for 15 to 25 percent of behavior, while 75-85 percent of the behavior is known to be influenced by consequences.

Therefore, it is crucial that we understand and develop the basic management skills that will help bring out expected outcomes from a workforce.

Problem Solving and Decision Making

This is where most managers either get stamped in to good or bad books. However, the type of decisions you make should not ideally make you a good or bad manager; rather how you make such decisions is what need to be the deciding factor.

You will need to know the basic ethics of problem solving and this should be thoroughly practiced in every occasion, even if the problem concerns you personally.

Unless otherwise, a manager becomes impartial and entirely professional, he/she may find it difficult to build a working relationship with co-workers in an organization.

Planning and Time Management

The last thing you would want your co-workers to think is that you get by your working hours, cuddled up in an office chair, enjoying light music while doing nothing! Planning and Time management is essential for any manager; however, it is even more important for them to realize why these two aspects are important.

Although you may be entitled to certain privileges as a manager, that does not necessarily mean you could slay time as you please.

Assuming responsibility to manage the time is important so that you could become the first to roll the die which will soon become a chain reaction within the organization.

Having said that, when you conduct yourself with efficiency, you will also end up portraying yourself as a role model for co-workers which may add a lot of value as you move along with management duties in the company.

Planning ahead of time for events and activities that you foresee in your radar and taking the necessary initiatives as well as precautions as you move along are undoubtedly, some of the main expectations from managers.

If you could adapt a methodical style at your workplace and adapt effective techniques to carry out your duties with the least hindrance, you will soon build the sacred skills of planning and time management.

Delegation

Having planned everything that lies ahead and having come up with a plan for time management, you may feel that you have got more than you could chew on your plate. This is where delegation should come into play.

Becoming a good manager does not mean carrying out every task by him/herself. Rather, it is about being able to delegate work effectively in order to complete the task on time.

Many managers mishandle delegation either because they do not have enough confidence in their co-workers and subordinates or because they do not master the techniques of delegation.

Therefore, the key for delegation would be to identify the individuals that are capable of carrying out the task, delegating the work with accurate instructions and providing

enough moral support. Once the task is complete, you will get an opportunity to evaluate their performance and provide constructive feedback.

Communication Skills

Nothing could be ever accomplished in the world of a manager without him or her being able to accurately, precisely and positively communicate their instructions, suggestions or feedback to others.

Therefore, you should be extremely careful in picking out your words. A 'Can-Do' attitude is something that can be easily portrayed through your words.

When your communication bears a positive note, it will run across your audience almost contagiously.

Managing Yourself & Leading Others

No matter how much charisma you may have in your personality or how good your positive communication skills may be, a manager never fails to be the one to communicate all things whether good or bad.

In your managerial position, you are exposed to both the executive layer and the working layer of an organization which makes you the ham in the sandwich.

Therefore, you may find yourself squashing and thriving in between when it comes to many decisions.

The number one rule in managing yourself is to realize that you are a professional, who is being paid for the designation that you bear in the company. If you remember this fact, you will always remember never to take any issue personally.

Always draw a line between your managerial persona and your actual persona. It is good to bond with co-workers at a personal level while maintaining a distance in your profession. Therefore, you will also be required to draw a line somewhere.

And most importantly, you will become the sponge that absorbs heat from the higher strata of the company and delivers the minimum heat and pressure to the lower strata. Therefore, you will need to practice a fair share of diplomacy in your role.

Conclusion

Managing people and processes is a style in itself that requires dedication and experience-blended practice. The skills needed are as vast and deep as the ocean.

The basic management skills presented herein is only a doorway for you to get started on the management path that lies ahead.

LESSON FOUR

Basic Quality Tools

Introduction

Most organizations use quality tools for various purposes related to controlling and assuring quality.

Although a good number of quality tools specific are available for certain domains, fields and practices, some of the quality tools can be used across such domains. These quality tools are quite generic and can be applied to any condition.

There are seven basic quality tools used in organizations. These tools can provide much information about problems in the organization assisting to derive solutions for the same.

A number of these quality tools come with a price tag. A brief training, mostly a self-training, is sufficient for someone to start using the tools.

Let us have a look at the seven basic quality tools in brief.

1. Flow Charts

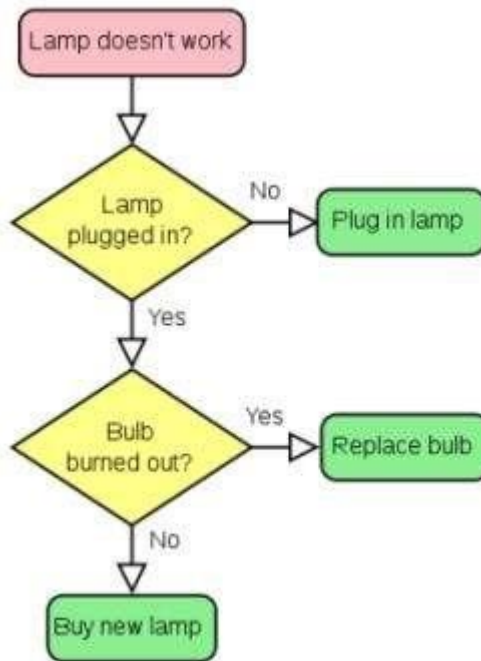
This is one of the basic quality tools that can be used for analyzing a sequence of events.

The tool maps out a sequence of events that take place sequentially or in parallel. The flow chart can be used to understand a complex process in order to find the relationships and dependencies between events.

You can also get a brief idea about the critical path of the process and the events involved in the critical path.

Flow charts can be used for any field to illustrate complex processes in a simple way. There is specific software tools developed for drawing flow charts, such as MS Visio.

You can download some of the open source flow chart tools developed by the open source community.



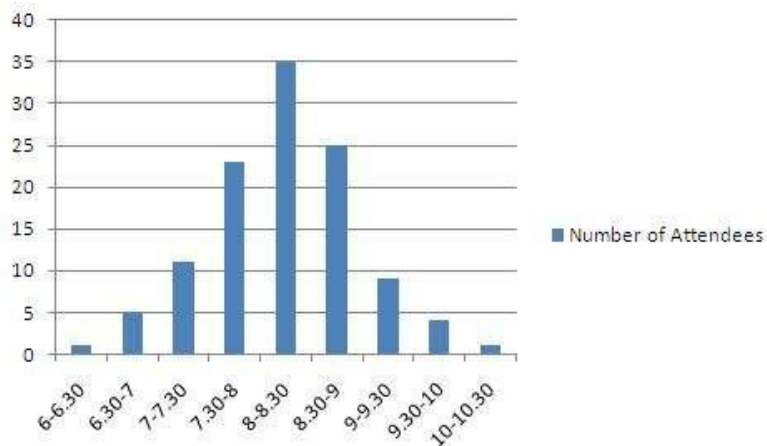
2. Histogram

Histogram is used for illustrating the frequency and the extent in the context of two variables.

Histogram is a chart with columns. This represents the distribution by mean. If the histogram is normal, the graph takes the shape of a bell curve.

If it is not normal, it may take different shapes based on the condition of the distribution. Histogram can be used to measure something against another thing. Always, it should be two variables.

Consider the following example: The following histogram shows morning attendance of a class. The X-axis is the number of students and the Y-axis the time of the day.



3. Cause and Effect Diagram

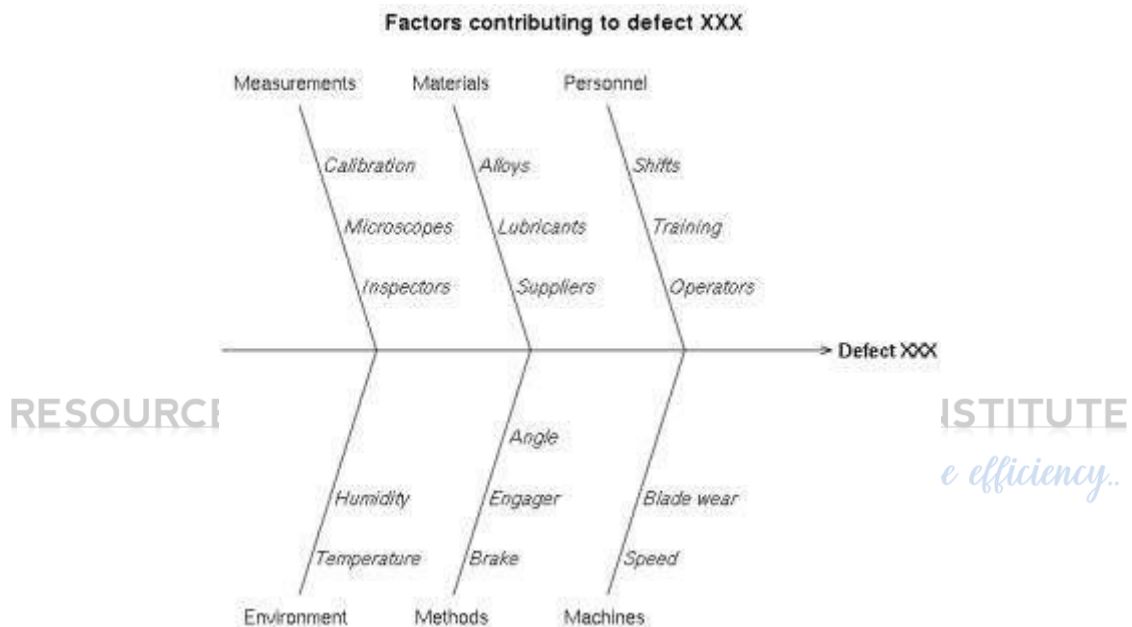
Cause and effect diagrams (Ishikawa Diagram) are used for understanding organizational or business problem causes.

Organizations face problems every day and it is required to understand the causes of these problems in order to solve them effectively. Cause and effect diagrams exercise is usually a teamwork.

A brainstorming session is required in order to come up with an effective cause and effect diagram.

All the main components of a problem area are listed and possible causes from each area is listed.

Then, most likely causes of the problems are identified to carry out further analysis.



4. Check Sheet

A check sheet can be introduced as the most basic tool for quality.

A check sheet is basically used for gathering and organizing data.

When this is done with the help of software packages such as Microsoft Excel, you can derive further analysis graphs and automate through macros available.

Therefore, it is always a good idea to use a software check sheet for information gathering and organizing needs.

One can always use a paper-based check sheet when the information gathered is

only used for backup or storing purposes other than further processing.

Motor Assembly Check Sheet

Name of Data Recorder: Lester B. Rapp
 Location: Rochester, New York
 Data Collection Dates: 1/17 - 1/23

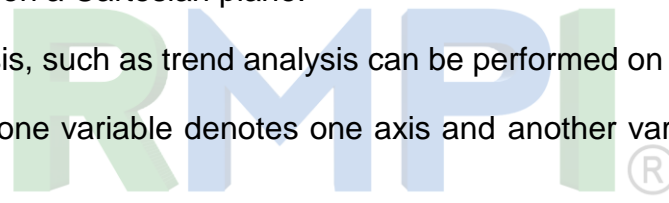
| Defect Types Event Occurrence | Dates | | | | | | | TOTAL |
|----------------------------------|--------|--------|---------|-----------|----------|--------|----------|-------|
| | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | |
| Supplied parts rusted | | | | | | | | 20 |
| Misaligned shaft | | | | | | | | 5 |
| Improper test procedure | | | | | | | | 0 |
| Wrong part issued | | | | | | | | 3 |
| Film on parts | | | | | | | | 0 |
| Voids in casting | | | | | | | | 5 |
| Incorrect dimensions | | | | | | | | 2 |
| Adhesive failure | | | | | | | | 0 |
| Marking insufficient | | | | | | | | 1 |
| Spray failure | | | | | | | | 3 |
| TOTAL | | 10 | 13 | 30 | 5 | 4 | | |

5. Scatter Diagram

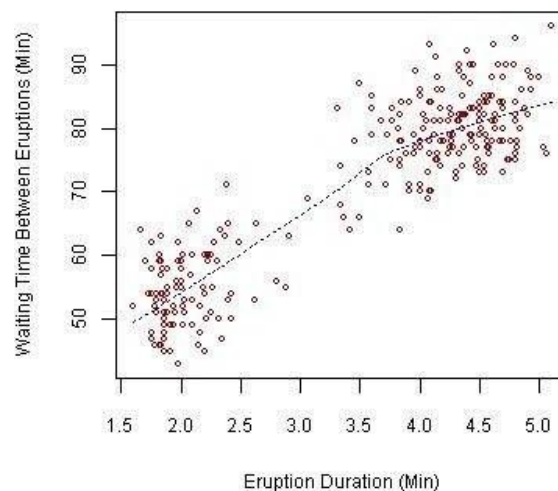
When it comes to the values of two variables, scatter diagrams are the best way to present. Scatter diagrams present the relationship between two variables and illustrate the results on a Cartesian plane.

Then, further analysis, such as trend analysis can be performed on the values.

In these diagrams, one variable denotes one axis and another variable denotes the other axis.



Old Faithful Eruptions



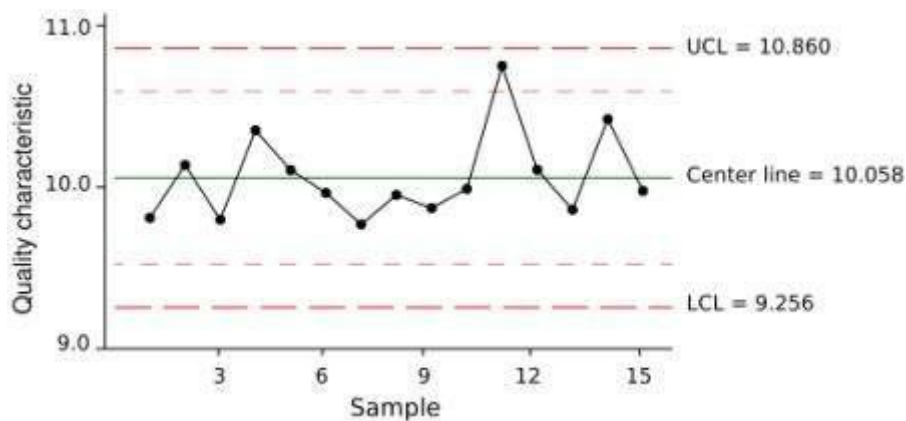
skforce efficiency..

6. Control Charts

Control chart is the best tool for monitoring the performance of a process. These types of charts can be used for monitoring any processes related to function of the organization.

These charts allow you to identify the following conditions related to the process that has been monitored.

- ▣ Stability of the process
- ▣ Predictability of the process
- ▣ Identification of common cause of variation
- ▣ Special conditions where the monitoring party needs to react

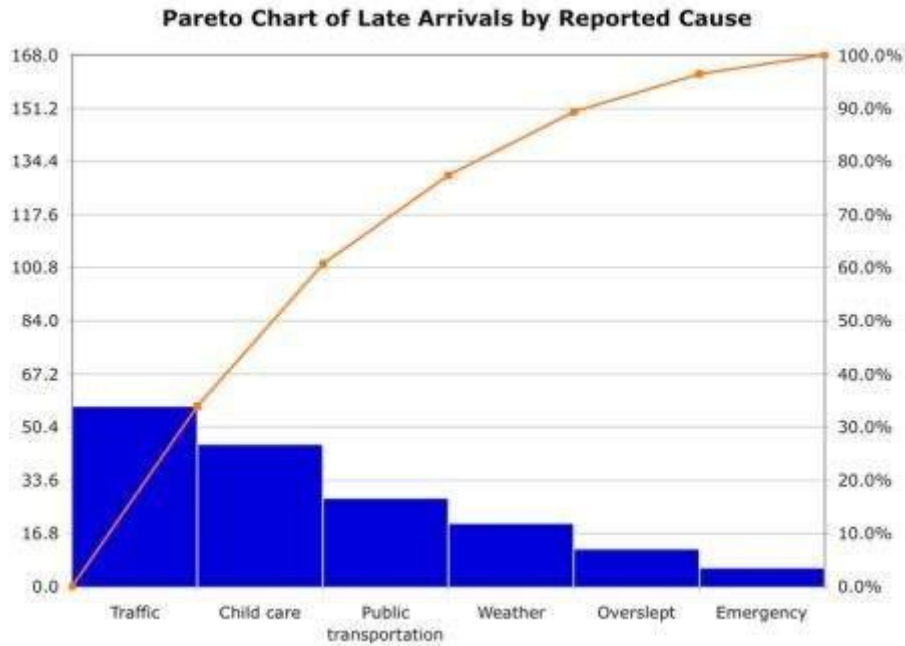


7. Pareto Charts

Pareto charts are used for identifying a set of priorities. You can chart any number of issues/variables related to a specific concern and record the number of occurrences.

This way you can figure out the parameters that have the highest impact on the specific concern.

This helps you to work on the propriety issues in order to get the condition under control.

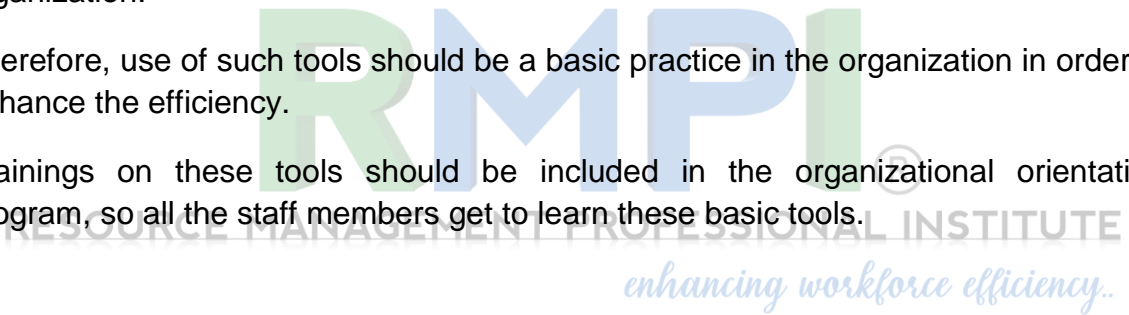


Conclusion

Above seven basic quality tools help you to address different concerns in an organization.

Therefore, use of such tools should be a basic practice in the organization in order to enhance the efficiency.

Trainings on these tools should be included in the organizational orientation program, so all the staff members get to learn these basic tools.



LESSON SIX

Benchmarking Process

Introduction

If a company is to be successful, it needs to evaluate its performance in a consistent manner.

In order to do so, businesses need to set standards for themselves and measure their processes and performance against recognized industry leaders or against best practices from other industries, which operate in a similar environment.

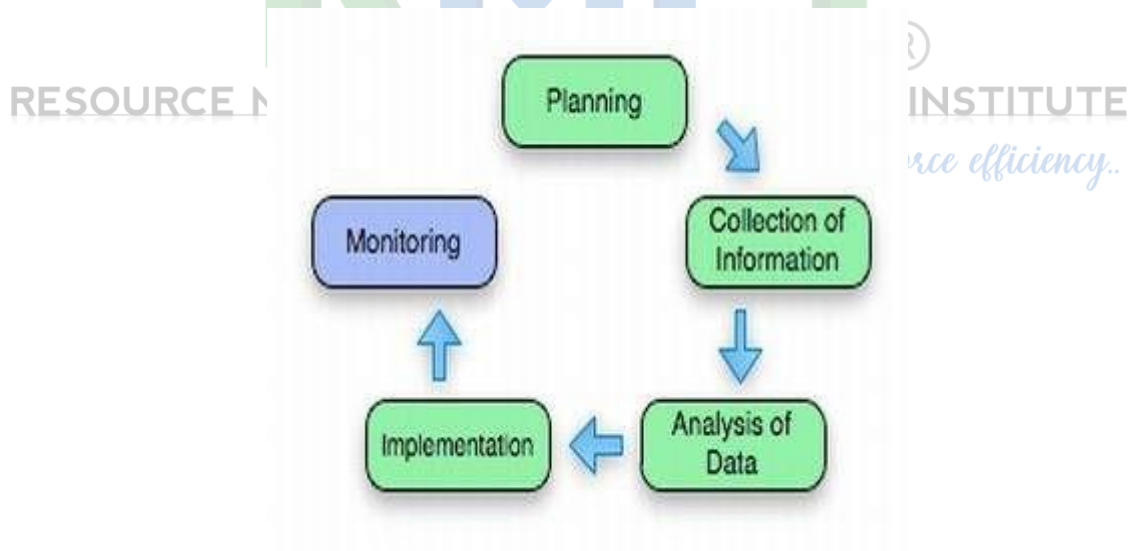
This is commonly referred to as **benchmarking** in management parlance.

The benchmarking process is relatively uncomplicated. Some knowledge and a practical dent is all that is needed to make such a process a success.

Therefore, for the benefit of corporate executives, students and the interested general populace, the key steps in the benchmarking process are highlighted below.

A Step-by-Step Approach to Benchmarking

Following are the steps involved in benchmarking process:



(1) Planning

Prior to engaging in benchmarking, it is imperative that corporate stakeholders identify the activities that need to be benchmarked.

For instance, the processes that merit such consideration would generally be core activities that have the potential to give the business in question a competitive edge.

Such processes would generally command a high cost, volume or value. For the

optimal results of benchmarking to be reaped, the inputs and outputs need to be redefined; the activities chosen should be measurable and thereby easily comparable, and thus the benchmarking metrics needs to be arrived at.

Prior to engaging in the benchmarking process, the total process flow needs to be given due consideration. For instance, improving one core competency at the detriment to another proves to be of little use.

Therefore, many choose to document such processes in detail (a process flow chart is deemed to be ideal for this purpose), so that omissions and errors are minimized; thus enabling the company to obtain a clearer idea of its strategic goals, its primary business processes, customer expectations and critical success factors.

An honest appraisal of the company's strengths, weaknesses and problem areas would prove to be of immense use when fine-tuning such a process.

The next step in the planning process would be for the company to choose an appropriate benchmark against which their performance can be measured.

The benchmark can be a single entity or a collective group of companies, which operate at optimal efficiency.

As stated before, if such a company operates in a similar environment or if it adopts a comparable strategic approach to reach their goals, its relevance would, indeed, be greater.

Measures and practices used in such companies should be identified, so that business process alternatives can be examined.

Also, it is always prudent for a company to ascertain its objectives, prior to commencement of the benchmarking process.

The methodology adopted and the way in which output is documented should be given due consideration too. On such instances, a capable team should be found in order to carry out the benchmarking process, with a leader or leaders being duly appointed, so as to ensure the smooth, timely implementation of the project.

(2) Collection of Information

Information can be broadly classified under the sub texts of primary data and secondary data.

To clarify further, here, primary data refers to collection of data directly from the benchmarked company/companies itself, while secondary data refers to information garnered from the press, publications or websites.

Exploratory research, market research, quantitative research, informal conversations, interviews and questionnaires, are still, some of the most popular

methods of collecting information.

When engaging in primary research, the company that is due to undertake the benchmarking process needs to redefine its data collection methodology.

Drafting a questionnaire or a standardized interview format, carrying out primary research via the telephone, e-mail or in face-to-face interviews, making on-site observations, and documenting such data in a systematic manner is vital, if the benchmarking process is to be a success.

(3) Analysis of Data

Once sufficient data is collected, the proper analysis of such information is of foremost importance.

Data analysis, data presentation (preferably in graphical format, for easy reference), results projection, classifying the performance gaps in processes, and identifying the root cause that leads to the creation of such gaps (commonly referred to as enablers), need to be then carried out.

(4) Implementation

This is the stage in the benchmarking process where it becomes mandatory to walk the talk. This generally means that far-reaching changes need to be made, so that the performance gap between the ideal and the actual is narrowed and eliminated wherever possible. A formal action plan that promotes change should ideally be formulated keeping the organization's culture in mind, so that the resistance that usually accompanies change is minimized.

Ensuring that the management and staff are fully committed to the process and that sufficient resources are in place to meet facilitate the necessary improvements would be critical in making the benchmarking process, a success.

(5) Monitoring

As with most projects, in order to reap the maximum benefits of the benchmarking process, a systematic evaluation should be carried out on a regular basis.

Assimilating the required information, evaluating the progress made, re-iterating the impact of the changes and making any necessary adjustments, are all part of the monitoring process.

Conclusion

As is clearly apparent, benchmarking can add value to the organization's workflow and structure by identifying areas for improvement and rectification. It is indeed invaluable in an organization's quest for continuous improvement.

LESSON SEVEN

Cause and Effect Diagram

Introduction

There are a number of productivity and management tools used in business organizations. Cause and Effect Diagram, in other words, Ishikawa or Fishbone diagram, is one such management tool. Due to the popularity of this tool, majority of managers make use of this tool regardless of the scale of the organization.

Problems are meant to exist in organizations. That's why there should be a strong process and supporting tools for identifying the causes of the problems before the problems damage the organization.

Steps for Using the Tool

Following are the steps that can be followed to successfully draw a cause and effect diagram:

Step 1 - Properly identify the problem in hand

Start articulating the exact problem you are facing. Sometimes, identification of the problem may not be straightforward. In such instances, write down all the effects and observations in detail. A short brainstorming session may be able to point out the actual problem.

When it comes to properly identifying the problem, there are four properties to consider; who are involved, what the problem is, when it occurs, and where it occurs. Write down the problem in a box, which is located at the left hand corner (refer the example cause and effect diagram). From the box, draw a line horizontally to the right hand side. The arrangement will now look like the head and the spine of a fish.

Step 2 - Add the major factors that contribute to the problem

In this step, the main factors of the problem are identified. For each factor, draw off a line from the fish's spine and properly label it. These factors can be various things such as people, material, machinery or external influences.

Think more and add as many as factors into the cause and effect diagram.

Brainstorming becomes quite useful in this phase, as people can look at the problem in different angles and identify different contributing factors.

The factors you added now become the bones of the fish.

Step 3 - Identify the causes

Take one factor at a time when identifying possible causes. Brainstorm and try to identify all causes that apply to each factor. Add these causes horizontally off from the fish bones and label them.

If the cause is large in size or complex in nature, you can further breakdown and add them as sub causes to the main cause. These sub causes should come off from the relevant cause lines.

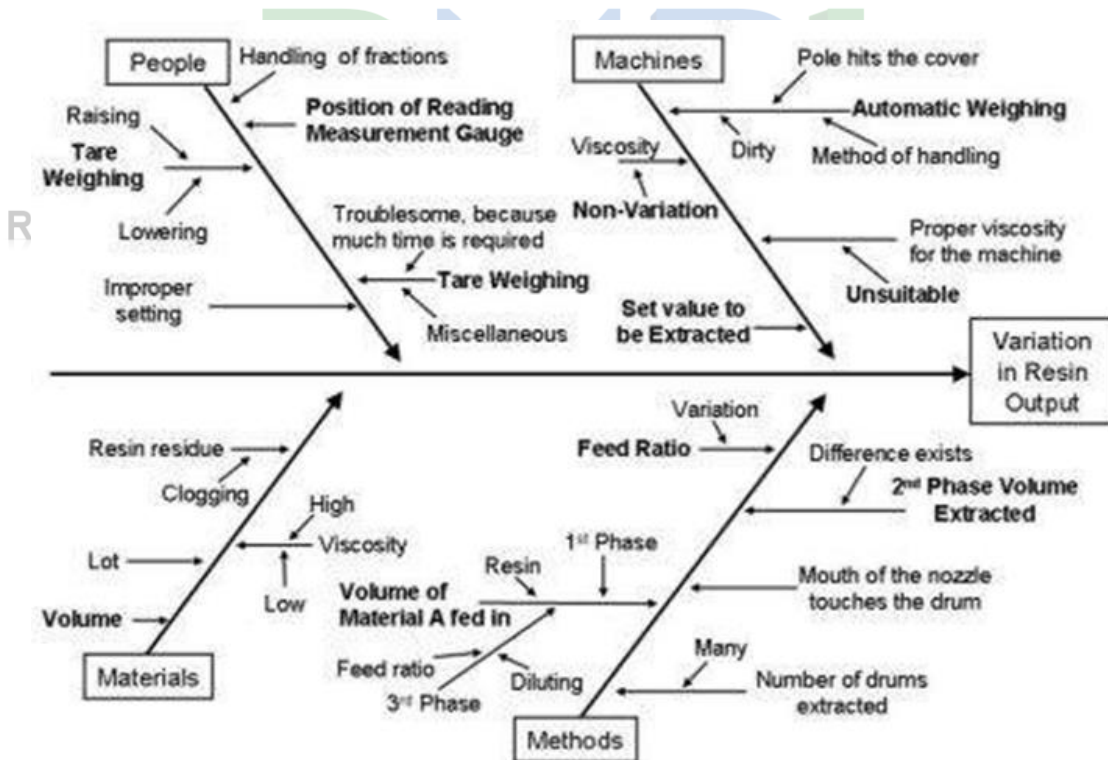
Spend more time in this step; the collection of causes should be comprehensive.

Step 4 - Diagram analysis

When this step starts, you have a diagram that indicates the problem, the contributing factors, and all possible causes for the problem.

Depending on the brainstorming ideas and nature of the problem, you can now prioritize the causes and look for the most likely cause.

This analysis may lead to further activities such as investigations, interviews and surveys. Refer the following sample cause and effect diagram:



Use of cause and effect diagrams

When it comes to the use of cause and effect diagrams, brainstorming is a critical step. Without proper brainstorming, a fruitful cause and effect diagram cannot be derived.

Therefore, following considerations should be addressed in the process of deriving a cause and effect diagram:

- ▣ There should be a problem statement that describes the problem accurately.
- ▣ Everyone in the brainstorming session should agree on the problem statement.
- ▣ Need to be succinct in the process.
- ▣ For each node, think all the possible causes and add them into the tree.
- ▣ Connect each casualty line back to its root cause
- ▣ Connect relatively empty branches to others.
- ▣ If a branch is too bulky, consider splitting it in two.

Conclusion

Cause and Effect diagrams can be used to resolve organizational problems efficiently.

There are no limitations or restrictions on applying the diagrams to different problems or domains. The level and intensity of brainstorming defines the success rate of cause and effect diagrams.

Therefore, all relevant parties should be present in the brainstorming session in order to identify all possible causes.

Once most likely causes are identified, further investigation is required to unearth further details.