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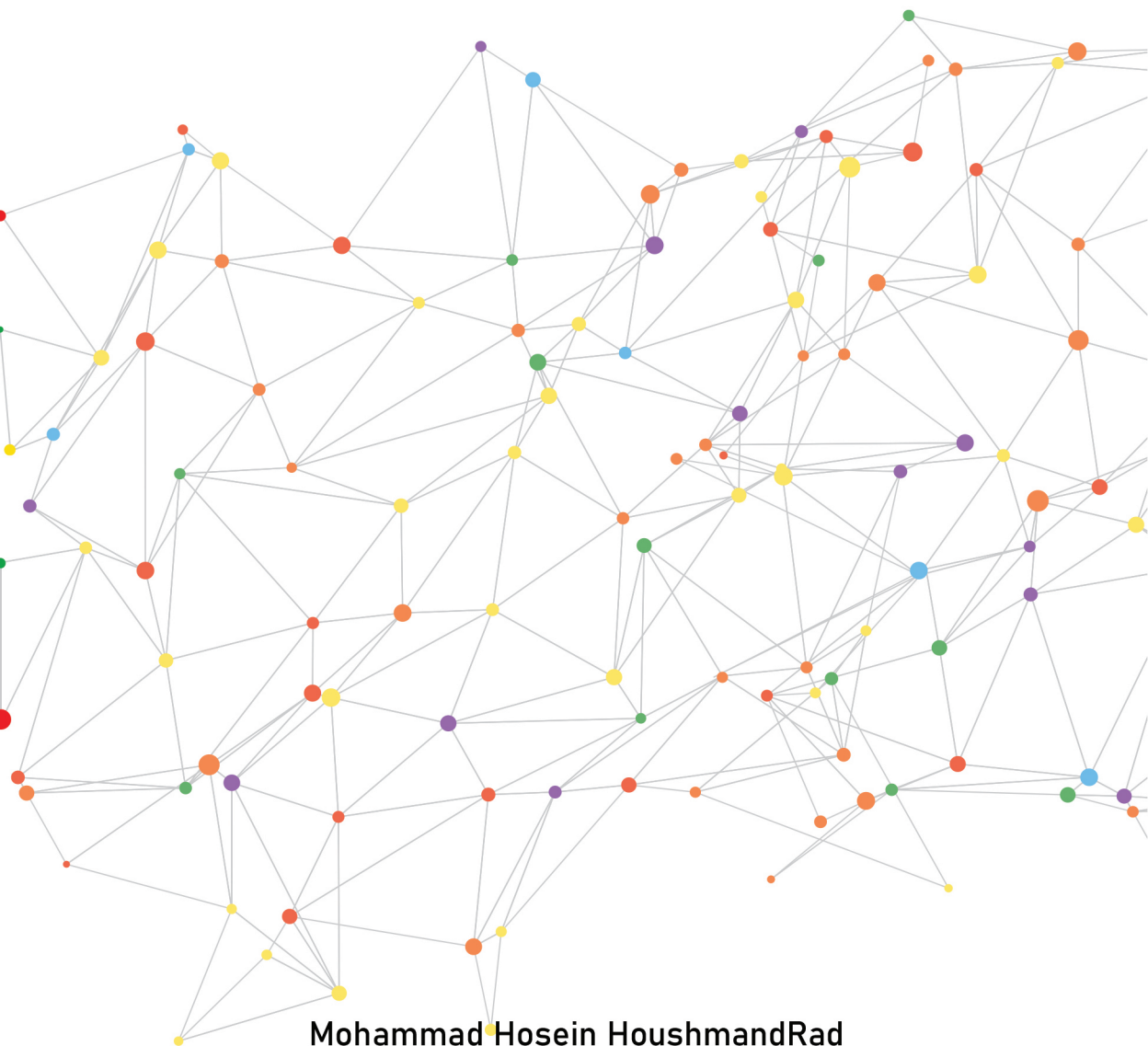
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# ADVANCED STRATEGIC MANAGEMENT

Strategy, Risk & Improve quality



Mohammad Hosein HoushmandRad  
Mohammad Reza Fetanat Fard Haghighi

# Advanced Strategic Management

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# **Advanced Strategic Management Strategy, Risk and Improve quality**

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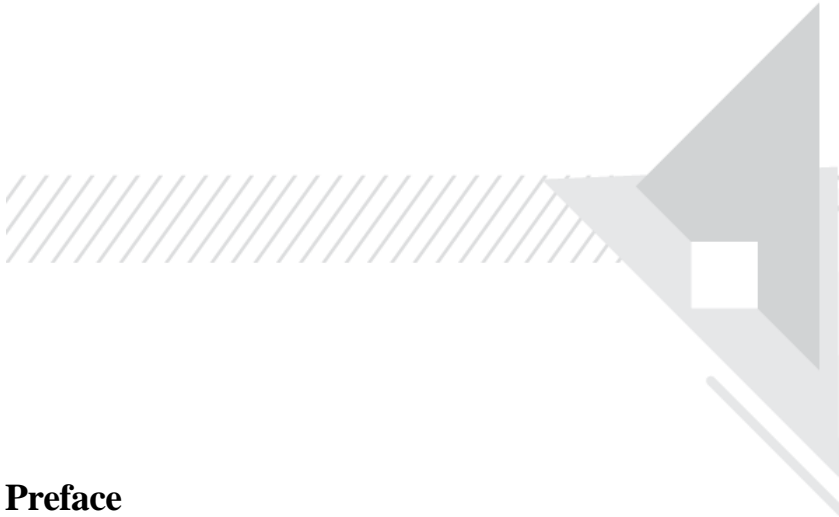
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## **Preface**

Since in order for developing countries to enter the chain of powerful countries in the world, we need to achieve development, and one of the main indicators of development and achieving sustainable development in today's world is that countries have developed organizations in both the private and public sectors. Managers of organizations today more than ever should be looking for sustainable development foundations, hence the role of active organizations in sustainable development has been more and more noticed by experts and practitioners of human societies. From the point of view of these people, the lack of attention and adherence of organizations and subordinate managers to their duty and social responsibility is one of the issues and problems that can hinder the achievement of sustainable development. One of the most important results of following the principles of social responsibility is sustainable development and welfare of society. Therefore, organizations, both public and private, should be pioneers in adhering to social responsibility beyond their defined legal responsibilities and take an important step towards achieving sustainable development. In this regard, the present book under the

title of advanced strategic management can act as a beacon for managers of organizations and students in the fields of industrial engineering, civil engineering, business management and public administration. The preceding book consists of eleven chapters. From the first to the ninth chapter, it introduces and explains the different parts of strategic management in the three areas of planning, execution and control for implementation in the organization, and in the continuation of the descriptive basics of the tenth chapter of this book, it introduces risk, risk management, and relevant models in the field of risk management. And finally the theoretical foundations of value engineering and other management methods in the field of quality improvement are presented in the eleventh chapter.



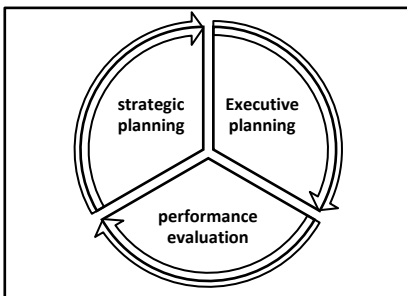
# Chapter 1: An Introduction to Strategic Management

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## 1.1. Strategic management

In general, the strategic management system consists of three parts: strategic planning, executive planning and performance evaluation. (Figure 1-1) Strategic management is taking decisions today according to environmental conditions and from an operational point of view to achieve tomorrow's results. At the beginning of its emergence, strategic planning was known as extroverted planning. It is worth mentioning that although the first characteristic of strategic management is its focus on external factors, strategic management is also based on other major principles, some of the most important of which are as follows:

1. The future cannot be predicted, but it can be created.
2. The sum of the whole is not necessarily the simple sum of its parts.



**Figure 1-1. Strategic management system**

3. Only one specific solution does not necessarily lead to success, and in order to achieve success, there can be several solutions. On the other hand, each of the aforementioned solutions do not necessarily end in success; Because the future may not be the continuation of the past, the present or what is imagined.

Organizations, like humans, on the one hand, have a tendency to compromise with the changes in their environment, and on the other hand, they are inclined to entrepreneurship, innovation, and creating new solutions appropriate to the environmental conditions. The first trend leads to straying from the path and the second trend leads to pursuing the organization's existential philosophy, and both of these cases are considered in strategic management.

In general, strategic management includes planning, implementing and controlling strategic plans, especially in cases where the organization does not have clear goals and the right vision to move and control, or the environment outside the organization is turbulent and dynamic, or the organization is too introverted, focus Too much on details and short-term problems is helpful. Due to the specific characteristics of strategic management, while competitors and social systems are becoming more variable, ambiguous and complex day by day, it can be considered as a last resort for managing organizations and a tool in the hands of senior managers. Meanwhile, the correct implementation of the adopted strategy is also quite controversial. Figure 2-1 shows a fishbone diagram that shows the chain of causes leading to ineffective strategy execution.

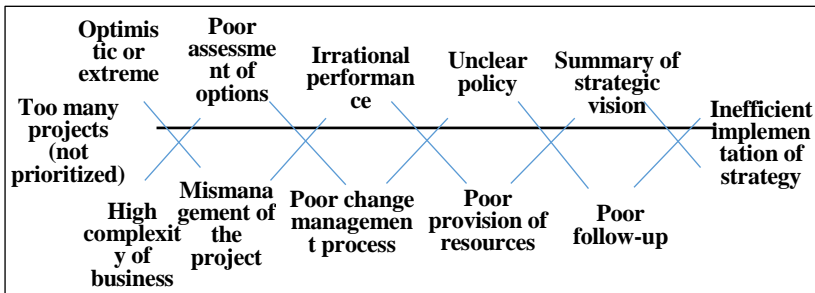


Figure 1-2. Fish-Bone analysis (cause and effect diagram)

## 1.2. The nature Prefaceand value of strategic management

The diversity and complexity of business decisions and the dynamism of the business environment have made the need to use the strategic management process and pay attention to it necessary and inevitable, because the administration and management of complex activities within organizations is only one of the responsibilities and challenges of managers in today's world. The second challenge is imposed by the factors and variables of the operational or task environment to management, variables such as competitors, consumers, scarce resources and government organizations that directly affect the performance of organizations and it is necessary to anticipate their needs and priorities and meet them as much as possible. Also, the third important challenge that managers face is trending, and events in the distant environment. An environment that includes economic, political, technological and social variables and affects the performance of the organization, therefore, managers must analyze and evaluate it systematically and continuously, and use the obtained information in their decisions; But the fourth important factor or challenge that organizations face and often affects the above challenges is the challenge of stakeholders or influential groups, groups and institutions such as owners, labor councils, consumer protection organizations, boards of directors, senior managers, suppliers and Mass media that are sensitive to the organization and have unstable and often inconsistent goals.

Today, managers have paid attention to the process of strategic management in order to effectively deal with such challenges that affect the ability of their organizations to earn profit and develop activities. They believe that the mentioned process helps to optimize the organization's position in the competitive environment and gives managers the ability to predict changes and transformations more accurately, and increase the organization's readiness against unexpected internal and external events.

Management processes have historically become more complex since the end of World War II. This complexity has reflected the growing competition of organizations, more involvement in the economy and international trade, and the extensive involvement of governments as buyers, sellers, legislators, and even competitors. The aforementioned processes were greatly improved in the 1970s. Concepts and tools such as "long-term planning", "new investment management", "planning, planning and budgeting" and "business policy" were given serious attention, and by summarizing and integrating all these processes or approaches, strategic management or strategic planning was obtained. Its definition is as follows:

Strategic management is defined as a set of decisions and actions, the result of which is the setting and implementation of plans designed to achieve the organization's goals.

The strategic management process consists of nine important areas or tasks.

1. Determining and formulating the mission or the fundamental goal of the organization, including explaining the purpose, philosophy and general goals of the organization.
2. Development and explanation of company profile that reflects the internal conditions and the capabilities of the institution.
3. Analysis and evaluation of the organization's external environment, including public and competitive environment factors.
4. Analyzing the organization's choices with the combined analysis and evaluation of internal and external factors.
5. Identifying the most desirable choices by evaluating options based on mission or fundamental purpose.
6. Choosing a set of long-term goals and main strategies needed.
7. Develop and adjust annual goals and short-term strategies consistent with long-term goals and core strategies.

8. Implementing strategic decisions based on budgeting and emphasizing the compatibility and fit between tasks, people, structure, technology and reward systems.
9. Reviewing and evaluating the success of the strategic management process as a basis for control and a data for future decisions.

As the above process shows, strategic management is associated with planning, directing, organizing and controlling decisions related to strategy and its implementation.

Managers usually think of strategy as large-scale, forward-looking plans, designed to interact with the competitive environment in order to move optimally toward the organization's goals. In other words, strategy is a war game plan for the organization. Although this plan does not specify the allocation and expansion of resources (manpower, finance, materials, etc.) In detail and precisely, despite this, it provides a framework for managers to make decisions, a framework that reflects the organization's understanding of the cause, time, place, and how. It is a competition.

### 1.3. Dimensions of strategic decisions

Decisions that are considered strategic and require the attention of high-ranking managers of an organization generally have six characteristics.

1. **They need to make a decision from the top management:** Strategic decisions affect different areas of an organization's activities, so high-level management is necessarily involved in such decisions. Because only at this level of the organization, there is a wide perspective to understand and predict the results of decisions and various phenomena, and the aforementioned managers have the necessary authority and power to allocate the necessary resources and facilities.
2. **Strategic issues attract a lot of resources:** Strategic decisions are faced with the expansion and the arrangement of the basic

resources of the organization. The required people, physical assets, or capital must be obtained from revisions in the direction of internal resources or from outside the organization, which in both cases commits the organization to a flow and a set of actions in a long-term period, and it is obvious that this requires a lot of resources.

3. **Strategic decisions affect the position and long-term vision of the organization:** Such decisions apparently commit the organization for a supposedly 5-year period. But the fact is that the time effect of the mentioned decisions is much longer, because the commitment of the organization to choose one way or make an important decision means the position of the organization in the competitive market and its advantages in the light of the chosen strategy, which is naturally for some products of the organization in The markets in question create a certain reputation and it is clear that if markets or products or technologies change due to a change in strategy, this reputation or achievement will be jeopardized; Therefore, strategic decisions have lasting effects for the organization for better or worse.
4. **Foresight is the key to making such decisions:** Strategic decisions rely on what managers predict, not what managers know. In other words, the emphasis is on the development of forecasts that enable the management to choose the most successful strategic choice and follow an active movement towards change in the environment of free and dynamic competition.
5. **Strategic decisions have multi-sided or multi-sector results:** A strategic decision should be coordinated or modulated. The decision about issues such as consumer composition, competitive position, or organizational structure involves the necessity of a number of departments or strategic Strategic



Business Units (SBU) or program units, so the resources of each of these units are somehow affected by strategic decisions (especially the allocation of resources and responsibilities).

- 6. In making such decisions, the role of environmental factors must be considered:** Business organizations act like an open system, and therefore their performance is largely influenced by external conditions that are beyond the control of managers and they also affect it; Therefore, if an organization wants to successfully maintain its future competitive position, it is necessary to look beyond the scope of its operations and examine environmental factors, such as competitors, consumers, suppliers, creditors and the government.

#### 1.4. Levels of strategy

The decision-making hierarchy of business organizations generally includes three upper levels, business and task. At the upper level or the Corporate level, there are usually the members of the board of directors, the chief executive officer and administrative officials who are responsible for the organization's financial performance and achieving its non-financial goals. At this level of the organization, the opinions and views largely reflect the tendencies and preferences of the shareholders and the society, but at the same time, the responsibility of determining the type of business or the scope of activity rests with the officials of the higher levels of the organization, especially in organizations with multiple businesses that must choose the goals, strategies and, in other words, specify the scope of activities of each business or department.

The portfolio approach in strategic management means that the mentioned managers take advantage of the skills or distinctive competencies in different industries, while they usually plan for a five-year period.

The second level in the decision-making hierarchy is the commercial or business level, which is composed of business and organization managers. Managers at this level should convert the directions and objectives approved at the organization level goals and strategies for businesses. They should define the selected markets and products of the organization, while being sure of the profitability and future prosperity of the selected market. Also, the target market should have a competitive advantage for the organization and be compatible with its capabilities. The third level in the decision-making levels is the functional level, which consists of managers of product, region, and task departments. These managers are responsible for formulating and implementing annual goals and short-term or task strategies in various areas such as production, finance, and marketing, while organization and business-level managers focus on doing the right things, task-level managers emphasize doing things right and In other words, they focus on the efficiency and effectiveness of activities such as providing marketing systems, production, quality, consumer services and the success of specific products and services in increasing their market share.

### **1.5. Characteristics of strategic management decisions**

The characteristics of strategic decisions are related to the levels of strategic activity of the organization. Organizational level decisions are more valuable and more conceptual than decisions made at commercial and task levels, also such decisions are faced with more risk, cost and potential profitability, and have a longer and more flexible time horizon, which is a logical result of emphasizing the future and innovative nature. Strategic activities are at this level, for example, choosing the type of businesses, profit sharing policies, providing long-term financial resources and growth priorities are among such decisions.

In the opposite direction, there are task decisions that mainly deal with operational issues. These types of periodic decisions directly lead

to the implementation of a part of the set main strategy. Therefore, they are relatively short-term, have low risk and relatively low costs because they rely on existing resources. Such decisions determine the actions that require a little cooperation at the organization level and are complementary to the current activities of the functional area, and are also compatible with the current activities, a little cooperation is needed for their successful implementation

Because task-level decisions are relatively realistic and measurable, they have attracted a lot of attention, although they have less potential profitability compared to decisions at other levels, and the most common ones are basic versus applied research and development, high versus low inventory levels, Flexible versus bureaucratic supervision, general versus specific means of production.

The connection and connection between organizational and task level decisions is achieved at the business level, such decisions have less risk, cost and potential profitability than the decisions taken at the organization level, but they have more risk, cost and potential profitability than the task decisions. Decisions such as determining the location of the organization, market segmentation, the geographical coverage of the market and distribution networks are such decisions.

### **1.6. Formality in the strategic management process**

The amount and degree of formality of strategic management systems are very different among different organizations. Formality refers to the degree to which the responsibilities, authority, and activities of individuals within the organization and in the process of doing work are defined, and there is usually a positive correlation between the cost, comprehensiveness, accuracy, and success of the planning system with its degree of formality, and for this reason, the study of the management process Strategic is very important from this point of view.

There are many factors or forces that determine the need and appropriate degree of formality in organizations, among which the

size of the organization, management styles, complexity of the environment, production processes, the nature of problems and objectives of the planning system are important. Research shows that formality is often related to two specific factors, namely size and The stage of development of the organization is associated, and in addition, the methods or methods of assessing strategic success are also related to formality.

But some organizations, especially small organizations, are managed according to the Entrepreneurial mode and produce a limited number of products or services under the control of one person. In such organizations, performance evaluation is very informal and intuitive, has a limited scope (the degree of formality of the system is low), and on the contrary, in some large organizations, such as General Electric, the evaluation process is part of a comprehensive, formal, multi-level and strategic planning system; Henry Mintzberg calls this approach the planning mode.

Mintzberg also proposes a third model called the adaptive mode in the middle of these two models that average organizations follow in relatively stable environments. Organizations in this model identify and pursue strategies that closely relate to existing strategies.

Although it is common to categorize and generalize the above patterns, it is not uncommon to find different patterns simultaneously within an organization, especially large organizations. For example, an organization may use an entrepreneurial model in some of its activities or units, while choosing a planning or adaptation model for other units or activities.

## 1.7. Strategists

The strategic management process is ideally developed and directed by the strategic management group including the main decision makers at all three organizational levels. The aforementioned group, which includes senior executive managers, product managers, and task departments, often relies on information

and data obtained from the forces of the organization's planning unit and managers and supervisors of lower levels. These people provide the necessary data for strategic decision makers, they are also responsible for the implementation of strategies, but because strategic decisions have a great impact on the organization and many facilities and resources are consumed for their implementation, it is necessary that they be adopted only by high-ranking managers.

The use of planning staff has been increasingly noticed since the 1960s. This, especially in large organizations, has been associated with the establishment of the planning, analysis, and control department, which is the responsibility of the deputy management of the organization. Medium-sized organizations also employ at least one full-time member to lead strategic data collection efforts. Even in small organizations, an official or a group of officials is responsible for leading and directing the planning unit as a planning committee.

Therefore, the responsibility of managers in the process of strategic planning at the level of the organization and business units should be specified precisely. Senior managers should have the responsibility of approving and approving six important stages of planning. But at the same time, they should be helped and supported by the planning department and experts of the organization. These managers should also evaluate and review its important stages and receive the necessary advice during the preparation and completion of the program. Also, general managers or business managers are responsible for verifying environmental assessments and forecasts, setting goals, and developing business plans prepared by staff groups. Also, the potential and powerful influence of organizational designers are evident in the entire process of strategic management, however, it should be noted that the final decision-maker is the executive director who plays a dominant role in the entire process, and in many cases this role is desirable and logical. Is. In other words, the main task of the top manager is to guide the organization in the long term, he must ultimately accept the responsibility for the

success of the business and ultimately the adopted strategy of the organization. These people mainly have a strong will and take steps towards the organization's goals, and their personality often prevents them from delegating the authority and authority to adjust the strategy or approve strategic decisions to others, but it is important to note that governance Absolute executive director on the organization will reduce the effectiveness of the strategic planning process and management processes. In other words, the desire to make strategic decisions individually has an inverse relationship with the advantages of the collaborative system and team orientation, and for this reason, the creation of a strategic management system can make managers at all levels find the opportunity to determine the strategic position of the organization or have a role in its strategic decisions. It is clear that the amount of successful use of the strategic management process will depend on the amount of commitment of the top executive manager of the organization.

### **1.8. Benefits of strategic management**

The strategic management approach emphasizes the interaction of managers at all levels of the organization and brings certain behavioral results that are the characteristics of the participatory decision-making system, for this reason, we often need a set of non-financial criteria to accurately diagnose and evaluate the impact of strategy formulation on the organization's performance. Criteria that also evaluate behavioral effects.

However, regardless of the final profitability of strategic plans, we can expect that the behavioral effects of the mentioned process will improve the organization's behavior for the following reasons.

1. The strategy formulation process increases the organization's abilities to solve problems. By encouraging and rewarding subordinates, managers make them pay attention to planning considerations, thus they help in predicting and guiding the work of employees.

2. Group-based strategic decisions (interaction between all levels) probably provide the best solutions to managers, and better decisions will probably be the product of this process for two reasons, firstly, the production of different strategies is facilitated through group interaction, and secondly, review and evaluation Choices are improved as group members provide predictions based on expert opinions.
3. Employee motivation improves due to their better understanding of the relationship between reward and productivity that is clarified in any strategic plan. In other words, when employees or their representatives participate in the strategy formulation process, they will have a better understanding of the organization's priorities and reward system, so they will find more motivation to behave towards the goals.
4. The gap and friction in the activities and among the people of different groups should be reduced due to their participation in the formulation of the strategy, because the mentioned process helps to clarify the different roles and the formation of the group meetings that arise at different stages of the strategy formulation process, understanding the responsibilities of the individuals and It increases and makes subgroups more specific.
5. Resistance to change is reduced. The necessary participation helps to eliminate the uncertainty that accompanies any change and is the main root of resistance, although participation without having the authority to make decisions may not be very desirable, but if employees are aware of the factors that limit the right to choose, the probability of accepting new plans increases.

### **1.9. Strategic management risks**

Although participating in the strategy setting process will have behavioral benefits for participants and the organization, managers

must also be trained to deal with and defend against three types of negative and unwanted outcomes. These negative results are:

- 1- **Cost and time:** The strategic management process is costly due to the participation of various levels and the need for a lot of time, and researchers usually underestimate the negative effects of managers' distance from other work. Managers should be trained in the field of how to spend their time in the strategic management process in such a way that while spending the necessary time for this process, there are minimal negative effects on their operational responsibilities.
- 2- **Shirking responsibility:** If strategy makers are not closely involved in its implementation, they can avoid individual responsibility for the data or inputs of the decision-making process and its subsequent results. Therefore, strategic managers must make practical promises, and for this they also need training.
- 3- **Despair and disappointment in subordinates:** Strategic managers should be trained to anticipate and minimize the negative results of subordinates' unwillingness to achieve desired goals and their frustration, because most subordinates are implicitly confident that their participation in the strategy-setting process means acceptance of their opinions or desired plans and increased rewards. Now, if this opinion and their perception is not correct and other areas are effective in decision-making, negative results will naturally follow.

Managers' sensitivity to such issues and readiness to face them to reduce negative effects increase the chance of success of the strategic plan.

### 1.10. Executives' views on strategic management

What is the opinion of managers and executives of the organization about the role of the strategic management process in the success of organizations? To answer this question, a study and research was



conducted in which 200 executive managers of service and production organizations were asked to answer this question. The obtained results showed that the executives of the organizations consider the strategic management process as a useful tool for good performance, cost effectiveness, practical orientation and dealing with complex and revolutionary conditions, and consider the role of strategic management in the success of the organization and the individual to be very important.

### **1.11. Strategic planning**

Strategic planning is a type of long-term planning that looks at the organization as a whole. During strategic planning, managers consider the organization as a whole unit and ask themselves what should be done to achieve the long-term goals or ideals of the organization. A long-term period usually means a period of three to five years; Therefore, in strategic planning, managers determine what measures they should take in order to succeed in the next three to five years.

Experience has shown that the most successful managers are those who are able to encourage innovative strategic thinking in their organization. However, one of the problems faced by managers has always been determining the exact time period of strategic planning. In general, they must follow the principle of commitment. Based on the principle of commitment, managers should only commit to a budget for planning that can predict the results of planning in the future and guarantee the return on investment from planning during long-term planning analysis; Because planning costs are in practice a type of investment, so as long as it does not result in a reasonable return on investment, it will not be justified.

On the other hand, strategic planning has an ideal and successful future and vision much more than long-term planning, and it specifies the way to achieve it; But long-term planning is a scale and

inference from the existing situation and is often presented in the form of goals that reflect the current trends. In this way, even though both planning emphasizes on improving organizational performance, strategic planning, due to its futuristic and with the goal of mutuality and creating dynamics, emphasizes more on identifying and solving controversial issues; But long-term planning, due to presentism, is more focused on implementing specific goals and objectives and turning them into operational planning.

In addition, strategic planning compared to long-term planning puts more emphasis on evaluating the internal and external environment of the organization, because in long-term planning, it is assumed that the current process will continue into the future, while in strategic planning, it is always expected to happen. There are new and surprising events.

Finally, the practical orientation of strategic planning is much more than long-term planning. The nature of strategic planning is such that it considers a range of possible future events, considers the outcome of current decisions in terms of their relationship with this range; Therefore, strategic planners act more flexibly, consider a set of alternative decisions, and keep different decision options open as much as possible; Therefore, strategic planning has the ability to respond to unforeseen events and is much better than long-term planning in adopting different strategies to achieve a successful vision. This flexible lever seriously prevents deadlock or local reactions. It can be said that planning consists of doing things today to build a better tomorrow, because the future belongs to those who are able to make tough and strategic decisions today. Strategic planning is also considered as a lever for multi-dimensional decision-making in order to achieve organizational goals and objectives, and it requires a broader vision than what is often a long-term planning

guide. In addition, the results of strategic planning are much more realistic, reliable and concrete.

The benefits of strategic planning are:

1. Determines future direction.
2. Determines future priorities.
3. Today's decisions are made considering their future consequences.
4. Establishes logical and defensible basis for decision making.
5. Maximum internal and external issues are under control and maximize insight applies to the issues.
6. It solves major organizational problems and improves organizational performance.
7. Dealing with changing conditions in an efficient manner.
8. Emphasizes and adds to group and specialized performance.
9. Facilitates communication and partnerships.
10. Aligns divergent interests and values with each other.
11. It will promote orderly decision making and successful implementation.

### **1.12. What is the strategy?**

The word strategy is derived from a Greek root meaning army commander, composed of struts meaning army and ago, meaning leader. The concept of strategy was first used in military sciences to mean the technique of guiding, adapting and coordinating forces to achieve war goals. Then management science theorists defined strategy as how to optimally allocate scarce resources to achieve economic goals. The strategy determines the fields of activity in a complex and dynamic environment and is a tool that gives life to the human element in an organizational system and forces people to move. Ansoff is the first scientist who explained the strategy in a

comprehensive and meaningful way; He believes that the more compatibility there is between the goals and current activities of the organization, the higher and more regular the rate of growth and development will be. According to this thinker, the first issue in determining the strategy is choosing the areas of activity that should be consistent with the goals. On the other hand, the most important issue that should be considered in this selection is creating a common relationship between the selected activities. In other words, the determining strategy is to carry out the activities that seem necessary to realize and achieve the goals.

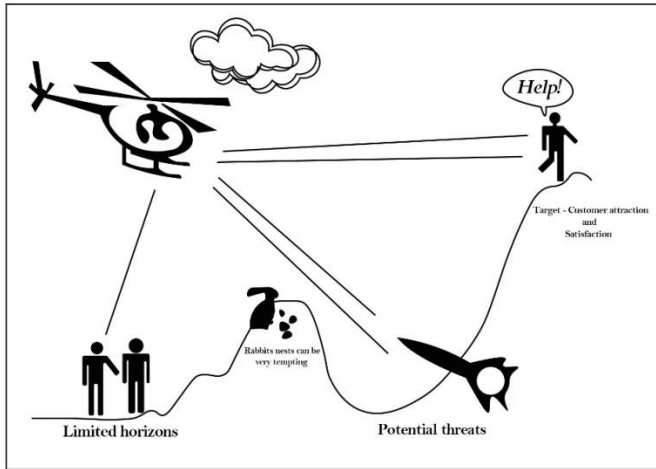
From Chandler's (1962) point of view, the strategy is a single, comprehensive and integrated plan that relates the organization's strengths and weaknesses to environmental opportunities and threats and enables the achievement of the organization's main goals.

Andrews (1971) defines strategy as a pattern of purposes, objectives, goals, main policies, and plans for achieving goals.

Mintzberg (1978) considers strategy to be a pattern of streamlining decisions. The General Electric organization was the first organization that implemented strategic studies on its activities. According to Jack Welch, the CEO of this organization, strategy is defined as follows: strategy consists of trying to understand what position we have taken in today's world and not addressing the issue of where we wished we were; Instead, we have to see where we want to go. The strategy evaluates the competitive changes of the market, determines the investment potentials of the organization to reach the destination in real conditions.

In general, it can be said that strategy is a general and extensive plan to achieve long-term goals. Organizational strategies are usually focused on various dimensions such as marketing, finance, production, research and development, and public relations.

Some types of strategies that can be proposed in organizations include maintaining the status quo, market penetration, market development, product development, innovation, horizontal integration, etc.



**Figure 1-3. Schematic of strategic thinker**

Many theorists of management science believe that today's managers are facing huge problems in maintaining the competitive advantages of their organizations; Because they pay less attention to the most important effective factor in the formation of competitive advantage, which is the human factor. Instead, they promote strategies that invest in technology, research, marketing, and the like. Using strategic thinking is very important in this regard. It goes without saying that traditional sources of success, such as technology, can still be a competitive advantage.

But today, those strategies that focus on organizational culture, human resource management and their optimal use create more significant and numerous competitive advantages. For example, the strategy of developing and maintaining the competitive skills of employees is one of the strategies that play a critical role in most organizations. Training programs should enable employees to use

advanced technologies to keep up with the competitive demands of changing markets. In this case, an effective strategy will lead to the development of competitive advantages in employees, the establishment of effective and efficient teamwork, and the development of unique competitive advantages.

### 1.12.1. Definition of strategic management

Strategic management is the process of ensuring that the organization achieves the benefits resulting from the use of appropriate organizational strategies. Based on this statement, a suitable strategy is defined according to the needs of an organization at a specific time. The main stages of the strategic management process can be expressed in the following six consecutive and continuous steps:

1. Environmental analysis;
2. Establishing organizational orientations;
3. Targeting
4. Determining and formulating strategies;
5. Strategizing and implementing strategies;
6. Control strategies.

A strategic manager must deal with both planning and control; Because only a non-manager tries to control activities without planning. So the strategic management process is defined as follows:

"Strategic management is the art and science of formulating, implementing and evaluating multidimensional decisions; Emphasizing the integration of management, marketing, financial affairs, production or services, research and development, information systems, etc.; To achieve organizational goals.

In another approach, the critical factors are involved in the success of strategic management. The capabilities of business leaders influence of other factors. It is possible to arrive at a good

strategy without any analysis. But there are risks in this approach that usually cannot be avoided. Creativity and vision should also be used, and after that, the need to analyze the possible results of the strategy again. The way in which strategic decisions are made and the process that the organization uses to arrive at strategies also affect the success of these strategies.

### **1.13. Establishing the orientations of the organization**

Managers use the results of the environmental analysis to determine organizational directions. The issues related to the environment around the project are described in the fourth chapter. The three main elements in this regard are:

1. Organizational Vision
2. Organizational Mission
3. Organizational Value

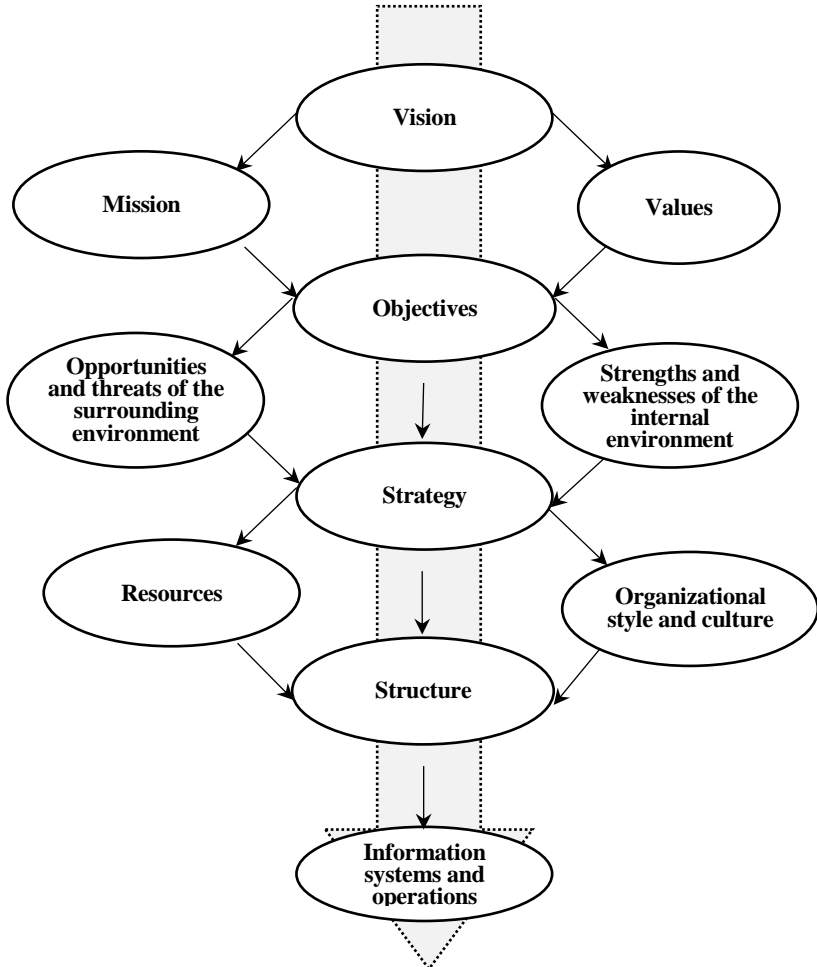
These three concepts act as a connector organizational elements and explain the nature of how to align organizational orientations. The vision is the living image of the organization in a defined future, the mission is equivalent to the existential philosophy, and the values are the long-lasting and basic belief principles. Most people also have a vision, personal values and mission in their private lives; But in the organization, for example, project organization, extra effort is needed to achieve these things. In order for a group to function optimally, their preferences, priorities, concerns and mentalities must be taken into account. In other words, a strategic manager should provide them with conditions where people can exchange their opinions and decisions about their values, mission and vision and that of the organization. Exploring and agreeing on these basics is often possible in face-to-face meetings, brainstorming sessions, and focused discussions; But there are other approaches, which include:

1. Preparing a series of interviews with key people to ask them about their mission, values and vision under different topics and then summarizing their opinions.
2. Encouraging all the people of an organization to write a personal statement and then sum up the results in order to find the border of disagreement.
3. Encouraging knowledgeable and key people to write the headlines of key topics for the organization from their own point of view and then find the relevant writing principles and intellectual platforms.

In a situation where the performance of an organization has a pervasive impact on society and is related to many people, it is possible to prepare public meetings to identify the basic orientations of the organization and to formulate the mission, vision and values, not only the opinions of the people within the organization, but also the opinions of all the stakeholders. Took into account.

As discussed, different methods can be used to formulate the vision, mission and values. In this regard, the appropriate approach should be adopted in harmony with the organizational culture. On the other hand, these three are in no way separated from each other and are inseparably gathered in the hearts and minds of people. In the process of strategic management, the scope of commenting and discussion should be completely open and people should be allowed to express their mental thoughts completely. Some people naturally like to depict the impact of the organization's performance on the surrounding environment (vision), some want to focus directly on the purpose of the organization (mission), and others emphasize first of all the principles of participation and how the internal organization works and the external effects. (Values); But the point here is that it is only by encouraging all these people to cooperate in formulating the mission, vision and values that the results of the brainstorming sessions can be used.





**Figure 1-4. Strategy determination process and its relationship with organization elements**

### 1.14. Organizational perspective

Perhaps it can be said that formulating the vision is the most enjoyable stage of the strategic management process. The vision is the driving force of the organization, it is in line with the big, difficult and ambitious goal of 10-30 years and the vivid description

of the organization at the end of the strategic planning period. Vision is the most powerful motivating factor in an organization, and if it is clear and meaningful enough, it can motivate people to do amazing things; But if it is incomplete, people cannot be moved at any cost and by spending any resources. In order to reach the vision of an organization, it is necessary to investigate the authority holders, decision makers and senior managers of the organization about their perceptions of the future of the organization and its position in the future. It is worth mentioning that in this regard, the long-term goals must be very clear, otherwise the vision statement will be meaningless and without content. Hans Hinterhaber and Walter Popp, two professors at the University of Innsbruck, Austria, recognize the vision as a guide.



**Figure 1.5. Comparison of strategic management components and organizational resources**

According to his opinion: the vision is like the north pole star, not an ideal. Therefore, if it is defined with realism, frost and based on the feelings, values and intelligence of the employees of an organization, it can play the role of a guiding force and a unifying factor. One of the characteristics of an entrepreneur and a strategic manager is to be able to express his vision and his organization in a few clear sentences. If the vision of an organization is written, it can be communicated to all the people of the organization, even the customers and suppliers of the organization.

It may be said that one of the first steps in creating a culture of supporting organizational strategies is to agree on a common organizational vision. The vision often includes the goals, ideals and performance standards of the organization in some way, it has the role of controlling the overall direction of the organization; But it should always be noted that in order to compile the vision and ask about the image of the organization in the minds of those involved at the end of a certain period of time, they should always be reminded that the vision is the living image of the organization in the future, but an ideal image and assuming that the goals are achieved at the end of the period. Time and implementation of the adopted strategy.

### **1.15. Organizational mission**

Mission is the existential philosophy and the reason for the survival of an organization and is the basis of its legitimacy. In order to keep an organization dynamic, one should always review and revise the level of achievement and the nature of the goals of the founders of the organization, and in other words, always maintain its existential philosophy. In formulating the mission of an organization, we should ask questions such as what is our job here? Who are our main customers? What services do we provide to our customers? What skills and technologies are there in the organization that are desired? And let's respond to those like them and pay more attention to the importance of the work of the organization itself. It is worth mentioning that one of the ways of formulating the mission is to brainstorm people with applicable concepts in an organization so that their minds are more ready to identify their mission of the organization. In the organizational mission, there are concepts and

phrases such as competition, quick response, tolerance, commitment, communication, compromise, growth, security, guarantee, trust, training, value, 100% effort, support, intellectual growth, customer orientation, heart commitment, organization growth, efficiency, opportunity, productivity, ability, freshness, responsibility, uniqueness and synergy are used. These words are used as clues to help people associate their latent mission in their organization. In other words, this is the mission of each person of an organization, which leads to the formation of the organization's mission.

### **1.16. Organizational values**

Organizational values are dynamic and basic belief principles of an organization that cause people to emerge in the form of a group. Organizational values, as eternal guiding principles, do not need any justification and have intrinsic value and importance for people inside the organization. It is worth noting that an organization does not change its values as a reaction to environmental changes; Rather, if necessary, it changes in its environment in order to maintain them.

Values have different aspects, among which we can mention three main aspects of vital values, emotional values and high values. In the first one, it is about being alive, staying alive and living according to dignity; In the second one, factors such as humanity, love, affection and friendship are taken into consideration, and finally, high values refer to special things such as health and safety. To reach the values of an organization, the key people of that organization should be asked about their beliefs as an element of the organization's family. One way to recognize organizational values depends on holding discussion meetings with the presence of all key employees of an organization. Another way, which is also applicable to the formulation of the organizational mission, is the intellectual bombardment of potentially valuable people; In this way, their minds are different for different people. Therefore, it cannot be expected that all interested and related people in an organization have the same values. In this regard, it is necessary to create a balance between the values according to the priority of the role and effectiveness of individuals and determining groups. The values of people are actually the values of the organization, because people are the soul of the organization and give it life and dynamism.



## **Chapter 2: Strategy and External Environment**

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### **2.1. External environment**

A group of external and largely uncontrollable factors influences the choice of direction and action, and ultimately organizational structure and processes. These factors that constitute the external environment are divided into three interrelated and interactive parts, i.e. Remote environment, industry environment and operational environment.

The purpose of this chapter is to explain the complexities and necessities in evaluating the external environment in order to formulate a strategy so that managers can optimally use opportunities and situations in the competitive market and minimize threats.

#### **2.1.1. Far environment (Macro)**

The remote environment is composed of a set of forces and factors that usually act beyond the work area of a particular organization and include economic, political, social, technological and environmental factors. This environment creates opportunities, threats and limitations for organizations and affects their effectiveness; For example, when economic growth decreases and recession is threatening, the organization also has to reduce its activities, because it is not able to change the said process; Or the improvement of political relations between countries will greatly affect the performance of some exporting organizations and vice

versa; But it is clear that the development of political relations is beyond the power of the organization. For this reason, evaluating the external environment and recognizing external trends and events is of particular importance, which are briefly explained.

### **2.1.2. Economic factors**

Economic reviews and considerations refer to the nature and economic direction of the conditions in which the institution operates. Since consumption patterns are affected by various market sectors and economic conditions, every organization needs to identify the economic trends in the sectors that affect the industry and, as a result, the organization. This identification should include the specific characteristics of each environment, including the identification of people's disposable income, interest rates, inflation, available and available resources, GDP growth, etc., and in addition, by changing the direction of countries and organizations from focusing on the domestic market to the markets Internationally, familiarity with the global economy and international markets is becoming more important day by day.

### **2.1.3. Social factors**

The social environment includes the beliefs, values, tendencies, opinions and lifestyle of the people of the organization, which the managers of the organizations should pay attention to, because the change in the social environment means a change in the demand for different styles of clothes, books, entertainment and consumption patterns and services. This change is caused by people's efforts to control and adjust themselves with environmental factors to satisfy their needs and desires. The social environment, like other forces of the remote environment, is dynamic and changes continuously. For example, the entry of a large number of women into the labor market has not only affected the hiring and payment policies and the abilities of organizations, but because they are not present at home, they still demand a large number of goods and services. They have predicted

and provided the required products and services, such as ready meals or kindergartens. The second important social change in recent years is attention to the quality of life of consumers and employees of organizations, which will naturally have an important impact on the performance of organizations. It is also important to pay attention to the change in the age distribution of the population due to the change in social values and the improvement and development of health in different countries.

It is obvious that it is very difficult for the organization to convert the information obtained from the identification of social trends and events into the prediction of commercial effects, but despite this, knowing social changes such as geographical changes, work values, ethics, the presence of women in jobs and the like can help strategists. Help with the vision of the future of the organization.

#### **2.1.4. Political factors**

The direction and stability of political factors are an important factor for managers in formulating the organization's strategy. This environment includes decisions related to business, taxation, minimum wage, pricing, environmental protection, consumer protection and general governmental and legal factors within which the organization must operate. These laws and regulations are mainly restrictive and reduce the potential profit of the organization, although in some cases laws are also enacted to support organizations and benefit them (for example, the government imposes incentive regulations to develop exports), so political forces are both restrictive and encouraging. Are organizational activities and affect it; This effect is especially clear in the following dimensions.

1. Access to natural resources (the government in the role of supplier): Government decisions regarding the creation and the possibility of private sector access to natural resources such as mines and forests that the government owns can have a profound effect on the strategy of organizations.

2. The purchase of government goods and services in the role of a consumer (the government's demand to buy products and services from the market creates countless opportunities for a number of organizations), which is usually due to the high volume of government purchases; Therefore, the government as a consumer plays an effective role in creating and developing opportunities or reducing and eliminating them.
3. Competition: the government (government organizations) may also act as a competitor; Therefore, the knowledge obtained from the remote environment is useful for organizations to avoid facing the government as a competitor (or competition with government organizations).

### **2.1.5. Technological factors**

Identifying technological advances is also very important to avoid the obsolescence of organizations' technology and the development of innovations, innovations that are effective in planning for new product development or improving current products and production and marketing techniques, and may not only have severe and sudden effects on the organization's operational environment. Have, but even affect the performance of the entire industry; Therefore, all organizations, especially those that operate in growing and dynamic industries, must strive to understand technological developments and their effects on products and services, and evaluate and analyze current and future trends and events. Anticipate the possible effects of technological developments on the organization's or organization's operations. This makes strategic managers aware of threatening challenges and profitable opportunities, and is very effective for developing the organization's capabilities, especially in growing industries. In other words, the prediction of technological developments helps the profitability of the organization when it is accompanied by the accurate prediction of the capabilities and possible effects of innovations, and this means that in the evaluation



of technological developments, the impact of these developments on the distant environment, the competitive position of business and the interaction of society should be considered. And commercial activities of interest and contract study.

### **2.1.6. Environmental factors**

The most important factor in the remote environment is the mutual relationship between business and the environment. The term environment refers to the relationship between humans and other life factors such as weather. Threats caused by human activities in the industrial age have caused many concerns in the field of the environment, including the warming of the earth caused by the destruction of the ozone layer and air pollution, and in addition, scientific studies also show that the speed of destruction and change of the environment in Now it has gained a lot of momentum compared to the past. These concerns have caused the society to demand more responsibility from business managers to protect the environment; For this reason, many regulations have been established by governments in this field, which affect the strategies of organizations. Of course, some managers have seen this situation not as a threat, but as an opportunity, and they produce products that meet environmental standards in their production and supply, and are satisfied and welcomed by consumers; Therefore, today in the mission statement of some organizations, the desired principles for maintaining environmental standards have been added.

### **2.1.7. International environment**

Recognizing and evaluating the international environment for each country as a part of the global environment requires the evaluation of the same factors that are taken into consideration in examining the domestic environment. Although the importance of these factors varies from country to country, similarities can also be

observed. Despite this, the complexities related to the relations between different international markets should not be overlooked, for example, in recent years, traditional clashes and conflicts between Central Asian countries have made cooperation between organizations difficult.

### **2.1.8. Industry environment**

Michael Eugene Porter, a professor at Harvard University, in his book *Competitive Strategy*, highlights the concept of industry in the field of strategic thinking and business planning. The main focus of his book is an article from the *Harvard Business Review* magazine; In that article, Porter describes five important and determining forces of competition in an industry, which help strategic managers to better understand the impact of external environment factors on the organization's operating environment and the relationship between these two environments.

### **2.2. How competitive forces shape strategy**

Adaptation and adaption of the organization to the dynamic environment of competition has raised the necessity of formulating a strategy. Still, some organizations and managers look at the competition with a narrow-minded and pessimistic view, while some other managers have not considered the competition in the world of industry as an accident, nor do they consider it bad luck. But the more important fact is that in the war to gain market share, competition is not only manifested in the competitors' movements, but is rooted in the economic situation, forces and various other factors that act beyond the competition of organizations with each other and in a specific industry; In other words, apart from competitors, consumers, suppliers, potential competitors and substitute products, all competitors may be more or less important and active depending on the type of industry.

Competition in an industry depends on five basic factors, and the collective power of these forces will determine the potential and final profitability of an industry. This collective power is intense in industries such as car tires, cans, and steel, where no organization has a significant return on investment, and in industries such as services and equipment in the oil fields, soft drinks, and sanitary ware, which end up with a very high return on investment. It is mild In what economists call "perfectly competitive" industries, competitors outcompete each other uncontrollably and entry is very easy. Of course, this type of industry offers the worst prospects for long-term profitability. In other words, the goal of the strategists with the managers of the organization is to find a position or a position in the industry where they can better defend against these forces or be able to influence them, although the collective power of these forces may be problematic for all competitors, but the strategists must Adapting to these forces and recognizing their strength Have a deep analysis of each of these forces, for example, what factors make the industry vulnerable to the entry of new organizations? Or what factor determines the bargaining power of suppliers?

Our knowledge and understanding of these factors provides the basis for the strategic operation plan, and in the light of these reviews, managers understand their strategic strengths and weaknesses, strengthen the organization's position in the industry, and in addition, identify the areas in which strategic changes are most effective. It seeks to identify, reveal trends and events that are most important for understanding opportunities and threats. This knowledge also helps managers to know the areas in which it is possible to develop products and create diversity in activities.

### **2.3. Competing forces**

The strongest competitive force or forces determine the profitability of an industry and are most important in formulating a strategy. For example, an organization may have a strong position or

position in the industry and is not threatened by potential competitors, but if the substitute product in the market is cheaper or better than the organization's product, it will have low efficiency, so in such a situation, the organization's strategic priority Not competitors, but substitute products.

Obviously, in different industries, different forces play a role in the formation of competing. For example, in one industry, buyers may play the first role, while in another industry, the assumption of foreign competitors or substitute goods is the determining factor; In other words, every industry has a basic structure with a set of basic technical and economic characteristics, which is the origin of competitive forces, and strategists or managers in order to be able to best adapt the position or position of the organization to the industry environment, or to improve To influence the organization's desirability on the environment, they must know these forces and learn what factors change the competitive environment.

This view of competition is the same for service and production institutions, so only the word product is used instead of goods and services.

A few characteristics about each of these competitive forces are of vital importance, which we will discuss:

### **2.3.1. Threat of newcomers (potential competitors)**

The entry of new organizations in an industry is often accompanied by an increase in capacities, resources and the desire to gain market share by organizations; But the seriousness of the threat of new entrants depends on the existing obstacles on the way to their entry and the reaction of the existing competitors, in other words, if the entry barriers are high and the newcomers expect a strong attack from the competitors, it is natural that the possibility of entry and the threat of potential competitors will decrease. Find Important barriers to entry for potential competitors or new entrants are presented below.

**1. Savings due to production volume:** This concept determines the entry of new organizations through large volume production (on a large scale) or accepting the lack of cost advantage (the new entrants must have the advantage of mass production or sales, otherwise they must accept that in terms of the finished price of their products with face a lack of advantage).

Economies of scale in production, marketing, research and services are probably one of the most important barriers to entering the computer industry; Xerox and General Electric also realized this. Economies of scale may also hinder distribution, optimal use of the sales force, financing, and almost any other area of business.

**2. Product differentiation:** The well-known product also hinders the entry of new organizations because the new entrants have to spend heavy costs to master the loyalty of the consumers of that product. Advertising and consumer services have existed in the industry for the past, but product differentiation has intensified its recognition, and this is perhaps the most important barrier to entry of new organizations in some industries. Some organizations have combined product differentiation with economies of scale in production, distribution and marketing to prevent the entry of new competitors.

**3. Capital requirements:** The need for a large source of investment in order to compete creates a barrier to entry, especially if the capital is sunk costs of advertising and research and development whose results are future-proof. Capital is needed not only for fixed equipment, but also for extending credit to customers, inventories, and bearing start-up losses, while important organizations have the financial resources to be present in any industry. The demand for large capitals in certain areas such as computers and mining hinders the entry of newcomers.

4. **Lack of size-independent, cost advantage:** Powerful organizations may have a cost advantage that potential competitors lack, an advantage that is independent of size and economies of scale. These advantages can result from the effects of education or experience curves, proprietary technology, access to the best source of raw materials, assets purchased at pre-inflation prices, government subsidies, or favorable location. Sometimes a cost advantage is largely obtained through legal means, such as ownership of a patent.
5. **Access to distribution networks:** A new entrant must be sure of the distribution of its product or service, for example a new food manufacturing organization must sell its product through price reductions, increased sales, aggressive sales efforts, or some other means. To replace the products available in big stores. The limited wholesale or retail networks and the dominance of competitors on these networks make it more difficult to enter such an industry. Sometimes this obstacle is so great that the new organization has to create its own distribution network to overcome it, as Timex did in the industry in the 1950s.
6. **Government policy:** The government can limit or even stop entering the industry with controls such as limiting access to raw materials or licenses required for activity. Organized industries such as trucking, retail, etc. Are notable examples. The government also has an important indirect role through controls such as air pollution control, noise and safety regulations to prevent the entry of new organizations (new product).

Expectations of potential competitors about the reaction of existing organizations are also effective in their decision to enter. In other words, if newcomers have been attacked by competitors in the past, organizations that decide to enter this market will think about

this issue seriously; Also, if the existing competitors have significant financial resources such as liquidity, bargaining power, production capacity, and influence on distribution networks and consumers, and it is likely that they will reduce prices to maintain their market share, new organizations cannot easily enter the market. These markets decide; And finally, the decrease in the growth rate of the industry and, as a result, the possible decrease in the financial performance of organizations affect the entry of potential competitors into that industry.

7. **Changing conditions:** From a strategic point of view, two other important points regarding the threat of new arrivals should be taken into consideration. First, threats also change with changing conditions; For example, with the end of Polaroid's ownership of the instant photography patent, the cost of entering this industry was greatly reduced, so it should not be surprising that Kodak entered this market. Or the assumption of product differentiation in printing exists but is disappearing, and conversely in the automotive industry, with the tremendous increase in production volume after World War II (mass production) and integration or vertical development and automation, the successful entry of new firms. Has been stopped. The second point is that strategic decisions that cover a large part of the industry can have an important impact on the conditions that determine the threat of new entrants. For example, decisions taken by members of the recreational vehicle industry to expand vertically in order to lower costs greatly increased production volume and consequently created barriers to cost increases.

### **2.3.2. Powerful suppliers and buyers:**

Suppliers can exert their bargaining power by increasing the price or decreasing the quality of purchased services on the participants of

an industry. Powerful suppliers can strain the profitability of an industry that cannot cover rising costs. For example, due to the increase in the price of raw materials, soft drink factories faced a decrease in profitability, because they were not able to raise the price of their products due to fierce competition. Consumers can also lower prices, the demand for higher quality products and more services intensifies competition, reducing industry profitability. The power of each group of suppliers or buyers depends on the characteristics and position of the market and on the relative importance of the amount of sales or purchases of that group to the industry compared to the total commerce.

**A supplier group is powerful if:**

- ✓ The number of suppliers should be limited compared to the number of buyers and they should have a focused group.
- ✓ Have a special or minimally differentiated product. If buyers want to change their supplier, they have to bear a lot of competition costs. The buyer's product specifications match that of a particular supplier, and the buyer has invested heavily in ancillary equipment or learning to use a supplier's equipment, or the buyer's product lines are linked to the supplier's production tools.
- ✓ The supplier does not have to compete with others to sell its product to the industry sector, for example, the competition between steel and aluminum organizations to sell their products to the canning industry can show the strength of each of these two suppliers.
- ✓ Development towards distributors or forward development may be pursued by suppliers. This increases the ability of suppliers to improve conditions.

The industry sector is not the main consumer of supplier groups; If the industry is a major consumer, the fate of the supplier will depend on that industry.



**Powerful buyers:**

- ✓ Buy a large volume of goods and be concentrated, a high purchase volume is considered a potential advantage, especially if the fixed costs are heavy.
- ✓ The purchased products are standard or non-exclusive, or the buyer is sure that he can always find another supplier and it is possible to force one organization to fight with another.
- ✓ The product purchased from the industry is in the form of a piece of the product, which includes a heavy cost. Buyers are likely to shop selectively for the best price, but are less sensitive to price if the product being sold is a small fraction of the buyers' costs.
- ✓ The income of the product is small, which causes high sensitivity. Buyers with high profitability are generally not very price sensitive.
- ✓ The product of the industry is not important for the quality of the products or services of the buyer, where the quality of the buyer's product is affected by the product of the industry, buyers are generally less sensitive to the price.
- ✓ The product of the industry (supplier) does not bring important savings for the buyer. If the product or service can play an important role in the organization's income, the buyer is not very sensitive to the price and they value the quality a lot.
- ✓ Buyers may pose a significant threat to suppliers in terms of integrity. Many car manufacturing organizations always use this threat that they will make parts and equipment themselves as a bargaining lever.

Most of these sources of buyer power can be attributed to consumers as a group as well as industrial and commercial buyers. Of course, with one exception, consumers are more price sensitive if they buy standard products, especially if the quality is not so important.

The purchasing power of retailers is also determined based on similar principles, the only thing that needs to be added is that they can gain a high bargaining power in dealing with manufacturers if they can influence the decision of consumers to buy.

### **2.3.3. Strategic action**

The choice of the organization's suppliers to buy goods or buyer groups to sell products should be considered as an important strategic decision. The organization can improve its strategic position by choosing suppliers or buyers that have the least impact on the organization and vice versa.

Usually, the organization has the right to decide to whom to sell its goods, but rarely all the groups that buy an organization's product have equal power, even if the organization sells its products to a specific industry; However, there are segments within that industry that are less powerful.

As a rule, the organization can sell its goods to powerful buyers and still enjoy high profitability; provided that the production cost of its products in that industry is low or that its products have special and different features compared to other similar products. If the organization does not have a superior or a distinctive product position or a low cost and sells goods to everyone, it is doomed to failure; Because the more he sells, the more vulnerable he becomes. In such a case, the organization may be forced to change its business method, to sell goods only to consumers who have less ability.

As the factors creating the power of buyers or suppliers change over time and as a result of the organization's strategic decisions, naturally the power of these groups also increases or decreases.

### **2.3.4. Substitute products**

Substitute products or services limit the potential possibilities of an industry and allow the price of the product to increase to a certain extent unless the quality of the said product increases or changes are made in it, in which case there is a possibility of growth and income. It can be argued that the more attractive prices of substitute products

limit the profitability of the main industry, substitute goods not only limit profitability under normal conditions, but also may reduce the profits of the relevant industry during economic booms, for example in 1978 Fiberglass producers faced high demand due to the increase in energy costs and cold winter weather, but due to the abundance of substitute products such as cellulose, pressed wool and Styrofoam, the producers could not increase prices. These substitute goods were a powerful limiting force for increasing the production capacity of fiberglass factories.

Substitute products that deserve the most attention from a strategic point of view are products that:

- Improve the price-to-performance balance process with regard to industrial products.
- To be produced by industries that have on high profitability.

If competition in industries develops and prices fall and performance improves, substitute goods are quickly sought after.

### **2.3.5. Competing for position**

Competition among existing competitors is a familiar form of struggle for position, which takes place using tactics such as price competition, product introduction, and more advertising. Intense competition depends on the presence of the following factors:

- The number of competitors is large or they are largely the same in size and strength.
- The growth of the industry is slow and the members who seek to expand are fighting for market share.
- The product or service lacks differentiation or turnover costs, costs that prevent the displacement or separation of the buyer from the producer.
- Fixed costs are high, or the product is a perishable commodity that creates a strong temptation to cut costs. When demand decreases, a number of institutions such as paper and aluminum face problems.

- The capacity increases naturally and gradually, such an increase disturbs the balance of supply and demand, and will often lead to a period of overcapacity and price reduction.
- Exit barriers are high; Exit barriers, such as specialized assets or management loyalty to a particular business, keep organizations competitive even if they have low or negative returns on investments.
- Competitors are different in terms of strategies, origin and personality, in this case they have different ideas about how to compete and fight with the main competitor.

Also, when an industry reaches the maturity stage, the growth rate changes and as a result profitability decreases; In other words, slow growth reduces high productivity, education and technological innovation can also create important transformations in the industry. Although an organization has to deal with many of these factors, it may act to improve the situation through strategic changes, for example, the organization may try to increase the turnover costs of buyers or diversify its products. Brought Focusing sales efforts in growing segments or in markets with the lowest fixed costs can reduce the impact of competition on the industry; Therefore, the institution can try to avoid face-to-face competition with competitors who are unable to leave the market due to many obstacles, and thus not be forced to reduce the price unintentionally.

## **2.4. Industry and competitive analysis**

Designing sustainable strategies for an organization requires a comprehensive understanding of competition and industry. Executives of organizations should answer the following four basic questions.

1. How do they define industry boundaries?
2. What is the structure of the industry?
3. What organizations are our competitors in the industry?

#### 4. What are the determining factors of competition in the industry?

The answers given to the above questions provide a suitable basis for managers' thinking about strategies.

##### **2.4.1. Industry boundaries**

An industry is a group of organizations that offer similar products or services. By similar products, we mean products that consumers believe can be used interchangeably. For example, personal computers have such a place in the microcomputer industry.

Suppose that an organization competes in this industry. Where do the boundaries of this industry start and end? Does this industry include desktop and laptop? These are the types of questions that executives face in defining the boundaries of the industry.

Why is defining industry boundaries important? First, the mentioned definition helps the presenters to determine the scenes or fields of competition. An organization that competes in the microcomputer industry operates in a very different environment than the electronics industry. The microcomputer industry includes several product families, such as personal computers, low-cost family computers, and workstations. The common feature of these product families is the use of a central processing unit (CPU) in a microchip. On the other hand, the electronics industry is very expensive and includes computers, radios, supercomputers and a number of other products.

Microcomputer and electronics industries are different in sales volume, industrial area, growth rate and competitiveness. The issues that these two industries face are often different.

The second important point in defining industry boundaries is focusing attention on the organization's competitors. Defining the boundaries of the organization's industry helps to identify and

produce alternative products. This ability is very important for designing the organization's competitive strategy.

Determining the key factors for success is the third reason for defining industry boundaries. Survival in the early part of the microcomputer industry requires skills that are significantly different from those operating in the lower end of the industry; Therefore, defining the boundaries of the industry provides the possibility for executives to answer the following questions.

- ✓ Do we have the necessary skills to succeed in this industry? If not, what should we do to produce these skills?

And finally, the definition of the boundaries of the industry gives the executives another basis for evaluating the goals of the organization and forecasting the demand for products and services, and these forecasts can determine the realism of the chosen goals.

#### **2.4.2. Managers' measures in defining industry boundaries**

Defining industry boundaries requires caution and analysis. Caution is necessary because there are no exact rules for this work, and naturally, poor definition leads to poor planning. Imagination is also necessary because the world of industry is a dynamic world and important changes are underway in key factors such as competitors, technology and consumer demand; Therefore, defining the boundaries of the industry is a very difficult task that these problems come from the following three sources.

1. The evolution of industries over time creates new opportunities and threats.
2. Industrial evolution creates new industries within that industry, such as micro and macro computers, transistor radios, and supercomputers in the electronics industry in the 1960s.
3. Globalization of industries and the presence of multinational organizations in an industry.

## Industry structure

Defining the boundaries of the industry is not complete without understanding its structural features. The structural characteristics represent the durable relationships that are the distinguishing characteristic of that industry. For example, cable TV and financial services are industries that are both competitive and important for our quality of life; But the key success factors in these two industries are completely different. Organizations, to succeed in the cable TV industry, needed integration or vertical development, which strategy helped to reduce their costs and ensured access to high-quality programs, innovation, technology, extensive marketing and the like. While organizations need to satisfy very different needs to be successful in the financial services industry, among them, a wide orientation towards the consumer and the amount of capital are important.

How can this diversity be explained? The answer lies in examining the four variables that make up the industry, which are: concentrated, economy of scale, product differentiation, barriers to entry.

**Focus:** This variable refers to the extent to which industry sales are available to a limited number of organizations. In industries with high concentration, the intensity of competition decreases over time because it enables the existing organizations in the industry to have a high market share and enjoy economies of scale and to lower their prices and prevent entry. Become new In such industries, large organizations usually make strategic agreements with each other, making it more difficult for newcomers to enter.

**Economies of scale:** This variation suggests the savings resulting from the increase in sales volume, which means that with the increase in production volume, the cost of each product unit will decrease in the long term.

Economies of scale come from technological and non-technological sources. Technological resources indicate a higher level of mechanization or automation and more modern facilities and factories, while non-technological resources include better management coordination of production tasks and processes, long-term agreements with suppliers, and increased employee performance due to specialization.

Economies of scale are an important determinant of how competitive an industry is. Organizations that have such an advantage can set lower prices than their competitors. They can also, if needed, prevent new organizations from entering the industry by temporarily or permanently reducing prices.

**Product differentiation:** The scope of the consumer's perception of the differentiation of the products and services of the supplier of the organizations in the industry indicates the diversity of the product or service, which may not be true and is created only through advertising strategies and emphasis on certain aspects in the minds of consumers. These differences, real or perceived, often cause competition in an industry to increase among existing competitors and create a lack of advantage for new entrants.

**Barriers to entry.** As stated by Porter, barriers to entry are obstacles that an organization has to overcome to enter an industry. These barriers may be visible or invisible. Visible barriers are the required capital, technological knowledge, resources and rules to enter an industry, as well as the reputation of organizations, consumer loyalty to existing brand names, and access to the skills needed to perform successful operations in that industry are among the invisible barriers.

Entry barriers both express and reflect the level of concentration, economies of scale and product differentiation in an industry, and the increase of these barriers increases the problems for new entrants;



Therefore, the presence of high barriers in an industry reduces competition over time.

In summary, the analysis of concentration, economy of scale, product differentiation and barriers to entry into an industry helps the executives of organizations to understand the parameters that determine competition in that industry and not only determines the position of competitors but also shows how the organization should have gained its position in the market.

Regulations are another key element in the industry structure that can act as an important barrier to the entry of new organizations or competitors.

## **2.5. Competitive analysis**

### **2.5.1. How to define and identify competitors**

In defining and identifying actual and potential competitors, executives should check several important variables.

1. How do organizations define their market area? The more similar the organization's definition of the field of activity is to each other, the more likely it is that they see each other as competitors.
2. How similar are the benefits that consumers get from organizations' products and services? The more this similarity is and the consumer can use other similar products, the intensity of competition in that industry increases.
3. How committed are organizations staying in this industry?

### **2.5.2. Common mistakes in identifying and defining competition**

Identifying and defining competitors is an important guide in formulating or designing a strategy; But this process is associated with uncertainty and risk. Executives sometimes make costly mistakes. Examples of these mistakes are:

1. Too much emphasis on known and current competitors and insufficient attention to potential competitors.

2. Overemphasis on big competitors and ignoring small competitors.
3. Wrong view of potential international competitors.
4. Accepting that competitors will continue the same way as before.
5. Misunderstanding or misinterpreting market signals that may indicate a change in the focus of competitors' attention or a redefinition of their strategies and tactics.

## 2.6. Operating environment

The immediate (operational) environment includes a number of factors and challenges that a specific organization faces in the competitive environment in order to attract and acquire the necessary resources or gain a profitable market for its products, which is the competitive position, consumer preferences (knowing the consumer market and its performance) popularity among suppliers and creditors and access to the labor market are among the most important factors in this environment.

The near (operational) environment, which is also called the contextual or competitive environment, differs from the far environment in terms of the type of factors and the ability to control them, and therefore, due to their direct impact on the organization's performance, they should be actively considered in strategic planning. Here, we briefly mention some of them.

6. Much attention is paid to competitors' financial resources, their position and position in the market and strategies, while their intangible assets such as the abilities of the senior management group are ignored.
7. Accepting that every organization in the industry has similar opportunities and limitations.
8. Believing that the purpose of the strategy is to exclude competitors rather than to satisfy the needs and expectations of consumers.

### **2.6.1. Competitive position**

By evaluating the competition situation and business position, managers increase their chances to design strategies that better use environmental opportunities, because knowing competitors and discovering their characteristics (competitors' tendencies to more accurately predict the potential abilities of growth and profitability in the short and long term) It is very important. Although the criteria used to construct competitive tendencies are largely determined by situational factors in the environment, they often include the following: market share, product line breadth, product distribution effectiveness, asset advantage, price competitive, sales promotion and advertising effectiveness. , location and life of facilities, capacity and productivity, experience, costs of raw materials, financial position, relative product quality, research and development advantages, quality of human resources, public image of the organization when the desired criteria are selected. Based on their importance for the organization, they are given weight and then the competitors are evaluated based on these criteria and after calculating the desired rating is obtained. It is clear that these types of evaluations are associated with limitations caused by subjective judgments in the matter of selection and weighting, but the said process will be of great value for understanding the competitive situation and clarifying it because explaining and drawing the image of the organization and competitors to the managers in identifying Specific factors that may make a competitor vulnerable or advantageous now or in the future help and provide managers with useful information for strategy selection.

### **2.6.2. Consumer preferences**

Perhaps the most valuable result of the analysis of the operating environment is the recognition of the characteristics and composition of the organization's current and future consumers, a knowledge that

allows managers to better plan strategic operations and predict future changes in markets and better allocation of resources.

Four types of information are important in drawing a picture of the consumer, which are:

**Geographical location:** Defining the geographical area of consumers is very important because almost any type of product is more attractive for buyers in certain areas, and for this reason, organizations invest more in such areas to develop their markets.

**Demographic variables:** Population variables are mostly used to identify different consumer groups because they can be used to describe actual and potential consumers. Demographic data, including age, gender, income, place of residence, etc., can be easily quantified and predicted, and provide the minimum necessary information about the consumer.

**Personality and lifestyle of consumers:** The personality and lifestyle of the consumer often provide more predictable information about the buyer's behavior than the demographic and geographic variables, and are very useful in drawing a picture of the consumer's face.

**The behavior of buyers or consumers:** The data related to the behavior of buyers is also used in drawing the image of the consumer. This data includes a set of factors that are used to predict some aspects of consumer behavior regarding a product or service. These factors include: information regarding the consumption rate, loyalty to the product, buyers' sensitivity to the price, quality, advertising, after-sales service, how to use the product, etc.

### 2.6.3. Suppliers and creditors

The extent of the organization's dependence on suppliers and creditors is very essential for its long-term growth and survival. Continuous communication with suppliers to provide financial resources, services, raw materials, tools and machinery is one of the basic needs of any commercial activity, which is desirable and

effective in the long-term performance and profitability and competitive capabilities of organizations, especially in the present era. It is very important.

But in addition to strong relationships with suppliers and creditors, several other factors should be considered in the field of the close (operational) environment of the contract, which are raised according to the competitive position of the organization or suppliers. The answers to the following questions help managers in this kind of evaluation.

- Are the prices offered by the suppliers ahead of the competition with others? Do suppliers offer good discounts? What are the shipping costs?
- Are the sellers' products competitive in terms of production standards? What is the amount of defective goods?
- Are the capabilities, popularity and services of the suppliers ahead of competition with others?

Also, according to the position of creditors, several questions should be considered in the contract, including:

- Are the creditors willing to provide the financial needs of the organization as in the past?
- Are the conditions set by the creditors compatible with the organization's profitability goals?
- Are the creditors willing to provide more credits to the organization?

Answers to such questions help predict the availability of resources needed to maintain and implement competitive strategies, but since financial, human, and material resources are rarely available in terms of quantity, quality, price, and availability ideally for an organization, Therefore, the evaluation of suppliers and creditors is very important to know the immediate (operational) environment.

#### **2.6.4. Manpower (the nature of the labor market)**

The primary condition for the success of an organization is the ability to attract and maintain efficient human resources in the competitive environment, which is often affected by the business operating environment. Three important factors in attracting and maintaining efficient and needed human resources area:

**The reputation of the institution:** The reputation of the institution in the immediate (operational) environment is an important factor in the long-term ability of that organization to attract and retain the required human resources. Such an organization is known as a stable organization in the society, and therefore it faces fewer problems in attracting efficient human resources than competitors in the field of paying benefits with regard to the well-being of employees and gaining people's interest in the product.

**Hiring or employment rates:** The supply of skills and experiences of manpower or the existence of required expertise in a society depends on the economic situation of that country and the stage of growth of a business in that society. For example, if an organization or a factory starts its activity in a new field, compared to the situation where it operates in old and familiar fields, it will definitely face more problems to attract the required human resources, especially in areas where some organizations have left that field. Have stopped their activities.

**Accessibility:** Some people's skills are so specialized that people may have to move to get a suitable job with a high salary; For example, oil well drillers, experienced chefs, technical experts and industry executives. In such cases, the organization has a wide range to attract qualified people, in other words, the geographical area in which the organization may reasonably expect to attract qualified job candidates is quite wide. On the other hand, a person with ordinary skills is less likely to change his job location to get career

advancement or sufficient salary and benefits, so labor market restrictions for some job groups, such as unskilled workers or clerical workers, are relatively it's limited.

## **2.7. Emphasis on environmental factors**

This chapter examined four elements of the distant environment, i.e. Economic, political, social and technological elements, and five factors of the operating environment, i.e. Competitors, creditors, consumers, suppliers, and labor markets, and presented a relatively detailed description of them, but these evaluations It may also create a false impression in the strategists of the organization, so that they think that identifying the mentioned factors and their effects is easily possible, while the reality is not, because the forces and processes operating in the external environment are very dynamic and in constant interaction with are each other, so that the effect of a certain element cannot be separated from the effect of other elements. For example, an increase in the price of oil has not only economic results, but also political, social and technological consequences, or good relations with suppliers are effective on competition, consumers, creditors and even the suppliers themselves; In other words, the interaction and combination of external forces create new situations, that's why strategic managers often have a pessimistic view in predicting changes in the external environment and effective forces.

Differences in external trends and events for organizations will naturally bring about differences in strategies at different times, but what is certain is that the consequences of the influence of the factors of the near and far environment (operational) will not be revealed definitively unless the strategy is implemented. These doubts have caused some managers, especially in small organizations, to pay less attention to the long-term planning approach and use it less, because it requires long-term commitments of resources. These managers

instead opt for greater flexibility and allow managers at different levels to adapt to new environmental processes. Although this decision-making approach is an advantage for a number of organizations, in the absence of a strong physical and financial commitment to a designed strategy, it prevents the organization from accepting a leadership role in the competitive environment (conscious and active movement).

Another important problem that exists in the evaluation of the influence of the factors of the near and far operational environment on the effectiveness of different strategies is the collection of information that can guide the organization well. Because, with limited exceptions, it is very difficult for almost any organization to predict the results of a change in the environment. Suppose, how can the effect of a few percent decrease in the inflation rate be evaluated on the organization's performance or strategy?

However, despite the problems in evaluating the external environment, a real advantage can be obtained from these studies, which is that decision makers can better limit the range of solutions or strategies and the factors that clearly relate to forecasting opportunities. In other words, the evaluation of the external environment not only rarely identifies the best strategy, but also leads to the elimination of all strategies except those that have a promising future.

## 2.8. Summary

The external business environment includes two sets of interrelated variables. These variables play the main role in determining the opportunities, threats and limitations that the organization faces. A set of variables that usually behave beyond the operating situation of a specific organization and include macroeconomic, political, social and technological variables, which are known as the remote environment. Also, a set of variables that



affect the organization's competitive position, such as the competitive position, the image of consumers and suppliers, constitute the immediate (operational) environment. These two sets of forces or variables provide a number of challenges for the organization to attract resources and analyze profit. Obviously, environmental assessment is very complicated and difficult for multinational organizations because they operate in different countries.

Designing a strategy in a way that enables the organization to interact effectively with the external environment is a very complex, multidimensional and often based on the insight and subjective judgment of the strategists, but the data obtained from the analysis of the external environment is very useful for the strategy designers, especially when it comes to the recommendations. It is important to note the following.

1. Environmental data should be collected from a significant range of environmental factors and the personal perception of strategic managers should be combined with the data obtained from environmental assessments.
2. Effectiveness studies should be done to convert the obtained data into relevant information so that the general results of the implementation of various existing strategies can be determined.
3. A flexible strategy should be designed to enable the organization to adapt to unexpected changes in the external environment.

Therefore, designing strategies to take advantage of opportunities is associated with the belief that the organization will improve the profitability of its performance by anticipating future conditions, in other words, despite the uncertainty and dynamic nature of the business environment, the use of the environmental assessment process (even if completely (not precise and defined) which explains future expectations (conditions) is very valuable for strategic managers.





## **Chapter 3: Strategic Management; International Environment**

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### **3.1. Introduction**

Organizations active in the field of international operations are facing certain complications. The head office of such organizations is located in one country, but their subsidiaries or branches are in other countries. This brings important problems, especially for those who operate in several different competitive fields. Knowing the strategic opportunities and threats that multinational organizations are facing is important for American industry planners because many American organizations, such as City Crab, Coca-Cola, Exxon, Gillette, I. B. M, Otis and Texas Instruments derive more than 50% of their annual profits from their foreign operations.

The activity of foreign organizations in America is equally important and their direct investment in this country is more than 900 billion dollars, of which Japanese, German and French organizations are considered to be the leaders. For this reason, understanding the many and sometimes subtle and hidden differences in competing in global markets or dealing with transnational organizations and acquiring the necessary competencies and qualifications for strategic managers has quickly become important. Therefore, this part of the book is focused on the nature, perspective and operations of transnational organizations.

## **Development of a transnational organization:**

The evolution and development of transnational organizations are often associated with the gradual development and complexity of their strategies. At the beginning, these organizations only focus on the development of their export and import activities, but this focus does not have much effect on the existing product line and management attitudes. In the next step, foreign franchise and technology transfer are discussed in strategy design. But we are still facing few changes in management or operations. The third level of strategy development is characterized by direct investment in foreign operations. Moving to this level of strategy requires large capital expenditures and the development of international management skills, although at this stage the organization's policies are influenced by internal operations, generally such organizations are also called transnational organizations.

The most important level or stage of strategy development is the significant increase of foreign investments and their role in the composition of total assets. At this stage, the organization is recognized with global approaches in the fields of production, sales, finance and control and is presented as an international institution. Surveys show that some organizations, despite operating globally, try to downplay their transnational nature and emphasize their internal activities, and on the contrary, there are organizations that emphasize their transnational role. They make IBM is an example of a multinational organization that operates in 125 countries and does business in more than 100 currencies and 30 different languages, and has 23 large manufacturing plants in 14 countries.

### **3.2. Why organizations become transnational**

America's technological advantages have been significantly reduced in the last two decades. In the 1950s, more than 80% of the world's most important innovations were first introduced in America. In 1965, this figure decreased to 55%, and its downward trend

continues. On the other hand, France has made significant progress in atomic energy, electronics and aviation. Germany is also a leader in chemical and pharmaceutical fields, heavy and precise machinery, heavy electrical goods, metallurgy and transportation equipment; Japan is also a pioneer in the fields of solid physics, optics, chemical engineering and metallurgy. Eastern European countries and Russia also have 30% of global royalties. Despite this, America can regain some of its competitive advantages through the development of organizations and their internationalization, and by taking advantage of new industries and advanced technologies.

Therefore, in many situations, the development of presence in international markets can be used as a competitive weapon, because the presence in a competitor's country and direct influence in foreign markets reduces the cash flows of competitors in their country's markets, which results in losing The opportunities are income reduction and limited production; This, in turn, reduces their ability to penetrate the American market. A successful example of this position is I. B. I have had This organization has been able to gain a strong position in the Japanese mainframe industry before two major competitors came. B. This means that FYetsu and Hitachi can conquer the domestic market of their country and dominate the Japanese market.

### 3.3. Strategic tendencies of transnational organizations

Transnational organizations typically choose one of the following four approaches to develop their activities. Inwardly focused international organizations believe that the core organization's values and priorities should guide strategic decisions throughout operations, but there are also organizations that focus on multiple countries. In this case, organizations should pay special attention to the culture of those countries. Also, transnational organizations may choose one or more regions for their activities. Finally, adopting a systemic approach to strategic decision-making and emphasizing global integration is of interest to multinational organizations.

### 3.4. Basic considerations for internationalization

Business organizations should consider the following four steps to internationalize their activities.

1. An overview of the situation of the global environment: getting to know the situation of foreign countries through reviewing magazines, reports, books, and also meeting people in scientific and technical conferences and seminars is the primary condition for entering global markets.
2. Contacting and communicating with research and scientific organizations: Active institutions often contact universities and sometimes their faculty members for their work projects and conclude research contracts.
3. Increasing the international reputation of the organization: the organization seeks to attract attention and increase the international reputation of the organization through attending trade and technical exhibitions, publishing brochures to introduce products, presenting innovations, hiring consultants and purchasing technology.
4. Carrying out joint research projects: Some multinational organizations invest in joint research projects to broaden contacts, reduce costs, reduce risk or prevent a competitor from entering the market.

These organizations may also assess the internal and external environment before entering global markets. External evaluation means a detailed examination of the important features of the international environment with special attention to the situation of the country in question in areas such as economic progress, political control and nationalism. Also, the development of industrial facilities, balance of payments and progress in technological capabilities in the past decades paint a picture of the economic progress of the host countries. The political situation can be judged by evaluating the power of the host country and its influence on international affairs.

Analyzing the main strengths or advantages of the organization in the domestic market, such as technical-management skills, capital, manpower and raw materials, is important because most of them are valuable in the global market and are considered an important bargaining lever. Also, in evaluating the global capabilities of the organization, the effectiveness of the desired product distribution systems and financial management should also be measured. The important factors that an organization must consider entering international markets are as follows:

**Economic factors**

1. Gross National Product (GNP) size and growth rate forecast.
2. Currency status.
3. Market size for the organization's products, growth rate.
4. Current membership or its future prospects in the customs union.
5. The formation and stability of government.
6. The image of the government, consumers and competitors towards foreign and private investment.
7. Support or neutrality towards state-owned industries.
8. The amount of discrimination against foreign countries.

**Geographic factors**

9. Transportation efficiency (railways, waterways, highways).
10. Factory access to foreign markets.
11. Availability of raw materials on site.
12. Availability of water, electricity, gas.

**Human resource factors**

13. The existence of managerial, technical and administrative human resources capable of speaking the language of the mother country.
14. The level of skill and work discipline at all levels.
15. The presence or absence of militant unions or with communist tendencies.

16. The amount and nature of human resources participation in management.

**Tax factors**

17. Tax rate trends (personal and corporate income, capital, salary tax, general sales tax, capital gains, customs and indirect taxes).

18. Joint tax treaties with the country and other countries.

19. Reimbursement of taxes and duties on goods that are imported and then exported.

20. Existence of support tariffs.

**Factors of capital resources**

21. The cost of local loans.

22. Availability of convertible currencies.

23. Modern banking systems.

24. Government credit assistance to new businesses.

**Business agents**

25. Distribution system and marketing status.

26. Normal profit margin in the country's industry.

27. Competitive position in the organization's industry, is there a mafia.

28. Availability of amenities for foreign performers and their families.

**3.5. The complexity of the global environment**

Transnational strategic planning is much more complex than domestic planning and involves at least five factors:

1. Transnational organizations are faced with multiple political, economic, legal, social and cultural environments and with different rates of change in each of these environments.



2. The interaction between the foreign and national environments is complex because the issue of national independence, economic and social conditions are vastly different.
3. Geographical separation, cultural and national differences, and diversity in business activities make conditions difficult for head offices and branches in other countries.
4. Transnational organizations face intense competition due to differences in industry structures.
5. Transnational organizations face various international organizations such as the European Economic Community, the European Free Trade Area and Latin America, which limit the choice of competitive strategies.

### **3.6. Control in transnational organizations**

One of the inherently complicated factors for many transnational organizations is their financial policies, which are usually designed to advance the goals of the parent organization and pay little attention to the goals of the host country. It is clear that this tendency and attitude create interactions between the transnational organization and the host country and even between the countries themselves, interactions that become particularly important when transferring income from the host country to other countries in the field of paying taxes, minimizing risk, or other goals they do. Also, it is very difficult to assess the state of revenues, national resources, capital structure and profit distribution due to different financial environments. This situation often creates important differences in control and management systems; Therefore, it is very important to choose a suitable and forward-looking approach based on accepted analysis procedures and methods for control, a stable and consistent approach in organizational planning, which is due to the difference in accounting methods of countries and people's opinions about work

evaluation. And the different demands of the governments to disclose information become more complicated.

Although some of these issues arise from the activities of transnational organizations in different countries, some of them are the results of poor management, which will be significantly reduced through increasing attention to strategic management. This process helps to create harmony among the future orientations, goals and policies of the organization in international markets and enables the organization to predict the future, be better prepared for change and finally not only facilitates the work of managers to design It is a program to deal with the development of its activities at the global level, but it can be used a lot in choosing goals, strategies and participation of managers of subsidiary organizations for more effective use of all resources.

### **3.7. Strategic planning for multinational organizations**

From the previous discussions, it became clear that the presence of organizations in the global markets will be accompanied by the increasing complexity of the strategic decisions of the institution, and the management cannot look at its activities in each country as a set of independent decisions, but must strike a balance between Establish decisions related to the variety of products and markets of organizations and subsidiary branches, the capabilities of the institution and strategic choices. Also, in the new process of globalization of industries, the role of interest groups and institutions should also be considered, a role that adds to the complexity of strategic planning in multinational organizations.

### **3.8. Globalization**

This concept refers to the selection of a standard (uniform) product supply strategy to global markets by multinational organizations; Markets whose consumers want standard and low-

priced products, not customized and expensive ones; Therefore, transnational organizations can create such markets.

***The role of interest groups and institutions:*** the activation of interest owners and powerful and effective institutions means the expectations that each of these forces and especially local governments have from the transnational organization.

In this section, a basic framework for analyzing and better understanding strategic decisions in this complex environment is presented.

***Local and global industries:*** Michael Porter has provided a framework to show the strategic solutions of organizations active in global markets, knowing the industry or industries in which the organization competes is the starting point of the analysis in this model. This model divides industries into local or global industries.

***Local industries:*** A local industry or competitive industry is an industry in which the competition necessarily differs from one country to another, and therefore the organizations involved in such industries in each country face independent competition from other countries. Industries such as insurance, retail and consumer finance.

Therefore, while the competition within each country is different from other countries, managers of transnational organizations should look at subsidiary organizations as independent organizations, and allow managers to design appropriate strategies to respond to the market conditions of that industry; In other words, the strategy of a multinational organization in industries with many local competitions is actually a set of strategies of its branches in these countries. The main difference between a local institution and this group of transnational organizations is related to their field of activity and decisions related to how to do business outside the mother country.

The factors that determine the degree of differentiation of industries or markets are:

- The need to supply specific products to satisfy the tastes and preferences of consumers to the local market.
- Existence of a highly fragmented industry with a large number of competitors in each national market.
- Lack of economies of scale in the organization's task activities.
- The uniqueness of the distribution network in each country.
- The very low dependence on the technology of each of the subsidiary organizations on the research and development of the parent organization.

**Global industries:** Global industry is an industry in which competition crosses the borders of countries; So, the strategic decisions and actions of the institution in one country have an important effect on its competitive position in other countries, and in fact, the competition is at the global level. Automotive industries, large computers, commercial aircraft and electronic tools are among such industries. In such industries, multinational organizations must maximize their capabilities by choosing a global strategy and communication between subsidiary organizations, which necessitates a high degree of decision-making concentration in the organization's headquarters and a balance between the organization's decisions. It requires subordinates.

The influential factors in the creation of the global market are:

- The existence of savings due to economy of scale in the organization's task activities.
- Heavy research and development expenses that require product supply in several markets to compensate for its costs.
- Homogeneous needs of the product, which reduces the demand for market segmentation;
- A small group of global competitors in the industry.
- Low level of trade and foreign direct investment regulations.

### 3.9. Transnational challenges

Although industries can be distinguished on the basis of locality and globality, few fall purely into these two groups. In other words, even if an organization has chosen a standard product offering strategy for all its global markets, Despite this, it must respond to the specific needs of each market to some extent and vice versa; An organization that has chosen a differentiation strategy cannot ignore the opportunities that exist for the optimal use of resources globally; Therefore, it is very important to decide which of the organization's duty activities should be performed and how much coordination between these activities is necessary.

*Coordination of task activities in different markets:* Task activities of organizations usually include: purchasing data, production and operations, research and development, marketing and after-sales services, which the manager of a multinational organization has to do each of them with a set of choices. He is facing many problems and he has to decide in which country and to what extent each of these tasks will be carried out. In other words, the management can concentrate any activity or task in one place or country, or concentrate the activities and tasks in one place (central office), from there provide the necessary services to the desired global markets, for example. The research and development unit may be established in a region and provide services to the entire organization from that region.

Also, the transnational organization should decide on the amount and degree of coordination between these activities in different countries. The required level of coordination can be extremely low and the management allows the subsidiary organizations in each country to manage their activities independently or vice versa; To establish an extremely high coordination between them. For example, Coca-Cola's advertising, research, development and marketing activities are very focused, but at the same time, local producers are allowed to adapt their product to the situation and market needs of each country through different packaging and sweets.

### 3.10. Market requirements and product specifications

Businesses that have been successful in foreign markets have paid a lot of attention to market demand. These organizations are forced to consider the two key dimensions of consumer demand, i.e. acceptance of their desired standards and innovation, which markets can be divided based on the supply of the same product to the markets or the supply of different products to different markets. Also, products can be classified according to the rate of innovation that the combination of these two dimensions enables managers to make decisions about the rate of innovation, the supply of the same and standard product for all markets and consumer needs.

### 3.11. Choosing a global strategy

If the multinational organization operates in industries where competition is raised at the level of each country, it should choose a country-centric strategy, which means the geographical dispersion of activities and little need for coordination between task activities, a choice that depends on each subsidiary organization or branch. It allows to establish a close relationship with consumers and local market conditions, to enjoy the necessary freedom to respond to the activities of competitors and the needs of that place, and on the contrary, the global strategy means the geographical concentration of activities and the strong need for extensive coordination between them. Although some of these activities, such as after-sales service, may be provided in a decentralized manner. Strict control of activities and standard performance are other features of choosing this strategy. For example, I.B.M expects to provide a high level of service to its consumers, regardless of their country.

#### **Two other strategies can be presented:**

1. High external investment with extensive coordination between branches, which means the organization chooses to stay in a particular growth stage, such as an exporter, and

2. An export-based strategy with decentralized marketing, which represents It drives the organization towards globalization.

### **3.12. Internationalization of the organization's mission**

Only a limited number of strategic decisions related to the domestic market may cause major changes in the direction and existing operations of the organization, but the move to become active in international markets means drastic changes and a radical redefinition of the mission, and management with a set of It faces new challenges that determine opportunities, limitations and threats or risks, and inevitably, the management to maintain the direction of the organization that is imposed by these external factors on the institution must be removed from the mission before entering the global markets. Or its fundamental goals and strategic objectives should be re-evaluated to ensure that the basic values of the organization will be considered in the new planning. Declining market share and profitability of Caterpillar tractors in 1986 raised the need to internationalize its mission. This problem can be considered to be primarily due to the strength of the dollar or the increase in its value in the relevant markets, which made the price of this organization's product more expensive than similar products in other countries. Despite this, the impact of the value of the dollar and its strength on Caterpillar's operations was predicted and was specified in the long-term commitments or mission of the organization as follows:

1. Subsidiary organizations or branches should be established in parts of the world that have the most economic advantages in the long term.
2. The working methods and facilities of the organization must be designed with a long-term vision in such a way that the impact of sudden changes in the economy and workforce of that country on Caterpillar's operations is minimized.

Following these principles, Caterpillar was able to adapt its strategic and operational decisions to the imbalance of the exchange rate, which in the absence of such an attitude (long-term attitude) would probably have been carried out by Caterpillar.

- Moving or revising facilities and equipment to gain competitive production advantages in the short term.
- The drastic change of the organization's production plans in global markets regardless of the results of these measures on the environment of the host country.

The above actions caused production to be reviewed and transferred to areas where the dollar is weak so that Caterpillar can compete with other organizations in terms of price. Doing so was inconsistent with Caterpillar's stated mission, which emphasized the organization's commitment to high-quality products, stable operations, and social responsibility. Despite the environmental pressures and challenges, due to the correct formulation of its mission, Caterpillar provided itself with long-term and extensive strategic coordination and did not follow the above measures.

The development and evolution of the mission of organizations have occurred in different stages of activity and over time. In the beginning stages of an organization, it is usually the entrepreneur who knows what the organization's existential philosophy is and what it means, and that is enough; But with the growth and development of the institution, more mechanisms are needed to establish coordination between diverse and increasingly complex organizational units, and it is necessary to clearly define the mission or fundamental goals of the organization so that accurate communication can be established with the stakeholders.

The third stage in the development of the organization's mission is the stage where its activities and characteristics change in the



direction of internationalization, which is emphasized in the sequel of this chapter.

Also, if the development of the organization's activities goes beyond national borders to take advantage of production opportunities or reach new markets, it may not be considered inconsistent with the growth goals that are in the mission of such organizations in the first place, but the fact is that presence in the markets Globalization or becoming transnational means an inherent change in the organization's activities. For example, the development of activities across borders is accompanied by the development of operations physically abroad, which means the entry of new information from different sources into the planning process; This information affects managers' understanding and perception of the environment, changes strategic decisions or directions of the organization to obtain desirable and probable results; Therefore, before making strategic decisions in the direction of developing activities to global markets, senior management should re-evaluate the organization's mission and make the necessary fundamental changes, so that the possibility of defining, collecting and analyzing appropriate environmental information is provided. , to be integrated with the existing information.

Therefore, the management should adjust the organization's mission statement in such a way that it can still be used as a basis for evaluating strategic solutions after the entry of additional information in the decision-making process. The following organization has developed its mission with this attitude.

"Our main and final responsibility is to the shareholders. Our goal is to obtain optimal returns from investments. Our method is continuous and reasonable profit growth and bold management of assets, achieving this financial goal along with optimal management

shows our approach to influencing the market price of the organization's ordinary shares.

This attitude of emphasizing the financial element within the United States seems quite reasonable, but at the world level, where financial goals are often different, it can be unacceptable.

Research has also shown that financial goals have different degrees of importance in different countries. For example, senior executives of organizations in France, Japan, and the Netherlands prioritizes maximizing after-tax earnings growth, and Norwegian managers prioritize maximizing earnings over interest and taxes. On the contrary, in these four countries, little attention has been paid to maximizing shareholders' assets; Therefore, if the fundamental purpose or mission of an organization emphasizes ultimate responsibility to shareholders, its financial philosophy may not be appropriate when evaluated from a global perspective. Therefore, it is necessary to be reviewed before entering the world markets so that it can maintain its use according to environmental factors and different situations.

### **3.12.1. Review of mission elements**

Considering that the development of the organization's activities and its globalization necessarily bring about changes in decisions, directions and strategic solutions, therefore, the elements and components of its current mission must also be revised in order to adapt to the transnational situation of the organization and the ability new strategic issues that result from cross-border operations should be considered in this redefinition of the mission; Therefore, each of the basic elements of the organization's mission in case of internationalization need to be re-analyzed in the light of new conditions.

### **3.13. Product or service, market and technology**

The mission statement of the organization defines the basic and important need that the organization intends to provide. The essence of this definition will probably not change with becoming transnational and presence in global markets, and the organization can use the competitive advantages in international markets by acquiring the qualifications and competences obtained in the domestic market, but despite this, it is necessary, if The desire to be present in global markets or to become transnational, to redefine its priorities in relation to consumers and the market.

The multinational organization can define its target market in such a way that it offers a standard product (non-differentiated strategy) to this market, or it can choose a product differentiation strategy, focusing on each market to respond to the specific demands of the consumers in that market. To give Therefore, the statement of the organization's mission should provide a basis for making strategic decisions in such situations; For example, the Hewlett-Packard organization writes in its mission statement: "Consumers of this organization's products should feel that they are dealing with an institution that offers the same services and policies to all of them" and the opposite of the organization's mission statement Holiday reflects this concept of product differentiation or marketing: "The basis of everything Holiday Inns does is to be in contact with consumers and different markets and to have the necessary capacities and facilities to meet their needs for the desired product in provide the right time and place".

### **3.14. Organizational goals: survival, growth and profitability**

The mission statement of the organization defines the goals of growth and profitability for the continued existence of the

organization, goals that are necessary for survival in America and are accepted to a large extent in free economic systems. However, the development of the organization's activities outside the country's borders may mean operating in economies that are not committed to the profit motive and supposedly prioritize development goals and social welfare over free market capitalism; For example, in third world countries, creating employment and income distribution often precedes the goal of rapid economic growth. Also, the opposition to profit may be for other reasons, so that even in environments that accept profit motives, there may be a belief that the profits earned by multinational organizations are a one-way flow and, therefore, These organizations are considered a tool for the exploitation of the host country for the benefit of the mother country, in other words, in this view, the commitment to more profit may not only not help the survival of the organization, but it may also be considered as an expression of the ruthlessness of the institution, and there is even a possibility that the risk of failure It also raised the organization.

Therefore, in formulating the mission statement of a multinational organization, the survival of the organization should be taken into account and beyond the goals of growth and profitability, in other words, a multinational organization should develop a philosophy that expresses the mutual interests or the two-way flow of the interests of the organization and different environments. Be the American Gulf and Western Organization believes that "making money in underdeveloped countries is inseparable from accepting social responsibility, and the transnational organization is an inseparable part of the society in which it operates". This statement shows that while the organization is committed to profitability, it believes that it should also help the host country.

In a more comprehensive approach, the mission statement should not only include economic goals, but should also take into account the interests of those with power and influence. Groups and

institutions that the organization must create the ability to satisfy their needs in order to be effective. And the future of the organization depends on them, for example, the management of the Caterpillar tractor organization makes the following comments: "We emphasize to adapt Caterpillar's investments to the social and economic priorities of the host countries and local customs and traditions and its government. "We want to conduct our business in a way that earns respect and acceptance for Caterpillar and removes the concerns of the host country's governments about the activities of transnational organizations."

The growth element should also be considered in the mission statement of the transnational organization; Because the survival and profitability of activities is closely related to the growth of the organization. In explaining this matter, it should be said that the internationalization of the organization's activities means the geographical dispersion of the resources and operations of the institution; This dispersion makes it difficult for all strategic decision-makers to participate in decision-making processes. Therefore, it is necessary to formulate the mission statement of the organization in such a way that it preserves the solidarity of the organization, provides a basis for unity of action and commitment to the goals of the organization, and connects the views of decision makers and executives in different countries with a common philosophy.

### **3.15. Organization philosophy**

The organization's philosophy may not be formulated in a detailed and comprehensive manner; Despite this, in formulating the values, the culture and values of the countries where the activity is located should be identified, the values that are likely to provide challenges for the organization and usually the organization rarely faces them in the main country. In other

words, the organizational philosophy that is formulated based on certain views cannot maintain its validity in different cultures and is only a reflection of the values and beliefs of the society in which it operates; Therefore, when the development of the organization's activities in international markets is placed on the agenda of the organization's managers, it faces a set of other values and priorities that must be prioritized and absorbed. Such organizations can choose a specific and appropriate philosophy for each operating environment, or define a general and broad philosophy for all environments, which usually multinational organizations prefer to choose a general and comprehensive philosophy. Although they try to make the chosen philosophy compatible with the norms and values of the subsidiary organizations. The communication capabilities of modern society also rarely allow subsidiary organizations to determine their own philosophy regardless of the values of the parent organization, for example, many criticisms of the policies and practices of American organizations active in South Africa, Namibia, and the Dominican Republic by groups has been powerful and effective, but these criticisms have not been raised by influential groups within these countries, but the accusation of violation and violation of the organization's social responsibility or violation of values and beliefs related to standards and working conditions directly from It has been directed towards powerful American groups such as the Center for Promoting Responsibilities and has spread to these countries; Therefore, although the values and beliefs of the organization can be adapted to each of the host countries, due to the abilities of the influential groups and the owners of interests, they cannot be defined fundamentally and in conflict with the values of the mother country.

As a result, in formulating the philosophy of the transnational organization, one should pay attention to the wide internal and external requests and define the value system in such a way that it responds to different cultures and universally accepted values. The mission statement should also define the values and beliefs in such a way that they guide the strategic decisions and operations of the organization and, in addition, direct the education and allocation of resources in a way that is aligned with the value goals of the organization and is clear to ensure. It is necessary to design and establish an official mechanism for the evaluation of the desired priorities. For example, in response to global criticism regarding the formula used by this organization to prepare baby food, the Nestle organization formed an independent committee to monitor the operation of the market and its compliance with international standards, but it faced a negative reaction from critics. And they considered the mentioned action to be only a propaganda maneuver; While if the Nestle organization formed such a committee before these criticisms were raised and used this mechanism to continuously monitor the maintenance of the organization's values and operationalize them, it is highly likely that many of these criticisms would not have been raised.

### **3.16. Self-image (Self-Concept)**

The "self-image" of a multinational organization depends on the management's understanding and evaluation of the organization's strengths and weaknesses in each of its operating environments. If strategic decision-makers cannot understand the impact of their organization's activities on the environment and vice versa, they will lose the possibility of survival in highly dynamic and competitive environments. In other words, managers are somewhat responsible for choosing the operating environment

and the challenges they have to respond to; Because they can influence the environment, choose an active approach in choosing it instead of acting passively towards the environment, and react after the changes and its effects are revealed.

Activities that help managers to actively deal with the environment include:

- Development of leadership and innovation in products and marketing;
- Ensuring the exclusivity of the market or distribution positions;
- Joining and cooperating with a powerful and effective coalition on the environment;
- Participation in political processes that determine the environment;
- Joint investment with environmentally dominant coalitions;
- Choosing special parts of the environment to enter the competition.

If the multinational organization wants to take advantage of the potential and inherent advantages of internationalization of operations, the mission statement should direct the organization's strategic orientation towards choosing an active rather than passive approach to the environment, in other words, these organizations cannot allow that Subsidiary organizations should determine their environmental position.

### **3.17. General picture**

Domestic organizations usually define this concept based on marketing attitudes and use it as a tool for product acceptance by consumers, but for multinational organizations, although this type of attitude is very important, it is sufficient. It is not, and the management should take into account the demands and expectations of the interested or influential groups and institutions in different



environments, and create a balance between their demands, because the transnational consumer organization is an important part of the national resources of these countries and a major force. A number of them are in the process of socialization, so it is necessary for the management to develop this concept with a broader vision, to consider the interests of those with influence and power in different environments.



Hewlett-Packard has defined its public image as follows: As an organization that operates in different countries of the world, we must ensure that these communities are better for our presence and each of them has its own set of social issues that our organization should help to solve their problems.

In the organization's mission statement, Hewlett-Packard managers have shown an image of the institution's responsiveness to stakeholders and influential groups around the world.

### 3.18. Competition strategies in foreign markets

The strategies of organizations that try to move towards globalization, based on the degree of complexity of each market and the diversity of the organization's product line, can be divided as follows (Table 3-1).

**Table 3.1. Choosing a global strategy**

|   |  |   |   |
|---|--|---|---|
| Up<br><br>Down | Full ownership   | Foreign branch                            | Mutual investment                         |
|   | Foreign branch   | Mutual investment                         | Bachelor of franchise contract production |
|   | Mutual investment  | Bachelor of franchise contract production | Export                                    |
|   | Down  Up<br>Market complexity |   |   |

The meaning of the degree of market complexity is the number of factors affecting the organization's success in a given market, and the

product diversity variable also refers to the extent of an organization's business lines. The combination of these two dimensions with two variables has made several choices possible for managers, which are specified in Table 3.1 and are briefly discussed.

### **3.18.1. Export**

The first approach for organizations to export is to modify the performance of the selected product or measure its characteristics to meet specific foreign demands. Although the process of combining one country's product characteristics with other foreign markets can be slow and difficult, there are a number of development techniques that provide organizations with the knowledge needed to exploit opportunities in the new environment; Among these techniques are: copying product innovations in countries that do not emphasize on the legal protection of innovations and exploiting foreign partner privileges in them can help speed up product innovation. Philips and various Japanese competitors such as Sony and Mitsubishi cooperate for their global product standards; Siemens has been very successful in establishing a centralized research and development department in electronics.

Usually, export requires minimum capital for investment and the organization maintains quality standards on production processes and inventory of manufactured goods, the risk of survival of the organization is usually low, and in addition, governments, by providing export information and marketing measures, reduce the risk of the organization. They have also reduced the small ones.

### **3.18.2. Bachelor - Contract production**

Arranging and concluding a contract with a foreign organization is the next step for those organizations that want to invest beyond export, but at the same time, they are not ready to have an equal

position with foreign organizations in another country. Choosing the bachelor's solution makes it possible to transfer only some of the industrial rights of the main organization to another organization. Most of the organizations tend to grant the patent, the trademark of their know-how for a certain period of time and for a certain amount to choose from tariffs and quotas to their foreign party. Another solution for organizations is to launch the product line in the target country to take advantage of competitive costs in material technology or labor.

Organizations that use both solutions have the lowest risk of entering foreign markets and it is clear that the combination of the two is not possible for every organization and usually large organizations that have a combination of international strategic activities or for organizations that have products Standardized in a limited field is best used; But there is an important issue with bachelor's strategy: firstly, the foreign organization gradually gains experience and becomes a competitor of the main organization, and another potential issue is the issue of control; The main organization has no control over the production, marketing and distribution of products. The experience of American electronic organizations with Japanese organizations shows that bachelor's degree creates strong competitors.

### **3.18.3. Franchise**

A special form of license is called a franchise, which allows its holder to use the name or trademark of the main organization, its marketing strategies and developed procedures, and in return, payment is made based on the sales volume in that market area, and in addition, the right holder organization The franchisee has to strictly implement the policies set by the parent organization.

### 3.18.4. Joint ventures

The evolution of the strategies of multinational organizations makes it possible to choose a joint venture strategy with a foreign organization. An organization AT&T has followed this strategy to produce a specific computer by entering into several joint ventures with European manufacturers to acquire technology and gain a position to be present in European markets, and because joint ventures are mutually agreed upon in the field of acquiring capital, production tools, or marketing, patent, trademark or management experiences are associated, so it provides closer and more durable cooperation than export or contract manufacturing. Compared to a completely foreign investment, this type of investment provides a variety of benefits for the parties, such as coordination between production and marketing, allowing access to new markets, obtaining useful data and two-way flows of technical information, among them; For example, the German electronics organization Siemens has formed a wide range of strategic alliances across Europe for research and technology development. For many years, Siemens has grown through acquisitions, but today it supports horizontal development goals and has partnered with organizations as diverse as Boule France, General Electric of England, I.B.M. Intel and Philips are involved in a joint venture. It is important to mention that joint ventures have not yielded favorable results.

Although joint ventures take into account the requirements of complex markets and product line diversity, its challenges must also be considered in terms of equal or unequal participation. For example, taking full advantage of the indigenous organization may put the management in a situation where it does not have the necessary authority to resolve conflicts by making strategic

decisions, and in addition, facing the management of the indigenous organization requires clarifying ownership information and potential losses. Control over production and marketing quality standards, and it is clear that agreement in all these areas is difficult, and most importantly, the commitments of the parties to support each other's goals are very important, and it is obvious that without this compatibility and commitment of joint investment, with the crisis is coming.

### **3.19. Foreign branch**

A foreign branch means an organization's development and presence in a foreign market, which acts as a strategic business unit and is directly responsible for performing operational tasks assigned by management, including sales, customer service, and physical distribution. The host countries may request the localization of the branch, which means employing some managers at middle and high levels. These branches usually do not follow the rules of the mother organization's country.

#### **3.19.1. Branch under full ownership**

The creation of such a branch abroad is done by organizations that tend to have the highest investment commitment for the foreign market, which is the reason for the possibility of control and management efficiency.

Also, policy decisions about product lines, development, profits and its distribution usually remain in the hands of the parent organization's senior management. This type of investment can be done through the acquisition of organizations established in the target country or gradually. If the acquired organization is complementary to the parent organization in terms of distribution network or services or production lines, that organization will receive many benefits; But

it is clear that improving the competitive position by searching for a suitable foreign branch will also bring some issues.

First, managers must have a wide knowledge of the market, language and culture of the host country in order to obtain high returns on investments; Secondly, the countries receiving investment expect that the investing organization will assume long-term commitments, use local forces at the management or operational level, and generally, training such managers can be beneficial due to their familiarity with the local market; Thirdly, it is possible to remove government support from the selected market by changing regulations, which also increases the risk of investments.

### **3.20. Summary**

Managers of multinational organizations need to know the types of competition in the industry. They should know that these insights are very effective for choosing strategic solutions, in other words, it is necessary for the mentioned managers to look at the industry with a transnational perspective and evaluate it; This is the first step in developing the strategy of the transnational organization. After that, due to the spatial diversity of industries and the need to coordinate task activities, the strategic emphasis of managers in these organizations will be different from domestic organizations, so it is necessary to increasingly coordinate and focus task activities in multinational organizations. With the globalization of the industry, it should be emphasized and the strategy that is compatible with the industry should be pursued and supported through duty activities.

The starting point of the activities of the global markets is to revise the mission or the fundamental goal of the organization, and the managers should not think that the mission statement that is compiled with a national perspective and for the country is also

useful for international activities; In other words, the internationalization of activities brings about fundamental changes in the direction and strategic capabilities of the institution, so the guiding lines or principles of the organization in the mission statement must be redefined.

The mission statement of the transnational organization shows its ultimate goal and provides unity for strategic decisions in different areas and different management perspectives and provides the basis for strategic decision-making processes, especially in situations where strategic solutions collide. Also, the mentioned statement reveals the values and commitments that are beyond a specific culture; These values and beliefs can be accepted by effective and powerful internal and external groups and establish the legitimacy of the organization, which is very necessary for the survival of the organization.







## **Chapter 4: Strategic Management; Prediction of the surrounding environment**

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### **4.1. The importance of forecasting**

In a global market that is defined by accelerating change, the main responsibility of managers is to ensure the capacity and the ability of the organization to survive, and this is not possible unless managers foresee environmental changes and use new opportunities for growth and profitability. Adapt themselves to the conditions and predict the impact of changes in the immediate operating environment and industry.

Even large industrial organizations with a history are facing this phenomenon. For example, the US auto industry's \$5.5 billion loss in the early 1980s shows what happens when organizations fail to prioritize environmental foresight. In this industry, despite the fact that the forecasts showed that the price of oil will rise and there is uncertainty in the oil market, but the managers of the American automobile industry did not pay attention to the impact of the long-term results of environmental changes on the future of their industry. They did not pay attention to fuel efficiency, changes in technology and quality; While the Japanese organizations identified the future needs of the market through detailed market research in the fields of

quality, service and fuel technology change, and as a result, they increased their market share by supplying more suitable products; For this reason, in the early 1980s, American organizations had to invest 80 billion dollars in products and industries to recapture their market share. They became aware of the fact that success in strategic decisions is not only dependent on the value of the dollar, but also predicting and preparing for the future is important.

Therefore, it is very necessary to accurately predict the change of environmental elements in the process of strategic management, and strategic managers must develop their skills in this area to be able to identify opportunities and limitations or future threats. To achieve this goal, they must follow the following steps:

1. Choosing variables from the environment that are important for the organization.
2. Choosing useful information sources related to the environment.
3. Evaluation of forecasting techniques.
4. Integrating forecasting results into the strategic management process.
5. Aware of the important aspects of predictive management.

#### **4.2. Selection of important environmental variables**

Management experts in America believe that the most important fluctuation in the business environment is the change in the structure of the population and its dynamics, a change that in turn causes important changes in the social, economic and political environments. Historically, population changes have occurred over periods of 40 to 50 years and thus had little relevance to business decisions, but in the second half of the 20th century population changes became rapid and inconsistent and became more important in business decisions, for example, population growth rates. And the increase in the number of children will have a great impact on the

labor market, product demand, housing, education, health and the like, and in addition, the impact of women's entry on the labor market has been very important in recent years. Obviously, the demand of different population groups will have important effects on economic, social, political or lifestyle changes, consumer products, services, consumption patterns and political and economic decisions.

Developing countries are facing both the population phenomenon and the issues arising from it. Although the growth rate of births has decreased in these countries, due to the improvement of health development, there is a large amount of population in young and old age who needs a good work and life. This has caused social and political instability in these countries, and this means that the mentioned countries should be able to provide suitable work for this great force. Therefore, the increasing growth of the population along with the limited resources as well as the unfair distribution of these resources may cause revolutionary changes and political transformation in the countries, which can be dangerous for commercial organizations. This growth will have important effects on the development of markets and people's purchasing power.

If forecasting were the same as forecasting population trends, strategic managers would only need census data on the country's population to predict future markets, but the reality is that economic interpretations are much more complex, including immigration rates, trends in variability, birth rates, marriage and death rates, and racial composition. And religion also complicates the interpretation of demographic statistics. In addition, changes in political, technological or cultural situations add to the complexity of the issue.

Managers of organizations are also faced with continuous changes in products and services, competitors, government priorities, technological innovations and social developments, which add to the complexity of planning for the future; Therefore, for growth,

profitability and even survival in some cases, in this dynamic and turbulent world, managers of organizations need to have sensitivity, commitment and skill in recognizing and predicting the variables that have the most profound effects on the future of the organization.

#### 4.2.1. Selectors of key variables

Although executives or the committee responsible for planning may assist managers in obtaining the data and information necessary for forecasting, the ultimate responsibility for forecasting environmental variables usually rests with the top managers of the organization, and in some organizations one of the key duties of the deputy or The chief executive officer is the evaluation of these trends and environmental events. There may also be an evaluation group of external factors that reports to the top management of the organization. For example, the person responsible for evaluating the economic conditions provides the forecast of the economic situation or the forecast of technological, political and demographic trends and events is reported to the management by other people of the group. In summary, the abilities and professional expertise of high-ranking managers are probably limited in analyzing the variables of the external environment, especially at the global level, and managers have to use consultants and working groups to evaluate and predict environmental factors.

#### 4.2.2. What variables should be selected?

Management should prepare a list of key variables; Variables that have had a decisive role in entering or not entering the organization in the past or are likely to become important in the future. This list should be limited as follows:

1. The list should include all variables that have a significant impact on the organization, even if the probability of their

occurrence is low. It should also include all variables that are likely to occur, even if their effect is small. Variables with low impact or low probability should be removed.

2. Indifference to events such as nuclear wars.
3. As much as possible, make the variables into gross variables, for example, a bank loan is always based on the organization's cash flow, not on the organization's (illiquidity) inventory resource flow.
4. If the value of one variable depends on the value of another variable, isolate the dependent variable for future planning.

In preparing the list of variables and selecting key variables, we must pay attention to the important point that the limitations of money, time and skill in forecasting prevent us from predicting a large number of environmental variables, so managers must, through the analysis of environmental factors, create a set of select the key variables that are most likely to affect the growth or decline of the market.

### **4.3. A selection of important information sources related to the environment**

Before it is possible to officially predict environmental variables, organizations must identify appropriate sources for collecting information. Today, publications, newspapers and institutions worldwide deal with this and can help organizations. Obviously, primary data can often be obtained from external sources in areas such as market factors, technological changes, competitors' and suppliers' strategies.

### **4.4. Evaluation of approaches with forecasting techniques**

For forecasting, the quantitative approach is more accurate than the qualitative approach, and quantitative models also support it; But

despite this, the difference in predictions is often minimal with both approaches. After that, the qualitative or judgmental approach in some cases such as political, social, legal predictions and technological trends may be the only approach and method of prediction, and finally the choice of a technique or approach does not depend only on the desired environmental factors, but factors such as the nature of the decision, the amount and accuracy of the available information, the required accuracy, the time available, the importance of forecasting, the cost, the capabilities of human resources and the relationship between managers and forecasters should also be taken into account, and often the evaluation of these factors leads to the selection of a combination of quantitative and qualitative techniques that Subsequently, it increases the accuracy of predictions.

#### **4.4.1. Available techniques**

*Economic forecasts:* In the beginning, managers only used the forecast of economic variables in the process of strategic management. These forecasts were primarily related to the factors of the distant environment such as the general conditions of the economy, personal disposable income, consumer price index, wage rates and productivity, and the information required for such forecasts was obtained from government and private sources and a framework for industry forecasts. And provides commerce. After this stage, forecasts related to the task environment with operations such as sales, market share and other economic trends were proposed and used by managers.

*Econometric models:* With the development of sophisticated computers, governments and wealthy organizations contracted private consulting firms to explore and develop causal models,

especially in the economic dimension. These models used simultaneous regression equations to explain the relationship between economic events and the organization's activity areas. These models are useful when information is available to explain cause and effect relationships or when large changes are predicted. In the relatively stable decade of the 1960s and after that until the 1970s, these organizations grew a lot and these models were used a lot; But the sharp rise in oil prices, the growth of inflation, and the growing economic interdependence of the world raised problems that went beyond the inherent limitations of such models, models that still depend on the judgment of their creators rather than judgment being dependent on them. Two low-cost and widely used approaches for forecasting are time series models and judgmental models.

Time series models identify patterns based on a combination of historical trends, seasonality and periodic factors. The premise of this technique is that the past is a prelude to the future, and models such as exponential series and linear predictions are used, which are relatively simple, low-cost, accurate and well-known. The mentioned models accept that the future is a continuation of the past and follows some long-term trends, so if historical information, such as annual sales, is available enough, future trends can be easily and quickly predicted. The important limitations of trend analysis is the acceptance of the same idea, an idea that assumes all future conditions to be relatively stable, it is clear that in case of sudden changes in the external environment, the desired and predicted trends will be overturned, but when historical data and information are not available or it is difficult to use them, the use of judgment models becomes inevitable. Examples of judgment models are: estimates of the sales force and the opinion of the executive board of the sales force, they estimate the demands of consumers and their opinions

about products. If the consumers answer correctly and are based on their opinion, the provided estimate is valuable, and in the "executive board opinion" method, the high-level management or the responsible group combines the opinions and opinions of marketing, production, finance, and purchasing executives and then summarizes them, the future predicts and estimates.

Consumer surveys may also be conducted through interviews or telephone inquiries, in which case the questions should be well formulated and easy to understand; In addition, the selected sample should also be a random sample of the relevant population. Such surveys can produce valuable information, although they are often time-consuming and difficult to manage. Despite this, a number of marketing organizations use such surveys.

*Social predictions:* Focusing only on economic indicators to predict strategic trends may make us forget to predict a number of important social trends that can have an important impact on the organization's performance, so a number of managers have recognized this. Investigation and prediction of social trends and events have been considered as a part of environmental investigations. The initial effort in this area, which is also very complex, includes the analysis of population, family, security, social welfare, health and nutrition, education, income, wealth and expenditure.

Techniques of time series analysis and judgment models are also used in this field, but scenario development is probably the most famous technique used in the social field, scenarios, stories or images that integrate quantitative and qualitative predictions. Presents in an easy and understandable form, they are designed to help managers to predict changes and have gained a lot of reputation in social forecasting.



The following processes can be used to develop and compile the scenario:

1. Preparation and review of the contexts and history of the social factors under review, such as social laws.
2. Select important indicators and search to discover future events that may influence key trends.
3. Analysis of the reasons for past behavior for each of the trends.
4. Forecasting each of the indicators in at least three pessimistic, realistic, or most likely optimistic scenarios or the most favorable environment.
5. Drafting a scenario based on the attitude towards the future and then describing the conditions and how to develop it.
6. Develop a concise and compact scenario for each process in a few paragraphs.

The development and formulation of the scenario, create the preparation in the managers to examine the alternative facilities in case certain trends continue, and to prepare contingency plans.

*Political forecasts:* Some strategic designers pay serious attention to the evaluation of political behaviors, similar to economic forecasts. They believe that changes in political factors, including tax rates, tariffs, government budgets, defense spending, the growth of laws, and the extent of participation of business leaders in government planning, will have a profound effect on the success of organizations, and therefore large and multinational organizations not only Investigating and predicting political factors within the country where they operate, but they also often pay attention to predicting political factors in other countries, because the increase in political risks affects the activities of these organizations. Also, the increase of dependencies has forced such organizations to examine

the political results of their strategies. Since the world's organizations have lost billions of dollars due to the political developments of the world's countries, managers and consultants of the world's largest organizations have presented different approaches for international forecasts, which is the organizational approach. January. El is one of them. This research organization, with the help of computers, has examined the progress of each country based on five criteria, these criteria are: social development, technological progress, an abundance of natural resources, level of internal peace and type of political system. When the development of a country in each of these areas is ahead of others, the existing tension will be followed by adjustments and exacerbations. Using these criteria, political turmoil in Iran was predicted in early 1972. The aforementioned researchers believe that the world is completely predictable if one asks the right questions, but unfortunately, a number of implements fail to use this logic. It is clear that the analysis of political issues should be accompanied by the analysis of economic factors.

*Technological Forecasting:* The rapid development and innovation in technology such as the use of lasers, solar energy, electric machines and computers has encouraged a number of organizations to invest in technological forecasting in order to gain prospective knowledge about the development of technologies. Be prepared for these changes. To predict technology trends, all mentioned techniques can be used except the econometric technique. However, due to the uncertainty of information, it is more desirable to use scenarios, group problem solving and Delphi approaches.

Group problem solving technique is used to help a group to generate new ideas and predictions. This method prevents the participating members from criticizing each other's opinions and ideas, and thus creative thinking is not limited or victimized. In this

technique, no one hinders the free presentation of opinions, group members are encouraged to express new ideas and create innovation in the field of opinions raised, and finally, the best and most promising ideas produced by the group are evaluated and selected in the next stage.

The Delphi technique is also a systematic procedure to obtain the common views of a group of experts. The following processes should be considered in this method:

1. Detailed examination of the views of the experts in question, which is usually obtained through a questionnaire.
2. Evaluation of the answers by participating experts anonymously.
3. Repeated review of answers to coordinate opinions.

Although the Delphi technique is expensive and time-consuming, it can often be used and successfully for political and social predictions.

#### **4.5. Integration of forecasting results in strategic management process**

Once the desired technique is selected and the forecast is made, the obtained results should be integrated into the strategic management process. For example, economic forecasts should be linked to an analysis of the industry, suppliers, competitors and key sources. It is important that strategic decision makers recognize and understand the assumptions on which the forecasts are based.

Forecasting external events or events enables the organization to identify possible needs for future success and formulate or revise the fundamental goal or mission of the organization and design strategies to achieve the goals and if the forecasts show gaps or If there are inconsistencies between the desired and current situation of the

organization, strategic managers can respond appropriately to this situation with their plans and actions.

Strategic managers should know that facing uncertainty about the future is one of their important tasks, a task that requires the systematic collection of information and the use of various forecasting approaches. It also often requires a high level of intuition to integrate risks and opportunities to formulate strategy, but intentional or unintentional delays and delays or a lack of understanding of certain issues may prevent an organization from gaining insights into assessing the impact of trends. Use a wider environment. Therefore, it is very necessary to have constant sensitivity and insight and a dynamic and flexible mindset towards new and better opportunities and approaches.

#### **4.6. Review and monitor the main aspects of management forecasts**

Although almost all aspects of forecasting can be important in certain situations, three aspects stand out the most during the life of an organization:

1. Identifying factors that have predictive value deserve to be investigated. There may be hundreds of different variables influencing an organization's performance, but only a limited number of them, such as sales forecasts and competitive trends, are most important. Unfortunately, there may not be enough resources and time to understand all the environmental factors that are important for the success of a strategy; Therefore, according to their experience and perception of what is important, managers and executives have to identify the factors that are worth spending money on.

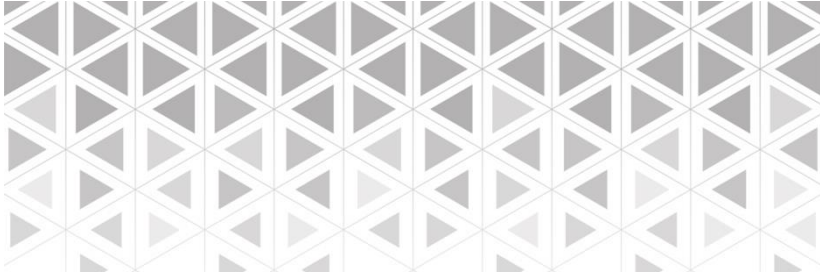
2. Famous and reliable as well as cost-effective information sources outside the organization, these sources provide the necessary data and information for forecasting. Strategic managers should use data from government, trade associations, and other groups that can provide the information needed for forecasting at a reasonable cost.
3. How to deal with forecasting tasks and procedures. An organization that acts in the field of forecasting, instead of using complex techniques such as econometric, should choose simple methods such as estimating sales forces and experts' opinions. Gradually, as the experience and understanding of the managers of the organization increases, they can use approaches that require more complex analyses, and in this way they learn how to adapt themselves to the strengths and weaknesses of various forecasting techniques.

#### **4.7. Summary**

Environmental forecasting begins with the identification of external factors. These factors can provide or impose important opportunities or threats for the organization in the future. Quantitative or qualitative strategic forecasting techniques are used for long-term forecasting of these factors and their impact on the organization, and managers should choose the most appropriate technique by evaluating various techniques and recognizing their strengths and weaknesses. In the meantime, several different techniques are usually used to avoid bias and error.

Important aspects in forecasting management include a selection of important environmental factors, selection of information sources outside the organization, selection of forecasting activities and appropriate techniques and optimal use of data.





## **Chapter 5: Strategic Management; Internal environment analysis**

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### **5.1. Introduction**

Developing an effective strategy requires a clear definition of the organization's mission, a detailed assessment of the external environment, and an analysis of internal factors; In other words, for the strategy to be successful in practice, the following three important factors should be considered in its design and implementation:

1. The strategy must be compatible with the conditions of the competitive environment; Especially the one who takes advantage of an existing and foreseen opportunity to minimize the impact of important threats.
2. The strategy should be realistically designed according to the capabilities and strategic advantages of the institution; Therefore, the pursuit of market opportunities should be based on the key strengths of the organization and not only on discovered opportunities.
3. The strategy must be implemented accurately.

Discussions will focus on the second element of strategic success, i.e., realistic analysis of the internal environment or internal capabilities of organizations, which often requires trade-offs, value

judgments, intelligent guesses, and standardized and objective analysis.

Managers often do this work based on individual insights and use their past experiences in different situations for such judgments, but this method or approach in the dynamic and turbulent world of organizations often creates problems, why that relying on past experiences may encourage managers to accept the status quo and ignore the signs of change in the environment; For this reason, successful managers dislike individual judgments and based on past experiences to make strategic decisions and try to solve their problems by using the opinions of others and experts from different departments to respond to new trends.

Therefore, the analysis of internal organizational factors has attracted increasing attention in the process of strategic management. In addition, a number of authors and managers have presented a new perspective as a resource-based perspective to understand the organization's position, which is based on how to use internal resources to achieve competitive advantage. Therefore, he will first examine this point of view and the concepts needed to examine the internal factors of the organization, and then discuss the ways of evaluating and analyzing the resources.

The important point is the way managers work, who usually start their work in this field with the following questions.

- 1- Does the organization's current strategy work well?
- 2- What is our current situation?
- 3- What are our strengths and weaknesses?

It is clear that we have to use the traditional SWAT approach to answer such questions, but today managers see businesses as a chain



of activities that provide added value through a product or service for sale, and therefore along with this The point of view of the value chain concept has been proposed, and finally, realism requires that managers use useful and effective standards for comparison and evaluation, regardless of the framework or approach of resource analysis. At the end of this chapter, we examine how managers can use criteria such as past performance, industry evolution stages, comparison with competitors, optimal mining and industry standards, and traditional financial analyzes for this purpose.

## **5.2. The resource-based view of the organization**

Coca-Cola and Pepsi are two well-known competitors, and according to most stock market analysts, Coca is the market leader. They see COCA's superiority in its tangible assets (warehouses, facilities, computers, liquidity, etc.) and its intangible assets (reputation, competitive culture, systems, etc.) and believe that the organization has outstanding capabilities for effective use. It is one of these assets. For example, Coca-Cola has global distribution capabilities, convenient storage space, effective relationship with bottlers, better marketing, decision-making speed, and investment in infrastructure to take advantage of rapid global change. Analysts believe that this combination of assets and capabilities has given Coke capabilities and competencies that have enabled it to gain several advantages over Pepsi, advantages that cannot be easily imitated.

Coca's superior position compared to Pepsi has provided conditions that allow a better understanding of several key concepts from the resource-based perspective, the most important of which is the basic assumption of this school or approach. Proponents of this

view believe that organizations have fundamental differences in terms of resources, because each organization has a specific set of tangible and intangible assets and capabilities with the capabilities of using those assets, which any management can develop their competencies and qualifications in using these resources. Gain a competitive advantage. For example, the decisions of the management of Coca-Cola in the field of investment development in different countries of the world have created an advantage for this organization that Pepsi needs at least ten years to follow this path. Explaining the basic concepts of the mentioned point of view is a good starting point to understand the analytical approach and resource analysis.

### **5.3. Tangible assets, intangible assets and organizational capabilities**

In the 1990s, the top executives of organizations had accepted the idea of core competency or core competency. They understood this concept as an ability or skills within the organization that should be identified and developed throughout the organization and become a competitive basis; Therefore, they considered identifying and using this ability as one of the important duties of senior managers of organizations; But they were facing problems to use it. The resource-based approach was proposed as a way to enrich and make this concept more practical. This view mentions three types of resources, the combination of which leads to core competence or privileged competence.

Tangible assets are the easiest assets to identify, often shown on a balance sheet, and include equipment, raw materials, financing, real estate, and computers. These assets are also known as physical and financial assets that are used to create value for consumers.

Intangible assets such as the organization's reputation, brand, organizational spirit, technical know-how, patents, and experiences are not visible and tangible, but they are very important for creating a competitive advantage.

The capabilities or capabilities of the organization, unlike tangible or intangible assets, are not specific data, but skills that are used to transform data into receivables. These skills and abilities provide the possibility of better use of available resources and similar to competitors.

## **5.4. Values of a resource**

When the managers of the organization start to identify and analyze the resources, they face this important question and challenge, which resource represents the strength or weakness, or which resource produces the privileged competence to maintain the competitive advantage. The following criteria are provided to evaluate and answer this important question.

### **5.4.1. Competitive advantage**

Does the source in question help the manager to meet the needs of the consumer market better than the competitors?

Two restaurants have similar dishes at similar prices, but one of them is in a better position in terms of location and access to consumers. It is clear that this restaurant has a higher sales volume and profitability due to the advantage of tangible assets, i.e. The right location; Therefore, the existence of only one valuable resource may bring competitive advantage to the organization.

### **5.4.2. Scarcity of resources**

If the resource that supplies the needs of the consumers is scarce and this resource is available to an organization, the said resource

definitely provides a special advantage or merit for the organization's superiority; Of course, provided that this position can be maintained over time.

### 5.4.3. Being inimitable

Is the source in question easy to study or imitate? A resource that competitors can easily acquire or imitate cannot produce a long-term competitive advantage and only creates a temporary value; Therefore, a resource is valuable if it has the following characteristics that make imitation difficult.

*Specific physical resources:* specific local location or unique mines are among the resources that may not be easily obtainable or imitated by competitors; But overall, inimitable physical resources are less realistic.

*Path-dependent resources:* These types of resources are very difficult to imitate because they are created over time and in a costly and difficult process, for example, it is not easy to imitate Coca-Cola, the quality of Gerber's baby food, and Steinway's experience in piano production.

*Unrecognizable:* sometimes competitors are not able to discover the competitive advantage; In other words, competitors don't know what valuable resource their competitor is exploiting and how they get this advantage. Failure to recognize a competitor's reason for working is often due to a skillful combination of assets, culture, and processes.

*Economic barriers:* The need for heavy investment in capacities and the limited size of the market are among the factors that prevent organizations from entering some markets.

### 5.4.4. Appropriation of profit

Who really owns the profits from a resource? Many organizations earn huge profits, but these profits do not go to the shareholders; For

example, sports groups and financial and consulting institutions are among the businesses that earn a lot of profits according to their resources, but a small share of them goes to the shareholders because the majority of the profits go to other people; Supposedly, football stars receive very high salaries and benefits, and if they are not paid, they will easily move from one sports club to another; This also applies to some investments and other organizations; Therefore, it is a valuable resource that cannot be easily bought, sold and moved from one organization to another.

#### **5.4.5. Durability**

At what speed does the depreciation of the desired resource, take place? Is it possible to measure it, especially in intangible assets? It is clear that the slower rate of depreciation of a resource increases its value, for example, the Coca-Cola brand has been around for years, but technical know-how in computer technologies depreciates quickly. In the hyper-competitive economy of the 21st century, privileged qualifications and competitive advantages may quickly lose their value; Therefore, the idea of durability is an important criterion for valuing a resource. For this reason, some authors believe that appropriate perspectives and organizational culture are the most important factors for the long-term survival of the organization.

#### **5.4.6. Replace ability**

Are there other solutions? The issue of substitute products as one of the five forces affecting the profitability of the industry that were previously discussed, this idea can also be used to judge the value of resources.

### **5.5. Application of resource-based perspective in internal analysis**

In order to use this approach, managers must first identify the resources of an organization that provide a greater competitive

advantage for the organization and then judge the strategic value of that resource according to the criteria provided. Paying attention to the following points can be useful for this judgment.

*Resource breakdown:* Breaking down a resource into more specific competencies is preferable to general categorization; For example, advertisements can be divided into national, local and even more detailed advertisements to enable more objective evaluation.

*Exploiting the functional perspective:* looking at the different functional areas of the organization, analyzing the tangible and intangible assets, as well as the capabilities that exist, can help managers discover valuable resources and activities. Areas that deserve further analysis.

*Assessing processes and resource mix:* Looking at the mix of organizational resources and processes is not just about separating assets and capabilities. In other words, although resource allocation should be emphasized, this does not mean that we should not be holistic and take a comprehensive and creative approach to a potential competency that may produce a competitive advantage.

### **5.5.1. Using the value chain approach**

The application of this approach is useful for discovering the organization's capabilities, activities and processes that are valuable and usable resources in the field of competition. Although the resource-based approach enables managers to make a systematic assessment of internal resources, it should be emphasized that the analysis of these resources is meaningful only in the context of the organization's competitive environment. In other words, having valuable resources does not generate profit unless the said resources are used in an effective product marketing strategy and act in the direction of competitive advantage. Determining the external position of the organization and investing in strengths and opportunities as well as minimizing threats and weaknesses should also be considered to make this approach a reality. The following

article explains this traditional approach. This approach, often referred to as a SWAT analysis, can complement a resource-based approach to an internal analysis.

### **5.5.2. SWAT analysis**

SWAT is a term used to identify internal strengths and weaknesses and external opportunities and threats that an organization faces. SWAT analysis is the systematic identification of the factors with which the strategy should have the best compatibility. The logic of the mentioned approach is that the effective strategy should maximize the strengths and opportunities of the organization, and minimize the weaknesses and threats. This logic, if used correctly, will have very good results for choosing and designing an effective strategy. The analyzes presented in the context of the environment and industry provide managers with useful information that they can use to identify important opportunities and threats to the organization. These opportunities and threats are defined as follows.

#### **Opportunities:**

Opportunities are desirable and important positions in the organization's environment; For example, identifying unknown market segments or changes in competitive or regulatory conditions, technological changes, and improved relationships with buyers or suppliers may indicate key trends in the environment or sources of potential opportunities for an organization.

#### **Threats:**

Threats are unfavorable but important situations in the organization's environment that create major obstacles for the organization's current or future position. For example, the entry of new competitors, slow market growth, increased bargaining power of key buyers or suppliers, significant technological changes, and

regulations can represent significant threats to an organization's future success. Understanding the key opportunities and threats that an organization is facing helps managers to identify the real solutions from which they can choose the appropriate strategy, and also clarifies the effective areas of the organization. The second axis in SWAT analysis is the identification of key strengths and weaknesses based on the analysis of internal factors, which will be defined below.

**The strengths:**

The presence of a resource, skill or advantage over competitors in the market in which the organization operates or anticipates to operate in the future is considered a strength or power. This means that the organization has a superior advantage or competence compared to competitors or needs in the market, for example, superiority in terms of financial resources, leadership in the market or good relations with buyers and suppliers are examples of these points are strong

**Weaknesses:**

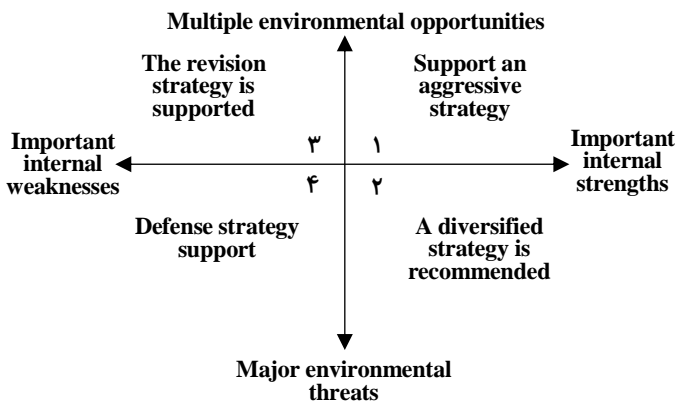
Limitations or inefficiencies in the use of resources, skills and abilities that create serious obstacles to the successful performance of an organization in the competitive market are known as weaknesses, presumably the lack of facilities, financial resources, management abilities and marketing skills. They can be among the sources of weakness of an organization.

The result is that identifying and understanding the key strengths and weaknesses of an organization helps to limit alternatives and choose a strategy; Also, identifying important competencies and important weaknesses in relation to the determinants of success in the market provides a useful framework for the best strategic choice.

SWAT analysis is used in decisions related to strategic choice. Its most common use is to provide a logical framework for



systematically guiding business position discussions, different strategies, and ultimately strategy selection. What one manager sees as an opportunity, another manager may see as a threat. Also, one strength may be seen as a weakness by another. Thus, different diagnoses may reflect fundamental considerations of power within the organization or differences in real perspectives, and the key point in a systematic SWAT analysis is a domain analysis of all situational aspects of the organization and, as a result, provides a useful framework for strategic choices. Is. The second application of SWAT analysis is shown in Figure 5.1. Key external opportunities and threats are systematically compared with internal strengths and weaknesses in a structured approach. The purpose of this comparison is to identify one of the four specific patterns for internal and external location compatibility, which is shown in Figure 5.1 and briefly explained.



**Figure 5.1. SWAT analysis**

Zone 1 is the most favorable positions, the organization faces several environmental opportunities and has several capabilities that encourage the pursuit of such opportunities. These conditions

suggest growth strategies for optimal adaptation. The broad development strategy of AI market. B. M in the potential computer market has been the result of matching or matching strengths and resources and opportunities for market growth. Area 4 shows a position with minimum utility. These conditions clearly call for strategies that reduce or redefine the organization's conflicts in the market and product. In area 2, the organization faces an unfavorable environment but with key advantages. In this situation, in the design of strategies, the current strengths and advantages should be used to take advantage of favorable opportunities in other markets and products. A business in area 3 faces effective opportunities in the markets, but due to the internal weakness of the organization's operational capacity is limited. Businesses in this case are similar to the question mark in the Boston Consultants matrix. The focus of strategy is to address internal weaknesses to effectively pursue market opportunities.

An important challenge in using SWAT analysis is identifying the business situation in a real way; For example, a business that faces important opportunities may also face some key threats. It is also possible that the organization has several internal weaknesses and at the same time has one or more strengths compared to its main competitors.

Fortunately, the value of SWAT analysis is not only based on the exact location of an organization in a specific area, but the mentioned approach allows the strategists to consider the overall position of the organization according to the market conditions and the product for which the strategy is prepared. In this regard, it is very important to answer the following questions:

- Does the SWAT analysis indicate that the organization has an important position of power? Or does the organization have to

overcome many internal weaknesses to create compatibility between internal and external conditions?

In answering these questions, SWAT analysis helps to solve a fundamental problem in choosing a strategy:

- What will be the basic goal or the purpose of the main strategy? Is the strategy designed to take advantage of a position of strength or to address a weakness? The answers to these questions provide the necessary data for an axis of the main strategy selection matrix.

### **5.5.3. The importance of systematic internal evaluation**

Before discussing the elements and components of the internal analysis process in detail, we must explain the impact of systematic analysis. The experiences of large and small organizations show that the evaluation and diagnosis of the internal environment is very important in designing a business strategy, because regardless of the favorable opportunities in the environment, a strategy in order to make the most of these opportunities should include investigations on strengths and weaknesses. Be internal to the organization.

Systematic analysis is especially important for small organizations, because these organizations are constantly faced limited resources and markets, and it is necessary to be flexible so that they can develop their own specific and specialized responses in dealing with Provide market developments.

Therefore, for the effective use of resources in order to make the most of market opportunities, an objective and continuous analysis of the internal environment or internal organizational factors is necessary and important.

### **5.5.4. Task approach**

Strategic internal factors are the basis of the organization's capabilities, limitations and basic characteristics. A list of these

factors is presented below, some of which are common in most organizations; But the managers have probably not examined all the factors mentioned in this list as potential strengths and weaknesses, and prefer to evaluate only a limited number of these factors to design and review the strategy, factors that are highly likely to succeed. Another important point is the difference of the internal factors of the organizations according to the industry, market, product life and their current situation. These factors are important for success in the specific competitive environment of each organization and are known as strategic factors. For example, strategic factors for industrial organizations are completely different from construction organizations. Strategic factors also differ among organizations in the same industry. One organization's premise relies on product differentiation, while another organization may consider mass production, mass advertising, and mass distribution to be important. Therefore, according to the position of the organization, managers examine its past performance as a starting point to identify key factors. These factors indicate the favorable or unfavorable results of the organization in the past and determine in which areas the organization's performance was strong or weak; In other words, managers examine activities such as marketing, production, and finance and clarify which of the internal factors have had an important impact on the organization's performance. The potential weaknesses and strengths of organizations in the discussion of key internal factors are as follows:

### **Marketing**

- ✓ Products or services of the institution; Product line expansion.
- ✓ Sales focus on a few products or a few customers.
- ✓ Ability to collect necessary information about markets.

- ✓ Market share or market share.
- ✓ Product/service availability and development capability: Life cycle of core products.
- ✓ Balance of profit/sales in product/service.
- ✓ Distribution channels: number, coverage and control.
- ✓ Effective sales organization; Knowledge of customer needs.
- ✓ Mental image, reputation and product/service quality.
- ✓ Sales promotion, creative, efficient and effective advertising.
- ✓ Pricing strategy and pricing flexibility.
- ✓ Methods of receiving feedback from the market and developing new products, services and markets.
- ✓ After sales service and follow up.
- ✓ Good name/interest in the brand name.

### **Financial and accounting**

- ✓ Ability to provide short-term capital.
- ✓ Ability to raise long-term capital: Debt-to-equity ratio.
- ✓ The level of resources of the organization (institutions with multiple businesses).
- ✓ Cost of capital compared to industry and competitors.
- ✓ Tax considerations.
- ✓ Communication with owners, investors and shareholders.
- ✓ Leverage position: the capacity to use different financial strategies, such as rent or sale and rent-to-own.
- ✓ Cost of entry and barriers to entry.
- ✓ Price to profit ratio.
- ✓ Working capital: flexibility of capital structure.
- ✓ Effective cost control: ability to reduce costs.
- ✓ Financial dimensions.
- ✓ Efficient accounting system, cost price, budget and profit planning.

### **Technical/operational/production**

- ✓ Cost and availability of raw materials; Relationships with suppliers.
- ✓ Inventory control systems; Inventory turnover.
- ✓ The location of the equipment and the operation of the equipment.
- ✓ Economy of scale.
- ✓ Technical efficiency of equipment and capacity utilization.
- ✓ Effective use of subcontracting.
- ✓ The degree of vertical integration; Added value and profit margin.
- ✓ Efficiency, cost and revenue of the facility.
- ✓ Effective operational control instructions: design, scheduling, purchasing, quality and efficiency control.
- ✓ Costs and technical capabilities compared to the industry and competitors.
- ✓ Research and development/technology/innovation.
- ✓ Copyright, trademark and other legal protections.

### **Staff**

- ✓ Managers.
- ✓ Skills and morale of employees.
- ✓ Cost of employee relations compared to industry and competitors.
- ✓ Efficient personnel policies.
- ✓ Effective use of incentives in motivating performance.
- ✓ The ability to smooth the peaks and troughs of employment.
- ✓ Employee turnover and absence.
- ✓ Special skills.
- ✓ Experience.

**Public Management Organization**

- ✓ Organizational structure.
- ✓ Mental image and reputation of the institution.
- ✓ History of the institution in achieving the goals.
- ✓ Communication system organization.
- ✓ Comprehensive control system (effectiveness and exploitation).
- ✓ Organizational culture; Employee culture.
- ✓ Use of systematic instructions and techniques in decision making.
- ✓ Excellent management skills and interests.
- ✓ Strategic planning system.
- ✓ Intra-organizational synergy (in multi-business organizations).

Therefore, analysis of past trends such as sales, cost and profitability trends is very important in identifying strategic advantage factors. This evaluation and identification should be based on a clear picture of the nature of the organization's sales, costs and profitability; For example, in the evaluation of the past sales trends, the product, regions and sales distribution networks should be identified and analyzed separately under contract and important consumers. This type of review should also be done on profitability and costs, as the result of the aforementioned evaluations may lead the managers to the conclusion that 83% of the sales volume is due to 25% of the organization's products, or that 78% of the profit obtained belongs to 30%. Products and it is clear that in this case the management will pay special attention to some strategic factors that have had important results for the organization. Identifying strategic factors within organizations also requires attention and focus on the external environment because comparing the factors obtained from the analysis of past trends with the trends and standards of the

industry and competitors provides managers with a better view of their value and importance. It is obvious that if the conditions of the industry and the position of the competitors change, it will be necessary to re-evaluate the strategic strengths and weaknesses, and the managers should again determine the factors affecting the position of an organization in that industry.

In short, the selected intra-organizational factors should be deeply evaluated and analyzed. In this evaluation, a detailed examination of the target industry and competitors to discover and recognize the factors of strategic advantage is of particular importance, especially if the organization is trying to develop new products and its markets.

#### **5.5.5. Activity chain approach (value chain)**

It is possible to evaluate and identify the key strengths and weaknesses of the organization based on accepting a dissociative view of its activities; In other words, examining the organization based on specialized areas is a way to break down the organization in order to analyze the internal factors of the organization, which was proposed as a task approach. Another way to break down the organization is to use the value chain approach presented by Michael Porter in the book *Competitive Advantage*. This approach is a way to systematically review the organization's activities. Therefore, in order to understand the organization's cost behavior and its potential or existing resources, the value chain approach divides the organization's activities into strategic activities. In this view, organizations will gain competitive advantage through better and cheaper performance of strategic activities than competitors (internal key factors). In other words, every organization can be divided into a set of value activities that result in activities such as design, production, marketing, delivery, and product support, and as the



figure shows, these activities can be assigned to a strategic unit or organization. Divided into 9 basic classes, within each class a number of different activities take place, each of which may indicate a key strength or weakness for the organization; For example, activities such as installation, repair, distribution of parts and the like that are in the field of services.

The result is that managers can obtain the potential strengths and weaknesses of the organization through the systematic identification of various activities, activities that can be classified into two basic types, one is the main activities such as the activities required to produce a product or service, marketing and after-sales services and other support activities that provide data or infrastructure and enable the continuation of the main activities.

*Identifying the main activities:* In the value chain approach, the main and primary activities are identified based on technological distinctions or strategic activities, in other words, each of the five main activities are divided into several other activities, which are briefly mentioned be made

*Input logistics:* to the activities that are associated with receiving, storing and transferring input data for product or service production, such as warehousing, inventory control, material planning, scheduling, vehicles, etc.

*Operations:* This area includes activities related to the process of converting data into a final product, activities such as assembly, machining, packaging, maintenance, technical testing, and facilitating operations.

*Outbound logistics:* activities related to the collection, storage, and physical distribution of products to buyers, such as warehousing of manufactured goods, movement of materials, order processing, and detailed schedules.

*Marketing and sales:* advertising, sales promotion, distribution network selection, distribution relations, rationing and pricing are

among the activities that make it possible for buyers to buy a product and be motivated to do so.

### **Value chain analysis indicators**

- ✓ Ability to define new product market opportunities and potential environmental threats.
- ✓ The quality of the strategic planning system to achieve the organization's goals.
- ✓ Coordination and integration of all value chain activities among organizational units.
- ✓ Ability to obtain relatively cheap funds for capital expenditure and working capital.
- ✓ The level of support of information systems in making strategic and repetitive decisions.
- ✓ Accurate and timely management of information related to competitive and public environments.
- ✓ Establishing relationship with influential groups and policy makers of the public sector of the society.
- ✓ The image of the organization in the eyes of the public.

### **Public Management**

- ✓ Effectiveness of recruitment, training and promotion procedures at all levels of employees.
- ✓ Appropriate reward systems to motivate and activate employees.
- ✓ A favorable work environment that minimizes commuting and absenteeism.
- ✓ Friendly relations with trade unions.
- ✓ Active participation of managers and technical personnel in professional organizations.
- ✓ Levels of applying motivation and job satisfaction of human resources management.

- ✓ The success of research and development activities in guiding process and product innovations.
- ✓ The quality of the working relationship between the research and development unit and other units.
- ✓ Development during technological activities.
- ✓ Quality of laboratories and equipment.
- ✓ Qualification and experience of laboratory technicians and specialists.
- ✓ The ability of the work environment to encourage creativity and innovation.

### **Technology Development**

- ✓ Developing alternative sources for inputs and minimizing the organization's dependence on a single supplier.
- ✓ Timely supply of quality raw materials at the lowest cost.
- ✓ Procedures for providing machines, buildings and parts.
- ✓ Setting criteria for buying or renting decisions.
- ✓ Establishing long-term and good relationships with reliable suppliers.

*Services:* includes activities that provide service to buyers and increase the value of the product or maintain it. Such as: installation, maintenance, training, supply of parts, etc.

*Identification of support activities:* Support activities can be divided into four groups based on technology or distinct strategic activities, which are often overlooked as a source of competitive advantage and are generally characterized as follows:

*Supplying needs:* activities required to obtain data such as raw materials, machinery and tools, purchasable services that are necessary to support the main activities. Some of these activities are provided within the organization by different people. All the main activities need such activities in some way.

*Technology development:* Technology development includes activities related to product design as well as creating and improving ways of doing activities in the value chain. We think that technology should be defined in terms of the production process or product, if every activity of the organization is involved in one or more types of technology, which may be complex and there is a reserve of knowledge within the organization to do it. The development of type technology is involved in distinct and different activities, some of which must be acquired from outside the organization.

*Human resource management:* activities in the field of human resource management are necessary to ensure the recruitment, training and development of human resources, and for any activity requires human resources, therefore, activities related to human resource management become particularly important.

*Organization infrastructures:* This area includes activities such as general management, law, finance, accounting and strategic planning and are necessary for all activities.

## **5.6. Use of value chain in internal analysis**

The value chain approach is a useful approach to systematically guide internal analysis to identify potential or existing strengths and weaknesses of the organization. This approach divides all activities into three distinct categories or classes, through which strategists can identify key factors within the organization to further investigate and evaluate potential sources of competitive advantage; In other words, using this approach, managers compare the existing situation with the desired standards and determine the strengths and weaknesses of the activities (the desired standards will be explained).

### **5.6.1. Evaluation of internal strategic factors**

Theoretically, the two stages of identifying and evaluating key factors within an organization can be separated from each other,

although in practice this separation is not possible. The purpose of internal analysis is to accurately determine the organization's strategic strengths and weaknesses, and this goal cannot be achieved by producing a long list of the organization's capabilities and resources, and it does not contribute much to strategy formulation. Therefore, the internal analysis approach should emphasize the identification and evaluation of a number of strengths and weaknesses that are related to the desired opportunities in the current and future competitive environment.

But what are the potential strengths and weaknesses? A factor is known as a strength if it creates a competitive advantage or a privileged competence for the organization, and this means that the organization not only has the ability or competence to perform that activity, but also now or in the future has the ability to do it better than existing competitors. And it will have potential; In other words, it provides a competitive advantage in the market for the organization. Also, a factor is known as a weak point if the work that the organization does is weak or if it does not have the capacity and ability to do it like its competitors. Now this important question is raised that how should the strategy makers evaluate the key internal factors and determine the strengths and weaknesses?

There are four perspectives for this. These views are:

1. Compared with the past capabilities and performance of the organization.
2. Using the product market evolution model.
3. Comparison with competitors.
4. Comparison with key success factors in the industry.

**1) Comparison with past capabilities and performance:** Strategists use the organization's historical experiences as a basis for evaluating internal factors. Managers are most familiar with the

issues and capabilities of the organization; Because over time they have been involved in managing financial, marketing, production and research and development activities, and therefore we should not be surprised that they are not strongly influenced by their internal experiences in evaluating internal factors such as production facilities, sales organization, financial capacity, control systems and human resources. However, although these experiences can provide them with a suitable evaluation framework, despite these, strategists should avoid being caught in a limited attitude and pay attention to the fact that relying only on past experiences to evaluate internal strengths and weaknesses It may dangerously increase in accuracy.

- 2) **Using the market/product evolution model:** the factors affecting success in product market segments evolve and change over time, and as a result, strategists can use the models proposed to explain the different stages of product market evolution as a framework to identify and evaluate strengths. And use the weakness of the organization.

Figure 5.2 shows the four stages of product market evolution and the possible changes in functional capabilities that are often required for a business to succeed. For example, in the stage of introducing the product to the market, the sales growth rate is minimal and the main emphasis is on research and development. Also, in this stage, there is a need for sufficient resources to support the continuation of unprofitable operations. Success at this stage may depend heavily on having technical skills, marketing advantages and the existence of new markets. It is clear that in the next stage, i.e. The growth stage, the factors required for success will change because the rapid growth rate

of the product will be accompanied by the entry of new competitors into the market; And in the maturity stage of the development and evolution of products and markets, it means an increase in market segmentation and the continuation of growth at a decreasing rate. At this stage, technology change is inevitable to design diverse products, and it will usually be accompanied by the intensification of competition. Product differentiation or price advantage is known to be the key success factor in the maturity stage, as a result of technological change in the design process becoming more intense, competitors will try to offer products in a more efficient process.

Therefore, the key success factors change at each stage of product market development and evolution, for example, if research and development are very important at the product introduction stage, at the maturity stage, production efficiency becomes important for the continued success of the business in wider market segments. . Also, when markets and products reach the stage of saturation and decline, cost advantage, relationships with consumers or suppliers, and financial control is the focus of the organization's strengths and weaknesses, even in the decline stage, there may be at least a temporary competitive advantage. The condition is that the organization gradually selects markets that competitors have decided to leave.

- 3) **Comparison with competitors:** An important criterion in determining the strengths and weaknesses of the organization is to compare its assets, capabilities and advantages with existing and potential competitors. Organizations in similar industries and activities often have differences in marketing

skills, financial resources, facilities, production location, technical knowledge, integration levels, management talents and the like, which can be considered as an advantage if the right strategy is chosen and vice versa. In other words, when choosing a strategy, managers should identify their key capabilities and limitations within the organization and compare them with competitors to determine their strategic strengths and weaknesses. It is clear that comparing an organization with its main competitor will be very useful to ascertain the capabilities; The mentioned comparison makes it possible for the organization to avoid accepting strategic commitments in areas where it cannot compete.

- 4) Comparison with the key success factors in the industry:** Industry analysis means identifying the factors that are important for the success of an organization in that industry. The mentioned factors may be used as a measure to identify the strengths and weaknesses of the organization; Therefore, strategists can evaluate their capabilities and position in the industry by analyzing factors such as consumer needs, industry vertical structure, distribution networks, costs, barriers to potential competitors entering the industry, the availability of substitute goods, suppliers and existing organizations. To determine their strengths and weaknesses in the competitive scene (Michael Porter's theory of industry analysis was explained in the previous chapter). Today, it is very common to use the industry analysis technique to evaluate the capacity and capabilities of the organization and naturally to design the future strategy.



### **5.6.2. Quantitative and qualitative approaches in evaluating internal factors**

Several quantitative tools are available to evaluate selected internal abilities. These tools include the measure of the effectiveness of the organization against each of the relevant factors and the comparative analysis of this measure with respect to the competitors and the historical experiences of the organization. Ratio analysis is very useful for evaluating operational, marketing and financial factors. Balance sheets and income statements are important sources for obtaining these ratios; But quantitative tools cannot be used to evaluate all internal factors. Value judgments of key planning stakeholders may also be used, for example; It will be more appropriate to evaluate the credibility of the product or the image of the organization in society using qualitative techniques; But this does not mean that their importance is not great, but it should be noted that qualitative criteria are also very important for the analysis of the internal environment; Therefore, although managers use techniques based on past performance and comparison with competitors in evaluating the desired capabilities, they also rely heavily on value judgments or qualitative evaluations, this is perhaps because weaknesses and inadequacies often reflect the lack of competencies and capabilities that The organization does not have experience in that area, and therefore, due to the lack of historical experience, the management should use qualitative techniques and opinions of experts to analyze the strengths and weaknesses in these areas.

### **5.7. Summary**

Internal analysis as a process

Figure 5.2 shows the image of the organization's capability as a four-step process that is useful in guiding managers to analyze internal organizational factors. The mentioned diagram summarizes

all the contents presented in this chapter well. In the first step, managers examine and evaluate the important aspects of an organization's operations and select the key areas for further evaluation. These areas are very important for the strategic orientation of the organization; they are called "strategic internal factors".

In the second stage, the managers evaluate the position of the organization based on the mentioned factors and by comparing the current situation with the past, capabilities. This is the point where most managers start their planning efforts and consider the answers to the following questions.

- ✓ How is the performance of the organization compared to the past?
- ✓ Has there been an improvement in the activities of the organization compared to the past or not?
- ✓ Has the organization been able to do key tasks better than in the past?

The answers to the above and similar questions make it possible for the management to evaluate the favorable or unfavorable position of each of the key factors compared to the past at this stage.

The third step in analyzing the internal environment is very important. At this stage, managers evaluate and compare key factors with success criteria in the industry and the product market evolution process, and get a more accurate picture of the organization's strengths and weaknesses according to these criteria. At this stage, managers consider the following dimensions:

1. The requirements of different stages of the product market evolution process for success.
2. Competitors' abilities.
3. Identify the key requirements for success in the industry market segments in which the organization competes.

The result of going through the above three steps determines the following strategic internal factors:

1. *Competitive advantages*: Factors that provide a competitive advantage to the organization compared to competitors and therefore play a key role in making strategy.

2. *Basic business requirements*: These factors are very important for the organization, but typically every competing organization also has those capabilities, and doing them does not represent a potential source of strategic advantage

3. *Key vulnerabilities*: Factors such as essential skills, knowledge or resources needed for effective competition that the organization currently lacks, identifying these factors often provides important data and information for managers in the strategic management process, and managers They should also avoid choosing strategies that depend on these types of factors and try to change the conditions. The final step in internal analysis is setting the image of the organization as data for the strategic management process, which is very important for strategy formulation. In the end, we should point out that although the steps presented in Figure 5.1 show the internal analysis process as a process in which each step is distinct from the other steps, it should be noted that these steps often conflict with each other. And separating them is generally useful for describing the subject, but in practice it is very difficult to distinguish each of these stages due to their intense interaction with each other.

When the information obtained from the internal analysis process is combined and evaluated with the results obtained from the analysis of the external environment and the priorities set on the goals, they provide the basis for developing the strategy, and finally, when the information obtained from the internal analysis is accurate and complete. And if it is timely, the managers are in a better position to develop effective strategies.

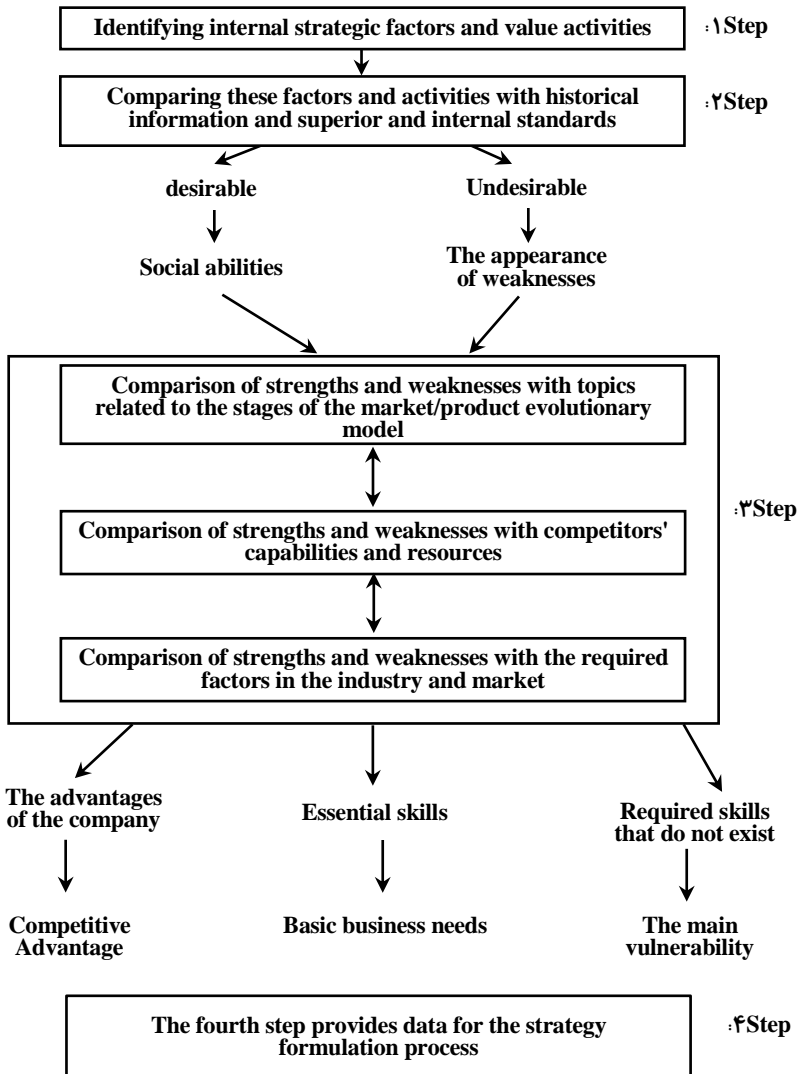
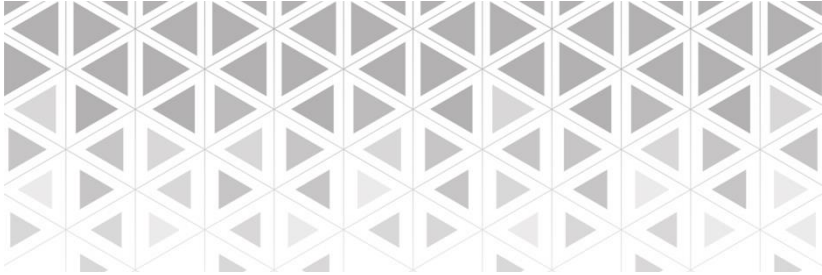


Figure 5.2. The steps of developing and setting the image of the organization



## **Chapter 6: Strategic management; developing goals and strategies**

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### **6.1. Introduction**

The fundamental mission or goal that represents the broad goals of the organization. Such goals are generally expressed by the ability of profitability, growth and survival, and they do not have a specific time frame, and although they are always pursued, the organization will never reach them completely, so the aforementioned goals require a broad understanding of the direction. Provide, but at the same time, they cannot create a basis for evaluating the organization and its progress towards the goals. This will be possible by setting long-term or general goals. These goals represent the results that the organization strives to achieve, supposedly in a five-year period. After that, we will review the main strategies. These strategies provide a general and comprehensive approach to guide important actions designed to achieve long-term goals; As a result, this chapter has two important goals:

1. Detailed description of long-term goals, the topics they cover and the quality they should have.
2. A detailed explanation of the concept of master strategies, twelve master choices available, and two approaches to master strategy selection.

## 6.2. Long-term goals

Strategic managers have recognized that maximizing short-term profits is rarely the best approach to achieving sustainable growth and profitability. They used to say that if you give food to poor people, they will benefit from eating, but their poverty will continue; But if you give them the necessary seeds and tools and teach them how to cultivate, they will be able to improve their conditions forever. Strategic decision makers are also facing a similar situation.

1. Do they consume seeds to improve short-term profitability by paying higher dividends, selling, inventory, cutting R&D costs, or cutting staff during times of reduced demand?

2. Do they sow the seeds for market penetration by reinvesting profits into growing opportunities, allocating existing resources to employee training to improve performance and reduce turnover, or increasing advertising spending?

The answer is clear for most strategic managers. They consume a small amount of the profit and invest most of it for the long term. This justifies the logic of choosing long-term goals. These goals are generally determined by strategic designers in the following areas.

**1. Profitability:** The long-term viability of any business depends on achieving an acceptable level of profit. Organizations that manage strategically set their profitability goals as earnings per share or return on assets.

**2. Efficiency:** Strategic managers constantly strive to improve the efficiency of the organization's systems. Organizations that can improve the relationship between data and receivables usually increase their profitability, so businesses generally define a productivity goal for themselves. The number of items produced or the number of services performed per unit of data is generally used, sometimes productivity goals are expressed in terms of the desired

reduction in costs. This way is an effective way to increase profitability, provided that the earnings remain constant; For example, the goal might be to reduce defective items.

**3. Competitive position:** One of the success criteria of organizations is their relative dominance in the market. Large organizations often choose a goal based on their competitive position to measure their growth and profitability capabilities compared to competitors, which is usually the total sales or market share used, and this goal may even indicate the organization's long-term priorities; For example, an organization may set its goal in a five-year period to move from third to second place in the market.

**4. Development of human resources (employees):** Employees attach importance to the growth of their job capacities in the organization, and if there are such opportunities, productivity is often increased and the costs of moving human resources are reduced. Therefore, strategic decision-makers often consider the goal of human resources development in their long-term plans.

**5. Human relations:** Organizations actively seek good human relations among their employees. In fact, one of the characteristics of strategic managers is to take active steps in anticipating the needs and expectations of employees. These managers believe that there is a mutual relationship between the productivity and loyalty of employees and the perception of their well-being by management; Therefore, strategic managers choose goals to improve employee relations, including safety programs, the presence of employee representatives in the management group, giving shares, etc.

**6. Technological leadership:** Business leaders must decide whether they want to be a leader or a follower in the market. Both approaches can be successful, but each requires a different strategic

situation; Therefore, some organizations define their purpose based on technological leadership.

**7. Social responsibility:** Organizations have recognized their responsibility towards society and consumers. Some of them are not only seeking to provide desirable products and services to consumers, but also trying to introduce themselves as a responsible organization towards the society; For this reason, they may set goals for themselves in activities such as educational, social and welfare activities.

### 6.2.1. Characteristics of long-term goals

What distinguishes a good goal from a bad one? What quality should a goal have in order to increase the chances of achieving it?

Perhaps the best answer to such questions is to observe the seven criteria that should be considered in the goal. These criteria are:

Acceptability, flexibility, comprehensibility, accessibility, ability to measure over time, appropriateness and motivation which we briefly explain.

**Agreed:** Managers are likely to pursue goals that are consistent with their perceptions and preferences. If the managers find the goals inappropriate or are unfamiliar with them, or if they have to act against their perceptions, they may ignore them and even prevent them from being achieved, so long-term goals should not only be accepted by the managers but also It should also be accepted by foreign influential groups because they have an important impact on the performance of the institution.

**Flexibility:** Goals should be able to be modified in the face of sudden events or extraordinary changes in environmental forecasts and competitive environment, although this flexibility of goals is usually associated with increased costs and may reduce employees'



confidence in them. . For this reason, in order to be flexible in the goals and minimize their negative effects, it is recommended to adjust them more in the level and not in the nature; For example, if our goal is to provide training for 15 supervisors every year for 5 years, we can easily adjust the goal by increasing or decreasing the number of people; Not to change this goal to another goal, such as reducing the number of supervisors, which will definitely cause dissatisfaction.

**Ability to measure over time:** The goals should be clearly and accurately expressed so that it is clear what we want to achieve and in what time. Because the quantification of goals minimizes their interpretations and misperceptions and makes it possible to measure them over time.

For example, the goal of "fundamental improvement on return on investment" is better stated as "increase return on product line X by at least one percent per year and five percent in the next three years."

**Motivating:** Studies show that people are more creative when they set their goals on a motivational level; in a way that makes them challenge. These goals should not be so big that [failing to achieve them] becomes a source of disappointment and not so small that they are easily achieved. The important point is that the understanding of individuals and groups about the low or high degree of goals is not the same, a goal may be a challenge for one group but frustrates another group and at least creates interest in the third group.

A valuable recommendation in this field is to develop or create multiple goals, each of which is related to a specific group.

Setting and presenting goals with multiple dimensions requires the involvement of decision makers and spending time on their part, but it is possible that in this case, the goals will act as motivational forces.

**Appropriateness:** goals should be formulated and adjusted within the framework of the organization's fundamental goal or mission, and each of them should be a step towards achieving the basic goals. In fact, goals that are not in line with the organization's mission can cause a severe blow to the organization.

**Understandable.** Strategic managers at all levels must have a clear understanding of what they want to achieve. They must also know the important criteria used to evaluate performance, so the objectives must be expressed in a way that is as understandable to their recipients as to the developers.

**Availability:** Goals must be achievable. This is much easier said than done. Turbulence in near and far environments and in addition to the dynamic nature of organizations' operations increases uncertainty and limit strategic managers' field of action in choosing possible goals.

#### Balanced scorecard

The scorecard is a set of criteria that is directly related to the strategy. This card, designed by Robert S. Kaplan and David Norton, allows the organization's management to convert long-term strategy into short-term goals and actions. The mentioned approach evaluates the organization from financial dimensions, consumer, internal business processes, growth and learning. Diagram 6.1 provides a detailed definition of the organization's desired image and strategy. Each of the houses of the chart includes goals, criteria, quantitative goals and initiatives with implementation solutions of one of the perspective.

The goals and measurement criteria of each of the four perspectives have a mutual relationship and a cause and effect relationship with each other and with the strategy, which ultimately leads to the successful implementation of the strategy; In other

words, achieving the quantitative goals of one perspective should help us achieve the goals of another perspective so that the organization's performance increases.

A proper scorecard creates a good and logical balance between these four perspectives. The mentioned system can also be used as a main framework for organizing key management processes and helps managers in determining individual and team goals, reward system, resource allocation, budgeting, planning, feedback and learning.

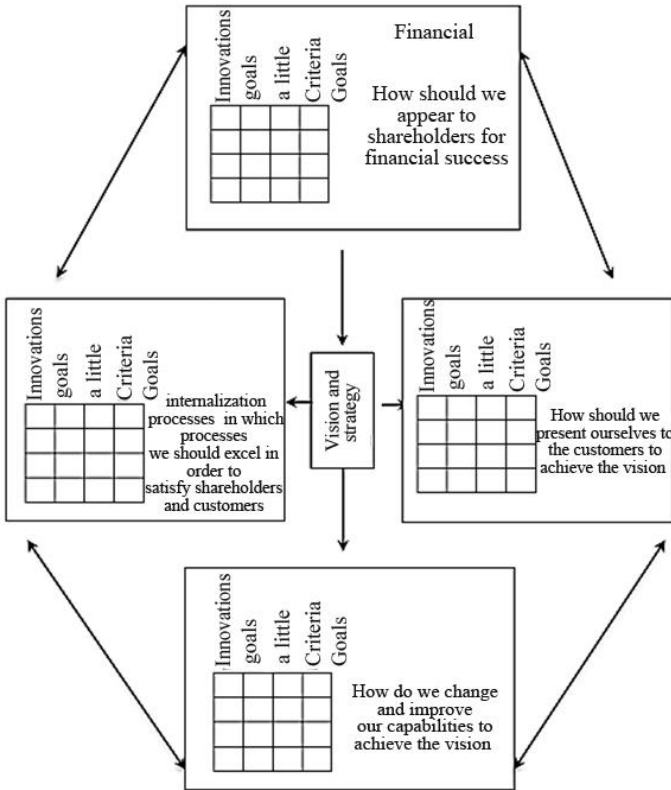


Diagram 6.1. Balanced Scorecard

### 6.3. General strategies of competition

A number of planning experts believe that the general business philosophy stated in the organization's mission statement should become a general statement of the organization's strategic orientation before it is defined as a specific long-term strategy; In other words, the main long-term strategy should be based on a central idea around the best approach of the organization to compete in the market. The term city for this central idea of generic strategy was developed by Porter, and many planners believe that long-term strategy must rely on one of three generic strategies to gain competitive advantage:

1. Striving for cost leadership in that industry.
2. Trying to create and build specific products for different consumer groups through differentiation or difference.
3. Offering products for one or more specific consumer or industrial buyer groups and focusing on differential cost leadership. Defenders of general strategies believe that the choice of any of the general strategies will produce profits higher than the industry average for the organization and for different reasons these organizations will be successful.

Leaders must have relatively specific abilities to achieve and maintain this position in order to achieve the minimum cost. Capabilities such as a reliable supplier of scarce raw materials, having a high market share or market dominance, a high degree of investment, these organizations are usually superior in terms of efficiency and cost reduction. They benefit from maximizing the economies of scale of implementing cost-cutting technologies, reducing administrative and overhead costs, and methods of increasing sales volume.

An organization that has adopted a cost leadership strategy can have the advantage of lower prices or higher profit margins in the

market; In other words, such organizations can be successful in a price war and attack competitors to gain market share and gain exceptional profits. The Intel organization is among the organizations that have chosen this strategy for the personal computer market.

Differentiation or difference strategy is designed for consumers who have a special sensitivity to product features; Therefore, some organizations gain their loyalty by designing products that match the demands of this group of consumers. This loyalty is often accompanied by better pay to the said organization.

Product differentiation may be in features, distribution networks, product image with consumers, or the service network that accompanies the product. This differentiation often creates permanent barriers to entry, especially when consumers feel that the substitute product does not meet their needs.

A differentiation strategy allows a company to pay attention to the needs of a specific segment of the market, those segments that have been ignored by large organizations. The specific geographical area, consumers with certain financial power, the issue of the stock of a specific product or service, or the availability of a product with the demands of consumers who have a small demand of a certain size are among the situations in which this strategy is used. Focusing on cost leadership or differentiation in such markets can be profitable for organizations.

Although each of the general strategies enable an organization to maximize certain competitive advantages, at the same time they impose risks on the organization; For example, a cost leadership strategy faces the risk of low-cost technology development by a competitor, or a differentiation strategy faces the risk of competitor

imitation. Also, large organizations may enter the field of organizations that have chosen the focus strategy.

#### 6.4. Main strategies

Despite the diversity in the implementation of the strategic management approach, designers of planning systems generally agree on the vital role of core strategies. These strategies, which are often called general and commercial or business strategies, and provide basic directions for the informed and strategic actions of managers, serve as a basis for coordinating and directing efforts to achieve long-term goals. The conceptual and theoretical appeal of the idea of the main strategies in practice faces two problems:

Despite the diversity in the implementation of the strategic management approach, designers of planning systems generally agree on the vital role of core strategies. These strategies, which are often called general and commercial or business strategies, provide basic directions for the informed and strategic actions of managers, as a basis for coordinating and directing efforts to achieve high goals. They work for a while. The conceptual and theoretical appeal of the idea of the main strategies in practice faces two problems:

First, decision makers or strategic managers often do not recognize the range of main and available strategies; because they tend to gradually distance themselves from the existing situation; This often creates an unnecessary limitation to the search for improving the organization's performance, in other words, executives do not easily explore all absorptive strategies.

Second, strategic decision makers may generate a list of promising core strategies, but lack a logical and comprehensive approach to strategy selection, so the purpose of this section is twofold:

1. List the strategies and describe them and review the twelve main strategies that should be considered by strategic designers.
2. Providing approaches to choose the optimal strategy among the existing strategies. The main strategies express how we want to reach our long-term goals; Therefore, the main strategy can be defined as a comprehensive general approach that guides the important actions of the organization. Each of these twelve main strategies can be used to achieve the long-term goals of an organization or business. These strategies are: focused growth, market development, product development, innovation, horizontal development, vertical development, joint venture, related diversification, unrelated or mixed diversification, operation review, elimination and settlement.

When an organization deals with different industries, different businesses, or multiple product lines, or when it has distinct consumer groups, it may use several main or mixed strategies, but to clarify the issue of each of these strategies, they will be discussed independently in this section. And their strengths and weaknesses are also discussed to some extent.

#### **6.4.1. Focused growth strategy**

A number of organizations that underwent mergers mistakenly thought that the best way to achieve their goals and take advantage of financial and synergistic opportunities was to choose an unrelated diversification strategy; But many successful organizations like "Kentucky" went the other way and achieved favorable profitability by focusing on a specific product and market mix or choosing a focused growth strategy. The main logic of this approach, which is sometimes called market penetration or concentration strategy, is that by choosing this strategy, the organization expands and exploits its

experiences in the competitive market, so that this leads to the growth of innovation.

***The logic of superior performance:*** A focused growth strategy leads to increased performance. The ability to recognize the needs of the market, the knowledge and understanding of the buyers' behavior and their sensitivity to the price, and finally the persuasion and promotion of sales are among the characteristics of this strategy. Core capabilities are the most important determinants of competitive market success in these conditions compared to environmental factors and forces, and high success rates of new products depend on avoiding situations that require services or skills or distribution networks or technologies. It is a novelty that the organization lacks to face competitors. An important point to note is the misunderstanding of this strategy. Sometimes it is believed that this strategy is associated with low or no growth, while this is certainly not true for organizations that use this strategy correctly, and organizations that choose this strategy through the creation of competencies or competencies and focus They become famous on the market and the product in the market, and it is possible for them to achieve the desired growth by increasing productivity, better market coverage and more efficient use of technology.

***A favorable environment for focused growth strategy:*** The existence of certain conditions in the environment of organizations is favorable for this strategy. The first situation is the situation where the industry in question resists the advancement of technology, and this situation occurs when the product is in the early stages or the maturity stage of the consumer life, or when the demand for the product in the market is stable, barriers to entering the industry such as investment is up.

The second desirable condition is that the target markets are not saturated. Such markets with competitive gaps allow the organization



to pursue growth strategies without having to take the competitors' market share.

The third state exists when the organization's product markets are fundamentally different from the competitors' markets, so that it prohibits them from trying to invade the organization's market.

And finally, when the organization's data or inputs are available and fixed in terms of quantity and time required, this strategy can be used. Also, it is desirable to pursue this strategy in a stable market, i.e. A market without seasonal and cyclical fluctuations that encourages diversification strategy.

If an organization has competitive advantages based on production efficiency or distribution network, it can grow with a focused strategy. These advantages provide the possibility of economies of scale, make it possible to supply alternating products from the point of view of consumers, and finally, if the market is homogeneous and the requests are universal, it is desirable to use this strategy.

Risks and rewards of concentrated growth: Under stable conditions, choosing a concentrated growth strategy is associated with low risk compared to other strategies, but in a dynamic environment, commitment to this strategy is high risk. The biggest risk is that focusing on a particular product or market by an organization increases the organization's vulnerability to changes in that sector, after all, the intensification of competition, the influx of new technologies and investments, and the slow growth rate, the amount It increases the risk, and even more difficult is the presence of sudden changes in the environment or the sector, in which case, if the organization wants to change its products quickly and in a short period of time, or make changes in technology, it will face many issues and It cannot respond to such sudden changes in time and may

suffer heavy damages; But it should not be neglected that focusing on an industry or on a specific market and product increases the organization's skills compared to competitors who seek to discover new trends.

Anyway, in case of failure in predicting the developments of the industry, choosing this strategy may cause extraordinary losses to the organization, and finally, the organization that chooses this strategy loses many opportunities in other markets and products and prevents the use It is desirable from the organization's ability to supply new products and enter markets that are more attractive and useful.

A focused growth strategy is usually the best choice. There are many examples of successful and exceptionally productive organizations that have chosen this strategy; Organizations like McDonald's and Apple, which are very powerful in the competition market, are among them. This strategy has brought more success even for smaller organizations, so that these organizations have gradually and stubbornly improved their market position. Limited additional resources have also made it necessary to choose this strategy, which is favorable for low resources and its risk is low. It is clear that directing resources on a specific market and product and using a dominant technology enables better use of technology and market knowledge, enabling them to minimize the risk associated with unrelated diversification.

The success of this strategy is achieved due to the use of insights and knowledge about technology, product and goals to obtain a sustainable competitive advantage, which results in gaining a very large share of the market through increasing the usage rate of current consumers, attracting competitors' consumers and or selling the product to new consumers. Each of these choices also brings more sub-choices.

### 6.4.2. Market development strategy

After the focused strategy, the market development strategy has the lowest cost and risk among the twelve main strategies. This strategy involves marketing current products in the relevant markets by adding different distribution networks or changing the content of advertisements with sales promotion media. Some specific approaches under this heading are mentioned below, also organizations that add branches in other cities or countries will benefit from this strategy. In addition, organizations that change their traditional advertising methods also use this approach.

Centralization of market development and product development Centralization (increasing the use of current products in current markets):

1. Increasing the usage rate of current consumers
  - Increase the purchase size;
  - Increasing the rate of product retirement;
  - Advertising for other purposes;
  - Creating incentives through price to increase usage.
2. Attracting competitors' customers
  - Making more specific differences in product models;
  - Increasing sales promotion efforts;
  - Initiative in reducing prices.
3. Attracting non-consumers to buy the product
  - Creating motivation to try the product through sales incentives and...;
  - High or lower pricing;
  - Advertising for new uses;

**Market development** (selling current products in new markets)

1. Presence in new geographic markets

- Regional expansion;
  - National development;
  - International development.
2. Attracting other parts of the market
- Product development to other market segments;
  - Entering new distribution networks;
  - Advertising in the public media that has not been used so far.

**Product development** (developing new products for current markets)

1. Development of new features related to products
  - Adapting, adapting (development of other ideas);
  - Modifying (color, sound, shape, etc.);
  - Enlarge (stronger, longer, thicker, extra value);
  - To shrink (smaller, shorter, thinner);
  - To replace (other components, process, power);
  - Order and rearrangement (other patterns, loyalty, sequence, rewards);
  - Reverse;
  - Composition (mix, merge, match, connect, combine units, goals, requests and ideas).
2. Development of qualitative differences
3. Creation of new models and sizes (multiplication of productions)

### 6.4.3. Product development strategy

Product development means a fundamental change and modification in existing products or offering a new product but related to current products that can be sold to current consumers through existing distribution networks. The product development strategy is considered due to the reduction of the reception of the

existing product or due to the use of the reputation or the name of the current product. The goal of this strategy is to attract satisfied consumers from the current product to the new product.

#### **6.4.4. Innovation strategy**

In a number of industries, innovation is not faced with increasing risk because in the consumer and organizational markets there is an expectation of changes and periodical improvement of the offered products, and as a result, some organizations search for profitability in choosing an innovation strategy. They are looking for high profitability through the acceptance of new products by consumers and they are looking for new innovations. This group of organizations then changed the basis of their profitability from innovation to production or marketing advantages, while searching for new innovations.

The basic philosophy of the innovation strategy is to create a new product cycle that removes an existing product from the consumption cycle; Therefore, the mentioned approach is different from the product development strategy that extends the useful life of the existing product. While most growth-oriented organizations need to innovate from time to time, only a limited number of them use innovation as a strategy. It is clear that few innovations are profitable, because the costs of marketing, research and development, and turning initial ideas into profitable products are extremely high. A study shows that out of every 57 new product ideas, only 12 ideas are compatible with the long-term goals and mission of the organization, and out of these twelve ideas, only eight ideas have been successful in the evaluation of potential possibilities, and finally three ideas are at the next stage of the product development process. Have gone through, and finally two ideas were

recognized as profitable in the final test of marketing and finally only one idea was offered commercially.

#### **6.4.5. Horizontal development strategy**

If the organization's long-term strategy is to grow by acquiring one or more similar businesses at the same stage of the production/marketing chain, the horizontal development strategy is chosen. Such an action provides new markets for the organization and eliminates competitors.

#### **6.4.6. Vertical development strategy**

When the organization seeks to acquire businesses that supply products such as raw materials to the organization or provide services such as warehousing for manufactured products to the organization's consumers, the vertical development strategy is chosen; For example, if a shirt manufacturer establishes a textile factory, it has followed a vertical development strategy, in which case vertical development has been done towards suppliers, and vice versa, if a shirt manufacturer establishes a clothing store, development has chosen vertical in the direction of distributors.

The main attraction of the horizontal development strategy is the speed of getting results. The acquiring organization is able to expand its operations to a large extent, thereby achieving greater market share, as well as increasing the efficiency of capital utilization and increasing the volume of operations to utilize mass production (economies of scale). This strategy is associated with moderate risk and its success depends on the development of the organization's core capabilities. But the reason for choosing the vertical development strategy is numerous, sometimes it is not obvious. The main reason for the development strategy in the direction of suppliers is the desire to dominate the suppliers of raw materials and

production data (reducing dependence on suppliers). This is especially important when the number of suppliers is small or the number of competitors is large. In such a situation, the said organization can better control the costs and thereby increase the profit margin of the organization, but if the advantages of stable production are particularly high, the expansion strategy towards distributors with forward expansion is extremely superior, because that the organization can increase the predictability of demand for its products by owning the next stage of the production/marketing chain. Despite this, some risks also increase with both of these strategies, in horizontal development there is a risk due to increasing commitment to a type of business, and in vertical development there is a risk due to the expansion of the organization's activities to areas that It requires competencies, qualifications and acceptance of more responsibilities from managers.

#### **6.4.7. Related diversity strategy (concentric)**

Diversification strategies indicate a different movement of the organization from the existing operations, which is usually done through the study or development of a different business, and in its selection, attention should be paid to the joint efforts of old and new businesses, but this diversity is sometimes seen as Unrelated investments are made because they require less resources and their potential profitability is high.

Regardless of the chosen approach, the motivation of the organization is similar, among which the following can be mentioned:

- Increasing the value of the organization's shares; In the past, most mergers have led to an increase in the stock price or price-to-earnings ratio;
- Increasing the growth rate of the organization;

- Improving the stability of income and sales by studying an organization that has high sales and income;
- Balancing the product line;
- Fast learning of required resources;
- Tax advantages;
- Increasing efficiency and profitability, especially if there is a joint venture between these two businesses.

When joint venture means adding a related or related business to the organization based on technology, market or products, it is called related diversification. In this strategy, the new business is largely compatible with the current business, and it is considered when the profit of the organization increases due to the improvement of its strengths or opportunities, or when its weaknesses are reduced. The acquiring organization searches for a new business that relates to the markets, products, distribution networks, technologies of the current business, but at the same time they are not completely dependent on each other and have certain differences from each other.

#### **6.4.8. Unrelated diversification strategy (mixed)**

Sometimes an organization, especially very large organizations, pursue plans to acquire a business that represents a promising investment opportunity, this type of strategy is known as unrelated diversification. The main interest of the new organization in this strategy is the profit from investment. In such cases, they paid less attention to product and market cooperation with the current business, but financial cooperation is considered in an unrelated variety.

The main difference between these two types is that diversification is that in related diversification, the emphasis is usually on commonality in the product market or technology, while in unrelated acquisition, profit considerations are the main principle.



### 6.4.9. Operational review strategy (defense strategy)

For many reasons, a business may face a decrease in profit, economic recession, inefficiency of production, innovation by competitors are only three of such reasons; In a number of cases, strategic managers conclude that the organization can continue to survive and improve its position. If the efforts of the organization are used in a period of several years to strengthen the privileged competencies, this type of strategy is also known as the "repair and reconstruction" strategy, and usually two methods or a combination of them are used.

1. **Cost reduction:** such as reducing manpower, renting instead of buying machines, better use of machines, eliminating sales promotion activities, etc.
2. **Reducing assets:** such as selling land, buildings and tools that are not necessary for the basic activities of the organization and removing luxuries such as expensive cars and...

If the initial approach to cutting costs fails, additional measures may be necessary, including layoffs, elimination of items from the production line, or even elimination of low-profitability consumer markets. Since the main goal of the restoration and reconstruction strategy is to reverse negative trends, this method is also known as the operation review strategy. What is interesting about this strategy is the revision of management positions that are generally associated with this strategy. By studying 58 large organizations, Schindel, Patten and Riggs concluded that a revision was always accompanied by changes in top management; In other words, new managers who believed in providing new perspectives for the organization and facilitating basic actions had entered the organizations.

#### **6.4.10. Removal Strategy**

A divestment strategy means selling the organization or a significant part of it. This occurs when the operation review strategy to perform the desired reconstruction has failed. In such a situation, strategic managers often decide to sell the business or business in question; But in this strategy, the intention is to find a buyer who is willing to pay more than the value of the fixed assets for the business in question. This work is called marketing for sales. It is clear that the buyers of the organization must be convinced that they are able to benefit from this type of education due to the existence of skills and resources or collaboration with their existing business.

The reasons for deletion are various, but it is often due to the lack of compatibility between the studied organization and the existing business (parent organization), because some departments cannot adapt to the parent organization and must be deleted. The second reason is the organization's financial needs. Sometimes the financial stability or cash flow of the organization can be greatly improved by sacrificing high value organizations. The third reason is government laws.

There are various examples of the choice of elimination strategy by organizations; A famous example in recent years is the performance of Chrysler, which quickly eliminated seven of its most important businesses.

#### **6.4.11. Settlement strategy**

Choosing the settlement strategy means selling the organization's assets in pieces and only sometimes as a whole but only its tangible assets are sold. Choosing a settlement strategy generally means accepting failure from the owners and strategic managers of the organization or business, but this action is probably more beneficial for the organization and employees; For this reason, the liquidation

strategy is usually known as the least attractive strategy in which minimizing the losses of interest groups in the long term is considered, and usually the organizations facing bankruptcy try to choose a system for liquidation that to have the highest possible efficiency. This strategy can also be valuable; For example, for some organizations, the total income from the settlement has been more than the price of their shares.

#### **6.4.12. Bankruptcy phenomenon**

The issue of business failure has become increasingly important in the economy, so that every week about 300 organizations went bankrupt. This has caused the discussion by declaring bankruptcy and using its legal benefits in countries to be given serious attention by those involved in the affairs of organizations and shareholders.

### **6.5. Strategies based on cooperation and partnership**

The twelve main strategies discussed are often used by organizations alone or in combination, but recently three other strategies, namely joint ventures, strategic alliances, and cooperative or interactive relationships, have gained wide popularity in dynamic industries and at the organizational level. Transnationals have been widely used, which are briefly explained.

#### **6.5.1. Joint ventures**

When two or more organizations lack a necessary element to succeed in a particular competitive environment, choosing a joint venture strategy may be beneficial for them. A special form of joint investment is joint ownership, which has been increasingly welcomed by domestic investors in recent years for cooperation and partnership with foreign investors. Japanese and American organizations have developed this type of investment among them.

Joint ventures have developed relationships between suppliers and consumers, thereby creating a strategic advantage for them. For example, Chrysler's cooperation with Mitsubishi has made it possible for Chrysler to market a high-quality car at a reasonable price, and it has also allowed Mitsubishi to avoid the tariff barriers and restrictions imposed on Japanese goods. To produce cars for sale in the American market.

### **6.5.2. Strategic agreements**

Strategic alliances are different from joint ventures because the partner organizations do not buy each other's shares. In some cases, the participation of organizations is for a certain period and in specific projects to use each other's experience and skills. For example, one organization provides manufacturing capabilities, while the other organization has strong marketing experience. Also, organizations may use this approach to learn from each other and develop their capabilities.

Concession agreements are sometimes considered synonymous with strategic agreements. These agreements allow a part of the experiences and assets of the awarding organizations to be transferred to the receiving organizations. Delegating activities of contractors with subsidiary organizations is also a main approach in this strategy. An approach that has been welcomed by managers of organizations due to important changes in various business sectors and has helped them in creating a competitive advantage. For example, 67% of hospital managers in America have used the strategy of outsourcing activities to contractors for at least one unit. This approach has also been successfully used in human resource management, and the use of its serious forms has created a revolution in the production of transnational organizations. Also, delegating

activities in service and sales departments has also increased the productivity of these units. Focusing on the core business, reengineering benefits, reducing risk, freeing up resources for other purposes, and accessing global capabilities is among the reasons for downsizing.

### **6.5.3. Interactive relationships (Consortia)**

Consortia is defined as interactive relationships between businesses within an industry. In Japan, such a relationship is called Keiretsus, and in South Korea, Chaebols.

In Europe, consortium projects are increasing in terms of number and success rate. In the Japanese consortium, sometimes around 50 organizations join together and work together around a parent organization. These interactions are created and designed to minimize competition risk and reduce costs. South Korea also has such organizations, except that they are generally financed by state-owned banks and run by professionally trained managers.

## **6.6. Selection of long-term goals and main strategy**

The strategic management model suggests the sequence of choosing long-term goals and strategy; But in fact, strategic choice is the simultaneous choice of long-term goals and main strategy.

When strategic planners study opportunities, they try to determine which ones are most likely to lead to long-term goals. Almost at the same time as these reviews, they also try to predict the main and available strategy. This strategy can take advantage of the desired opportunities and bring us to our goals; Therefore, although the three proposed options are designed separately, they are very dependent on each other and all of them should be considered simultaneously.

Therefore, a business can rarely make a strategic choice based only on attractive opportunities or long-term goals and the main strategy, and must examine and evaluate all three elements at the same time; Because only a combination of them forms a strategic choice. In a real decision situation, strategic choice becomes complicated due to various interactive opportunities, goal accessibility, promising main strategy choices, and evaluation criteria.

In the next section, the strategic selection process will be fully explained, but anyway, our knowledge of the main goals and strategies is necessary to understand this process.

### **6.7. Sequence of objectives and strategy selection**

Choosing long-term goals and main strategies requires simultaneous decisions, not sequential decisions. Although it is true that goals must be known so that the direction and progress of the organization are not determined by random forces, it is also true that goals are valuable only if strategies can be implemented to finally achieve the goals. In fact, long-term goals and main strategies have internal and mutual dependence on each other, and until the 1970s, most business consultants and academics did not see the need to distinguish between them, and still in most of the popular business literature, long-term goals and main strategies are called strategies. Organization is mentioned, but the difference between the two is useful. Objectives are shown what strategic managers want, but provide a limited view of how they want to achieve their goals, and on the contrary, strategies, show what kind of actions should be taken, but do not tell us what results to pursue, or What criterion should be considered as a limitation in reviewing the strategic plan. This approach considers goals as limitations for strategy formulation, and its supporters believe that strategic decisions are designed to:

1. Provide the minimum needs of different groups of the organization; For example, the production department needs more warehouse capacity, or the marketing department needs to increase the sales force.
2. Creating the capacity of joint efforts according to these limitations.

An important question that is raised is whether strategic decisions are taken to achieve goals or to remove limitations. In response, it should be said that the limits they are a goal, not a demand, and they cannot be obtained according to other factors such as the organization's priorities or the conditions of the labor market and the profit performance of the organization.

## 6.8. Summary

Before we learn how to make strategic decisions, it is necessary to understand two basic issues in any strategic choice, namely, long-term goals and core strategies. The purpose of this section is to understand these two issues.

The results that an organization or business seeks in a certain period of time (usually five years) are called long-term goals. We discussed seven long-term goals. Profitability, productivity, competitive position, human resource development, human relations, technological leadership and social responsibility. These goals and other long-term goals should be acceptable, flexible, measurable, motivating, appropriate, understandable and accessible.







## **Chapter 7: Prominent models in strategic management**

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The process of formulation and strategic planning has been proposed in various forms and models by individuals, organizations and management science elites. Here we will have a brief look at some of the most famous of these models.

### **7.1. Phillips model**

The special feature of this strategic planning model is that strategies are derived directly based on objectives; Therefore, to use it, one must first categorize the organization's long-term goals in specific fields and then adopt strategies as a path and method to reach these goals. It is worth mentioning that in different industries and services, goals are categorized with different combinations. Below is an example of the classification of goals:

- 1- Market (possible strategies: maintaining the current market, expanding the market, increasing exports, removing part of the market, etc.);
- 2- Quality (possible strategies: improving the quality of manufactured products, establishing different quality systems, etc.);

- 3- Productivity (possible strategies: improving the productivity of different units of the organization, increasing the efficiency of equipment, etc.);
- 4- Innovation (possible strategies: increasing the design capacity, activating the research and development unit, etc.);
- 5- Human resources (possible strategies: recruitment of efficient forces, improvement of collective knowledge, youthfulness in internal affairs, etc.);
- 6- Financial (possible strategies: organizing costs and budgets, increasing profitability, increasing financial flexibility, etc.);
- 7- Raw materials (possible strategies: supplying raw materials from within, purchasing engineering, etc.);
- 8- Waste (possible strategies: reduce waste, reduce waste to zero, etc.).

Therefore, identifying the goals leads to determining the relevant strategies. It is worth mentioning that the market factor is of special importance in the Phillips model. Since every manufacturing or service organization offers its products for a specific market, it is possible to determine the market situation for the manufactured products by using the market matrix and also measure the situation of the organization in relation to its competitors.

## 7.2. Freeman model or stakeholder model

It can be said that Michael Porter's competitive model is the most famous and efficient strategy formulation model. This model emphasizes the competitive conditions and high sensitivity towards the entry and exit of potential competitors to the market, which cause the market share to decrease, and the relationship between the effective forces on the organization's competitive performance. Since the variety of products of potential and actual competitors, their market share, as well as their flexibility in production has a significant share in capturing the market, in order to have effective organizational strategies, managers must have a clear understanding of competitive forces, proportional reactions show them.

The main elements that surround an organization and affect it are:

1. Threats caused by the entry of new competitors and attempts to outdo each other in the desired industry;
2. The power of suppliers to impose their demands on the organization;
3. Threats caused by the entry or prosperity of alternative products in the market.

According to this model, buyers, suppliers, substitute products and potential and actual competitors all determine the competitive level of an organization. Therefore, strategies should be developed that have in their heart how to face each of these elements.

### **7.3. Portfolio model**

In the 1970s, a number of top consulting organizations created the theory of portfolio matrices to help managers of organizations better understand their competitive situation among business units, appropriate strategies for each business unit, and priorities for allocation. Find the resources. Portfolio matrices are sequence elements and characteristics.

- 1- The competitive status of capital performance of business units of an organization is graphically shown, in this sense they are a good communication tool, because they show the strength or weakness of the entire capital performance graphically and visually.
- 2- They show the status of business units of an organization in two dimensions. One is the external dimension that shows the overall attractiveness of the relevant industry in that business unit and the other is the internal dimension that shows the ability to control. The parameters that determine the attractiveness of the industry are normally out of control; But

- the parameters related to the power of business units are often under the control of the organization.
- 3- Placing each work unit in the relevant portfolio matrix provides a specific strategy that is proportional to the competitive power and attractiveness of that industry.
  - 4- This method determines and suggests the allocation of resources of each business unit based on the priorities obtained in the status of that unit in the relevant matrix.
  - 5- Since portfolio model methods consider all business units, they provide practical mechanisms to measure profitability potentials.
  - 6- The methods of this model have played a major role in the alertness and strategic awareness of managers, and since its implementation is based on the collection and analysis of competitors' information, it designed portfolio matrices for major competitors, and in this way, valuable information related to Competitors' ability to predict their movements and reactions.

The most famous portfolio matrices are:

- 1- Market growth matrix - market share (Growth – share matrix);
- 2- B.C.G (Boston Consulting group) matrix;
- 3- Multi-factor portfolio matrix (General Electric Organization);
- 4- Portfolio life cycle matrix;
- 5- ADL (Arthur D. Little) matrix.

#### **7.4. Critical Questions Analysis**

Many theorists of management science are of the opinion that appropriate strategies will not be developed except by analyzing

critical questions. In this method, the following four basic questions must be answered:

1- What are the aims and objectives of the organization?

The answer to this question will show the management in which direction the organization should move. A proper strategy reflects both organizational goals and objectives. During the strategy formulation process, by answering the above question, the managers, on the one hand, keep the important answer in mind and on the other hand, they minimize the existing inconsistencies between the goals, objectives and strategies of the organization.

2- Currently, in which direction is the organization moving?

The answer to this question informs the managers about the progress in the research of the goals and ideals of the organization and informs them whether the level of progress of the organization in realizing its goals is satisfactory or not. Therefore, the focus of this question is on one hand the direction of movement and on the other hand on what direction and goal the organization should actually go.

3- What kind of environment is the organization currently in?

This question includes the internal and external environments, i.e. the factors inside and outside the organization. For example: the inexperience of the middle management of an organization is an internal factor and the sudden influx of competitors into the market is an external factor. The developed strategies will be considered effective if they address these factors.

4- What can be done to achieve as many organizational goals as possible in the future?

The answer to this question leads to the formulation of the organization's strategy. Managers can answer this question only if they have enough time to think about the answers to the

previous three questions. They should have a clear understanding of where the organization wants to go, what goals it is currently pursuing, and what environment it is currently in.

### 7.5. SWOT analysis

SWOT analysis is one of the strategic tools to match the strengths and weaknesses within the organization with the opportunities and threats outside the organization. SWOT is derived from the words Strength, Weakness, Opportunity, and Threat. SWOT analysis provides a systematic analysis to identify these factors and develop a strategy that best matches them. From the point of view of this model, a suitable strategy maximizes strengths and opportunities and minimizes weaknesses and threats. For this purpose, the strengths, weaknesses, opportunities and threats are linked in four general states WT, ST, WO, SO and strategy options are selected from among them.

**Table 7.1. SWOT analysis for strategy formulation**

| weak points   | Strengths  | Internal factors<br>External factors |
|---|--|--------------------------------------|
| Strategies for exploiting opportunities by eliminating weaknesses | Strategies for exploiting opportunities with the help of strengths | Opportunities                        |
| Strategies to combat threats by eliminating weaknesses            | Strategies to combat threats using strengths                       | Threats                              |

### 7.6. SPACE model

In this model, the ability of the organization is first compared with the ability of competitors to achieve each of the set goals. For this purpose, a table will be prepared based on the objectives.

In this table, the objectives are replaced in order of priority in the first column; Then, in the second column, each goal is scored according to its value to achieve the mission of the organization. It is worth mentioning that the sum of the objectives of the second column should be 100. In the third column, according to the previous investigations on the strengths and weaknesses of the organization in achieving the goals, a score between 1 and 3 is assigned for each goal (1 means low power, 2 means medium power and 3 It means the high ability of the organization to achieve its goals). In the fourth column, each competitor is given a score between 1 and 3 for each goal, according to the ability of the competitors to achieve the goals. In the fifth column, the average of the numbers of the fourth column corresponding to each goal is calculated and inserted. In the sixth column, while comparing the numbers of the third and fifth columns, one of the numbers 1, 2 or 3 is inserted as the relative power of the organization with the competitors in reaching the goals. The number 3 and if the third column was smaller than the fifth column, the number 1 and if the third column was equal to the fifth column, the number 2 should be included in the sixth column. Finally, in the seventh column, the product of the numbers of the sixth column and the second column is replaced. If the sum of the numbers in the seventh column, divided by 3, becomes a percentage, a number will be obtained that indicates the probability of achieving the goals and reaching the mission compared to the competitors.

In order to perform a vulnerability analysis, first, each of the strengths, weaknesses, opportunities and environmental threats is assigned a score between zero and 10 in proportion to the effectiveness of each in achieving the organization's mission; So that zero means no effect, 2 means very little, 4 means little, 6 means medium, 8 means much and 10 means very much. Then the state of the organization's ability is measured for each of the strengths, weaknesses, opportunities and environmental threats.

It is worth mentioning that in the SPACE model, the status of the organization is located in the range of strengths (2-4) and weaknesses in the range (0-2); So that zero is very weak, 1 is weak, 2 is medium, 3 is strong and 4 is very strong.

**Table 7.2. SPACE model template**

| Target | Goal score     | The ability of the organization to achieve the goal | Competitors' ability to reach the goal | Average power of competitors | The relative power of the organization with competitors in reaching the goal | Weighted score                 |
|--------|----------------|---|--|------------------------------|--|--------------------------------|
| 1      | T <sub>1</sub> | C <sub>1</sub>                                      | R <sub>1</sub>                         |                              | P <sub>1</sub>   | P <sub>1</sub> ×T <sub>1</sub> |
| 2      | T <sub>2</sub> | C <sub>2</sub>                                      | R <sub>2</sub>                         |                              | P <sub>2</sub>   | P <sub>2</sub> ×T <sub>2</sub> |
| 3      | T <sub>3</sub> | C <sub>3</sub>                                      | R <sub>3</sub>                         |                              | P <sub>3</sub>   | P <sub>3</sub> ×T <sub>3</sub> |

### 7.7. PIP model

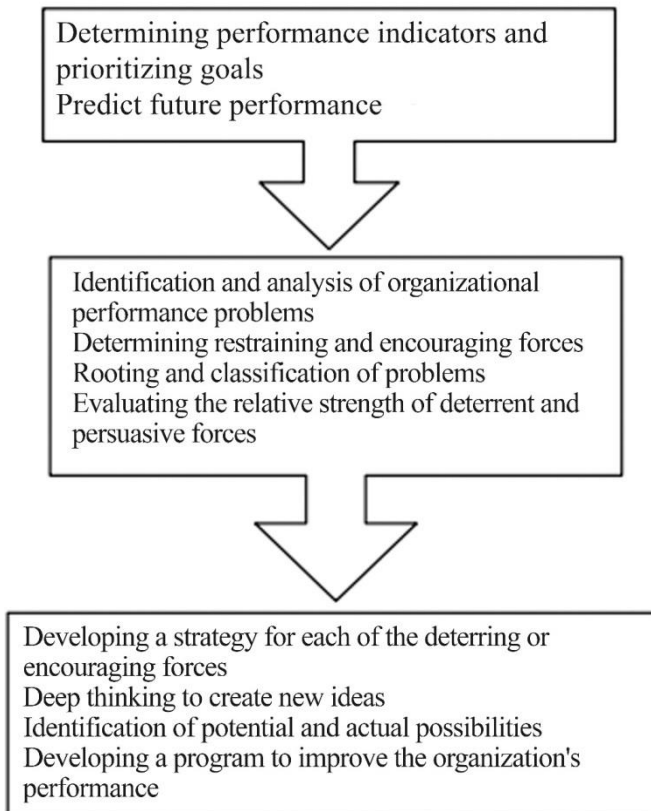
Traditional methods of making organizational changes have more abstract features. These methods are often focused on ways and measures to improve the efficiency of organizational elements, they do not deal with the whole system. The performance improvement planning method takes into account different organizational variables, performance and society, and by using new technologies, structural change or growth of human resources, it brings about changes in the organization. The rapid growth of technology, the growth of economic markets, and social and political changes continuously put pressure on organizations and challenge the organization as persuasive or restraining forces.

It is important for organizations to be on the path of improvement, move towards the future and rely on past experiences. These experiences may even be unrelated to the new problems that are ahead, but if an organization adopts appropriate strategies based on



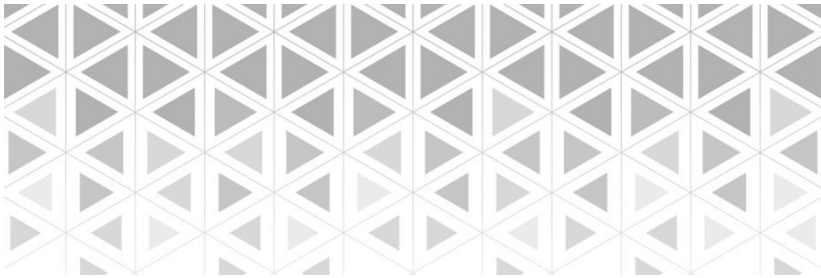
the forces around the organization, instead of reacting to crises, it will have the power to predict them and will be able to deal with them instead of being passive have a forward-looking attitude.

Based on the pip method, problems are first identified, analyzed, and rooted, and then the deterring and motivating forces effective in creating potential problems or solving actual problems are determined. Finally, strategies for taking advantage of encouraging forces and dealing with inhibiting forces are formulated and practical improvement planning is determined. (Chart 7.)



**Diagram 7.3.PIP model template**





## **Chapter 8: Operationalizing strategic management**

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### **8.1. Introduction**

Selecting and formulating long-term goals and main strategies never means the completion of the strategic management process. The task of operationalizing, institutionalizing and controlling the strategy remains. These tasks are a new and important stage in the process of strategic management, the stage of turning strategic thinking into strategic action.

Going through the formulation of the implementation strategy requires three interrelated steps.

1. Identifying and setting short-term goals;
2. Formulation and development of task strategies;
3. Communication policies that help empower people in the organization;
4. Designing effective rewards.

Setting short-term goals means turning long-term expectations into annual budgets. If the annual goals are well formulated, they will be a powerful facilitator and motivation for the effective implementation of the strategy.

The role of task strategies is to transform the main strategy at the business level into practical plans for sub-units that operations

managers help to develop and design. These strategies show what is expected from the unit managers to implement the main strategies. This chapter also examines the value and specification of task strategies in key areas of an organization to increase the likelihood of core strategy execution.

Policies are specific guidelines for operations managers and their subordinates that are often misunderstood and misused, while if they are clearly linked to operational strategies and long-term goals, they are a powerful tool for strategy implementation and ultimately success. Strategy implementation requires an effective reward system for actions and desired results. These rewards align the priorities of managers and employees with the goals of the organization and the values of the shareholders and are an effective guide in the implementation of the strategy.

## 8.2. Short-term goals

In the previous discussions, the importance of long-term goals for business and organizational strategies was examined, and criteria such as market share, stock yield, stock price, and influence in the market were proposed as criteria to evaluate the effectiveness and finality of strategies. These criteria clarify the long-term goals of the main strategy and provide a basis for judging and guiding it, but the aforementioned criteria are less useful for guiding operational strategies and necessary and urgent measures to implement the main strategies; For this reason, for the successful implementation of the main strategy, it is very important to identify and establish a connection between the annual operational goals and the long-term goals, because the fulfillment of the short-term goals in general means the successful implementation of the long-term business plan.

Therefore, developing a comprehensive set of short-term goals often provides a basis for guiding and controlling organizational

performance; These goals can clarify the key points for managers and make them alert and sensitive to the deviations of activities in these areas and key axes that may cause important issues for the final success of the strategy.

### 8.2.1. Quality and effectiveness of short-term goals

Short-term goals are measurable and clear expressions of the role of a sub-unit of the organization in the implementation of the main strategy, although this issue seems clear, but studies show that the issues that arise in the implementation of the strategy are often caused by poor understanding or how It is the expression of short-term goals, the goals that, in order to be effective, should consider the following qualities and characteristics in their setting and formulation.

### 8.3. Relationship between short-term and long-term goals

A clear connection between short-term goals and long-term goals or the main goals of the business strategy must be established; To understand this relationship, it is necessary to pay attention to the differences between the two in the following dimensions.

**Time horizon:** Long-term goals usually have a view of five years or more into the future, while short-term goals are more immediate and usually one year.

**Focus:** The focus of long-term goals is on the future position of the organization in the competitive environment, but the focus on short-term goals is on performing specific activities in the task areas in the next year.

**Specificity:** Long-term goals are broadly expressed, but short-term goals are very specific and directly related to the sub-units or task areas of the organization.

**Measurable:** While both long-term and short-term goals are few; But long-term goals are expressed in a relative and broader way.

Therefore, short-term goals are very effective in identifying what needs to be done in order for the organization to reach its long-term goals, for example, if the long-term goal of the organization is to gain 20% market share in the next 5 years, then it will be clear that the business in the future Where will it be, but the probability of reaching this goal increases when this goal becomes short-term goals, goals that specify what needs to be done every year to achieve this long-term goal. For example, if the organization's market share is currently 10%, increasing the market share by at least 2% in the next year can probably be chosen as an annual goal.

Also, specifying short-term goals provides the possibility of designing sub-goals for operational areas; For example, the development or opening of two new distribution branches in the next year may be chosen as the goal of the marketing manager to reach 20% market share in the next five years, or the acquisition of one hundred million dollars may be the annual goal of the manager to support the creation of new branches and Increase production to gain 20% market share. The relationship between long-term and annual goals is in the form of a cascade, which means that commercial and long-term goals should be converted into short-term and operational goals; In other words, long-term goals are broken down into short-term goals. The idea of cascading has the positive feature of providing a clear reference for vertical communication and negotiation, which may be necessary to ensure that goals and plans are integrated at the operational level.

#### **8.4. Integration and coordination of goals:**

The implementation of the main strategies requires goals that are integrated and coordinated, because managers of different units, such

as financial managers or marketing and production managers, may not pay attention to the main goals of the organization in choosing short-term goals. There is a possibility of conflict between the priorities of the marketing or production or financial department. For example, the regional production unit may seek to produce a product in a standardized and mass-produced manner to increase efficiency and choose a long-term time horizon, while the marketing unit may choose to diversify production and models of a product and choose a short-term time horizon for Life of products is valued more; Therefore, without efforts to coordinate and integrate short-term goals, clashes will increase and the probability of long-term goals will increase, even if short-term goals are well designed in each field; Therefore, since the successful implementation of the main strategy depends on the coordination and integration of operational units, and the formulation of short-term central goals provides for increasing this coordination and resolving conflicts among the sub-units of the organization, therefore, the aforementioned managers should be in the important stages of the planning process. Come in and coordinate and integrate short-term goals. They should discuss important data, assumptions, and performance requirements to clarify internal interdependencies between units, to enable dialogue and negotiation to determine short-term goals in key areas, and this is especially important if strategic changes are to be made. It is because participation in creating a relationship between short-term operational activities and the main strategy, as well as the coherence and integrity of plans and operational plans, is very important in the success of an organization.

### **8.5. Compatibility of short-term goals**

Experiences show that managers in similar organizations and in different departments choose different ways to develop and design

short-term goals and often emphasize different criteria; Therefore, in case of inconsistency between the goals, the performance of the units may not be comparable with each other, their commitments to the goals may be different, and their dependence and relationship with each other may not have the necessary efficiency; For example, if the marketing unit undertakes to deliver a product to the consumer at a certain time and the goals of the production area are not well defined, the conflict is inevitable and the possibility of achieving strategic success of the organization is reduced.

Short-term goals are more consistent when they clearly state what needs to be done, when, and how it will be measured.

Therefore, short-term goals can guide managers regarding the effectiveness of unit operations and the progress of activities in the direction of long-term goals and show what should be done and when, and it is clear that if they are formulated correctly, there will be misunderstandings and conflicts. Among managers whose operations are interdependent, it decreases and the probability of successful implementation of the main strategy increases.

### **8.5.1. Measurable**

Measurable goals cannot be overemphasized as a key and important quality because some goals are easier than others; Supposedly, the production goals can be easily quantified, but it is very difficult to quantify the goals related to human resources, despite this successful implementation of the strategy requires the selection of short-term goals in a quantitative and measurable way even in this problem area (human resources). Work is pursued by focusing on measurable activities and identifying measurable and acceptable gains. Other features and qualities such as flexibility, appropriateness, motivation, comprehensibility and acceptability



mentioned in the case of long-term goals are also applicable to short-term goals and should be taken into consideration.

### **8.5.2. Priorities**

One of the important criteria for evaluating the quality of the set goals is their prioritization; Because time considerations and its relative impact on strategic success require relative prioritization of short-term goals; In other words, although all short-term goals are important, time constraints and considerations often require that one activity be completed before another, and that some that have a significant impact on the success of a strategy be given more attention than otherwise. The face for the relative importance of the goals among the conflict managers is created, which may be an important obstacle for the effective implementation of strategies.

Priorities may be determined in various ways, including:

- ✓ Conducting a simple ranking through discussion and negotiation during planning; This method does not necessarily clarify the real difference in the importance of the goals.
- ✓ Some organizations also specify the relative importance of each of the goals by giving points (for example, from zero to one hundred). Terms such as primary or secondary are also used to indicate priorities, however, recognizing the priority of short-term goals is very important for the successful implementation of the strategy.

### **8.6. Profits or benefits of short-term goals**

The systematic development and formulation of short-term goals provides a tangible and meaningful way, so that long-term goals and strategies can be converted into concrete actions. Such goals create a

better understanding of their role in the mission or the fundamental goal of the organization in operations managers and employees. This is an important factor in effectively equipping the human resources of a business. The second benefit of setting short-term goals is obtained if managers participate in the process of deriving these goals; In other words, if these goals are developed and formulated through the participation of managers responsible for their implementation, they provide an objective and understandable basis for solving political conflicts within the organization; These encounters may hinder the effective implementation of the organization's strategy if they are not paying attention to. Therefore, it is necessary to design short-term goals in an effective way to establish a connection between strategic objectives and daily operations. These goals can also provide another benefit to the organization, and that is short-term goals as a basis for strategic control, which should be taken into consideration in setting budgets, programs, and other mechanisms to control the implementation of the strategy. Developing and setting short-term goals is also effective in creating motivation to implement the strategy, because if the goals clearly define the role of individuals and groups in the implementation of the strategy in a challenging, measurable and practical way, the motivation in people to carry out They reinforce work, especially if success in accomplishing these goals is linked to a reward structure.

Scientific development and compilation of short-term goals, although it is a powerful tool for operationalizing business strategy, alone is not enough for success, and managers must clearly define and design the means to achieve these goals or task strategies to encourage the successful implementation of the strategy.

## 8.7. Development and design of task strategies

Task strategies are short-term plans for important and key areas of the organization that help clarify the main strategy by specifying how these sub-units will operate and manage them in the future. These strategies should be designed in such a way that they are compatible with the long-term goals and the main strategy of the organization and help to implement the main strategy by organizing and activating the activities of the sub-units (marketing, production, finance, etc.) in line with the business strategy. ; In other words, designing task strategies in important areas such as marketing, production, finance, and human resources means turning thoughtful (main strategy) into action or action to achieve short-term goals, and therefore task strategy designers must be in each sub-unit. Identify and coordinate actions and increase the probability of reaching short-term goals with the support of the main strategy.

Therefore, task strategies, by clarifying business strategies, guide operations managers to carry out specific activities in the short term (annually).

## 8.8. The difference between task and business strategies

In order to better understand the role of task strategies in the strategic management process, it is necessary to identify their difference from the main strategies. The differences that distinguish these strategies in the following dimensions are: time horizon, specificity, participation in the development and design of strategies.

Time horizon:

Compared to the main strategy, the time horizon is a task strategy and is short-term in terms of time. The time horizon generally includes the identification and coordination of short-term actions and activities or less than one year. This is important for the successful

implementation of the main strategy for two reasons; First, it focuses the attention of task managers on what needs to be done now to implement the main strategy; Second, it allows the mentioned managers to recognize the current conditions and adjust the task strategies if the conditions change.

**To be clear:**

The dimensions of the task strategy are more specific than the main strategy; This is very useful for guiding managers to carry out activities in important sectors and achieve short-term goals; In other words, the design of task strategies means that managers know how to reach short-term goals, and this knowledge is important, because the definition of the main strategy at the business level alone is not enough for success, but the strategies of the task areas or departments must be Let's define it to reach the goals of the organization. The aforementioned strategies improve the willingness and ability of operational managers to implement strategic decisions, especially when these decisions represent important changes in the organization's strategy. Clarity of task strategies contributes to the successful implementation of the main strategy for the following reasons: First, the existence of multiple task strategies and the clarification of the activities of a business unit gives managers the confidence to know what their needs are and how to pursue the expected results. Do Second, task strategies for top managers clarify how departmental managers intend to implement the main strategy; This increases the top manager's confidence in implementing and controlling the strategy; Thirdly, the mentioned strategies facilitate the coordination between the operating units within an organization by clarifying the areas where there is a potential possibility of collision between them.

**Contributors:**

Various people are involved in the development and design of business and task strategies, but the ultimate responsibility for the development and design of business strategies rests with the manager of the strategic unit, who generally chooses the goals and strategies that help the top managers of the organization in achieving their goals. Also, the regulation and design of task strategies by the business manager is entrusted to the managers of the operational areas, who must also design task goals and strategies in such a way that they play a role in accomplishing the goals and strategies of the business unit; In other words, just as business goals and strategies are approved through negotiation with top managers of the organization, task goals and strategies must also be approved by business or business managers.

However, the involvement and participation of task managers in the development and design of task strategies are important for the successful implementation of the main strategy, because it increases their understanding of what needs to be done and increases their commitment to implement the strategy; But it should also be noted that it is not possible to provide the same model for designing all task strategies; For example, not only are key variables different in marketing and production, but also the importance of key variables will be different according to business situations in each task area; Therefore, examining the key decision making variables in each department is very important for the development and design of task strategies, which are briefly explained.

**8.9. Task strategy in the field of marketing**

The role of the marketing department is to obtain profit from the sale of products or services in the desired markets in order to achieve

business goals; Therefore, task strategies in the field of marketing should guide these efforts in a process compatible with the main strategy and other strategies and help and guide the marketing managers in determining the seller, the traded goods, the place and time of the trade, the buyer, the price of the goods and how to trade. To do this, the marketing mix including product, location, price and sales promotion should be considered in the design of this strategy.

The marketing strategy for the product element guides managers in making decisions about product features, packaging, assurance, product lines, quality, and new product development. This strategy should clearly define the target markets and consumer needs and the concept of the desired service or product, so as to increase the consistency and continuity of the daily activities of the marketing unit.

A product or service has no value if it is not available to the consumer at the time and place he wants it; Therefore, the time, place and person to whom the service or product is offered must be defined; In other words, the main issue here is distribution networks, which is an element of marketing strategy that guides managers' decisions about distribution networks to ensure the compatibility of the distribution system with the overall marketing efforts.

The sales promotion element in the marketing strategy defines how an organization should communicate with the target or intended markets and how to use sales promotion tools such as advertising, personal selling, sales incentives and media compatible with other elements of the marketing strategy. Also, this strategy has a close connection with the financial strategy due to the required expenses.

Functional strategy related to price is perhaps the most important issue in marketing because this element directly affects factors and activities such as supply, demand, profitability and consumer

perception. In the design of this strategy, the approaches related to the pricing strategy are important, which include the approaches of the cost price, market trend or market demand, and competitor or industry prices. In the cost price approach, the decision-making axis in determining the price of the product is: the total cost plus a percentage of sellers; On the market demand approach, pricing is based on consumer demand, and finally, in the third approach, pricing decisions are made based on competitors' prices. Although one approach may dominate the organization's pricing strategy, this strategy is influenced by other approaches to some extent.

### **8.10. Task strategies in the field of Finance/Accounting**

Functional strategies generally guide the implementation of strategy in the short term with the near future, but this is not true for financial strategy, as this strategy is designed to support business strategies, long-term goals and short-term goals, and top managers' guide to long-term fixed investment, use From debt to financing, profit sharing and leveraging, naturally, long-term perspective and different time frames should be considered in such strategies. For example, operating strategies designed to manage working capital and short-term assets focus on the near future.

Long-term financial strategies usually guide capital formation with the view that priorities rarely change over time.

The ratio or optimal level of debt in shareholders' capital compared to long-term financing of business activities from within is a common theme of capital acquisition strategy.

Another important financial strategy is capital allocation, the main strategies such as the growth strategy generally require significant investments in facilities, projects, business studies and human resources. These investments are not created immediately and

this is not a desirable thing, but it is better that the priorities and timing of such investments are determined in the capital allocation strategy; This is also useful for solving the competition and conflicts of operations managers to obtain capital resources. In the strategy of reviewing operations or stability, where the reduction of product lines, production facilities or human resources may require the reallocation of resources, the design of capital allocation strategy becomes important.

Capital allocation strategy often includes an additional dimension, i.e. the level of capital expenditure delegated to operational managers. If a business pursues rapid growth, flexibility in capital expenditures at the operating level may allow timely response to an evolving market; On the other hand, capital expenditures may be tightly controlled if an operations review strategy is chosen.

Dividend management is also an inseparable part of the organization's internal financing method, and because dividends are paid based on revenues, lower payment of financial funds increases the organization's option for growth, and the need for external financing, which is often in the form of debt, decreases. Finds.

However, the stability of incomes and the distribution of profits often have a positive relationship with the rest of the stock market of organizations; Therefore, a strategy guiding dividend management should support the business situation towards the capital markets.

Also, working capital is very important for the day-to-day operations of the organization, and capital requirements are directly affected by seasonal and cyclical fluctuations, the size of the organization, and the patterns of payments and receipts.

The working capital element of the financial strategy is based on the accurate forecast of cash flows, and cash flow management provides the necessary guidance to create a liquidity balance for daily activities.



### **8.11. Task strategies in the field of research and development**

The increase in the rate of technological change in most competitive industries has caused the research and development (R&D) unit to find a key role in many organizations, for example, in the computer industry, 4 to 6% of sales are spent on research and development. Because the research and development unit has a basic duty in this kind of industries. Despite this, in stable industries or with little innovation, this unit is not very important, and financial and marketing strategies are more important.

The first issue that must be clarified in the research and development strategy is determining the priority of basic or development research. Also, this strategy guides the tasks of the research and development unit; For example, should research activities be conducted within the organization or should the organization contract with individuals and groups outside the organization?

The strategy in this area can be offensive, defensive, or a combination of both. If the strategy is aggressive, the emphasis on technological innovation and new product development will be the basis for future success, but this trend carries high risk and requires high technological skill, forecasting experts and the ability to quickly turn innovations into commercial products. While defensive strategy emphasizes product improvement and the ability to imitate new technology to maintain the organization's position in the industry. A combination of defensive and offensive strategy is often pursued by large organizations with a degree of technology leadership.

### **8.12. Task strategies in the area of production/operations**

Production and operations managers (POM) have a central role in organizations and the process of converting data (raw materials,

people and machines) into valuable products is done by them. This task is used in all organizations, both production and service.

Functional strategies in production and operations management are a guide for decision makers in the following cases:

1. The operation production management system establishes an optimal balance between invested data, operation staff and production.
2. It guides decisions related to location, facility design, and the short-term planning process.

The element of facilities and tools in the production and operations management strategy means making decisions about factory location, size, replacement of tools and optimal use of facilities, which must be compatible with the main strategy and other operational strategies.

The task of sourcing is another area that should be mentioned in the production management strategy. In terms of cost, do some suppliers have an advantage and increase risk for the organization due to dependency? What criteria (eg payment method) should be used in selecting vendors? How should purchases be made based on volume and needs to support operations? If such questions are important to the success of the core strategy, the task strategy should provide guidelines for improving their implementation.

Task strategies are also a guide for the planning and control element of production and operations management for the continuation of production operations.

Their purpose is to encourage conversion efficiency and match production and operations resources with long-term demand, and it is often this issue that imposes demands or inventory or subcontracting trends on operations production management. If the demand is seasonal and periodic, the production and operation management strategy must ensure that the production and operation processes will

have the necessary efficiency for this situation; For example, a clothing manufacturer prefers to have the highest level of inventory in early spring, or if demand is not very seasonal, the organization may want a gradual level of production and inventory, and when fluctuations in demand are less predictable, the organization may It prefers to have subcontracts for sudden situations with other organizations and in this way to respond to sudden demand than to create excess capacity itself, so the production and operations management strategy should help to decide on the following cases.

- What is the desired level of inventory? How is the purchasing procedure and quality control level?

- What balance should be established between cost and quality in production operations? What level of productivity matters?

- How should the production plan be carried out? Guaranteed delivery? Hiring manpower?

- What criteria should be used in adding or reducing and removing tools, facilities, shifts and people?

Production and operations management strategies should be coordinated with the marketing strategy. If the organization wants to be successful, it also requires careful integration with the elements of financial strategy (capital budgeting and investment decisions, etc.) and human resources.

### **8.13. Task strategies in the field of human resources**

The strategic importance of task strategies in the field of human resources has been widely accepted in recent years. Human resource management helps management in carrying out the core strategy by ensuring the development or discovery of managerial talent, providing systems for managing pay and rewards, developing competencies and recruiting motivated employees. Task strategies in

this field are a guide for managers in the optimal use of human resources to achieve the organization's short-term goals and the satisfaction and development of human resources. This strategy includes the following dimensions.

- recruitment of human resources, selection and justification stage;
- career path development and counseling, performance evaluation, training and development;
- Salary and benefits;
- Relations with unions and councils;
- Order, control and evaluation.

The operational strategy for recruitment, selection, and orientation phase guides human resource management decisions to attract, retain, motivate, and improve employee productivity. This raises the following questions:

- What does the manpower need to support a chosen strategy?
- How to solve these needs?
- How complicated should the selection process be?
- How to introduce new employees to the organization?

The element of recruitment, selection and justification phase in human resources strategy should provide the basic factors to answer these questions.

The development and training (applied) element guides manpower actions to meet the future manpower needs of the core strategy.

Task strategies in HR are also necessary to guide compensation payments, HR relations, discipline and control to increase motivation and productivity and should address the following questions:

- What are the standards or criteria for promotion?

- How should payments, incentive plans, benefits and senior policies be?
- Is hiring a priority? What are the appropriate steps?

Are there specific HR decisions that operations managers face frequently?

Task strategy in the field of personnel should guide such decisions in a way that is compatible with business strategy and other task strategies and bring us to short-term goals.

In summary, task strategies are important because they specify how each sub-activity contributes to the execution of the main strategy. This identification and involvement of operations managers in setting strategies helps them understand and commit to the chosen strategy. Short-term goals are linked with long-term goals and task strategies, and the understanding and commitment of operations managers increases due to the measurable goals accepted by them. In the next part, we will examine the policies that guide and control the decisions of operations managers and their subordinates.

## **Politics**

Policies are orders designed to guide the thinking, decisions and actions of managers and their subordinates in implementing organizational strategy. Policies are guidelines for controlling operations in a process consistent with strategic goals, often known as standard operating procedures, and increase management effectiveness by standardizing repetitive decisions and controlling the insight and judgment of managers and subordinates in implementing operational strategies. Logically, policies should be derived from functional strategies (in some cases business or organizational strategies), with the key objective of helping to implement the strategy.

### *The purpose of setting policies*

Policies are a specific guide for decision making. They are designed to control and reinforce the implementation of task strategies and main strategy, and they exercise this role in the following ways.

1. By explicitly explaining how to do things, they exercise indirect control over independent actions. By limiting the scope of diagnosis, they control decisions and direct activities without direct involvement of top managers.
2. Promote uniformity of procedure for similar activities; This facilitates the coordination of tasks and helps to reduce frictions caused by discriminations and supports.
3. Speed up decision-making through standardized answers to repetitive questions (answered in the past).
4. It helps to institutionalize fundamental aspects of organizational behavior, reduces conflicts, and creates consistent patterns of operations based on how organizational members operate to implement strategy.
5. They reduce uncertainty in repetitive and daily decisions and thus provide a necessary basis for coordination and efficiency.
6. They can reduce organizational members' resistance or opposition to the chosen strategy, especially when a major strategic change is contemplated. Unambiguous operational policies also help to clarify what is expected and facilitate acceptance, especially when Operations managers should participate in setting them up.
7. They provide a predetermined answer to recurring issues, which allows managers to spend more time on non-recurring issues and deal with extraordinary and routine issues more quickly.

8. They make managers avoid hasty and ill-considered decisions in changing operations.

Popular politics can always be used as a reason to prevent emotional, hasty, expedient and temporary discussions about changing procedures and activities.

Policies may be written and formal or unwritten and informal. The reason policies aren't written down is usually because of competing secrets. Some unwritten policies, such as the promotion policy, have been approved by the management and the employees know it. However, unwritten and informal policies may conflict with the long-term success of the strategy, although managers and employees often prefer policies to be unwritten and informal because they have more scope.

There are at least seven advantages to formal written policies:

1. Managers have to think about the meanings, content and uses of policies.
2. Policies reduce misunderstandings if they are clear.
3. Consistent and fair behavior in dealing with issues is more likely.
4. Ensuring that policies do not change during operation.
5. The permission to apply or guarantee the execution of policies is conveyed more clearly, which is useful in many cases.
6. It can provide an easy and authoritative reference for all those dealing with a policy.
7. Indirect control and coordination at the organization level, which is one of the main goals of setting policies, increases systematically.

Policies are at different levels of importance. Some of them do not necessarily deal with a specific performance strategy, while some of them are directly related to a task strategy.

Policies may be externally imposed or derived from within the organization. Meanwhile, the role of government laws and regulations in regulating some of them is very important; But apart from the origin, formality or informality and the nature of the policies, the importance of issues, the valuable role that policies can play in the implementation of the strategy. Managerial policies facilitate strategy implementation in several ways: the clearest case is requiring managers to review and evaluate existing policies. These reviews should assure managers that the necessary policies are in place to guide and control operations activities consistent with business and mission strategies. Designing policies in a scientific way helps managers to reduce resistance to strategic change and increase commitment to implement strategy in the organization.

## **8.14. compensation schemes for managers**

### **8.14.1. Types of important designs**

The purpose of designing a compensatory reward plan for managers or executives of organizations is to motivate them to maximize the wealth of shareholders. This goal is known as the basic goal in most organizations. The logic of such plans is also clear. The shareholders or investors of organizations tend to get a good return, and this is not possible unless the managers focus their maximum efforts in line with their interests; But agency theory states that managers also act to increase their power, control and interests and not only seek to maximize the interests of shareholders; Therefore, a reward plan is successful from the point of view of shareholders when it is successful in giving managers' decisions in line with their interests and creates a favorable compatibility between the strategic goals of the organization and the motivation of executives. As the authors suggest, organizations can be successful through defining the



vision and business strategy and designing payment programs compatible with them. Below are some of these designs.

### **8.14.2. Tradable stock plan**

One of the common criteria for assessing the wealth of shareholders is the stock price of the organization. This criterion has been taken into consideration in the formulation and design of the compensatory reward system. The tradable stock plan as a bonus plan gives managers the privilege and authority to buy a certain number of shares of the organization at a fixed price in the future; Therefore, managers will only be rewarded if the stock price increases in the future; In this case, the difference between the price set for the stock and its sale price indicates the exact amount of the managers' compensatory bonus, and it is clear that if the stock price decreases in the future, there will be no news of extraordinary bonuses and payments; But if this option is the only option to pay compensatory bonuses to senior managers, important criticisms and questions will be raised, it should be considered; Including why the executives should only profit through pre-emption of shares? Is there always a correlation between the stock price in the market and the performance of the organization? Is it not possible that stock price fluctuations are not caused by the influence of executives? Isn't it possible that under the influence of external factors such as investors' uncertainty about the market environment, stock prices will decrease and this has nothing to do with the managers' performance? For this reason, some organizations have devised measures to prevent managers from being penalized due to changes and environmental fluctuations beyond their control; For example, the shares assigned to the managers are re-priced in case of a decrease in the prices of the lower-quality stock index, or if at any time the performance index of

the organization's shares is evaluated with a group of similar or well-known stocks in the stock market. Critics say that the plan to give stock options to senior managers lacks real stock interests, because in this plan, the possibility of an extraordinary increase in the stock price is available for the executives, while there is no risk of it going down for the managers. Therefore, because of this extraordinary advantage, it creates the motivation in the executives to choose risky projects, even if they have unnecessary risk. Criticism of this group has caused managers, like shareholders, to be recognized as the real owners of the organization in some organizations, so that they are more committed to their choices and decisions.

The stock selection plan is implemented in another way along with trading options. In this method, if managers convert their right to choose into shares of the organization, they will have the privilege to use the mentioned plan again; This privilege encourages managers not only to pay attention to daily and short-term profits, but also to strive for future profitability by having this privilege; Obviously, this method brings the interests of shareholders and managers closer together.

### **8.14.3. Non-tradable stock plan**

In such plans, managers are given a certain number of shares of the organization, but they do not have the right to use this privilege and sell their shares for a certain period of time, and if they leave the organization before that time, they will lose their shares. Therefore, the mentioned plan helps the long-term retention of managers in the organization. Also, in addition to determining the time period, the achievement of functional goals may also be considered in the mentioned plan; In other words, managers can benefit from this privilege if the organization's stock price is in a

favorable situation compared to a set index or the achievement of goals; Therefore, if the executives fail in some of the designated areas in the short term, they will lose some of their shares; Therefore, the plan of non-tradable shares encourages executives not only to increase the wealth of shareholders, but also to have the motivation to stay in the organization for a long time; But if such plans do not have performance goals and have been formulated in advance, managers only have to work in the organization during the specified period of time in order to enjoy this advantage, while the formulation of performance criteria gives the assurance to the executives that without achieving a level of creation Wealth is not a reward for shareholders, and in addition, contrary to the stock selection plan with the right to trade at the desired time, in this method, there is a risk of lowering the stock price for managers.

#### **8.14.4. Penalty for changing job (golden bracelet)**

The logic governing plans that defer various types of pay and rewards is the basis for another type of paid plan known as the golden bracelet. In this plan, a certain time is considered to use the advantage of owning shares, and part of the income is paid in annual installments; Therefore, if the executives leave the organization before the set period, part of the compensation bonuses will not be paid to them as a penalty for changing jobs. The main goal of this plan is to retain key managers of the organization, and research shows that the skills and talents of managers are the most valuable assets of organizations. Assets that create and maintain relationships that generate income for the organization, and their separation often disrupts long-term plans due to the entry of new managers. These managers will usually have a different management strategy, so a gold bracelet approach

to rewards and pay is more compatible with the organization's long-term strategy or goals. In other words, if management stability is necessary for the sustainable growth of the organization, the use of such plans is recommended; But these plans are not without problems either; For example, senior managers do not have control over the long-term situation of the organization, and the shares of the organization may be bought by another organization, and new shareholders may choose new managers. Also, the relation of compensatory rewards to managers' success may reduce their risk-taking; This issue can also lead to mediocre performance and encourage managers to make prudent decisions to reduce risk.

#### **8.14.5. Compensation for job loss (golden umbrella)**

This type of compensatory compensation plans are designed to first retain talented and capable executives or managers in the organization and give them the assurance that if they are fired due to mergers or other factors, they will receive significant benefits. they will receive for job loss; Secondly, to encourage managers to be realistic and in line with the interests of shareholders in the evaluation of mergers or elimination of units. Such plans, which became famous in the 1980s and with the spread of changes in the removal, merger and purchase of organizations, are usually accompanied by other bonus plans, such as having tradable shares, and the amount of payment to managers sometimes reaches millions of dollars; But this plan also faced criticisms, such as the fact that it is not clear that the interests of senior managers are always aligned with the creation of value for shareholders, and in addition, if the organization abandons managers for reasons other than merger or acquisition, according

to this plan, bonuses and benefits must be given to managers pay that they do not deserve.

#### **8.14.6. Cash bonus**

Plans for compensatory rewards are designed that evaluate performance based on accounting criteria and do not have the limitations of proposed plans. These types of plans, which are usually accompanied by quarterly or annual cash payments, are designed based on indicators such as return on investment or improvement in internal performance. The logic of the aforementioned designers is that market factors are beyond the control of the organization's management. These factors can affect the stock price and reduce it, even if the management has a favorable performance and exceeds the shareholder's expectations. In other words, despite good performance, managers may be deprived of receiving compensatory bonuses due to environmental fluctuations and lack of stock price increase; Therefore, traditional accounting standards such as net income, share income and return on assets are also used in this plan. These criteria are almost in the daily system of organizations and managers are familiar with it. An important criticism of the cash bonus plan is that accounting or financial measures may not provide an accurate judgment of management performance; Therefore, it is necessary to find criteria that really evaluate the creation of value for shareholders; For example, the criteria proposed by the balanced scorecard make it possible to have a more realistic assessment of managers' performance.

#### **8.15. Summary**

The first issue in the implementation of the main strategy is to operationalize that strategy in the entire organization. This chapter

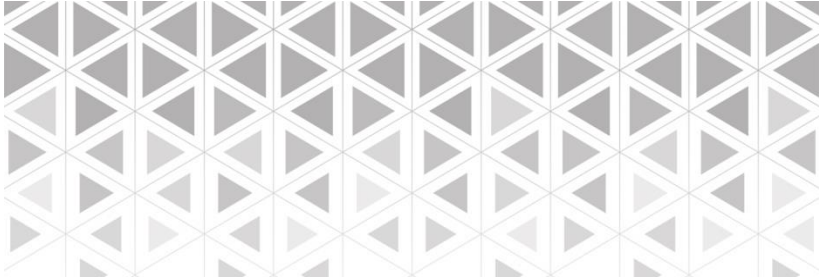
discusses three important tools, short-term goals, task strategies, and policies, for doing this.

Short-term goals guide the implementation of strategy by converting long-term goals into current goals. Short-term goals are derived from long-term goals, but they differ in terms of time horizon, focus, specificity, and measurability. In order for short-term goals to play an effective role in the implementation of the strategy, they must be integrated, coordinated, compatible, measurable and prioritized.

Task strategies are the second most important tool for the effective implementation of a strategy. Task strategies are derived from business strategies and provide specific and immediate direction to the key task areas of a business and determine what needs to be done to accomplish the main strategy.

Policies are another means to guide and control decisions and actions at the operational levels of the organization in a process compatible with task and business strategies. Effective policies shape the actions, behavior and decisions that play an important role in the implementation of the strategy.

While short-term goals, task strategies, and policies represent the beginning of strategy implementation, much work remains. The strategy must be institutionalized and permeate deep within the organization.



## **Chapter 9: Strategy control and evaluation**

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### **9.1. Introduction**

A strategy is chosen and implemented over time to guide the organization in a rapidly changing environment. In other words, strategies are designed for the next few years and are based on management assumptions about several events that have not yet occurred (future-oriented strategies).

How should managers control strategy? The traditional approach to control seeks to compare actual results with standards. In this approach, after things are done, managers evaluate them and then use the data obtained to control future efforts. Although valuable in its own right, this approach is inappropriate for strategy control, because it often takes five years or more for a strategy to be fully implemented, during which time numerous changes may occur, changes that may have significant effects on success. Have a final strategy; Therefore, conventional concepts and approaches should be adjusted or replaced to meet the specific control needs of long-term strategies. Strategic control is related to the pursuit of the strategy at the same time as its implementation, discovering issues or changes in the basic assumptions and making necessary adjustments. In contrast to conventional controls or controls based on past performance,

strategic control means controlling and directing efforts at the same time as implementing the strategy, while the final results are determined in the next few years. Managers' responsibility for a strategy and its success typically relates to two sets of questions.

1. Are we moving in the right direction? Are key things or tasks in place? Are our assumptions about important trends and changes correct? Have the important things we need done done? Do we need to adjust the strategy or is the selected strategy ineffective?
2. How are we doing? Have we reached our goals and plans? Are the organization's expenses, incomes, and cash flows in line with the forecasts? Do we need changes in the organization's operations?

Strategic controls that are reinforced by operational controls are designed to answer such questions.

This section describes strategic controls and explains how to select them, and then describes the key operational control systems needed to support strategic controls. Reward systems are also often reviewed in this section, because they play an important role in guiding strategy implementation and motivating strategic controls.

## 9.2. Creating strategic controls

Strategy control can be seen as a form of proactive or prospective control. Usually, there is a significant time gap between the implementation of the proposed strategy and the achievement of the desired results, during which many projects are committed, investments are made, and measures are taken to implement the new strategy, but often during this period, the final internal position and the outside of the organization develops and evolves. Strategic controls are necessary to guide the organization against these events. They should provide a basis for correcting actions and guiding the



organization in the implementation of the strategy as development and changes occur in the environment and internal situation of the organization.

There are four basic types of strategic control: 1) Premises 2) Implementation 3) Strategic surveillance 4) Special control.

### **9.2.1. Assumptions control**

Every strategy is based on anticipated or accepted conditions. These assumptions or predictions are planning assumptions and the organization's strategy is designed according to these predicted conditions. Assumption control means systematic and continuous control of these assumptions during the planning period and strategy implementation process to ensure their validity. If the basic assumptions do not hold long-term validity, we may have to change the strategy. It is clear that if we recognize an invalid assumption as soon as possible and revise it, there are better chances of an acceptable change in the designed strategy.

### **9.2.2. What assumptions should be monitored**

Assumptions are primarily related to environmental and industry factors, which are briefly explained.

#### **Environmental factors**

The organization has no control over the environmental factors or its control is very limited, but these factors have a significant impact on the success of the strategy. Inflation, technology, interest rates, government regulations and social demographic changes are examples of such factors. Strategies are usually based on key assumptions about these factors.

#### **Industrial factors**

These factors that affect the performance of organizations in a certain industry are different in different industries; Therefore,

managers should be aware of the factors affecting the success of the organization in that particular industry; For example, competitors, suppliers, substitute goods and barriers to the entry of new organizations are among the factors that strategic assumptions are formulated about.

Assumptions (some important and some less important) are often made regarding numerous industrial and environmental variables, but it should be noted that pursuing any assumption may increase unnecessary costs and be time-consuming; Therefore, managers should choose assumptions and variables that are likely to change, and secondly, this change will have an important impact on the organization and strategy.

### **9.2.3. How to establish assumptions controls**

Key assumptions must be identified during the planning process. Assumptions should be recorded and documented, and the responsibility for monitoring them should be assigned to individuals or departments that have reliable sources of information; For example, the sales force is a valuable resource for monitoring the expected pricing policy of key competitors, while the finance unit may monitor interest rate trends. All the assumptions do not require the same effort and attention, and therefore the emphasis should be on the key assumptions and avoid collecting a lot of information (accumulation of information). These assumptions should be updated according to the latest information, and finally, key areas within the organization or anticipated changes that may affect important aspects of the strategy should be identified in advance, and the necessary adjustments to deal with changing assumptions should be determined and proposed in advance be made; For example, marketing executives should be alert to changes in competitors' pricing policies and determine what adjustments in strategy and product positioning are required if these policies are revised.

#### **9.2.4. Execution control**

The practical stage of strategic management determines a series of steps, plans, investments and actions to be committed in a period of time to implement the strategy. Certain programs are committed; Functional or task areas suggest a number of strategy-related activities; Key people are added or responsibilities are revised and resources are provided; In other words, managers transform broad strategic plans into specific actions and results for specific units and individuals to implement the strategy, and these actions take place gradually during a designed period of time, which ultimately leads to the implementation of the designed strategy that leads the organization to its goals. Long term Strategic control within this context can be committed. This type of strategic control is also called execution control. Implementation control is designed to determine whether the main strategy should be changed in the face of incidents and unwanted results along with gradual implementation measures to implement the strategy, and its two basic types are:

1. Oversee key or new strategic plans;
2. Review of specific and important steps.

#### **9.2.5. Monitoring key or new strategic plans**

Implementation of strategies often requires the design and implementation of a number of new strategic projects; The projects that are necessary for the implementation of the main strategy and the senior managers of the organization obtain the necessary information by monitoring the progress of their implementation compared to the implementation of the main strategy.

Although key or new strategic plans seem to provide some form of obvious control, it is not always easy to use them as sources of control. Early experiences may be difficult to interpret. It is difficult

to clearly identify and measure the initial steps and correctly evaluate the main strategy according to these data and separate experiences.

Two useful approaches to establishing executive controls focus on monitoring new strategies. One way is early agreement in the planning process for key projects or phases of it that are important factors for the success of the strategy or that project. Managers' responsibility is to continuously control the implementation of these axes separately from other activities.

The second approach to strategic monitoring is the use of stop/continue evaluation, which is related to a series of meaningful parameters such as (time, costs, research and development, location, etc.).

#### **9.2.6. Revision of specific procedures**

Managers often try to identify the salient stages that occur during strategy implementation. These milestones may be a critical resource allocation event or a phase of strategy implementation, in any case, the said review is usually a complete and comprehensive re-evaluation of the strategy and its continued implementation, or a revision of the organization's direction of movement in takes over

A useful example of strategic management control based on milestone reviews can be seen in Boeing's product development strategy for entering the supersonic airline market. In this field, the joint investment of Concorde France and British England had caused fierce competition. Boeing invested millions of dollars and years of rare engineering talent into the first phase of the project. It was believed that the market was big, but the implementation of the next stage would cost Boeing a billion dollars, so this stage was considered as an outstanding stage by the management of Boeing. The cost estimate increased more than the estimated amount. Relatively low number of passengers (relatively speaking) and rising

fuel costs meant an increase in estimated operating costs. Concorde was heavily subsidized by the government, while Boeing was not. These factors made the management of Boeing abandon the project and suspend its financial credit despite the heavy costs. Only a comprehensive re-evaluation of the strategy could lead to such a decision. Specific stage reviews may coincide with a major step in strategy implementation or when a key uncertainty has been resolved.

It is even possible that sometimes the managers choose a certain period of time (for example, a period of 2 years) for such reviews. However, whatever the basis for choosing this period of time for review, the main goal is to completely review the strategy of the organization to control its future.

### **9.2.7. Strategic monitoring**

Assumptions control and implementation control are essentially centralized controls. The third type of strategic control, which is designed to monitor a wide range of internal and external events of the organization, is the events that are likely to threaten the direction of the strategy. The basic idea in this type of control is to promote a kind of general monitoring with regard to different information sources, of course, with the specific goal of obtaining important and unexpected information.

As much as possible, strategic monitoring should not be focused on a specific case and should be designed in such a way that it is possible to review the environment (free activity of knowing the environment), management publications, business conferences, conversations and voluntary and involuntary observations, all of the sources of strategic monitoring. While strategic monitoring is flexible, the important goal is to provide a continuous and extensive

monitoring of all day-to-day operations to obtain undiscovered information, information that is useful for the organization's strategy.

### **9.2.8. Special control (special risks)**

Another type of strategic control, which is actually a subset of the three mentioned controls, is the control of specific risks. The aforementioned control requires a comprehensive and often quick revision of the main basic strategy in the face of sudden and unexpected events. An important political change, the sudden withdrawal of a competitor from the market and unexpected problems in production are examples of sudden changes that can cause important changes in the organization's strategy.

Such events lead to immediate re-evaluation of the organization's strategy and current strategic position. A number of organizations have formed and developed crisis groups. These groups provide initial coordination and necessary responses in the face of sudden events or events that have immediate effects on the organization's strategy. Organizations are also increasingly designing contingency plans with crisis teams to respond to such situations.

While each of the types of controls is different, they all have a common goal, and that is to determine whether the direction of the strategy should be changed according to the revealed risks caused by the events or not. In other words, unlike operational controls, strategic controls are designed to continuously question the fundamental direction and strategy of the organization.

Operational controls are related to action control, while strategic controls deal with the direction and future direction of the organization; But both of these controls are needed for the effective management of the strategic process. In the next section, the types of important operational control systems that help the strategic management process are explained.

### 9.3. Operational control systems

Strategic controls are useful for monitoring and directing the organization's strategic directions, but operational managers often need appropriate control methods to implement the strategy at their level. The primary concern of these managers at the operational level is the allocation of resources and the use of the organization's facilities.

The operational control system guides, monitors and evaluates the progress of activities in order to achieve short-term goals, and while strategic controls pay attention to the direction and progress of the organization in a long-term period (usually 5 years) or more, these types of controls are based on past information. They are used for short-term periods, usually one month to one year.

To design effective operational control systems, the following common steps should be considered: 1) selection of performance standards; 2) measuring actual performance; 3) identifying deviations from standards; 4) Suggesting a corrective action or amendment.

Three types of operational control systems are: 1) budget; 2) short-term plans (schedules); 3) Key success factors.

The nature and use of these operational control systems are described in the next section.

### 9.4. Budgeting systems

The process of budget formulation has been proposed ahead of strategic planning. In the meantime, capital budgeting has also provided tools for strategic resource allocation, but today, with the increasing use of strategic management, resource allocation is based on strategic priorities and evaluations and not just capital

budgeting. However, capital expenditure budgeting as well as sales budgeting as operation control mechanisms have maintained their importance in strategic management. A budget, in a simple definition, is a resource allocation plan, a plan that helps managers coordinate operations and facilitates managerial control of performance. In other words, they do not control anything, but provide standards against which action can be evaluated. They often provide a basis for negotiating short-term resource requirements for strategy implementation at the operational level.

Most organizations use a budgeting system, not a specific budget, to control strategy implementation. The budgeting system includes a series of different budgets according to the specific characteristics of the organization, and because the organizations are different, the budgets will also be different; However, most organizations have three types of budgets in their budget control system: revenue budget, capital budget and expenditure budget.

#### **9.4.1. Revenue budget**

Most organizations use some form of revenue budget to monitor sales forecasts (expectations); Because this reflects a key objective of the selected strategy. This budget provides important information for the day-to-day management of financial resources and provides essential feedback on how the strategy is working. The said budget may use forecasts obtained in the planning process or past revenue patterns for evaluation; For example, most hotel and motel managers compare their daily income with the income of the same day last year to determine the effectiveness of their work. This budget is an important and special tool to control the chosen strategy and provides an early warning system about the effectiveness of the organization's



strategy. It is clear that if there is a significant deviation (high or low) from the budget, the management should re-evaluate the organization's operations or strategy and take possible measures and adjustments.

### **9.4.2. Capital budgets**

Capital budgets provide specific expenditure lines and frameworks for plant, tools and machinery, inventory and other capital items needed during the budget period.

To support strategies, a number of organizations require capital investment or divestment. An organization committed to a strong growth strategy will likely need additional capacity or facilities to support additional sales. On the other hand, an organization that intends to pursue a cost reduction strategy may be forced to eliminate important parts of current operations to generate additional resources. In both cases, the organization is faced with the management of important financial resources, probably in a long-term period, and in order to effectively control the capital budget, it needs detailed plans regarding the acquisition and expenditure of funds (cost of funds) as well as timed plans.

Two additional budgets are often designed to control the use of capital resources, one of which is the cash budget. A budget that predicts cash receipts and payments (cash flows) in the budget period, and the other is a balance sheet budget that is usually used to predict the state of assets, liabilities and net worth at the end of the budget period.

### **9.4.3. Expenditure budget (cost)**

Several budgets are needed to control the implementation of the strategy in different operating units of the organization. The budget is

a cost for each task unit and sub-activities that guide and control the implementation of strategy at the individual and unit level; Therefore, it increases the probability of profitable performance. For example, the organization may establish cost budgets for unit marketing as well as promotional activities in which monetary variables dominate the criteria, although nonmonetary variables such as physical activity levels may sometimes be used as support. Take Supposedly, a production budget includes standards for costs as well as standards for the level of efficiency or productivity. These non-monetary variables may include milestones or milestones that provide evidence for evaluating and progressing specific strategic plans.

An operating or cost budget means setting real standards, standards against which the activities and costs of operations can be evaluated and if necessary, adjustments can be made to maintain the effective implementation of the strategy. The cost budget or expenses is perhaps the most important common or public budget tool in the implementation of the strategy and if the standards have a correct relationship with the strategic goals, they can establish an effective relationship between the top management of the organization and the operational management of what is necessary for the success of the strategy. This also provides a warning system to manage the implementation issues of the organization's strategy. The budgeting system provides an integrated picture of the organization's operations as a whole. The overall performance effects of a manufacturing decision to change inventories in the manufacturing process or a marketing decision to change organizational procedures can be traced through the entire budget system. Therefore, the coordination of these decisions becomes an important necessity to control the implementation of the strategy.

## 9.5. Short-term programs (time tables)

Timing of activities is often a key factor in strategy success. Short-term plans (timetables) are often a planning tool for efficient use of time or sequencing of interdependent activities. The success of strategy implementation is completely dependent on both of these. Such programs are often a mechanism for planning, guiding and controlling these dependencies. For example, an organization that commits to a vertically integrated strategy must accurately link its development operations to ongoing core activities. Such development means development in the direction of suppliers or distributors and requires several changes in the operational activities of some internal organizational units.

## 9.6. Key success factors

One of the useful ways to effectively control operations is to focus on key success factors, which indicate the performance areas that management should pay continuous attention to. These factors have the greatest impact on the implementation of the organization's strategies, including improving productivity, high employee morale, improving product or service quality, increasing revenue per share, growing market share, and completing new facilities.

Each of the key success factors has a measurable performance indicator. For example, an organization may consider product quality, customer service, employee morale, and competition as key success factors with the following indicators.

- **Product quality:**
  - performance data compared to technical specifications;
  - Product return percentage;
  - Number of consumer complaints.

- **Customer service:**
  - Goods delivery cycle;
  - Percentage of orders sent;
  - Delay in providing services.
- **Employee morale:**
  - The trend of employee trends;
  - Absence of employees;
  - Employee transfer processes;
  - Competitors;
  - Number of direct competitors;
  - The number of new products introduced;
  - Percentage of bids submitted compared to standards.

Therefore, the key success factors represent the important elements that operations managers are responsible for in order for the strategy to be successfully implemented, because the success of a strategy requires the successful performance of various key people in the organization. These factors are the basis of the teamwork of managers in achieving the strategic goals of the organization.

Budgeting, scheduled programs and monitoring of key factors are very important tools for controlling the implementation of strategy at the operational level of the organization. What is common in these types of systems, i.e. the operational control system, requires the existence of measurable standards for performance evaluation.

### **9.7. Use of operational control systems: performance monitoring and evaluation of deviations**

Operational control systems require the creation of performance standards, and in addition, progress must be monitored and deviations from the standards must be evaluated at the same time as the implementation of the strategy. Timely information should be

obtained, so that the deviations can be identified and the basic cause can be determined and measures can be taken to correct and exploit them.

Management is interested in comparing project progress with expected and planned progress. This review is useful and if there is a deviation, the management can make appropriate decisions about the required changes or adjustment of the organization's operations by reviewing the suggestions.

The organization must maintain control over its cost structure and is actually ahead of schedule in order to reduce overhead costs. The organization must be well ahead of schedule to deliver goods, while the ratio of service personnel to sales personnel may be a little low. Return rates seem normal, although production performance versus quality is below standard. Sales per employee ratio and product line development are ahead of schedule. Absenteeism in the service area is based on the predicted rate, but displacement is higher. Competitors have introduced new products to the market much faster than expected.

After the deviations and their main reasons are identified, the results of these deviations must be seriously examined for the final success of the strategy; For example, rapid product line development may be in response to a competitor's increasing rate of product development. At the same time, product performance was still low and although the installation cycle was slightly above standard (improving customer service), the ratio of service personnel to sales was below the target. Compliance with this substandard ratio (and perhaps reflecting the lack of organizational commitment to customer service) causes a lot of turnover in service personnel.

A sharp decrease in indirect overhead costs may be interpreted as the administrative integration of customer service and product development needs has decreased rapidly.

According to these results, the operations manager is faced with several choices.

Observed deviations may be primarily attributed to internal factors or defects. In this case, priorities can be changed, for example, there may be more emphasis on customer service unit employee retention, while reducing overhead costs and new product development will be less emphasized. On the other hand, the management group can decide to continue the activities according to the set plans in the face of increasing competition and seek to accept to gradually improve the position of consumer services. Another possibility is to reformulate the strategy or an element of it in the face of increasing and fast competition. For example, the organization may decide to shift its emphasis to greater standardization or lower quality products to solve customer service problems and gain the desired advantage from its motivated sales force. The important point is the basic need to monitor the progress of the programs compared to the standards and pay deep and serious attention to the main reasons for the observed deviations and the most appropriate response to them.

Also, such evaluations are suitable for organizational sub-units, product groups and operational units. Budgets, short-term plans, and other management control systems are related to the strategic plan through goals and performance standards, and allow due attention to detect and evaluate deviations (the time frame is tight, usually quarterly or monthly over the one-year budget period). Operational managers usually evaluate the progress of activities against the budget figures year by year. After the deviations are evaluated, it is possible that small changes are necessary to maintain the progress of the programs, or other factors and cost according to the designed strategy; But in unusual cases where the deviation is extraordinary

(usually due to sudden changes), management should be alert to revise budgets, task plans related to budgeted expenses, or review units and the effectiveness of managers' responsibilities, and take actions, but not more than Any measure of acceptable level of deviation must be specified, otherwise the control process will become a heavy administrative burden. The standards should not be considered absolute, because the estimates used to develop them are typically based on historical information, which is by definition "after the fact"; Therefore, absolute standards are often used regardless of changing conditions. Also, in developing standards, the average is often used, which by definition eliminates the difference and variability. These problems raise the need to define acceptable ranges of deviation in budget figures or key indicators of strategic success. This approach helps to avoid administrative or managerial problems, identify changeable criteria and delegate more authority or authority to operations managers in making short-term decisions, and hopefully improves motivation.

Some organizations use starting point or critical deviation points to clarify standards, especially to monitor key success factors. A critical point or starting level is a deviation from a key indicator or figure that management identifies in the planning process and indicates an important threat or opportunity. When we reach this point, the management immediately senses the danger and considers necessary adjustments in the organization's strategy. Some organizations that have accepted this idea have taken an important step forward and have already designed and determined one or more contingency plans to be implemented in such cases. These contingency plans revise priorities and actions quickly and do not allow time to be wasted on administrative evaluations, measurement and investigation of extraordinary deviations.

Correcting performance deviations puts all management tasks in focus. Managers can improve performance by changing criteria. Also, they may eliminate the deviations by changing the designs. Management can improve poor performance by changing how things are done by hiring new people, retraining current employees, changing jobs, and the like. Therefore, correcting deviations from the plan can include all departments, duties and responsibilities of operations managers. Operation control systems are designed in order to provide the necessary feedback, so that the managers of the organization can make the necessary decisions and adjustments to implement the current strategy.

## **9.8. Reward systems**

### **9.8.1. Creating motivation for implementation and control**

The execution and control of the strategy ultimately depends on the individual members of the organization, especially the key managers. Motivating and rewarding the good performance of individuals and organizational units is one of the key elements in implementing an effective strategy. While the primary emphasis is on positive reinforcement, at the same time, fines or punitive actions are also important tools to control and moderate poor performance. Motivating and controlling the efforts of people, especially the management personnel in implementing the strategy, through the organization's reward-punishment mechanisms, salaries and benefits, salary increases, bonuses and wages, the option to purchase shares at a certain and known price, incentives, benefits, promotions, Demotion, recognition of competence and praise, criticism, giving more or less responsibility, group norms, performance evaluation, tension and fear are done. These mechanisms work positively and negatively, long-term and short-term, and align the control



mechanisms, actions and goals of sub-units and people with the goals and needs of the organization's strategy. This is not an easy task, and the reward and punishment structures for controlling strategy implementation vary greatly in different organizations. For example, the former executive director of I. T. T uses an interesting combination of money (motivators' salary and benefits), tension (strong accountability for results), and fear to control managers' efforts to implement strategies; But AutoBike's organization took a different approach, using the organization's incentive systems reward structure, wide discretion for operations managers, and clear goals to motivate and control individual proposals. All employees were invited to participate in stock purchases of up to 5 percent of their salaries at a 10 percent discount to the market price, and line managers had broad discretion in operational decisions, although their work results were heavily weighted. These two examples clarify some general results about the use of the reward and punishment mechanism to control people, especially managers in strategy implementation. Financial incentives are important reward mechanisms. They are particularly useful for performance control when they are directly related to specific activities or outcomes. Non-financial (internal) rewards such as flexibility and freedom of action at work and specific and visible controls on performance are important managerial motivational factors, as well as punishments such as refusing to give financial and spiritual rewards with tensions that result from unfavorable or substandard performance results. Happening is one of the necessary elements for directing, controlling and efforts of managers.

The time horizon on which rewards are based is an important factor in linking rewards and punishments to strategically important activities and outcomes. Writers and leaders of different

organizations have expressed their concerns about incentive systems based on short-term (usually annual) performance. Their concern is that short-term reward structures can lead to actions and decisions that jeopardize the organization's long-term position. For example, when a marketing manager is rewarded based on the effectiveness of costs and the amount of sales achieved by the marketing staff, there may be more emphasis on eliminating ineffective networks and using new ones put on the established distribution networks.

A reward system that is based on increasing current profitability can potentially reduce current investments (time, people, money) in areas that are profitable in the future. Suppose, if the main strategy of the organization, among the various ways, emphasizes growth through horizontal integration of current products, networks and new markets, the reward structure can direct the efforts of managers in a way that jeopardizes the ultimate success of the strategy, and the marketing manager as well. Who operate within the current reward structure may be reassigned to other responsibilities as negative results or deficiencies become apparent. These short-term executive incentive plans usually emphasize the profit of the last year or quarter. This focus brings four weaknesses to advance the new strategy.

1. It is retro-oriented. The reported results reflect the past events and to some extent the previous strategy.
2. The focus is on the short term, although a number of recorded transactions have effects over longer periods.
3. Strategic benefits or losses are not considered according to basic accounting methods.
4. Investing time and money can have a negative effect on the future strategy, because such expenses and efforts are usually mixed with other expenses, and the manager can improve his reward and rewards, although he is not ready for the future.

While there are certainly clear dangers in incentive systems that encourage short-term thinking and neglect the long-term view, the real danger is the hasty condemnation of short-term metrics. It is easy to argue that managers should be concerned with long-term performance, but one should not mistakenly conclude that short-term concerns are unimportant or that they necessarily conflict with the organization's strategic needs. These simplifications and quick conclusions are dangerous, because for the effective implementation of a strategy, short-term goals with supporting goals to achieve long-term strategic goals are also important and vital. The real issue is not the short-term concerns versus the long-term concerns of the management, but the lack of integration and compatibility between long-term and short-term plans and goals in the control system, which is vital and important for the successful implementation of the strategy. Choosing the right incentives and rewards is one of the critical elements to achieve this compatibility. To integrate short-term and long-term tasks, reward systems should be designed based on evaluating and controlling the short-term and long-term participation of key managers. An effective reward system should provide results that evaluate and control the creation of potential future performances, similar to last year's results. A review and evaluation in a particular year includes an assessment of performance during that year and an assessment of progress toward five-year strategic goals. Short-term goals and incentives each year reflect the necessary adjustments for the successful implementation of the strategy.

This helps to integrate short-term and long-term motivational considerations in strategy implementation by linking the necessary adjustments in long-term considerations to the next year's reward structure. The second element in the reward system management is

the design of the incentive program based on the progress of the total activities towards the strategic goals. Incentives or drivers such as the right to buy certain and known remaining shares, transfer bonuses or concentrated (cumulative) payments that are related to future performance indicators and provide ways that structure the bonus payment methods. An essential and inseparable element in the motivation system is its connection with long-term progress towards strategic goals, which reinforces the integrity and internal communication of performance over a five-year period and does not allow only one year to become important.

These motivational priorities (long-term vs. short-term) depend a lot on the nature of the strategy. By comparing the importance of eleven criteria used in determining points or rewards for managers of strategic units, the researchers concluded that the long-term criteria in the field of motivation (relative to the unit (those who have chosen Chinese cluster strategies) is a more important determinant in businesses that have chosen expansion strategies. Also, short-term criteria are important in both types of businesses, although these criteria are more important than long-term criteria in determining the motivational structure of businesses with Chinese cluster strategies. Another approach that has been proposed to strengthen long-term or strategic thinking as well as short-term in building incentive systems is the use of strategic budgets. In this approach, strategic budgets are used at the same time as operational budgets, but the goals and plans associated with each of the budgets are largely different. The focus of the operational budget is on the control and evaluation of businesses in a normal and routine way, but the strategic budget specifies the resources and goals for key programs or activities that are related to the long-term strategy. Note that the implementation of incentive plans can (and should) give more important and explicit

weight to strategic activities; Proponents of this approach have proposed the following three basic steps.

1. Measuring progress towards strategic goals should be done separately from the results of the operations performed.
2. A separate incentive system or rewards for operations performed and progress toward strategic goals should be determined.
3. In order to encourage revision of the strategy and acceptance of entrepreneurial risk, fixed and long-term stocks should be designed.

The common theme in each of these pay and reward approaches is the growing recognition that the incentive system must take into account both short-term and long-term considerations and determine the relative emphasis and importance of each through a focus on strategy; For example, for organizations or units that have chosen growth strategies, long-term payments and bonuses are more beneficial, but short-term operational goals should also be taken into account so that short-term performances are formed in line with long-term goals. Also, for organizations that pursue more immediate strategic goals, the emphasis of the incentive system should also be changed; For example, in units that have chosen the Chinese cluster strategy, the emphasis of the incentive system is on quantitative and short-term performance indicators, which are designed to evaluate strategic results.

## 9.9. Summary

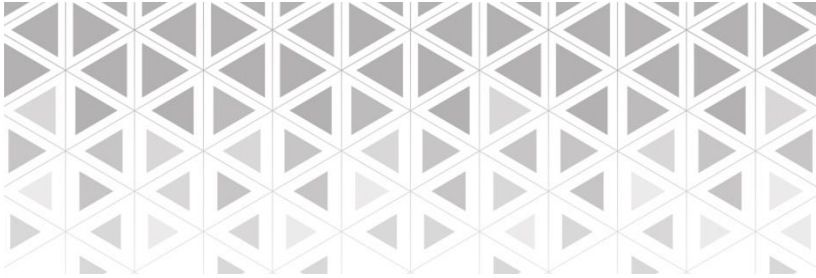
Two fundamental perspectives, i.e. strategic and operational control, provide a basis for designing strategic control systems. These strategic controls are established to guide the organization towards long-term strategic goals. Assumption controls, execution control, strategic monitoring and special controls are four types of

strategic controls. Each of these controls are designed to meet the need of high-level management to implement the strategy in the desired direction, discover the underlying issues and make the necessary adjustments. In other words, strategic control is related to the environmental assumptions and the essential needs of key operations for the successful implementation of the strategy.

Standard operating control systems define and identify performance along with how financial, physical and human resources are allocated and used to implement or pursue the strategy. Budgets, time schedules, and key success factors are the primary control tools.

Operational control systems require a systematic evaluation of performance based on predetermined standards or goals, and therefore one of the activities with important issues in this type of system is the identification and evaluation of performance deviations, careful attention to determine the main reasons and strategic results of the former. It is from the reaction of the management. Some organizations have started using critical deviation points and contingency plans in this process.

The reward system is a key element in motivating managers to implement and control the business in line with strategic goals. Organizations should emphasize on the motivational system or incentives and assure managers that the necessary attention will be paid to key projects or strategic axes. This usually requires a balanced effort to emphasize long-term performance indicators instead of emphasizing short-term performance criteria. In other words, long-term and short-term performance considerations should be integrated to ensure that performance is consistent with the organization's strategy and provide a basis for monitoring or guiding short-term performance and long-term strategic results.

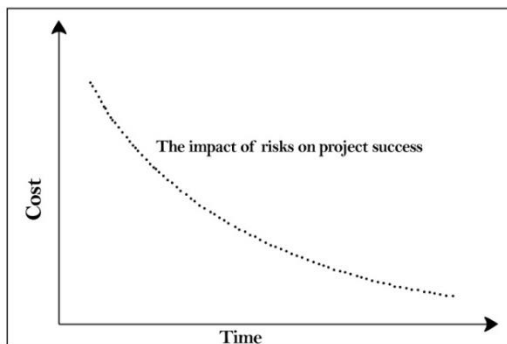


## Chapter 10: Risk management

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### 10.1. Introduction

Another important issue that should be considered in the context of making strategic decisions of the project is the review and analysis of project risks. (Figure 1-10) Projects that are defined in the construction industry, often require a lot of capital and have their own complexities, as well as a relatively long period of implementation and exploitation. Therefore, identifying and analyzing project risks, such as technology, design, technical, financial, economic, social, market and environmental risks, is necessary and important.



**Figure 10.1. The risk of project failure is maximum at the beginning of the life cycle**

Defining and analyzing project risks affects decisions related to project acceptance, determining project specifications and implementation system, choosing different design and implementation options, choosing consultants and contractors, and finally setting the terms of the contract based on correct expert information. Risks related to the project can be identified and defined by collecting information and experiences of people and forming specialized groups.

In this chapter, the various definitions and models that have been proposed in relation to risk and its management are first mentioned, and then the process of project risk management is explained.

## **10.2. Different definitions of risk**

Major developments in the business environment, such as the globalization of business and the high speed of changes in technology, have caused increased competition and management difficulty in organizations. In today's business environment, management and employees must have the ability to deal with the ambiguous and complex interrelationships and dependencies between technology, data, tasks, activities, processes, and people. In such complex environments, organizations need managers who consider and distinguish these inherent complexities when making important decisions. Effective risk management, which is based on valid conceptual principles, forms an important part of this decision-making process.

Risk identification and management is one of the new approaches used to strengthen and improve the effectiveness of organizations. In general, risk is known as the possibility of loss or uncertainty, which has different types and classifications.

The risk exists in almost all aspects of our daily life and we will find traces of it in every field we look at. Our world is a changing world and there are almost no other definite predictions except death!



In such a world, the outcome of any investment faces a degree of uncertainty, and for this reason, risk management is considered a key element in any investment to obtain the desired result. On the other hand, risk and opportunity go hand in hand, and anyone who is looking for opportunities in life will face uncertainties. The concept of risk has been described with different definitions and interpretations. Some examples of these definitions are:

1. Risk is a change that can occur naturally in the results of a situation.
2. Risks in the project are unknown events or possible situations that, if they occur, will have negative or positive consequences on the project's goals.
3. Uncertainty resulting from an event in a certain condition and at a certain time.
4. The chance of something happening that will affect the goals.
5. A synthesis of the probability of an event and its consequences.
6. Uncertain event or situation that, if it happens, will have a positive or negative effect on the project goal. Risk has a reason and if it happens, experience will be gained from it.
7. Risk conditions are defined as conditions in which the potential consequences can be expressed by relatively well-known probability distributions.

**Pritchard has provided two definitions of risk:**

1. The cumulative effect of the probability of uncertain events that may positively or negatively affect the project objectives.
2. The extent of exposure to negative events and the possible consequences of these events. These events are described by three factors (known as risk factors); Risk event, risk probability and the amount that was at risk.

There is another definition of risk that contradicts the above definitions. This definition was provided by Neville Turbid; Risk is something that may happen and if it happens, it will have an adverse effect on the project.

Each of the above definitions have paid attention to certain aspects of risk and as a result, have relative desirability and acceptability. For example, the term adverse effect in the recent definition is fundamentally incompatible with our understanding of the opportunities and threats hidden in uncertainty.

### 10.3. Definitions of risk management

There are several interpretations and definitions of risk management. Some define risk management as a process and a planned effort to recognize, evaluate, reduce and correctly distribute the risks of a project. The Australian Risk Management Standard defines risk management as follows:

Culture, processes and structures that are directed towards the effective management of potential opportunities and adverse impacts.

Project Management Institute defines risk management as follows:

Risk management is the systematic process of identifying, analyzing and responding to project risks in order to maximize the results of positive events and minimize the probability of occurrence or the effect of negative consequences on project goals. Kerner introduces risk management as an activity or effort to deal with risk. In general, it should be noted that the future goals always consider risk management:

1. Recognizing and defining project risks and evaluating them quantitatively;

2. Eliminating or reducing project risks and evaluating them quantitatively;
3. Correct and fair distribution and transfer of risk among project members.

Among the advantages and important points of risk management, one can create a better business and perform the management tasks correctly, reduce costly and unforeseen events, allocate resources more efficiently and effectively, get better results from projects and programs, help define Clear and obvious insurance requirements, obtaining better information for decision-making, obtaining information from regulatory requirements, helping to prepare for audit, encouraging people for the organization in the organization's activities in order to reduce risk and equalize opportunities and risks. It should be noted that with the progress of the project and the continuation of its life, the following factors will change:

**General knowledge of the project:** The process of changing this knowledge is directly related to the process of changing the life cycle, and it is at a low level at the beginning of the project, but the speed of its increase is higher compared to the life cycle.

**Knowledge of risk and value management:** in case of risk and value analysis at the beginning of the project formation, the level of knowledge obtained from these works will be higher than the level of general knowledge of the project, which indicates the importance of performing such analyzes at the beginning of the formation of each project. Is. As the project moves forward and moves on its life cycle, as we get closer to the end of the project, the general knowledge of the project (which is the result of the current events of the project and previous experiences) increases and gets closer to this diagram. The difference between these two graphs is the project's risk-taking level, which decreases as the life cycle progresses.

**The chance of adding value/decreasing the action:** At the beginning of the project, this curve is at a high level, and according to the continuation of the project and the completion of its various stages, this chance decreases. Risk - According to the things mentioned, the possibility of facing risk at the beginning of the project is very small, and this is quite clear due to the lack of general knowledge of the project in the initial stage and high changeability in these stages. The further we go on the life cycle, the more integrated the project becomes, the more the limits of change in the project, and for this reason, the possibility of encountering risk in the project increases. Just as the cost of change at the beginning of the project is low due to not forming the initial foundations of the project, the possibility of facing risk is also at a low level. With the formation of the project and especially in the middle stages of the project (where most of the executive work is being done), the probability of facing risk and the cost of facing it increases and the level of risk tolerance decreases significantly.

Considering the need for risk management, the risk management process should ensure the following:

- Are all important risks that affect the success of the project identified?
- Are the identified risks understood and understood based on both the scope of their potential consequences and their probability?
- Has the assessment of risks been done in relation to other risks to prioritize and allocate resources?
- Do the different strategies formulated to respond to risks provide opportunities to consider more than one risk?
- Are risk response strategies and the process itself effectively implemented with respect to the allocated cost?

It should be noted that project risk management is not a discrete and independent process but is integrated with other project management tasks. Project risk management is the responsibility of project stakeholders and they should actively participate in this process of the organization. Project risk management activities begin at the beginning of the project and continue throughout the project's life cycle as its plans are developed.

Risk management is increasingly examined in relation to the positive and negative aspects of risk; Therefore, the standards examine the risk from both points of view. In the field of safety, most of the consequences are considered alone, and as a result, safety risk management focuses on preventing and mitigating damage.

Risk management is the central part of strategic management of any organization. Risk management is a process through which organizations systematically consider the risks inherent in their activities with the aim of achieving more profit, within the scope of each activity and in the entire product portfolio of all activities.

Proper risk management focuses on defining and responding to these risks. Its purpose is to increase the maximum value obtainable from all the activities of the organization. Risk management increases the probability of success and reduces the probability of failure and uncertainty in achieving the overall goals of the organization. Risk management should be a continuous and developing process that flows within the organization's strategy and its implementation process. Risk management should regularly consider the system activity of all the risks resulting from the past, present and especially the future goals of the organization.

Risk management must be integrated with the organization's culture through an effective policy and program that is administered and commanded by senior management. Risk management must

express the strategy in the language of tactical and operational goals and specify the responsibilities of managers and employers (who are responsible for risk management as part of their work) in every organization.

Management at all levels of the organization improves the efficiency of operations by supporting performance measurement and protects the organization and its stakeholders and adds value to them (the organization and its stakeholders) by supporting the organization's goals through the following:

- Establishing a framework that enables the organization to carry out future activities in a continuous and controlled environment.
- Improve decision-making, planning and prioritization through a systematic and comprehensive understanding of business activities, options and project opportunities or threats.
- More efficient use or allocation of capital and resources within the organization.

Reducing the ability to choose in unnecessary areas of business.

- Improving and protecting the organization's assets and improving the public's perception of the organization.
- Development and support of individuals and the organization's knowledge base.
- Maximize operational efficiency.

#### 10.4. Types of risk

One of the American project management experts named Max Weidman expresses his opinions regarding risk groups as follows:

Risks can be classified in different ways according to the objectives of the project. For example, to prepare a project

justification report, the risks can be separated into main and secondary risks. For project status reporting purposes, they can be categorized according to their impact on project goals as follows:

**1. Project timing risks:** failure to complete activities within the estimated time limits or risks related to logical dependencies in the network;

**2. Project cost risks:** failure to complete activities with budget;

**3. Project scope risks:** risks related to changes in the scope or the need for terms to achieve the required deliverables;

**4. Quality risks:** failure to complete activities with the required technical or quality performance level or simply failure to meet customer expectations;

In order to identify risk and respond to it, the most appropriate approach is to define risk groups based on their origin (rather than their impact), for example:

**1. Non-technical internal risks:** Management, scheduling.

**2. Technical risks:** Changes in technology, performance, design issues.

**3. Legal risks:** Licenses, royalties, contractual issues.

Risk can also be classified based on the part that controls the risk. Control in the project manager's organization can be internal or external, or legal (legal). Internal risks can be technical or non-technical. External risks can be predictable or unpredictable. Legal risks can be caused by laws and regulations. Another project management expert named Rodney Turner classifies risks according to their impact and where the risk is controlled.

Risk can be divided in different ways. One of these ways is to describe uncertainty (and consequently opportunities and risks) in terms of knowns, known unknowns, and unknown unknowns.

**1. Known risks:** Risks that both themselves and their impact are known.

**2. Known unknowns:** Risks that are known to exist, but their extent and impact on the project are unknown.

**3. Unknown unknowns:** Those risks whose existence is neither known nor their effect is known.

Known is a case or situation in which there is no uncertainty.

For example, in the personal life of people, the event of death is an example of such a situation. Such an event will undoubtedly happen and there is no uncertainty about it.

Known unknowns are those events that we are aware of, but we do not know how they affect us. In fact, known unknowns are identifiable uncertainties. The electricity bill can be considered as an example of this category; But we are sure of receiving the next month's bill, but we don't know the amount of the payable price for our next month's bill. Cancer is another example of this class.

We know that cancer exists, but we don't know if we will be a victim of it one day or not?

The unknown unknown is a case or situation whose existence is unimaginable to us. For example, before the first observed case of AIDS, this disease was an unknown unknown. Although we now know that AIDS (now known) exists like cancer. Obviously, there are no examples of unknown unknowns (by the definition of these events) because, as noted, their existence is inconceivable to us.

In one of the standards published by the United States Water Resources Association in 1980, two main sources of risk and uncertainty are introduced:

1. Risk and uncertainty arise from measurement errors, complex primary variables, and natural, social, and economic conditions. If the analyst is not sure about his measurement due to incomplete data or analysis tools, his activity is subject to measurement errors. It is clear that improved data and improved techniques help to minimize measurement errors.



2. Some statistical, economic, hydrological and meteorological events are unpredictable and this is because such events are subject to random fluctuations. The question raised by the analyst is whether this randomness can be expressed in the form of some possible distributions or not? If a historical database exists that can be used to analyze future events, then such probability distributions can be expressed or approximated using objective techniques; But if such a base does not exist, then the possible distributions of future random events can be theoretically described by relying on the best judgments and insights available. The following factors can be important in predicting the future:
  1. Availability of information;
  2. Accuracy and correctness of information;
  3. Time horizon;
  4. The cost necessary for forecasting;
  5. Prediction accuracy and reliability;
  6. Having a vision and a clear mind towards the future.

#### **10.4.1. Division of risks**

From Hamiz and Pak's point of view, risks are divided into two general categories: technical risks and programmatic risks.

Technical risks represent those risks that the project will fail to meet its performance criteria under their influence. This category of risks includes hardware and software errors, necessary deficits and similar cases. Programmatic risks have two main sub-components. These two categories are the actual and anticipated cost difference and schedule delay.

From another point of view, risk sources are divided into internal and external categories:

### **1- Internal**

- Project size;
- Complexity of the project;
- Innovation in the project;
- Speed of design and construction on the project;
- Physical location.

### **2- Foreigner**

- Inflation in society;
- Wage costs;
- Labor availability;
- Political conditions;
- Weather;
- The range of technical scope.

Another division of risk is presented as follows:

#### **1. Political risks**

Moore suggests that for heavy investment, the political stability of both host and guest countries should be checked.

Cautious and far-sighted investors want to be able to predict at least the next 15 years of the country they are investing in, which of course is equivalent to several terms of parliament or the presidency of a country and many changes in the laws and policies of the said country.

#### **2. Risks related to the economic situation**

- Inflation rate forecast;
- The risk of ancillary industries and related to the product;
- Growth of the economic infrastructure of society;
- Historical inflation rate of the target society;
- Cost balancing algorithm;

- Level of foreign debts;
- Changes in the foreign policies of governments, considering economic globalization.

### **3. Risks related to climatic conditions**

- The physical stress level of the environment;
- Environmental trends among different factions;
- Local governments;
- Trade and investment trends and policies in that area;
- New environmental protection restrictions and legislation.

### **4. Social risks**

- Geographical issues;
- Lifestyle;
- Social values;
- Different culture;
- Pollution of the social environment.

### **5. Direct risks**

- Risks in large and complex projects;
- Coordination between sub-projects;
- Problems related to the allocation of project resources.

Usually, in large projects, due to different reasons, deviation from time is seen, and to compensate for this deviation, the trustees and officials of the project are forced to allocate more resources to do the work, which leads to an increase in project risks and at the end of the project in the form of an accumulation of forces. A human expert, facilities and facilities and knowledge of the use of work are manifested.

- ✓ Risk related to conceptual problems of the project
- ✓ Risks related to project management by a foreign institution:

1. The ability of the institution
2. Experience in similar projects
- ✓ Risks related to the type of contract; In order to eliminate such risks, it is necessary that the principles of the contract should be prepared more carefully. Usually, to increase the quality of their work, organizations carry out projects with the cooperation of several contractors, and in most cases, a group work, which is called a consortium. The implementation of projects in the form of a consortium improves the work and uses the skills and expertise of several contractors and organizations, but in turn increases the risks caused by the lack of coordination and proper communication between the involved organizations.

✓ Risk due to the contractor's negligence:

1. Lack of strict supervision;
2. Financial restrictions;
3. Lack of necessary experience;
4. Engaging in several different jobs;
5. Lack of necessary cash flow

Risks are classified in another division according to the industry and type of project.

Several types of risks can affect a project. Specific risks are different according to the project and type of industry. These groups are:

- Business risks;
- Product risks;
- Project risks.

Some risks (mostly in the business or product group) are seen when a project is proposed and before the project is selected and

approved. Some risks appear when the project scope document is prepared, and other risks appear when the project is planned.

Below are examples of each of these groups:

**A) Product risks arise due to the nature of the product or service.**

1. Timing of product or service delivery, early or late delivery can cause risk;
2. Determining the price of the project or service;
3. Acceptance of a new technology by the market that is used in the product.

**B) Risks arising from the timing, recruitment of personnel, budget and scope of the project.**

1. Areas with high risk in relation to personnel recruitment are:

- ✓ Illness or sudden change that causes the project to be delayed until a new person is replaced or adequate coverage is provided.
- ✓ Activities that involve many people, people who cannot clearly communicate with each other and thus cause quality problems.
- ✓ A team whose members do not have sufficient skills and do not have the necessary competence, will not perform the activities correctly and will waste the productivity of receiving help or eliminating their mistakes that another qualified group will do for them.

2. High-risk areas related to the budget are:

- ✓ Uncertainty in the organization's budgeting during difficult economic periods, which can be a blow to all ongoing projects.
- ✓ A change in the organization's budget priorities, which causes money to be withdrawn from a project and given to a project with a higher priority.

- ✓ The costs of using resources that were not available or changed at the time of budgeting.
3. High-risk areas related to the scope of the project include the following:
- ✓ Uncertainty about new product development due to lack of history to rely on.
  - ✓ Lack of tools and techniques in the form of equipment or technology or in the form of processes and policies.
  - ✓ The existence of a large number of errors that causes a snowball effect (in the sense that a small issue can turn into a big opportunity or challenge) in the activities and ultimately creates an unacceptable final product.

**C) Business risks are those risks that the organization faces and can include the following:**

1. The project intends to change the routine based on which the organization operates (primary business processes). For example, an organization that has centralized information systems is now choosing a decentralized approach based on which all the components of the organization, personnel and facilities, will have their own calculations. These organizations face a high risk and it is no longer possible for the personnel to accept this new organization and there is a possibility that they will oppose this process.
2. The product or process that is being created requires a change in the organizational culture. For example, an organization that is changing from a programmatic business state to an enterprise business state (such as insurance claims) considers projects such as claims processing automation to be one of the most important factors for the success of its business.
3. A commercial, industrial or consumer product development project is creating a product that will enter new markets in the

future, and the organization does not have enough familiarity and experience with these markets. For example, when an organization with enough experience in the field of marketing industrial products undertakes the development and supply of consumer products, it exposes itself to risk by doing so.

Based on another classification, the overall set of risks of a project into three categories of risks:

1. internal;
  2. External;
  3. Inherent
- are divided

Internal risks are visible within the project management group or its host organization and are caused by the management systems, culture and decisions of the organization or group.

Even when the project applies certified risk management processes and it appears that all project risks are managed, the researchers reveal the existence of internal risks in the project.

Internal risks are those risks that originate within the project organization or its host organization and originate from the laws, policies, processes, structures, actions, decisions, behaviors and cultures of the organization. For example, if the execution of a project is entrusted to a manager who does not have sufficient experience and skills in the field of management, the probability of the project's success will decrease.

Some risks seem internal, but the nature of such risks is inherent. For example, creating an important and new technological development carries the risk of failure and failure, and this is because it increases the range of possible incidents and events. If this new technology is assigned to any project group or organization, they will go through a similar procedure in using it. This is despite the fact that the risks of failure of such a project are similar in these groups and organizations; This is due to the nature and essence of the process

and work and its origin is not in laws, policy, culture, organization structure and similar things.

Internal, external and inherent risks are three completely separate categories of risk. In other words, a risk cannot be both internal, external and inherent. These three groups are completely independent from each other. Internal risks show themselves in different ways. As it comes from the definition of internal risks, the cause of most of these risks is human behavior. Human behaviors contain hidden factors that make the occurrence of risks probable. These hidden factors cause the occurrence of risks. Such factors can be searched in mental models, beliefs, beliefs and human values.

Unfortunately, human behavior is associated with uncertainty and it is difficult to measure them in terms of probability and effect. In other words, it is difficult to predict human actions, decisions and other behaviors, and estimating the risks caused by such behaviors is theoretical and unreliable.

According to Hamiz, the sources of risk are:

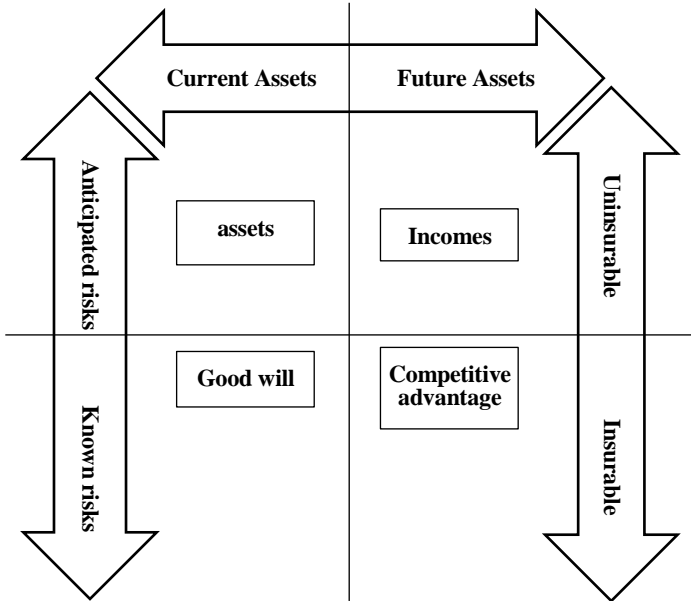
1. Error caused by hardware operation;
2. Error caused by software performance;
3. Human error;
4. Organizational errors.

The source of competitive advantage of an organization is its main asset, which should be protected and guarded at least with the same amount of protection that is provided by the structure of the organization. In practice, for many organizations, an exclusive right, a highly loyal workforce, or an ideal image of the organization in the public mind may be more important than the maintenance of buildings. (Figure 2-10) These assets are:

1. Physical assets;
2. Cash flow;



3. Good faith;
4. Competitive advantage.



**Diagram 10.2. Insurability of assets and ability to identify risks**

### 10.5. Prominent models in the field of risk management

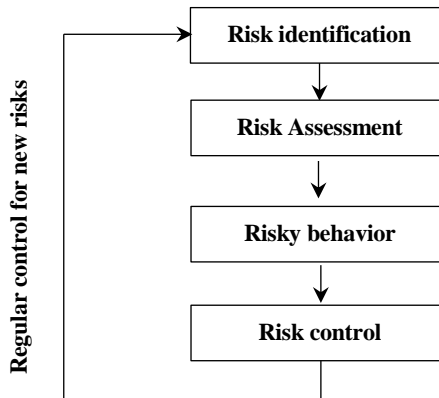
In this chapter, we will introduce the models presented in the field of risk management provided by organizations and qualified individuals. Although these models are designed for the same purpose (paying project risks), it should be noted that there are significant differences between them.

Some of these models deal with project risks in detail and pay attention to the smallest issues with their phases; While some of these models have a general view of the process and manage the process with fewer phases (which is equivalent to finer phases).

## 10-5 -1 international standard model of quality management in projects

### - ISO 10006

The World Standard Organization, which is a global authority consisting of national standards authorities, prepares and publishes global standards through its internal technical committees. The ISO 10006 standard was prepared by the quality management and quality assurance technical committee under the supervision of the quality systems committee. Basically, this international standard provides guidelines for quality management in projects and complements the ISO 9004 standard in improving the quality of projects. In fact, this standard has entered the project management topics with a quality perspective. In this standard and under the title of risk-related processes, risk management is defined in this way. Minimizing the impact of potential negative events and maximizing opportunities for improvement. (Figure 3-10) The risk management process in this standard includes the following:



**Diagram 10.3. Risk management model based on ISO 10006 standard**

**Risk identification:** at the beginning of the project, the potential risks resulting from the interactions related to the activity, process and product between the organization creating the project, the project

organization and the interested parties should be identified and recorded. This identification should not only consider the areas of cost and time, but also include areas such as product quality, security, reliability, professional responsibility, information technology, safety, health and environment. Any known risk should be carefully recorded and documented and a person should be assigned to manage it.

**Risk assessment:** This process includes quantitative and qualitative analysis and assessment of risks and often includes estimating the probability of occurrence and impact of risks.

**Behavior with risk:** ways to eliminate, reduce, transfer, share or accept risks and plans to take advantage of opportunities determine the type of behavior with risk.

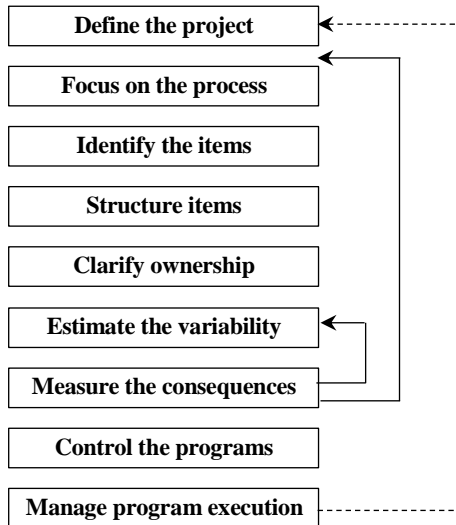
**Risk control:** During the entire life cycle of the project, risks must be identified and evaluated through an iterative process, and the behavior must be monitored and controlled continuously.

### 10.5.2. Shampu model

This model was presented by Ward and Chapman in 1997 and is known as the shampu model. (Figure 4-10) The phases and goals of this model are:

Define the project; Combine existing project-related information at a strategic level into an integrated, comprehensive structure suitable for risk management. Fill the gaps in the integration process and fix the inconsistencies.

Focus on the project; Prepare a strategic plan for the risk management process and review it carefully. Plan the risk management process at the operational level. Identify items; Identify sources of uncertainty at the strategic level in terms of opportunities and threats. Identify the events that may happen to it. Identify secondary sources of uncertainty associated with the answers. Structure items; Complete the structuring of the previous phases. Test the simplest hypotheses and create more complex or secondary structures where appropriate.



**Diagram 10.4. SHAMPU model for project risk management**

Clarify ownership; Allocate managerial and financial responsibilities for each case and, if appropriate, assign each responsibility separately. Estimate Variability Measure the uncertainty measured in the first trajectory. In subsequent trajectories, modify prior uncertainty estimates where this leads to greater effectiveness and efficiency. Measure the consequences; Evaluate statistical dependence. Integrate the results of the estimation phase by applying the dependency assumptions set for the target. Interpret the results based on the previous phases. Redefine decisions about reactive and proactive responses to prior analysis and analysis and the iterative nature of the process.

curb applications; Obtain approval for the strategic plans developed in previous phases. Prepare detailed implementation plans. These are baseline plans (integrating proactive responses) and contingency plans (integrating reactive responses with trigger points) that are ready to run at execution horizons defined using appropriate delay times. Be loyal and committed to the project plans that have

been designed for implementation. Manage the implementation of programs; Manage scheduled activities. Develop, monitor and control action plans for implementation (make decisions to modify or redefine project plans if necessary). Address major unforeseen crises and events and prepare to overcome disasters (crises that are not controlled).

### 10.5.3. Other models

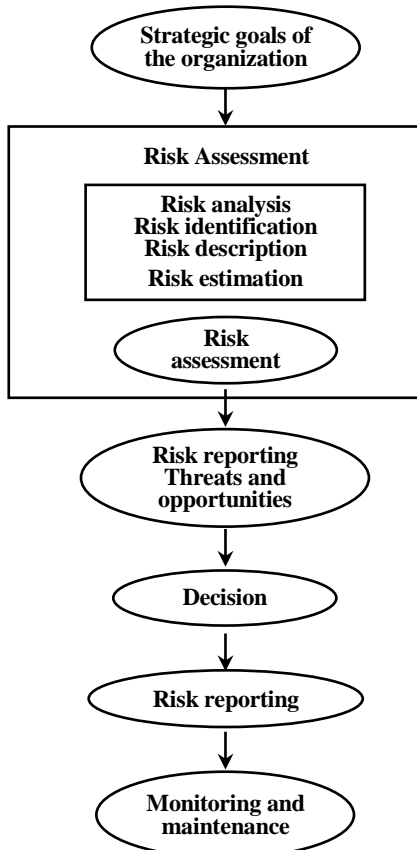


Diagram 10.5. ALARM model for project risk management

Other relevant models in the field of risk management are the ALARM model (Figure 10.5), the PRMA model (Figure 10.6), the PRAM model (Figure 10.7), the G. Smith model (Figure 10.8), and the Leach model. (Figure 10.9), Pritchard model (Figure 10.10), Wideman model, Boehm model, Fariley model, Software Engineering Institute model and Ludin & kilem model.

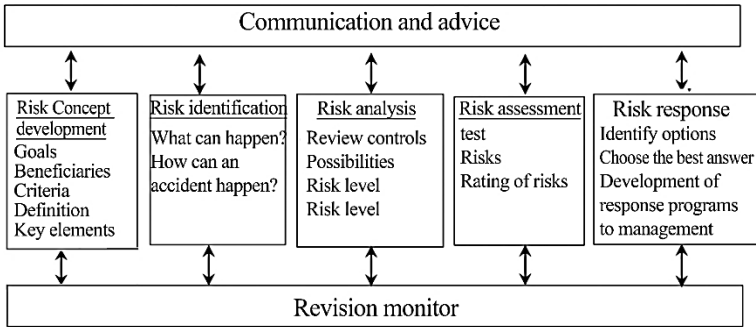


Figure 10.6. PARMA model for project risk management

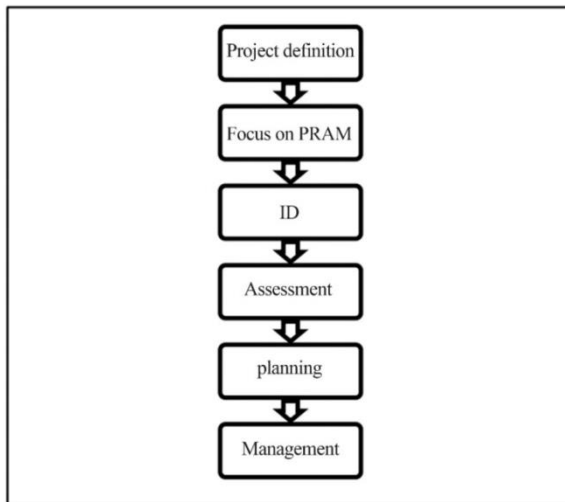
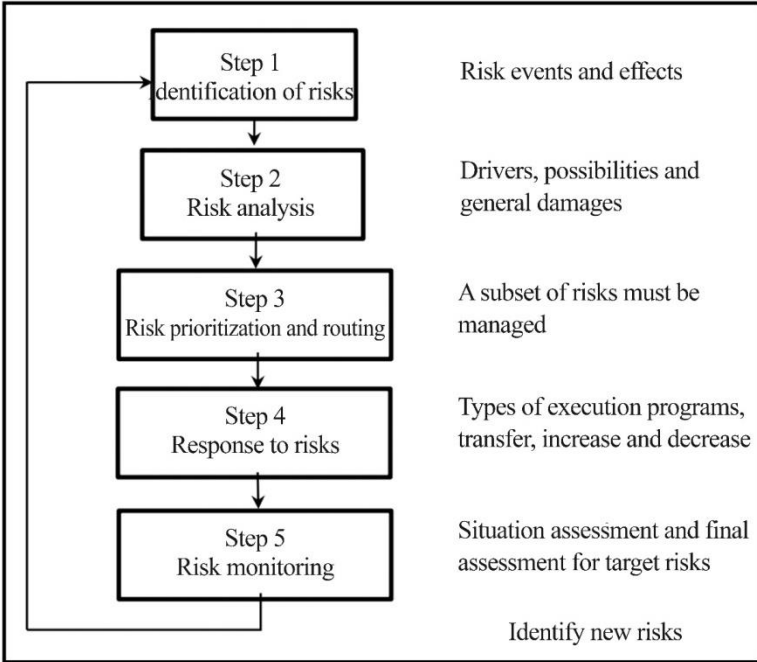
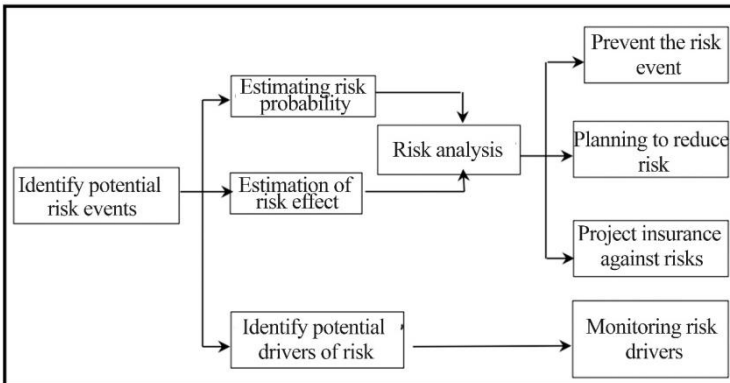


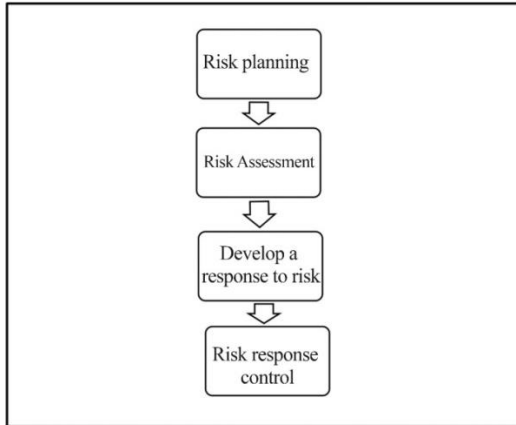
Figure 10.7. PRAM model for project risk management



**Figure 10.8. G.Smith's model for project risk management**



**Diagram 10.9. Leach model for project risk management**



**Figure 10.10. Pitchard model for project risk management**

In one of the standards published by the United States Water Resources Association in 1980, two main sources of risk and uncertainty are introduced:

1. Risk and uncertainty arise from measurement errors, complex initial variability, and natural, social, and economic conditions. If the analyst is not sure about his measurement due to incomplete data or analytical tools, his activity is exposed to measurement errors.
2. Some statistical, economic, hydrological and meteorological events are unpredictable and this is because such events are subject to random fluctuations. The question raised by the analyst is whether randomness can be expressed in the form of some possible distributions or not? If a historical database exists that can be used to analyze future events, then such probability distributions can be expressed or approximated using objective techniques; But if such a base does not exist, then the possible distributions of future random events can be theoretically described by relying on the best judgments and insights available. The following factors can be important in predicting the future:



- Availability of information;
- Accuracy and correctness of information;
- Time horizon;
- Necessary cost for forecasting;
- Prediction accuracy and reliability;
- Having a vision and a clear mind towards the future.

## 10.6. Summary

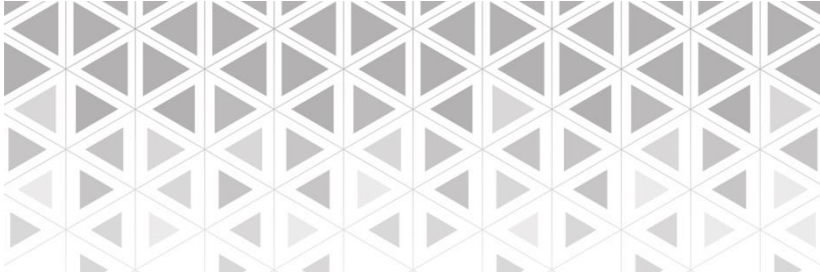
Several definitions of risk and its management were presented by experts. Risk management is one of the most important areas of project management, which is ongoing from the beginning to the end of the project, and its results can greatly influence the strategic decisions of the project. As a result, it is very important to identify and analyze project risks.

Project risks can be divided in different ways. For example, the types of risks based on the objectives of the project include timing risks, cost risks, scope risks, and quality risks.

In order to manage project risk, various models have been suggested. Although these models are designed for the same purpose, it should be noted that there are significant differences between them. Some of these models deal with project risks in detail and examine the smallest issues with their phases, and others have a general view of the risk management process. Among these models, we can refer to the ISO 10006 international standard model of quality management in projects, the Shampu model, the Alarm model, the PARMA model, the project management guide model, and the G. Smith model.

The six stages of risk management based on the scope of project management knowledge are: risk management planning, risk identification, qualitative risk assessment, quantitative risk assessment, risk response planning and risk monitoring and control.





## **Chapter 11: Quality improvement methods**

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### **11.1. Introduction**

By taking a quick look at the characteristics of a project implementation such as high complexity, multiple stakeholders, high cost and time, the involvement of multiple executive bodies, etc., it can be seen that solving all the overhead issues is very difficult and exhausting for managers. Now these questions come to mind, is it really not possible to reduce these problems? Are these problems specific to Iran or are other countries involved with these problems? What actions have other managers taken to solve these problems?

By studying many methods of dealing with these issues, we can conclude that they did not just spend money to solve these problems, and by making optimal use of the existing conditions, they were able to overcome the problems of their progress. One of these methods that has been able to increase the quality of projects while maintaining or reducing project costs is the use of value engineering in projects.

Considering the high costs, the multiplicity of stakeholders and project factors, and the need for new ideas in solving new problems and overcoming many limitations in projects, value engineering can be an efficient and effective method. By using this method, it is possible to help increase the efficiency and quality of these projects while reducing the lifetime costs.

## **11.2. Basics of value engineering**

### **11.2.1. Definition of value engineering**

Value engineering is a systematic method based on creativity and teamwork to solve problems, reduce costs, improve performance and quality of projects, products and processes. Value engineering provides actionable results for improvement quickly with the help of a wide range of knowledge and experience of specialists and focusing on the functions of the project, product or process.

According to the definition of the International Institute of Project Management (PMI), value engineering is a creative attitude to optimize life cycle costs, save time, increase profits, improve quality, increase market share, solve problems and use resources optimally.

According to the definition of the Vice President for Strategic Planning and Supervision, value engineering is the organized application of well-known techniques that are used to examine the performance of a product or service and using creative thinking to provide the required functionality to achieve project goals reliably and with The lowest lifetime cost and maintaining or improving quality, maintaining safety and environmental features.

### **11.2.2. Definition of value management**

The Project Management Association defines value management as follows: "Achieving the desired value requires balancing conflicting parameters to reach the right position, while value management is dealing with strategic issues, value engineering is optimizing concepts, The technical aspects, implementation and configuration aspects are the value.

The value management organization in Australia defines value management as follows: "Value management is an analytical and structured process that tries to satisfy the customer by ensuring the necessary functions at the lowest possible cost and by maintaining the level of quality and performance. Increasing the value of the effort".

### 11.2.3. Definition of value planning

Applying the value engineering methodology in the initial stages of conceptual planning of a project is called value planning. At this stage, the conceptual design has not yet been decided, and value improvement techniques, especially the performance analysis chart, can be used to choose the optimal and initial direction of design advancement.

### 11.2.4. Definition of value index

The value index is a measure that is used to determine the amount of improvement achieved by value engineering in a project and also to compare the amount of improvement made in different projects by value engineering. In order to determine this index, the improvement resulting from the changes is measured and placed in the fraction of the value index, the cost of carrying out the project or producing the product after applying the changes is also calculated and placed in the denominator of this fraction. Finally, the result of dividing these two values forms the value index. It is clear that the higher the value of this index, the greater the improvement in the project or product.

According to the definition of the Vice President of Strategic Planning and Supervision, the value index is the total income from each option (performance value) divided by the total costs (performance costs).

### 11.2.5. The goal of value engineering

The goal of value engineering is to provide workable solutions in order to solve problems, reduce costs and increase quality (performance), all of which depend on the performance of the project or product, but it is very important to achieve the desired goals in the shortest possible time. Finding the optimal point (balance) between performance, quality and cost is another goal of value engineering. In fact, the general goal of value engineering is to increase the value of the project.

### 11.2.6. Reasons for using value engineering

Mainly, improvement and saving methods are used in the conditions of occurrence of restrictions.

Some of the main reasons for using value engineering include:

1. High costs of project implementation or product production;
2. Long distance between design and implementation;
3. The difficulty of implementing projects;
4. High complexity of projects;
5. Lack of primary information;
6. Lack of communication between project agents and project beneficiaries;
7. Advancement of used technologies and improvement of standards;
8. Creativity;
9. Honest but false initial beliefs;
10. Changing laws, rules and regulations;
11. Change in employer's needs;
12. Change in environmental, social, economic and political conditions;
13. Changing the technical specifications of the plan;
14. Change in used resources.;

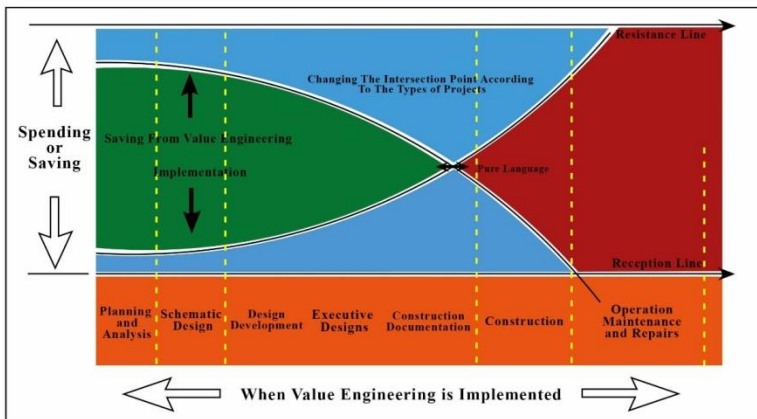
It should be noted that the improvement made with the help of value engineering is not only due to the lack of sufficient study or precision in the technical and economic studies of the project, but the time interval between the stages of design, implementation and operation of the project, on the one hand, and the examination of group creativity and synergy. The value study group, on the other hand, causes unimaginable improvement and savings by performing value engineering in projects.

### 11.3. Applied areas of value engineering

At first glance, the main field of application of value engineering is in construction projects (construction, transportation, road, etc.), but currently in the world, value engineering is used in various fields such as production processes, new product production, equipment, software. And... As well as providing services, management and training systems, resource allocation, process analysis, architecture, engineering design and marketing are also used. Value methodology may be used as a rapid response study to identify a problem or as an integral part of a collective organizational effort to stimulate innovation and improve performance specifications. In general, the application fields of value engineering can be divided into three parts: project, product and process. It is necessary to explain that the application scope of value engineering is usually limited by the mentality of users.

### 11.4. Time to use value engineering

Value engineering can be implemented in all stages of a project, but the most benefit is achieved in the initial stages of project planning and design, where the flexibility of the employer and designer is greater, the application of changes is easier, and the impact of changes on the project schedule is less, and the cost It also imposes less on the project. According to the standard of the International Association of Value Engineering, the greatest benefit and resource savings are achieved in the early stages of development and during the conceptual stages. At this stage, the basic information about the project is created, but the main design and development resources are not yet determined. Therefore, this stage is the best time to use value engineering because the situation in which the main function of the project has not been achieved has not been created and alternative methods can be determined and considered.



**Figure 11.1. The right time to conduct a value study**

Value methodology can be used more than once in the project life cycle. The initial application of the value methodology will help start the project on the right track, and its repeated applications will help correct the project's course based on new or changed information. When a value study is conducted in the later stages of project development, implementation costs are more likely to increase. According to the above material, it can be concluded that the closer the value engineering studies are starting to the feasibility and initial stages of the projects, the more impact it will have on the benefits of the project. Therefore, in the guidelines for value engineering studies in the period before implementation and construction, the Vice President of Planning and Strategic Supervision of the Presidency has specified one value study for small projects (with a cost of 20 to 100 billion Rials), two studies for medium projects (with cost of 100 to 300 billion Rials) and five value studies for large projects (with a cost of 300 to 800 billion Rials) and very large projects (with a cost of more than 800 billion Rials) suggested that at least one value study for all medium projects, Big and very big is mandatory.



**Table 11.1. Definition of project dimensions**

| The size of the plan or project | Project cost estimation            |
|---------------------------------|------------------------------------|
| Little                          | From 20 to 100 billion Rials       |
| Medium                          | More than 100 to 300 billion Rials |
| Big                             | More than 300 to 800 billion Rials |
| Hug                             | More than 800 billion Rials        |

**Table 11.2. The number of value proposition studies and their time**

| end | Detailed design             |                            |                          | Final feasibility and preliminary design | Preliminary feasibility study | the beginning | The size of the plan or project |
|-----|-----------------------------|----------------------------|--------------------------|--|-------------------------------|---------------|---------------------------------|
|     | 75% progress                | 50% progress               | 25% progress             |  |                               |               |                                 |
| -   | -                           | -                          | -                        | 5-3 days optional workshop               | -                             | -             | Little                          |
| -   | 5-3 days optional workshop  |                            |                          | 5-3 days mandatory workshop              | -                             | -             | medium                          |
| -   | 5-3 days mandatory workshop | 5-3 days optional workshop | 5 days optional workshop | 5 days mandatory workshop                | 3 days optional workshop      | -             | big                             |
| -   | 5-3 days mandatory workshop | 5-3 days optional workshop | 5 days optional workshop | 5 days mandatory workshop                | 3 days mandatory workshop     | -             | huge                            |

### 11.5. Obstacles to the use or failure of value engineering

Obstacles to the use of value engineering or the causes of its failure mainly include such things as;

1. Disbelief, lack of knowledge and acceptance of the project factors, especially the employer;
2. Misconception of achieving improvement and cost reduction due to incorrect design and inadequacy of design consultants' studies;

3. The resistance of the designer and the consultant to accepting the design review with the help of value engineering due to the perception of insulting their specialized position;
4. Lack of belief of the design factors, especially the contractor or manufacturer, in the value engineering process due to the unsuccessful experiences of other methods of cost reduction and improvement in the design or production process;
5. Lack of sufficient motivation in project agents to try to improve the project.

### **11.6. Side benefits of value engineering**

Value engineering, in addition to its main benefits such as improving design quality and reducing costs, has other benefits such as:

1. Creating synergy in the organization;
2. Improving communication between project agents;
3. The possibility of using applicable ideas on similar projects;
4. Increasing team spirit in the organization;
5. Acquaintance of project agents with useful functional oriented thinking;
6. It also promotes creative and deconstructive thinking.

### **11.7. Slogan of value engineering**

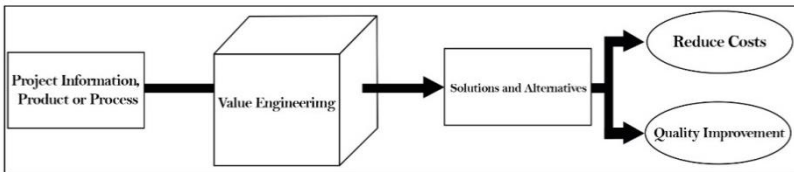
The motto of value engineering is "there is always a better and more effective way to do things". With some reflection on this sentence, we find out that contrary to the misconception among some consultants and designers that their expertise is questioned by conducting value engineering studies on their initial design, value engineering believes that due to the passage of time and changing conditions in the project, there is always the possibility of improvement in the current state of the design, even the design that

was presented by the value engineering itself. Therefore, value engineering always seeks to expand the platform for project improvement as well as the possibility of reducing unnecessary costs through comprehensive information review, strong team collaboration with a wide range of knowledge and expertise, breaking existing intellectual structures, going beyond normal problem solving methods and finally presenting creative ideas. And it is the way to achieve unimaginable improvement in the plan.

## 11.8. Implementation of value engineering

### 11.8.1. Overview of the value engineering process

By receiving project or product information, the required input of value engineering is provided, and after that, alternative solutions and options are provided as the output of value engineering in order to reduce the cost and improve the quality of the project or product.



**Figure 11.2. The overall value of the study**

The process of value engineering is carried out in the form of three major steps, which are:

- 1- Pre-study step, 2- Main study step and 3- Post-study step (supplementary study). Each of these three steps is divided into important phases or activities that will be presented separately.

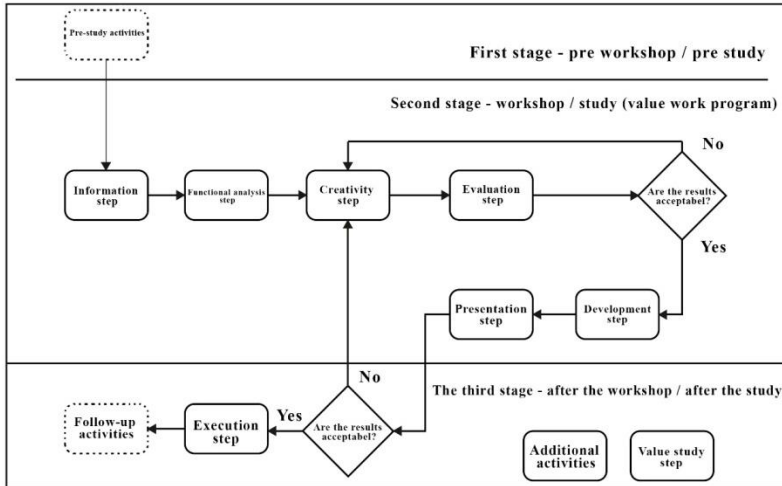


Figure 11.3. Value study steps

### 11.8.2. Pre-study stage

The purpose of this stage is to plan and organize the value study. Some necessary activities to achieve this goal are:

1. Obtaining the approval of the senior management and supporting the work plan, plans and responsibilities;
2. Developing the scope and objectives of the value study;
3. Obtaining project data and information;
4. Obtaining key documents such as defining the scope of work, maps, specifications, reports and project evaluation;
5. Determining and prioritizing the desired strategic issues;
6. Determining the scope and objectives of the study;
7. Development of study schedule;
8. Performing reverse competitive analysis;
9. Determining the members of the value group;
10. Obtaining the commitment of the selected members of the group to achieve the goals of the project;

11. Investigating project costs;
12. Collecting the information required by the user about the project;
13. Inviting suppliers, customers, beneficiaries to participate in the value study if needed;
14. Distribution of information among group members for review;
15. Development of diagrams and information models of the project;
16. Determining the date, time, place and other study needs;
17. Clear definition of study requirements with senior management to achieve successful value study results.

The desired result of this stage is a clear understanding of senior management requirements, strategic priorities and how to increase organizational value through improvement. During this stage, the view is formed as to whether the next steps are likely to create enough value to justify the cost of the study. It may be necessary to increase or decrease the study parameters at this time. The group members are aware of the project goals and are committed to achieving them.

### **11.8.3. Main study stage**

#### Information Phase

The purpose of this step is to understand and define the current status of the project and the limitations affecting the results of the project, as well as determining the objectives of the study. Some necessary activities to achieve these goals are:

1. Obtaining key project data and information and documentation such as work scope definition, maps, specifications, reports, details of project cost information,

- quality data, marketing information, process flow charts, etc. For this purpose, tools such as quality function development and customer voice can be used.
2. Determining and prioritizing the desired strategic issues as well as defining the scope and objectives of the study (management expectations). For this purpose, tools such as SWAT analysis (strength, weakness, opportunity and threat) and project charter can be used.
  3. Presentation of the main design or presentation of design / product / process concepts of the project group.
  4. Conduct competitive reverse analysis. For this purpose, tools such as reverse engineering, disassembly analysis, Pareto analysis, and design for assembly can be used.
  5. Determining the study schedule including date, time, place and other requirements.
  6. Distribution of project information for review by group members.
  7. Understanding the scope, schedule, budget, costs, risk, issues, non-financial performance of the project, approval of the basic project plan.
  8. Determining the high level functions of the project.
  9. Field visit to the project site or facility.

Therefore, this step brings all members of the group to a general and basic understanding of the project, including tactical, operational, and study subject characteristics.

### **Functional Analysis Phase**

The purpose of this step is to understand the project from a functional perspective; That is, what the project should do, instead of looking for what the project is in now. Some necessary activities to achieve the goal of this step are:

1. Determining the functions of the project with a tool such as randomly determining the functions, categorizing the functions of the project.
2. Development of the performance model with tools such as the system diagram of the performance analysis technique and the performance tree.
3. Measurement of the model with cost parameters, performance characteristics and user behavior in order to select functions that do not match the value in order to focus the creativity step. The tools used in this case are: cost-to-function analysis (function matrix), function-to-function analysis.
4. Estimating the price of functions in order to select functions that do not match the value and focus creativity on them with a tool such as the value index (the cost of the function divided by the price of the work). As a result, this step focuses the group on confirming the fulfillment of the client's needs and goals of the project. At the same time, it creates a more comprehensive understanding of the project by focusing on what the project does or should do instead of what it is, and finally, the group identifies value-incongruent functions to focus on in order to improve the project.

### **Creativity Phase**

The purpose of this step is to generate a number of ideas related to other methods of realizing functions. Some necessary activities to achieve the goal of this step are:

1. Performing creative preparation exercises.
2. Applying rules that facilitate the space for creativity, such as unwritten rules.
3. Applying group ideation motivation techniques.

4. Generating alternative ideas with the possibility of improving value with the help of techniques such as brainstorming, Gordon's technique, Esmi's technique and Treez.

As a result, the group develops a list of ideas that provide a wide range of possible alternative ways to realize the functions with the aim of improving the value of the project.

### **Evaluation Phase**

The purpose of this step is to reduce the number of ideas and provide a short list of the most potential ideas to improve and realize the project's functions in terms of quality requirements and resource limitations. Some necessary activities to achieve the goal of this step are:

1. Explaining and categorizing each of the ideas in order to create a common understanding.
2. Discuss how the ideas affect the performance parameters and cost of the project using a tool such as the T-Chart comparison table.
3. Selection and prioritization of ideas for further development with the help of tools such as Pugh analysis, Kepner-Tregoe, Life Cycle Costing (LCC), Choosing by Advantages (CBA) and value standard.
4. Explanation of how to register ideas in the form of Stand-alone Risk-Reward Investment proposals

Finally, the group evaluation step produces a focused list of concepts that ensure quality time to develop into value-driven solutions that can be implemented in one or a combination of projects.

### **Development Phase**

The purpose of this step is to further investigate and develop a short list of ideas and their appropriate development into value alternatives. Some necessary activities to achieve the goal of this step are:



1. Comparing the results of the study on the success requirements that have been approved during the phases of information and performance analysis.
2. Preparation of a documented value option for each of the selected ideas for further development.
3. Evaluating and considering risk and cost judgments in necessary cases.
4. Conduct cost-benefit analysis.
5. Preparation of plans and requirements needed to transfer concepts.
6. Confirming the necessity of further development of an option.
7. Preparation of an implementation plan to define implementation steps, dates and responsibilities for each of the value options.

Therefore, the study group creates the value of alternative options and scenarios with low, medium and high risk and presents them to the senior management as choices that determine the strategic goals of the workshop.

### **Presentation Phase**

The purpose of this step is to present valuable options to the management group and other project stakeholders or decision makers. Some necessary activities to achieve the goal of this step are:

1. Preparation of supporting documentation and its presentation.
2. Comparing the results of the study on the success requirements that have been approved during the information and performance analysis phases.
3. Proposing creative risk-saving scenarios to the management in order to choose value options for implementation.
4. Information exchange with the project group.
5. Ensuring that the management has complete and real information to make decisions.
6. Preparing a summary of the draft executive plans.
7. Preparing an official report.

The usual results of the value study will include justification documents, risk analysis, cost and price comparisons, present value analysis, advantages and disadvantages.

Therefore, it is necessary to make sure that management and other key stakeholders understand the basic (main) reasons for valuing options, as well as to create an interest in determining executive guarantee.

#### **11.8.4. Post-study activities**

##### **Implementation Phase**

The purpose of this step is to ensure the implementation of accepted value options and to realize and confirm the planned benefits of the value study. Some necessary activities to achieve the goal of this step are:

1. Review of the preliminary report.
2. Holding an implementation meeting to determine the formulation of each of the value options.
3. Creating implementation plans for accepted options and documenting the main reasons for rejected options.
4. Obtaining performance guarantee.
5. Determining a period of time to review and implement each of the value options.
6. Follow-up of value gains resulting from implemented options.
7. Delivery of deliverable items.
8. Validation of the benefits of the changes made.
9. Ensuring that new experiences are taken into account by creating and managing an executive plan.

Therefore, project stakeholders determine what will change in the project as a result of the value study. These are changes in the initial concept or basic plan of a study that result from the value options and

are combined with it in the development of the project in future plans or product development activities.

#### Value study Tracking Activities:

The purpose of these activities is to follow up on the results of the value study and improve the use of the value methodology for future studies. Some of the necessary activities to achieve the goal of these activities are:

1. Preparing a report on study results, lessons learned in the past, or other matters recorded or followed up on the implementation.
2. Determining the points of missed opportunities.
3. Determining innovation barriers and finding the reason for their existence.
4. Obtaining information and recording what has been learned.
5. Integrating the results of the value study with the learnings or the report of the organization's plan.
6. Returning to the value study and thinking about how to develop the experience with new capabilities.

As a result, people become better value creators by returning to their ideas before studying the value and comparing the methods of reaching the conclusions of the issues and proving how knowledge affects the way they believe in their initial ideas. This is an important step in learning what helps organizations become better at managing innovation.

#### 11-9. Introducing some management methods in the field of quality improvement

In this section, a brief explanation of some other methods and management systems in the field of quality improvement is presented.

### **11.9.1. DFA: Design For Assembly (DFA)**

The concept of design for assembly dates back to the late 1970s. The first documented case of the use of this method is linked to the gun factory, which was used by Eli Whitney to speed up the production process of gun butts.

The effect of the design method for assembly shows itself significantly in reducing product life cycle costs, reducing supply and manufacturing costs, and reducing maintenance and repair costs.

Design for assembly follows a series of predefined processes, specific questions, and design equations to numerically estimate a design. In some cases, this system combines time and motion study with value engineering. The method is that first, one chart determines the times of obtaining the raw materials, and then another chart determines the placement times of the parts. These times are then transferred to a third chart that shows a summary of the information obtained. Value engineering is used in design for assembly in order to reduce all important time elements in order to be creative. Design for assembly can be the main tool in product design, not only to simplify the design but also to simplify the manufacturing process.

### **11.9.2. Analysis of the failure mode effect**

Failure mode and effect analysis is one of the quality-oriented statistical tools that is step-by-step and is used to predict and identify potential defects and problems in the process of designing, manufacturing or assembling products or services.

Failure mode effect analysis is a systematic method to identify situations in which a design, product or system may fail, and its main purpose is to ensure that there are no characteristics with the possibility of causing serious problems in the final design. This process is considered as one of the important requirements of value engineering and the predictions made with the help of failure mode analysis are the initiator of value engineering studies in order to

reduce the risk and failure of the project, product or process. The main problem of failure mode effect analysis is the complexity of the process performance in the case of large systems as well as the time limit for the analysis, and in these cases it is suggested that the process be divided into operational units to increase work efficiency.

In general, the method of obtaining failure mode and effect follows three main goals:

1. Preventing the occurrence of errors;
2. Help in creating and developing a new axis, process or service;
3. Registration of parameters and indicators in design and development, process or services.

### **The stages of failure mode and effect analysis**

1. *Collect information about the process*: The device or the place where the risk assessment is performed must be fully identified and the activities and processes must be carefully examined.
2. *Determination of potential risks*: All environmental hazards, equipment, materials, human resources, etc., which threaten safety, must be considered.
3. *Investigate the effects of each risk*: The effects of any hazard are possible effects that affect the safety of people.
4. *Determining the causes of risk*: Adequate knowledge of the evaluated device or activity can be a great help to identify the causes of risk.
5. *Determining the severity of the occurrence (rate of deterioration)*: The severity or severity of the hazard is considered only in terms of its effect. There are few indicators of the severity of the risk, which are expressed on a scale of 1 to 10.

6. *Probability of occurrence*: Probability of occurrence determines how often a cause or potential risk mechanism occurs. The probability of this event is measured on a scale of 1 to 10.
7. *Risk detection probability rate*: Probability of discovery is an assessment of the ability to identify a cause or mechanism of risk occurrence. In other words, detection probability is the ability to find out about the danger before it occurs.

### **How to calculate RPN (Risk Priority Score)**

This score is the product of three numbers: severity (S), the probability of occurrence (O) and probability of detection (D).

$$\text{RPN} = \text{Severity} \times \text{Occurrence} \times \text{Detection}$$

The obtained RPN number is usually called the risk priority number. The final result of numerical calculations will be between 1 and 1000.

### **Benefits of performing failure mode and effect analysis:**

1. Improving the quality, increasing the product reliability and safety of the products that will be produced.
2. Reducing the time to introduce the product to the market, the late arrival of the product to the market is usually caused by issues and problems in the final stages of design or early stages of production.
3. The need for necessary changes in the process or product during mass production is reduced.
4. Improving the image of the organization in the eyes of the customer, because the customer experiences fewer defects. It also increases the competitiveness of the organization in the market.

5. Reducing costs related to damaged or non-conforming products.
6. Prevalence of teamwork culture within the organization.

### **11.9.3. Acting on time (production on time)**

"Just in time" is a stretch production system where actual orders determine the production time of the product. Demand elasticity enables a factory to produce only the required product, in the required quantity and at the right time, and this means the possibility of minimizing the stocks of raw materials, components, semi-finished and finished products. The purpose of "timely action" is to remove product inventory from the supply chain, which requires a very precise schedule and flow of resources in the production process. Basically, the basis of the "just-in-time" system is time competition, and it relies on reducing waste, simplifying the process, reducing the time to set up the device and the size of the product part, parallel production instead of serial production, and redesigning the layout of the workshop.

#### **Some of the advantages of this system are:**

1. Less storage and subsequent reduction of warehouse space and saving on rent and insurance costs.
2. Spending less working capital in warehouse inventory by receiving inventory at the required time.
3. Reducing the possibility of loss, erosion or expiration of stock.
4. Avoiding the production of unsold final products due to sudden changes in demand. Some disadvantages of this system are:
  1. Reducing the possibility of error acceptance due to the minimum inventory for reworking the defective product.
  2. Production reliance on suppliers and the possibility of delays in the entire production schedule due to non-delivery of inventory.

3. Lack of access to alternative finished product to meet unexpected orders by producing the product based on the actual order, although "just-in-time" is a very high-reaction production method.

This technique was first used by Ford Motor Company. Henry Ford states that we have come to the conclusion that buying more raw materials than needed for immediate production is not economically justified (elimination of storage).

Therefore, we only buy raw materials according to the production schedule. This view of Henry Ford naturally reduces the running costs of an organization and on the other hand keeps the running financial strength of the organization high.

If the organizations have the courage to reduce the inventory of raw materials in the warehouse, this will force the organizations to make continuous improvements in their production process as well as in the category of maintenance and repairs (it is worth mentioning that the method of acting on time has economic justification in countries where the rate They experience annual inflation of 1 to 3 percent per year).

#### **11.9.4. Kepner-Tregoe system**

This system is generally a decision-making process that provides a uniform method for solving problems, making decisions to perform tasks, and methods for analyzing the situation in order to determine potential problems.

This method is based on the assumption that the ultimate goal of any decision is to achieve the best possible choice. Choosing a "choice" with the least possible defects, because we believe that each "choice" has its own strengths and weaknesses.

This type of analysis helps the decision makers of an organization to make a completely unbiased decision to solve the problems facing



their organization. Therefore, decision makers should not be influenced by their previous beliefs and past personal experiences while using this method and other methods of improving quality. Using the Kepner-Tregoe method can prevent decision-makers from taking conscious or unconscious biased decisions in organizations. The implementation of the Kepner-Tregoe matrix is subject to the following four steps:

1. Understanding the situation: Identifying concerns and identifying priorities.
2. Analysis of problems: Detailed description of the problem or issue by identifying the causes and evaluating them.
3. Decision analysis: Identifying and evaluating options by performing risk analysis for each of them and then making the final decision.
4. Analysis of the potential problem: Evaluating the final decision in terms of risk and identifying emergency situations and necessary preventive measures to minimize that risk.

Going through each step of these four process helps to make the best possible choice.

### **11.9.5. Kaizen (continuous improvement)**

Kaizen is another Japanese system that emphasizes continuous improvement. This system was invented in Japan after World War II and around 1950. The term kaizen is composed of two words "Kai" meaning "change" or "correction" and "zen" meaning "good" and its known concept is "continuous improvement". The Kaizen system includes all personnel from senior management to the cleaning crew. In Japanese companies such as "Toyota" and "Canon", each of the personnel makes and implements more than 60 to 70 improvement suggestions per year. Generally, the proposed ideas are not for

fundamental changes, and their basis is to make small and permanent changes. Kaizen seeks to make small changes in any field and anywhere in the organization where improvement can be made. Western thinking says: "If it ain't broke, don't fix it", but Kaizen thinking says: "Do it better, even if it ain't broke, improve it, because if we don't, we can't keep up with those who They do it to compete." The biggest problem with kaizen is that it tries to improve operations but doesn't do anything about design; As a result, it may lead to the best way to produce a very poorly designed product.

### **11.9.6. Management by Objectives (MBO)**

It was first proposed by Peter Drucker in 1954 as a method to promote management self-control. However, despite its wide application, sometimes there is no clear picture about its meanings, to the extent that some still consider goal-based management as a tool for evaluation, while others consider it a promising motivational technique as a way to plan and control.

In fact, goal-based management is a comprehensive management system based on goals that are designed with participation and can be measured, in such a way that at the beginning, the manager and the implementation agents determine the output goals during a meeting, and at the end of the process, the output results are The primary goal is to compare and evaluate. If there is a difference, the necessary corrections are determined and the process starts again.

#### **An advantage of management based on goals:**

1. Improves management;
2. Encourages employees to individual commitment;
3. It helps the transparency of the organization;
4. It is a tool for organization control and fundamental evaluation;

5. Increases effective control;
6. Increases productivity;
7. Motivates subordinates;
8. Identifies weaknesses and problems.

**Stages of management based on goals:**

1. Determining organizational goals;
2. Determining and aligning individual goals;
3. Performance monitoring;
4. Performance evaluation;
5. Reward and reinforcement.

**11.9.7. Development of quality function (development of quality function)**

Quality function development is a statistical method to help improve product design and its process before production. This technique was used for the first time in 1972 at the Mitsubishi Shipyard in Kobe, Japan. Quality function development is a very structured and regular system for expressing and interpreting customer requirements in technical language and with complete details, and in principle, Taguchi methods are part of the quality function development system. The development of the quality function conveys the customer's requirements to the entire organization and especially to the designers. The main features of quality function development are:

- 1- Reducing the amount of engineering changes
- 2- Shortening the design cycle
- 3- Reducing start-up costs
- 4- Reducing complaints related to work guarantee
- 5- Increasing customer satisfaction
- 6- Creating competitive advantages
- 7- The spread and development of simultaneous engineering.

How to work with houses of quality in QFD

The first matrix of performance quality expansion is called quality house. QFD experts believe that if the steps of this matrix are completed completely, the project will be terminated in the first step. The steps to perform this matrix are seven parts, which are mentioned below.

1. Customers' needs;
2. Product features;
3. Importance of customer needs;
4. Planning matrix;
5. Relationship between customer needs and product features;
6. Correlation matrix between engineering characteristics;
7. Priorities and goals of each engineering characteristic.

If QFD is used correctly, it can be considered an effective method to consider customer needs and criticisms in new product design and process design. The most common type of quality houses is the Kobe model, which is subject to four types, which include:

1. Product planning;
2. Expansion of parts;
3. Process planning;
4. Production planning.

The main and most important of these houses is in product planning. Since this house is the gateway to the QFD process, it is important and expresses the main needs of customers. The necessary care in the implementation of the existing steps of this house can serve as the foundation stone for the optimal implementation of QFD.

#### **11.9.8. Simultaneous engineering (parallel engineering)**

The simultaneous engine system is actually the visible implementation of teamwork on a large-scale project that includes

the entire management system from production planning to delivery of goods to the customer. This system consists of several production groups with different specializations that interact with each other during the product life cycle. In some cases, the system includes production groups, management and a steering committee that controls the performance of the system and tries to remove obstacles to the progress of the project. This committee is usually made up of high level executives or vice presidents of the company. In this system, changes are quickly coordinated with product design and production process, and the result is lower cost and more product reliability.

Value engineering is not a good substitute for simultaneous engineering, but can be a good complement to increase its efficiency.

The two terms simultaneous engineering and parallel engineering are still used in the industry, but with the choice of the name of simultaneous engineering of the US Department of Defense, this nomenclature gradually prevailed over other titles applied to this method.

Today, the difference between success and failure among organizations is the time to present the product to the market. Successful organizations know how to manage time and use technological advances. Simultaneous engineering is one of the evolved techniques in this field. In this technique, product design and process design are implemented simultaneously.

The product design group defines and determines the final product in the form of engineering instructions. This instruction contains the information needed to prepare raw materials for the procurement unit as well as what the manufacturing department should produce and assemble.

Simultaneous engineering seeks to achieve the following goals:

- 1- Reducing the number of engineering changes;
- 2- Making maximum changes at the beginning of the project;
- 3- Reducing the time the product reaches the market;
- 4- Quality;
- 5- Increasing productivity;
- 6- Increase in sales;
- 7- Customer satisfaction;
- 8- Capital return.

### 11.9.9. Taguchi methods

Dr. Genichi Taguchi, as one of the employees of the Japan Telecommunications Company, invented one of the most successful new management systems. The benefit of this system is the combination of engineering and statistical methods for rapid cost and quality improvement, along with the optimization of product design and production processes. This method is one of the applications of statistical process control that emphasizes on improving the quality through the identification and constant reduction of tolerances. This hypothesis states that the design should be powerful enough not to be affected by production variables. The main goal of this system is to continuously reduce variables and error in the system to zero, without negative effects on production performance. Dr. Taguchi says: "All quality problems can be rooted in design,"and since quality problems increase costs, costs can be reduced with proper design.

Taguchi's method is based on the following three principles:

- Quality should be designed during production, not checked during the product manufacturing process.

- Quality is best achieved by minimizing the deviation from the character value. The product must be designed to be safe against uncontrollable environmental factors.
- The cost of quality should be measured as a function of deviation from the standard state and losses should be measured across the system.

To achieve the desired quality using design, Taguchi suggests the following three steps:

- **Systems design:** The system design phase focuses on determining the appropriate working levels of the design factors, which includes the design and testing of a system based on engineering diagnosis in the field of materials, parts and nominal parameters of the product or process based on the desired technology. System design helps to determine the working levels of design factors.
- **Parameter design:** parameter design is related to determining the levels of factors that cause the best performance of the product or process under investigation.
- **Tolerance design:** It is a step used to fine-tune the results of the parametric design. At this stage, due to limiting the tolerance of factors that have a major impact on the quality of the product, the quality of the output produced increases.

Among the advantages of the Taguchi method, the following points can be mentioned:

- Reducing the number of tests and costs;
- The possibility of checking discrete factors;
- Determining the share of invoices;
- The possibility of estimating the results in optimal conditions;
- The possibility of estimating results at desired levels;
- Determining the desired share;
- Determining the share of considered mutual effects;

- The possibility of simultaneously obtaining optimal conditions for several responses;
- The possibility of checking invoices with different levels;
- Checking an unlimited number of invoices.

### 11.9.10. Comprehensive (comprehensive) quality control

Total quality control, which is also called total quality management, is an approach beyond the usual techniques of statistical quality control and quality improvement methods. Comprehensive quality control means a general view and a complete evaluation of the characteristics of a product instead of only paying attention to a limited set of changeable characteristics of the product. Comprehensive quality control has also started in Japan, but its main founder is an American doctor named “W. Edwards Deming” who presented his opinions in a principled manner in America but was not welcomed by his compatriots and it was the Japanese who After World War II and looking for a way to rebuild their economy, they found Dr. Deming and took him to Japan and learned his assumptions and methods. Currently, one of the highest awards that a person can receive for participating in production is the Deming Award.

Based on Ishikawa's definition, comprehensive quality control is quality control, which means developing, designing, producing and providing services to quality, economical and usable products that will always satisfy the consumer.

Therefore, the first step in quality control is aware of consumers' needs. Manufacturers are involved in quality control to provide their products according to the demands of customers. It is important to point out that national and international standards include minimum



favorable conditions, therefore, it is not satisfactory for reliable organizations to provide these standards alone.

It is worth mentioning that the category of quality improvement is not only limited to improving product quality, but with a more comprehensive approach, it is necessary to improve the quality of work, services, information, processes, units, manpower, system, organization and goals.

Most of the organizations and business institutions that emphasized the principle of quality improvement were able to increase the quality significantly. Carrying out this technique during a certain period of time causes a significant increase in productivity, which in turn leads to a reduction in costs, an increase in sales and profits.

#### **11.9.11. Theory of creative problem solving**

TRIZ is one of the newest management systems that were developed in 1940 in the former Soviet Union by Genrikh Altshuller, an officer of the Patent Office of the Russian Army. Triz's hypothesis emphasizes that most of the technical problems of engineers have solutions that have already been created and now they just need to be found. Instead of focusing on providing new solutions, Altshuler tried to classify previous ideas and by analyzing thousands of global inventions, he finally found the key components in success.

#### **Determined new ideas**

TRIZ provides the most possible solutions to resolve technical conflicts with the help of a table called "contradiction matrix". TRIZ is a structured system whose steps must be followed completely.

The main steps to solve an innovation problem that has a technical conflict are:

Analyzing the technical system  
 Determining the technical conflict  
 Fixing the technical conflict.

Since TRIZ knowledge is the knowledge process of the world's inventors, its basis is broader than personal and organizational knowledge, and also the field of scientific research of this theory is expanding. Therefore, TRIZ creative solutions are much more reliable than individual and personal solutions to solve creative problems.

The main components of TRIZ knowledge

In general, the total results of the creative analytical identification of inventions by Altshuller, which constitutes TRIZ knowledge, include various concepts, the most important of which are summarized and listed as follows:

- 1- The law of increasing the ideal level, which means that technical systems always move towards increasing their degree of ideality or perfection. Ideality or the level of ideality is the ratio of the sum of all the positive and useful aspects of the system to the sum of all the technical and harmful aspects of the system.
- 2- The four-step problem solving system:
  - ✓ Recognizing the problem;
  - ✓ Formulation of the problem;
  - ✓ Searching for previously resolved issues;
  - ✓ Use of discovered solution patterns.
  - ✓ 5 levels of problem solving and innovation
  - ✓ Specific solutions;
  - ✓ Small improvements;
  - ✓ Major improvements;
  - ✓ New concepts;
  - ✓ Fundamental discoveries.

## **Benefits and applications of TRIZ**

By using TRIZ knowledge, one can achieve many results and achievements, including the following:

1. Achieving a kind of comprehensive scientific approach to inventions and innovations;
2. Formation of very important aspects of science and creativity;
3. Achieving a kind of creative worldview;
4. Discovering a variety of solutions for creative problems, i.e. Problems that cannot be solved by conventional methods;
5. Achieving the best and most effective solutions for all kinds of scientific, technical, human and social issues;
6. Forecasting the trend of inventions and innovations in the future;
7. Facilitating and accelerating the process of growth and development of innovation in science and technology.

### **11.9.12. Zero-based budgeting**

This method is a suitable alternative to the method of added costs. The zero-based budgeting method calculates the production costs of a product from its beginning as well as the costs of alternative options and compares it with the initial cost. The zero-based budgeting process includes five steps as follows:

- 1- Determination of goals
- 2- Evaluation of alternative options to achieve each goal
- 3- Evaluation of capital and alternative cost
- 4- Evaluation of required workload
- 5- Setting priorities. Although the application of this method is very useful for research and development functions as well as individual research and development projects, but its implementation for the whole company is too complicated and time-consuming.

The basis of this method is based on renewal and transformation, so that the fruitless activities of the past years are abandoned. In traditional budgeting, estimates are often based on the previous year's figures, and the new year's budget is adjusted with a percentage increase. Since the influence of the past situation in the future and keeping the activities constant is not a correct indicator for forecasting, therefore, this practice does not have enough accuracy and precision, and to solve this problem, zero-based budgeting method is used.

In zero-based budgeting, all activities and programs in the organization (be it the government) are analyzed and evaluated in terms of effectiveness, and in the next step, their priority level is determined. Activities that are ranked low in terms of importance are removed if necessary, and necessary corrections are made in other activities. Therefore, important activities are also strengthened and developed from the place of implementation of savings from less important activities. The four basic steps to implement zero-based budgeting are as follows:

- 1- Knowing the activity units in the organization;
- 2- Analysis of each activity in the form of program activities group;
- 3- Evaluating and ranking the group of activities and determining the priority among them;
- 4- Selecting and compiling that group of activities whose effectiveness has been proven.

The advantages of zero-based budgeting are as follows:

- 1- It provides justification for continuing or stopping activities;
- 2- They provide the necessary criteria for comparison;
- 3- Activities that have a lower priority are removed with confidence;
- 4- It has more flexibility. Budget approvers can apply cuts at different levels at any time, without harming the main composition of the budget.

### 11.9.13. Modeling (reverse engineering)

Modeling or in other words, competitive analysis is a way to produce in the shortest possible time. In this method, competitors' productions are examined in order to analyze the quality and technology of competing products, and the raw materials, processes and implementation methods used are determined. Of course, it should be kept in mind that the use of reverse engineering as a design method does not lead to the creation of a backtracking situation.

The most important advantage of reverse engineering is the possibility of determining one's position among competitors and trying to find solutions to surpass them.

We have two distinct ways to implement the patterning method. Modeling based on the comparison of "what things" and modeling based on the comparison of "who". Modeling based on "what" includes a strategic comparison and work process comparison.

**Comparison based on performance:** In this type of modeling, organizations and industries compare performance criteria.

**Comparison based on work processes:** In this model, the processes and work methods of organizations are compared.

**Strategic comparison:** In this model, the strategies of organizations are compared.

Modeling based on "who" is as follows:

**Internal modeling:** The application of this model is usually in large organizations. Since a large organization is made up of many sub-groups, in this case, one sector or industry compares with other sector or industry from the main or parent sub-group.

**Competitive modeling:** In this case, similar products from two competing organizations are used. Competitive modeling is actually a generalization of competitor analysis and a part of its activities. In this case, instead of focusing on the average level of the related industry, focus on the best competitor and he is considered as the best role model.

**Functional modeling:** In this case, the discussion is about comparing different functions. For example, the distribution activities of one organization are compared with another organization. In this case, it is not necessary that the products of both organizations are the same.

**Close modeling:** In this case, there is no limit to modeling. This patterning is an industrial and artificial mode in which the best patterning is done by making a hypothetical model and focusing on excellence and excellent work processes. This type of pattern is very effective and difficult at the same time.

**The reasons for the necessity of using the modeling method are:**

1. Global competition and existence of competitive conditions in the labor market;
2. Rapid progress of science and technology;
3. Rapid developments in information technology;
4. Significant and permanent improvement of management knowledge.

## **The second part: Attachment**

### **History of risk management**

In this section, the evolution of risk management has been tried to be scientifically expressed in the historical context of the formation of its concepts; In this process, important events have been investigated. Henri Fayol, in a book he published in French in 1916, introduced risk management as a provisioning function among the six basic functions of a business enterprise. In 1931, the American Management Association established the Insurance Section to exchange information among members.

In 1950, the National Insurance Buyers Association was formed, which was renamed the American Association of Insurance

Administrators in 1955. In 1969, the name of the National Insurance Buyers Association magazine was changed to Risk Management.

In 1974, Gustav Hamilton in Sweden outlined the risk cycle by describing and relating all elements of the process from assessment and control of financing and communication. In 1975, in the United States, the insurance management society in America changed its name to the insurance and risk management society; Although the renaming to risk management was first proposed by Winifred Gallagher, Synder and Denenberg, 20 years ago in Philadelphia. By the end of the century, the insurance management community in America, which was the insurance and risk management community, had 3,500 organizational members, 7,500 representative members, and a wide range of services and training programs that attracted the attention of risk and insurance managers in North America. This association was connected with similar associations in many countries of the world through the International Federation of Risk and Insurance Management.

In 1976, under the auspices of the International Federation of Insurance Risk and Management, Fortune magazine published a special article entitled The Risk Management Revolution, written by the editor of Risk Management Reports. His article suggested the coordination between the previous and unrelated functions of risk management and their acceptance by the responsible board to prepare organizational policies and not to underestimate the performance. In this article, the contents of the last 20 years, which were mentioned by different sources and in a scattered manner, found acceptance and general acceptance.

In 1980, the Risk Analysis Society was formed in Washington to provide public policy, academic, and risk management advocacy. Risk Management Quarterly was published in the same year. By

1999, the risk analysis community had 2,200 members worldwide and active subgroups in Europe and Japan. Through the efforts of the risk analysis community, the terms risk assessment and risk management became familiar terms in North American and European circles.

In 1986, the Institute of Risk Management in London began to function. A few years later, under the guidance of Dr. Gordon Dixon, the institute began conducting a series of international tests that led to the Risk Management Plan, which was the first codified training program looking at all aspects of risk management. In the same year, the United States Congress passed the Revision of the Risk Retention Act of 1982, which essentially broadened its application in terms of the cost of insurance and accessible crises. By 1999, risk retention groups, effectively self-insurers, paid nearly \$750 million in premiums under a federal mandate.

In 1983, William Raquel Shawman presented his views on public policy, risk and science to the Academy of Sciences and presented the theory of risk management in public policy. Raquel Shaoman was the first head of the Environmental Protection Agency since 1970, and in 1983 she was elected to lead the agency in a more systematic framework for environmental policy implementation, and risk management became a national policy agenda.

On October 19, 1987, known as Black Monday, the US stock market crashed. The shock waves of this event were very important and made all investors aware of the inherent risks in the market. In the same year, Dr. Vernon Groves, a former member of the National Transportation Safety Board, published the book "Risk Management; published "Systematic sources of losses for managers". This book is a resource that is considered one of the best and clearest early books on risk management and assessment.



The title of the senior risk officer was used for the first time in 1993 by James Lam in the General Electric organization. By introducing this organizational position, James Lam intended to describe and explain a set of duties that management of all aspects of risk required. These duties included risk management of procurement operations, business planning and financial planning. Today, based on Jamiz Lam's research, more than 50 people in General Electric are responsible for multiple tasks related to risk.

In 1995, a task force consisting of various Australian and New Zealand experts published the first set of risk management standards, and in this set, for the first time, several separate and small standards were brought together. Following the publication of this set of standards, similar efforts were made in this field in Japan and Canada. Although a group of observers considered these efforts to be very crude, but due to the ever-increasing completion and improvement of the nature of risk management, a large number of experts considered these efforts as the first and most important steps taken towards a global reference set in the field of risk. perceived and welcomed it.

In 1996, books written in the fields of risk and risk management in America and Europe were among the best-selling books of the year. The book *Against the Gods*, the exceptional story of risk by Peter L. Bernstein is an example of them. This book, which has now been published in 11 different languages around the world, can increase the public's understanding of risk more than all the writings, speeches, books, ideas or government activities that have taken place in the past.

## Gradual evolution of risk management

| Response  | Problem  | Decade |
|---|--|--------|
| Buying an insurance policy                              | Safety against disaster  | 1950   |
| Risk management as a personnel duty                     | Insurance costs  | 1960   |
| Sub-mechanisms of capital procurement for risk pricing  | Inadequacy and variability of insurance markets                                  | 1970   |
| Financial risk management techniques                    | Ability to change product costs, interest and exchange rates                     | 1980   |
| The spirit of risk management at the organization level | Focusing on the dependence of more values and responsiveness of the organization | 1990   |

## History of value engineering

Comparison of value engineering with other management methods in the field of quality improvement

As it is clear from the definition of value engineering, the strengths of value engineering compared to other methods of cost reduction and quality improvement are focusing on project or product functions and taking advantage of group creativity and synergy resulting from it in order to provide workable solutions at least Time is possible.

The tool matrix compares the characteristics of several management methods and provides a way to evaluate these methods. The method used in this comparison is based on 5 options. Explanation that, if a method is suitable for a specific application, the number 5 is assigned to it, if it is useful for an application, but this application is not the main application of that method, the number 4; If the method has little use, the number 3 and the numbers 2 or 1 indicate the lack of usefulness of this method in relation to the intended use.



around the world and the acceptance of non-American members from The association changed its name to the International Value Engineering Association. This association is trying to spread this pure technique all over the world by holding numerous training courses by approved instructors and providing international valid degrees at different levels of engineering.

### **These three levels are respectively**

Associated Value Specialist (AVS) is the first level of the international qualification of value engineering;

Value Methodology Practitioner (VMP) is the second level of international qualification of value engineering;

Certified Value Specialist (CVS) is the third and highest level of the international value engineering degree. It should be mentioned that currently the first, second and third level value engineering courses are held in Iran by the Iranian Value Engineering Association.

### **History of value engineering**

Value engineering has a history of more than half a century in the world and a history of more than two decades in Iran. This management technique was initially invented by the experts of General Electric Company and was used for several years. The achievements of the use of value engineering made the Ministry of Defense and the Department of Transportation of the United States of America put the application of value engineering on their agenda. Other countries of the world also used value engineering for their industries after seeing the benefits of using this method. Our country also started value engineering in some industries in the late seventies and it was used by the Ministry of Roads and Transport (Ministry of

Roads and Urban Development) in the early eighties in the field of suburban transportation.

Iran's urban transportation also became familiar with value engineering from the second half of the eighties, and Tehran Municipality implemented the implementation plan of value engineering in its plans in 2016. Below we discuss the historical events of value engineering in Iran and the world.

## **Beginning of value engineering in General Electric factory**

Value analysis as a special technical method took place in the years after World War II. The design and formulation of this method were started by the order of Henry Erlicher, Technical Vice President of General Electric Company's purchasing department. On his order, an all-out effort was made within the company in order to improve production efficiency by providing materials, materials and alternative methods for expensive materials and materials. In 1947, this task was given to Lawrence Miles, the chief engineer of General Electric Company. Miles researched the existing methods and techniques and used some conventional methods combined with his step-by-step method for value analysis. Miles, who is considered the innovator and founder of value engineering, implemented a formal method. The "value analysis" method was accepted as a standard in General Electric Company and gradually other companies and some government organizations also used this new method as a tool to reduce their costs. The result was that the method and technique of value engineering was born.

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# **Advanced strategic management**

## **(Strategy, Risk and Improve quality)**

Since in order for developing countries to enter the chain of powerful countries in the world, we need to achieve development, and one of the main indicators of development and achieving sustainable development in today's world is that countries have developed organizations in both the private and public sectors. Managers of organizations today more than ever should be looking for sustainable development foundations, hence the role of active organizations in sustainable development has been more and more noticed by experts and practitioners of human societies. From the point of view of these people, the lack of attention and adherence of organizations and subordinate managers to their duty and social responsibility is one of the issues and problems that can hinder the achievement of sustainable development. One of the most important results of following the principles of social responsibility is sustainable development and welfare of society. Therefore, organizations, both public and private, should be pioneers in adhering to social responsibility beyond their defined legal responsibilities and take an important step towards achieving sustainable development. In this regard, the present book under the title of advanced strategic management can act as a beacon for managers of organizations and students in the fields of industrial engineering, civil engineering, business management and public administration. The preceding book consists of eleven chapters. From the first to the ninth chapter, it introduces and explains the different parts of strategic management in the three areas of planning, execution and control for implementation in the organization, and in the continuation of the descriptive basics of the tenth chapter of this book, it introduces risk, risk management, and relevant models in the field of risk management. And finally the theoretical foundations of value engineering and other management methods in the field of quality improvement are presented in the eleventh chapter.

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## Advanced strategic management (Strategy, Risk & Improve quality)

Since in order for developing countries to enter the chain of powerful nations in the world, we need to achieve development. one of the main indicators of development and achieving sustainable development in today's world is that countries have developed organizations in both private and public sectors. Managers of organizations today should be looking for sustainable development foundations more than ever. Hence, the role of active organizations in sustainable development has been more and more noticed by experts and practitioners of human societies. From the point of view of such people, the lack of attention and adherence of organizations and subordinate managers to their duty and social responsibility are one of the issues and problems that can hinder the achievement of sustainable development. One of the most important results of following the principles of social responsibility is sustainable development and welfare of society. Therefore, organizations, both public and private, should be pioneers in adhering to social responsibility beyond their defined legal responsibilities and take an important step towards achieving sustainable development. In this regard, the present book under the title of 'Advanced Strategic Management' can act as a beacon for managers of organizations as well as students in the fields of industrial engineering, civil engineering, business management and public administration. The preceding book consists of eleven chapters. From the first to the ninth chapter, it introduces and explains different parts of strategic management in the three areas of planning, execution and control for implementation in the organization, and in the continuation of the descriptive basics of the tenth chapter, it introduces risk, risk management, and relevant models in the field of risk management. And finally, the theoretical foundations of value engineering and other management methods in the field of quality improvement are presented in the eleventh chapter.

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