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## UNIT 4 SWOT ANALYSIS AND BAR CHARTS

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### 4.1 INTRODUCTION

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The CSR project planning and implementation involves decision making related to a number of interrelated time bound project activities. The CSR professionals therefore, often depends on tools and techniques that are effective enough not only for drawing-up the best possible initial plan but also capable of projecting instantaneously the impact of deviations so as to initiate necessary corrective measures. The search for an effective tool has resulted in development of a variety of project formulation and management techniques. These techniques can be classified under the following categories:

- SWOT Analysis
- Bar charts
- Networks.

In this unit, we will discuss the meaning, concept, characteristics, advantages and limitations of SWOT analysis and bar charts as CSR project management tools.

After studying this unit you should be able to:

- Discuss the meaning and concept of SWOT analysis as a project management tool.
- Understand the concept of Gantt and Milestone charts and use them as CSR project management tools.

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## 4.2 SWOT ANALYSIS

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The origins of the SWOT analysis technique is credited by Albert Humphrey, who led a research project at Stanford University in the 1960s. The goal was to identify why corporate planning failed. The resulting research identified a number of key areas and the tool used to explore each of the critical areas was called SOFT analysis. Humphrey and the original research team used the categories “What is good in the present is **S**atisfactory, good in the future is an **O**ppportunity; bad in the present is a **F**ault and bad in the future is a **T**hreat.” Later this concept was further practiced and evolved as SWOT analysis.

Factors internal to the system are strengths (S) or weaknesses (W) and those external are opportunities (O) or threats (T) and such an analysis of the strategic environment is referred to as a SWOT analysis (Bradford et al., 1999). As a project management tool, it provides information that is helpful in matching the resources and capabilities to the competitive environment in which any CSR project operate.

### 4.2.1 SWOT As a CSR Project Management Tool

SWOT is a strategic planning tool used to evaluate the strengths, weaknesses, opportunities, and threats of a CSR project. It involves specifying the objective of the project and identifying the internal and external factors that are favourable and unfavourable to achieving that project objective. The strengths and weaknesses usually arise from within an organisation, and the opportunities and threats from external sources as described below.

**Strengths:** Strengths are the attributes of the CSR department that help achieve the project objective.

*Example:* Track record of the CSR department in completing similar projects (similar successes), Resource availability, Skill levels, Processes and systems, Reputation etc.

**Weaknesses:** Weaknesses are the attributes of the CSR department that stop achievement of the project objective.

*Example:* Gaps in knowledge and expertise, timescale and deadlines, budget and funding,

competing projects, processes and systems etc.

**Opportunities:** Opportunities are the external conditions that help achieve the project objective.

*Example:* Technology and infrastructure development, changing behaviour of the beneficiaries, new innovations (R&D) etc.

**Threats:** Threats are the external conditions that could damage the CSR project.

*Example:* Political influences, environmental factors, competitor activity, economy, seasonal effects etc.

SWOT analysis for project management is a simple, yet effective process. It allows the CSR department to identify areas that needs improvement. By implementing the correct methodologies for the analysis, it is possible to ensure that a project will be completed on time and within budget. SWOT stands for Strengths, Weaknesses, Opportunities and Threats.

The use of SWOT analysis lets the CSR department to improve the whole project or individual tasks where better efficiency can be gained. It also mitigates risks associated with the tasks and optimizes the whole process. The team members get to do more with less. Because of the nature of the analysis, it is important to conduct the SWOT analysis during the startup phase of the CSR project. It can provide a solid backbone to the project plan (Rosanne Lim (2012).

#### 4.2.2 Conducting the SWOT Analysis

The SWOT analysis can be conducted either at the initial or middle phase of the project. However, it is important to have a clear objective during SWOT analysis sessions. If the analysis is done during the initial startup phase, key members must come together and identify all required tasks and the potential risks to each step of the project. If it is done at the middle of the project, the main focus is usually to reassess the schedule, the budget, or to conduct a cost/benefit analysis of certain processes. The common questions to be asked in SWOT analysis are summarized in Box 4.1(Rosanne Lim, 2012).

##### Box 4.1: Common Questions in SWOT Analysis

###### Strengths:

- Does the CSR department have all the necessary talent in-house?
- Is the budget sufficient to complete all the tasks involved?
- What are the benefits of completing the project?
- Has the CSR department handled similar projects in the past?
- How experienced are the CSR team members?

###### Weaknesses:

- Does the CSR department have the resources to provide contingency funding?
- If the team doesn't have all the necessary skills, what areas need to be outsourced?
- Is the schedule realistic?
- What are the potential drawbacks of the CSR project?

### **Opportunities**

- Will this project take advantage of competitor weaknesses?
- What are the latest trends in the industry?
- Are there new technologies that the CSR department should be aware of?
- Can this project help in different areas of the business?

### **Threats:**

- Are the CSR team members difficult to replace?
- Has the new technology (if it will be applied) been tested?
- Could changing trends affect the project?
- Can the capability be copied by competitors?

*Source : Rosanne Lim (2012)*

### **Advantages of SWOT**

- Helps in identifying basic information for CSR project planning and management.
- Assemble project's strengths and weaknesses, maximize opportunities and overcome threats.
- Helps in identifying core competencies of project team and setting of project objectives.
- Provide information that helps in synchronizing the project's resources and capabilities with the competitive environment in which the project operates.

### **Disadvantages of SWOT**

- Categorizing aspects as strengths, weaknesses, opportunities and threats might be very subjective
- It stresses upon the significance of SWOT aspects, but it does not tell how an organization can identify these aspects for itself.
- Government legislation and economic environment related problems may persuade organisations to compile lists rather than think about what is essential to achieving objectives.
- Presents lists uncritically and without clear prioritization. For example, weak opportunities may appear to balance strong threats.
- Usually, a simple list and not critically presented.

### **Check Your Progress 1**

**Note:** a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit.

1. Ask some of your colleagues what they mean by SWOT analysis? Compare their views with the one given in this section and identify the common features.

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2. Do you agree that SWOT analysis is useful for CSR project management? Support your answer with examples.

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**Activity 1:** Identify a CSR project and its objectives. Write two attributes on Strengths, Weaknesses, Opportunities and Threats related to the identified project objectives in the following grid.

**Project Title :**

**Project Objectives:**

Strengths	Weaknesses
1	1
2	2
Opportunities	Threats
1	1
2	2

### 4.3 BAR CHARTS

The Bar charts are the pictorial representation of various tasks required to be performed for accomplishment of the project objectives. These charts have formed the basis of development of many other project management techniques. Two main bar charts are:

- i. Gantt chart
- ii. Milestone chart

### 4.3.1 Gantt Chart

A Gantt chart is a type of bar chart that illustrates a CSR project schedule. For scheduling and reporting about the progress of projects, Henry L Gantt developed the system of bar charts in 1917. These charts latter were named after him as Gantt Charts (Box 4.2). Although now regarded as a common charting technique, Gantt charts were considered revolutionary when they were introduced. For your understanding a Gantt chart showing the tasks of 12 months duration survey project is given in Fig. 4.1

**Fig. 4.1: Gantt chart showing the tasks of 12 months duration survey project**

Task	Duration (Months)	1	2	3	4	5	6	7	8	9	10	11	12
1. Literature collection and theoretical orientation	2*	█	█										
2. Identification of study area and selection of respondents	2*	█	█										
3. Interview schedule preparation	1			█									
4. Pre-testing of interview schedule and modifications	1				█								
5. Data collection	4					█	█	█	█				
6. Statistical treatment and analysis of data	2									█	█		
7. Report Writing	2											█	█

\* Concurrent tasks - Time duration to complete both tasks is two months.

#### Box 4.2: Characteristics of Gantt Charts

- Specify the start and finish time for various tasks on a horizontal timescale
- Tasks are indicated by means of a bar, preferably at equi-distance in the vertical axis and time is plotted in the horizontal axis.
- Gantt charts illustrate the start and finish dates of the terminal elements and summary elements of a project - Terminal elements and summary

elements comprise the work breakdown structure of the project.

- Some Gantt charts also show the dependency relationships between activities.

Example: Unless task 3 is completed, task 4 cannot start (Fig 4.1).

- Length of the bar indicates required time for the task, whereas the width has no significance.

### Advantages

- Gantt charts have become a common technique for representing the phases and activities of a project work breakdown structure, so they can be understood by a wide audience.
- Useful and valuable for small projects that fit on a single sheet or screen.

### Limitations

Though the bar chart is comprehensive, convenient, and very effective, it has the following limitations

- Like many other graphical techniques are often difficult to handle large number of tasks of a complex project. They can become quite unwieldy for CSR projects with more than about 30 activities.
- Larger Gantt charts may not be suitable for most computer displays. A related criticism is that Gantt charts communicate relatively little information per unit area of display. That is, projects are often considerably more complex than can be communicated effectively with a Gantt chart.
- Does not indicate the interrelationship between the tasks i.e., if one CSR activity overruns time what would be the impact on project completion?
- Gantt charts only represent part of the triple constraints of projects, because they focus primarily on schedule management. Moreover, Gantt charts do not represent the size of a project or the relative size of work elements, therefore the magnitude of a behind-schedule condition is easily miscommunicated. If two projects are the same number of days behind schedule, the larger project has a larger impact on resource utilization, yet the Gantt does not represent this difference.
- Although project management software can show schedule dependencies as lines between activities, displaying a large number of dependencies may result in a cluttered or unreadable chart.
- Because the horizontal bars of a Gantt chart have a fixed height, they can misrepresent the time-phased workload (resource requirements) of a project. In the example shown above, tasks 6 and 7 appear to be the same size, but in reality they may be orders of magnitude different. A related criticism is that all activities of a Gantt chart show planned workload as

constant. In practice, many activities (especially summary elements) have front-loaded or back-loaded work plans, so a Gantt chart with percent-complete shading may actually miscommunicate the true schedule performance status.

### 4.3.2 Milestone Chart

Milestone chart is an improvement over the Gantt chart by introducing the concept of milestone. The milestone, represented by a triangle over a task in the bar chart indicates completion of a specific phase of the task. For example pre-testing of interview schedule and modifications (Task 4 in the Fig 4.1) includes pre-testing of interview schedule in the field (about 3 weeks) and modifications of interview schedule based on pretesting experience (1 week). From the simple Gantt chart, it is difficult to monitor progress of the task 4. Introduction of a milestone at the end of 3<sup>rd</sup> week and 4<sup>th</sup> week would specify that the pre-testing would be completed in 3 weeks time and modifications in interview schedule would be completed in 1 week time (Fig. 4.2).

**Fig.4.2: Milestone chart showing the milestones in task 4 of a 12 months survey project**

Task	Duration (Months)	1 <sup>st</sup> Week	2 <sup>nd</sup> Week	3 <sup>rd</sup> Week	4 <sup>th</sup> Week
Pre-testing of interview schedule and modifications	1			▲	▲

#### Characteristics

- In a milestone chart a task is broken down in to specific phases (CSR activities).
- After accomplishment of each of the specific CSR activity a milestone is reached or in other words an event occurs.
- The chart also shows the sequential relationship among the milestones or events within the same task but not the relationship among milestones contained in different tasks. For example in figure, the milestone 2 of task cannot be reached until the milestone 1 is crossed and the activity between milestone 1 and 2 is over.

#### Advantages

- A milestone chart depicts key events along a time scale.
- It indicates completion time of key events in a task.
- Useful for top level reporting, so management does not become bogged down in the minute details of project.



**Limitations**

- The relationships between the milestones in different tasks are not clear in the milestone chart.
- Does not show interdependence between tasks.
- Does not indicate critical activities.
- Does not consider the concept of uncertainty in accomplishing the task.
- Very cumbersome to draw the chart for large projects.

**Check Your Progress 2**

**Note:** a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit.

1. Ask some of your colleagues what they mean by bar charts? Compare their views with the one given in this section and identify the common features.

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2. Do you agree that bar charts are useful for project management? Support your answer.

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3. Write two advantages of Gantt charts and Milestone charts.

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**Activity 2:** Draw a Gantt chart for the following project activities.

S.No.	Activity	Time requirement (weeks)
1	Development of land	9
2	Ploughing and minor leveling	4
3	Digging of pits for planting	5
4	Purchasing of farm yard manure	3
5	Purchasing of plants	10
6	Application of farm yard manure	2
7	Transplanting plants	2

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#### 4.4 LET US SUM UP

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In this unit we started by looking into the history, meaning and how SWOT analysis is useful as a CSR project management tool. Later we discussed how to conduct SWOT analysis, common questions to be asked, merits and demerits of SWOT analysis. In the second half of the unit, we discussed the meaning and concept of Bar charts, Gantt chart and Milestone charts along with their advantages and limitations as CSR project management tools.

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#### 4.5 KEYWORDS

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**SWOT Analysis:** Factors internal to the system are strengths (S) or weaknesses (W) and those external are opportunities (O) or threats (T) and such an analysis of the strategic environment is referred to as a SWOT analysis

**Strengths:** Strengths are the attributes of the organisation that help achieve the project objective.

**Weaknesses:** Weaknesses are the attributes of the organisation that stop achievement of the project objective.

**Opportunities:** Opportunities are the external conditions that help achieve the project objective.

**Threats:** Threats are the external conditions that could damage the project.

**Activity:** Is the actual performance of a task.

**Bar Charts:** Bar charts are the pictorial representation of various tasks required to be performed for accomplishment of the project objectives.

**Gantt Chart:** Gantt chart is a type of bar chart that illustrates a project schedule.

**Milestone Chart:** It is an improvement over the Gantt chart by introducing the concept of milestone.

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## 4.6 BIBLIOGRAPHY AND SELECTED READINGS

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## 4.7 CHECK YOUR PROGRESS - POSSIBLE ANSWERS

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### Check Your Progress 1

1. Factors internal to the system are strengths (S) or weaknesses (W) and those external are opportunities (O) or threats (T) and such an analysis of the strategic environment is referred to as a SWOT analysis
2. Yes. SWOT analysis for CSR project management is a simple, yet effective process. It allows the CSR department to identify areas that need improvement. By implementing the correct methodologies for the analysis, it is possible to ensure that a project will be completed on time and within budget. SWOT stands for Strengths, Weaknesses, Opportunities and Threats.

### Check Your Progress 2

1. Bar charts are the pictorial representation of various tasks required to be performed for accomplishment of the project objectives. These charts have formed the basis of development of many other project management techniques. Two main bar charts are: Gantt charts and Milestone charts. Compare this with the views of your colleagues.

2. Yes. Charts specify the start and finish time for various tasks ; charts illustrate the start and finish dates of the terminal elements and summary elements of a project ;
3. Gantt charts have become a common technique for representing the phases and activities of a project work breakdown structure, so they can be understood by a wide audience. They are also useful and valuable for small projects that fit on a single sheet or screen. Milestone charts depicts key events along a time scale. They indicate completion time of key events in a task and are useful for top level reporting, so management does not become bogged down in the minute details of project.



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