

# Strategic Planning of Procurement and Supply System in the Iranian Oil Terminals Company

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## ABSTRACT

Rapid changes and competitions in today's world have shifted the role of governmental enterprises into regulating and directing activities. This has led to the need for the analysis of internal/ external situations and the revision of strategic planning of such companies. The Iranian Oil Terminals Company, as one of the National Iranian Oil Company subsidiaries, has developed its mission, vision, and strategic plan. In this paper, the strategic planning was fulfilled for the Procurement and Supply system of IOTC, which has the role of supporting the primary activities of the company by sourcing, purchasing, warehousing, and delivering the requested materials. In this regard, different models of strategic planning were reviewed to design a suitable approach for strategy formulation. The adopted framework was implemented using the balanced scorecard approach and the results were presented step by step in the paper.

## 1. Introduction

Today, financial and accounting indicators alone cannot reflect the performance of the organization and do not guarantee their success. The performance of organizations can be examined beyond financial aspects and from different perspectives (McCormack et al., 2009). A Balanced Scorecard (BSC) is an approach that was developed to analyze the performance of organizations from four different perspectives, including financial (Kaplan & Norton, 2007). The Balanced Scorecard is later used beyond a performance measurement system, and many organizations use this method as a tool to link the organization's strategic plans to performance planning and to guide the organization's strategies in the long term (Kaplan & Norton, 2008).

Rapid political, social, cultural, and economic changes at the beginning of the twenty-first century have

transformed the role of governments from direct management to guiding and regulatory roles, allowing government agencies to look at their internal and external situations differently. In this regard, the National Iranian Oil Company and IOTC, as one of its subsidiaries, have developed their mission, vision, and strategic plan. The procurement and supply system of IOTC, which has the role of supporting the primary activities of the company, has a significant role in providing timely and economic materials needed by the company, and any negligence in the provision of materials will disrupt the petroleum exports. It seems that the strategic planning of the procurement and supply department of IOTC is necessary according to the vision of the main company and provides the grounds for its connection to the performance of this system. Due to the specific nature of the present study the research hypothesis will be exploratory. The research question is:

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based on the internal and external situation and the developed strategic plan of the IOTC, what is the suitable framework for strategic planning of procurement and supply system, and what are the resulted mission, vision, strategic goals and strategy map of this system.

In this regard, different models of strategic planning were reviewed to design a suitable method for developing a procurement strategy. Accordingly, a framework for strategic planning of procurement and supply system in IOTC was designed and then implemented, the steps of which are described and presented step by step in the article.

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## 2. Research Methodology

The general steps and framework of the research can be summarized in Figure 1. Semi-structured interviews were used to collect data at different steps of the research. The experts included twelve managers and senior experts of the company, who on the one hand were sufficiently familiar with the company and the procurement system, and on the other hand, were familiar with the concepts of management and strategic planning. The interviews were conducted according to the interview agenda that was prepared by the research team. The research team presented the results of each step by summarizing the results of the interviews and performing the previous steps.

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## 3. Application and Results

### 3.1. Reviewing the Literature and Strategic Planning Models

Reviewing the strategic management literature and comparing the strategic planning models of large and small organizations show that despite the differences in the number and sequence of steps mentioned in these models, they generally have a similar structure. The foundation of strategic planning models can be categorized in the following three main steps, which are shown in Table 1:

1. Determining the mission and goals
2. Analyzing the external and internal situation
3. Formulating the strategies

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### 3.2. Knowing the Company

Iranian Oil Terminals Company (IOTC) is an operational, specialized, and professional company that is active in the fields of storage, measurement, laboratory services, export and import of crude oil, petroleum products, and natural-gas condensate and marine services. Its primary activity is supporting and assisting in the sustainable continuation of the country's oil and gas production, through the processes of receiving, storing, mixing, measuring and measuring quantitatively and qualitatively, loading and unloading (export and import) of produced and exchanged crude oil and petroleum products and operations of attachment and detachment of oil tankers as well as completing and upgrading the country's oil and gas value chain and playing a worthy role in the optimal stability and flexibility of the national, regional and international energy supply chain.

Geographically, IOTC activities are located in five areas: Kharg Island, Asaluyeh, Neka Oil Terminal, Mahshahr, and Tehran; Tehran is the head office and coordinator of different locations of the company. Procurement and supply affairs in IOTC, as a governmental company, is responsible for providing material supply services to various departments of the company, and in this regard, it is considered as a supporting department.

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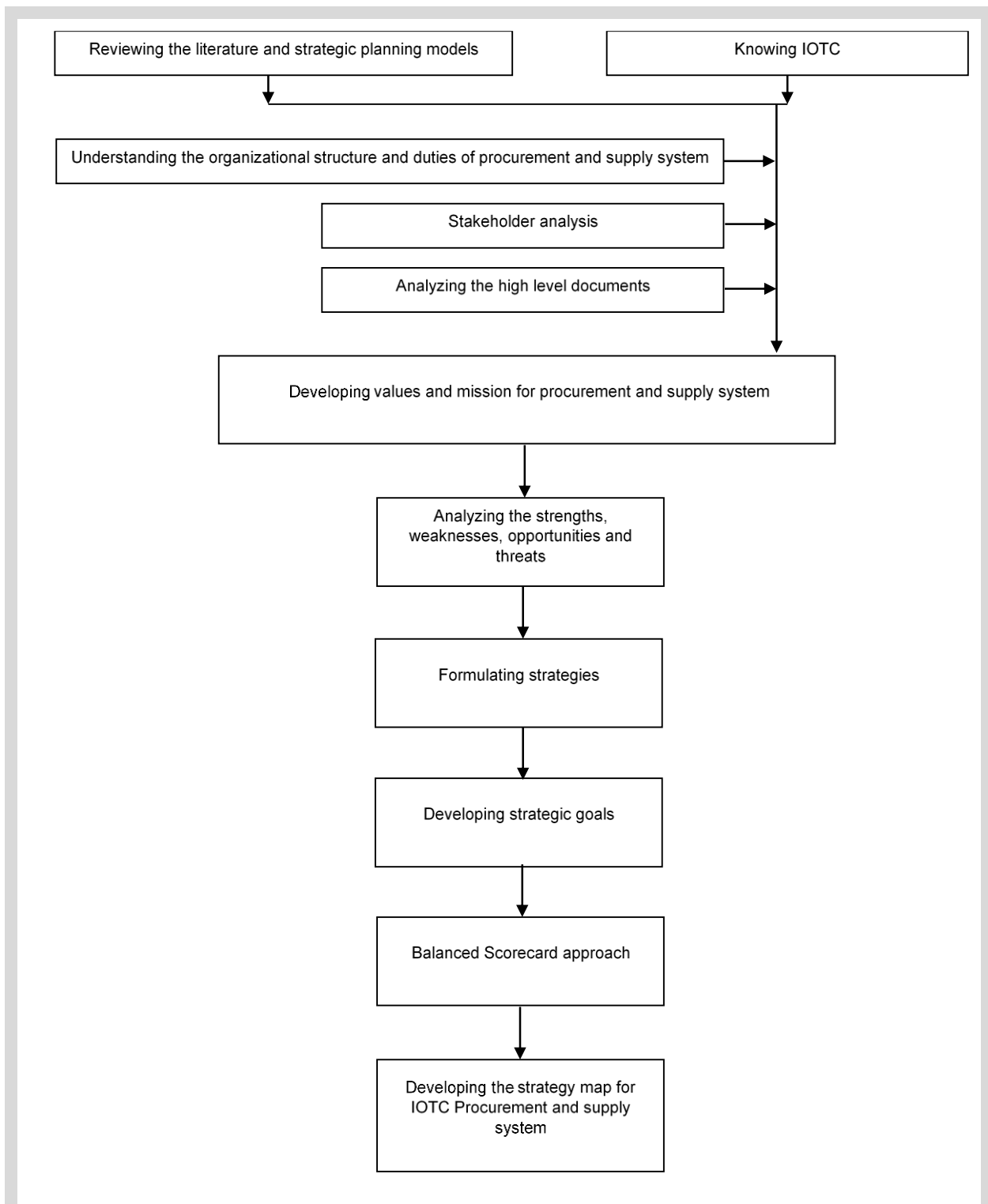
### 3.3. Understanding the Organizational Structure and Duties of Procurement and Supply System

The procurement and supply department of IOTC, also known as the commerce department, has various sub-divisions with responsibilities such as classification and standardization of materials, orders and inventory control, identification and assessment of suppliers, sourcing, purchasing, warehousing, warehouse inspection, insurance, banking, and clearance.

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### 3.4. Stakeholder Analysis

Customers and stakeholders of Iran Oil Terminals Company can be shown in Figure 2.



**Figure 1.** General steps and research framework.

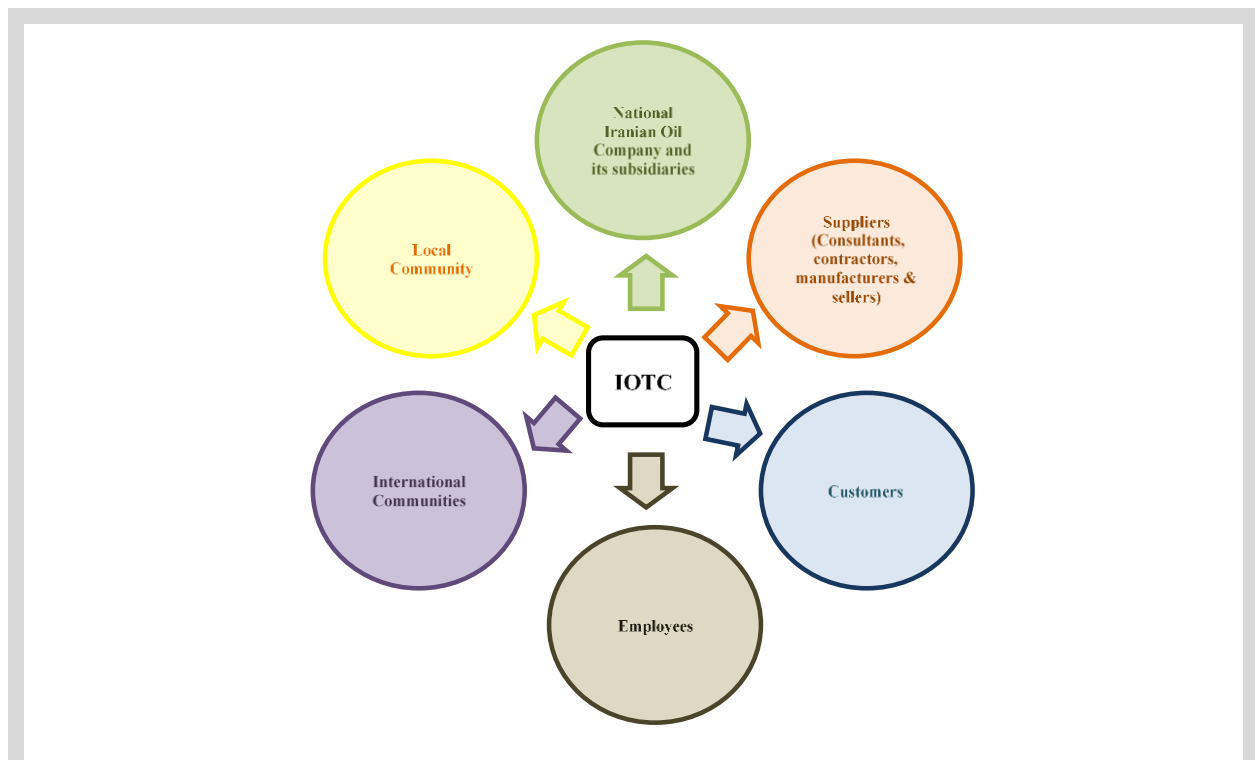
**Table 1.** Comparative comparison of strategic planning models.

Model	Strategic planning steps	Determining the mission and goals	Analyzing the internal and external	Determining the strategy
<b>Taylor (1984)</b>	Determining and formulating the future goals of the organization	■		
	Identify existing goals and strategies	■		
	Analysis of organization situation		■	
	Analysis of organizational resources and facilities		■	
	Recognize the current situation		■	
	Determine the changes needed in past strategies			■
	Decide on optimal strategies			■
<b>Wright et al., (2019)</b>	Determine the internal and external situation of the organization		■	
	Determining the goals and missions of the organization	■		
	Develop strategies			■
<b>Hill et al., (2014)</b>	Goals and Mission	■		
	External situation analysis		■	
	Internal situation analysis		■	
	Strategy selection			■
<b>David (2013)</b>	Recognize the current goals and missions of the organization	■		
	Determining the effective factors of the external situation		■	
	Determining the effective factors of the internal situation		■	
	Setting goals			■
	Determining the method of achieving goals			■
<b>Monday et al. (2015)</b>	Decide on the mission of the organization	■		
	Evaluate the organization and its situation		■	
	Set goals or objectives	■		
	Decide on strategies to achieve goals			■
<b>Bryson (2015)</b>	Consensus on strategic planning	■		
	Review, identify and determine missions and commitments	■		
	Formulate, organize and explain the mission and goals	■		
	External situation assessment		■	
	Internal situation assessment		■	



Model	Strategic planning steps	Determining the mission and goals	Analyzing the internal and external	Determining the strategy
	Develop a strategy			■
<b>Glueck (1972)</b>	Objectives of the institute	■		
	Institute strategies	■		
	Identify opportunities and threats		■	
	Determining the competitive advantages of the institution		■	
	Examine strategic options			■
	Strategy selection			■
	Strategic analysis	■		
<b>Dobson &amp; Starkey (1993)</b>	Mission	■		
	Objects			
	Strategic selection		■	
	Strategies			■
<b>Steiner (1990)</b>	The main purpose of the organization	■		
	values	■		
	Opportunities, threats, strengths, and weaknesses		■	
	strategic plan			■
	Medium-term plan			■
	short term plan			■
<b>Mazur (1998)</b>	Perspectives	■		
	Mission	■		
	Strategy		■	■
	tactic			■
<b>Fry and Stoner (2005)</b>	Analysis stage			
	situational analysis		■	
	Internal analysis		■	
	Distinctive competencies and competitive weaknesses		■	
	Action step			
	Mission	■		
	Strategic image	■		
	targeting	■		

Model	Strategic planning steps	Determining the mission and goals	Analyzing the internal and external	Determining the strategy
	strategies			■
	Written schedule			■



**Figure 2.** Identified stakeholders.

The procurement and supply system in the IOTC provides services to other sub-division and departments of the company, and they are the main customers of this system. The main stakeholders are the board of directors and senior managers of the organizational departments requesting the materials, which include maritime operations, technical affairs, general operations, transportation, repairs, precision tools, building engineering, and the like.

### 3.5. Analyzing the High-Level Documents

Since the procurement and supply system operates under the IOTC, the strategic plan of the company and the mission statement, vision and values of the company were considered as high-level plans. Furthermore, the

rules, regulations, and procedures governing the procurement system in the company were identified and reviewed as high-level documents and were considered in formulating the mission of the procurement and supply system.

### 3.6. Developing Values and Mission for Procurement and Supply System

Considering the general structure of the company, stakeholder analysis and formal structures of the company, on the one hand, and the other hand with a look at the mission and vision and values of IOTC as high-level documents, with the aim of extracting missions and key values of the procurement system in the company, semi-structured interviews with twelve managers and



senior experts of the company were done as mentioned in the research methodology section. According to the interview agenda, all interviews were conducted. By summarizing the results of the previous steps and the results of the interview, the research team develops the mission and key values of the procurement and supply system in IOTC. The mission statement is: supplying and maintenance of materials and goods required by various projects and operational departments of IOTC with appropriate cost, speed, and quality.

### 3.7. Analyzing the Strengths, Weaknesses, Opportunities, and Threats

Using the analysis of the external situation, and using

the opinions of the company experts, a list of the most important opportunities and threats faced by the procurement system was prepared. Moreover, in the analysis of the internal situation, the most important strengths and weaknesses of the procurement system were listed and classified.

By exploring the strengths, weaknesses, opportunities, and threats, the SWOT matrix was extracted as shown in Figure 3. The analysis of this matrix helps to formulate strategies to take advantage of opportunities by using strengths as well as reducing weaknesses and avoiding threats.

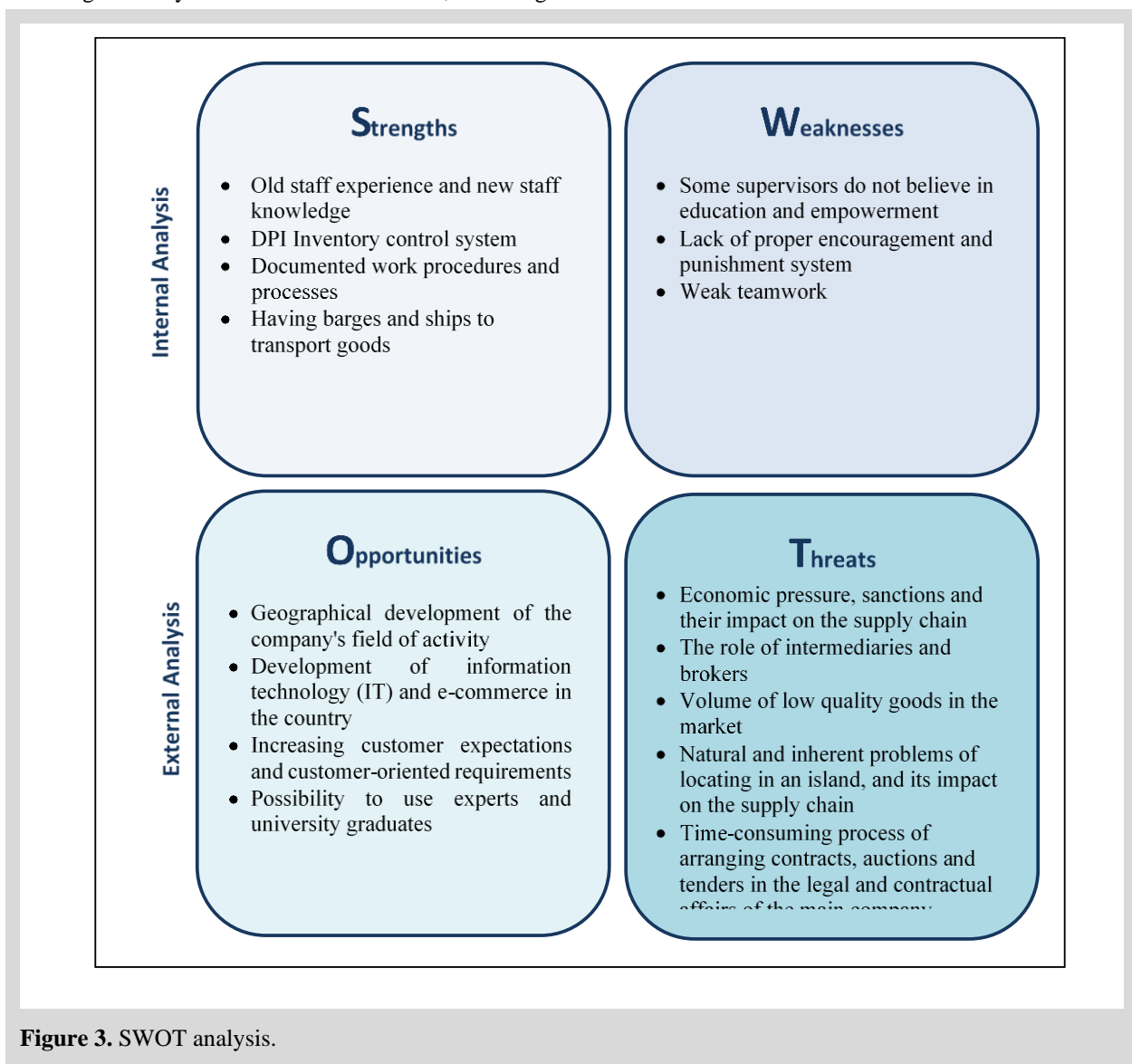


Figure 3. SWOT analysis.

### 3.8. Formulating Strategies

Using the results of the previous steps and especially

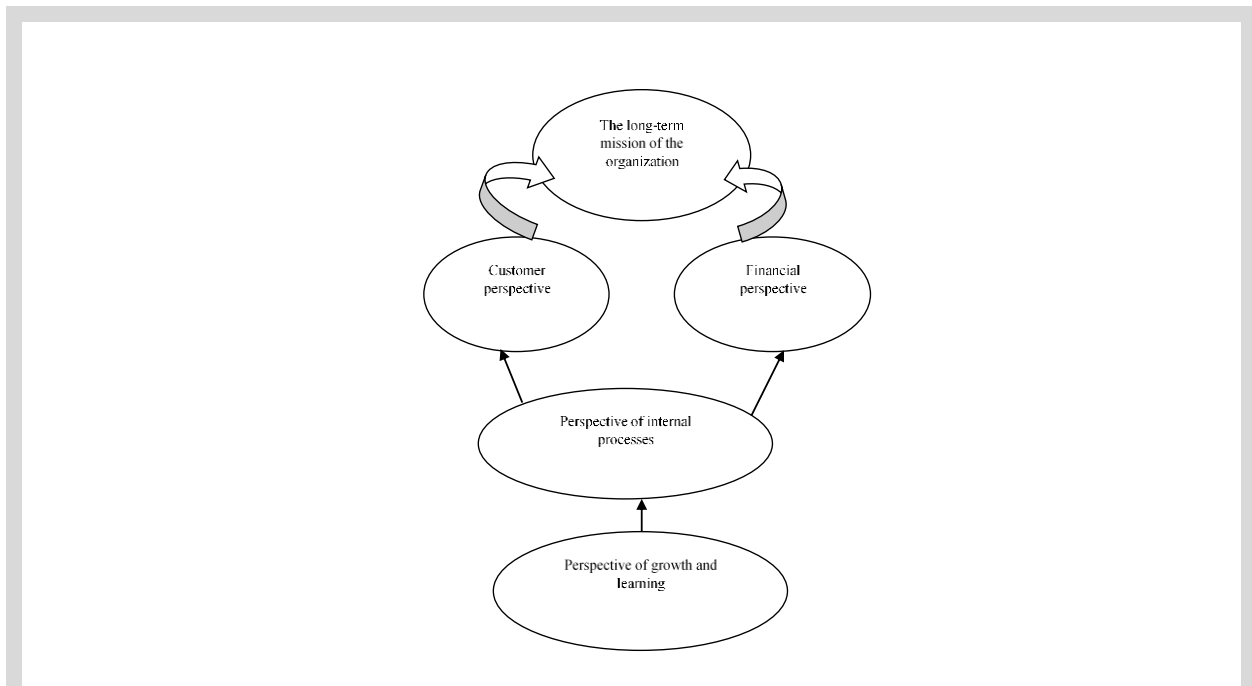
the results of SWOT analysis, the strategies of the company's procurement and supply system were

formulated as follows:

1. Providing customer and stakeholder satisfaction
2. Improving relationships with suppliers
3. Creating satisfaction and motivation in human resources
4. Improving inventory control

### 3.9. Developing Strategic Goals According to the Balanced Scorecard Approach

Using the balanced scorecard approach and placing the mission as the main and long-term goal, Kaplan and Norton (2002) illustrated the strategy map in a government company as Figure 4.



**Figure 4.** Strategy map in government companies.

It is necessary to consider the fact that due to the supporting nature of the procurement and supply system in the company and considering that the procurement is one of the functional departments and does not have financial responsibilities, therefore the financial perspective has been changed to the mission perspective.

### 3.10. Strategic Goals from the Mission Perspective

According to the mission of the procurement and supply system, which was stated earlier, the strategic goals from the perspective of the mission are:

- Timely supply and distribution of materials
- Supply with appropriate quality
- Supply and maintenance of goods and materials at a reasonable cost
- Strategic Goals from the Customer Perspective

1. Promoting the level of satisfaction of applicants for materials and services

2. Improving the level of satisfaction of the company's senior managers
3. Improving the level of supplier satisfaction
4. Development of domestic material production

### 3.11. Strategic Goals from the Internal Processes Perspective

1. Optimization of maintenance and warehousing
2. On-time distribution
3. Improving inventory control
4. Increasing the supply of materials from surplus warehouses
5. Improving the sourcing and development of suppliers' database
6. Improving interaction with domestic manufacturers





7. Improving the speed of material supply
8. Organizational re-structure

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### **3.12. Strategic Goals from the Perspective of Growth and Learning**

1. Development of team and group work
2. Developing employee participation
3. Empowerment and development of knowledge and skills of employees
4. Improving the level of organizational satisfaction and commitment

5. Development of information and communication infrastructures

6. Architecture and development of integrated systems

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### **3.13. Developing the Strategy Map for IOTC Procurement and Supply System**

Using the extracted strategies, strategic themes, and strategic goals and through 4 balanced scorecard perspectives, the strategy map was developed and causal relationships were identified as shown in Figure 5.

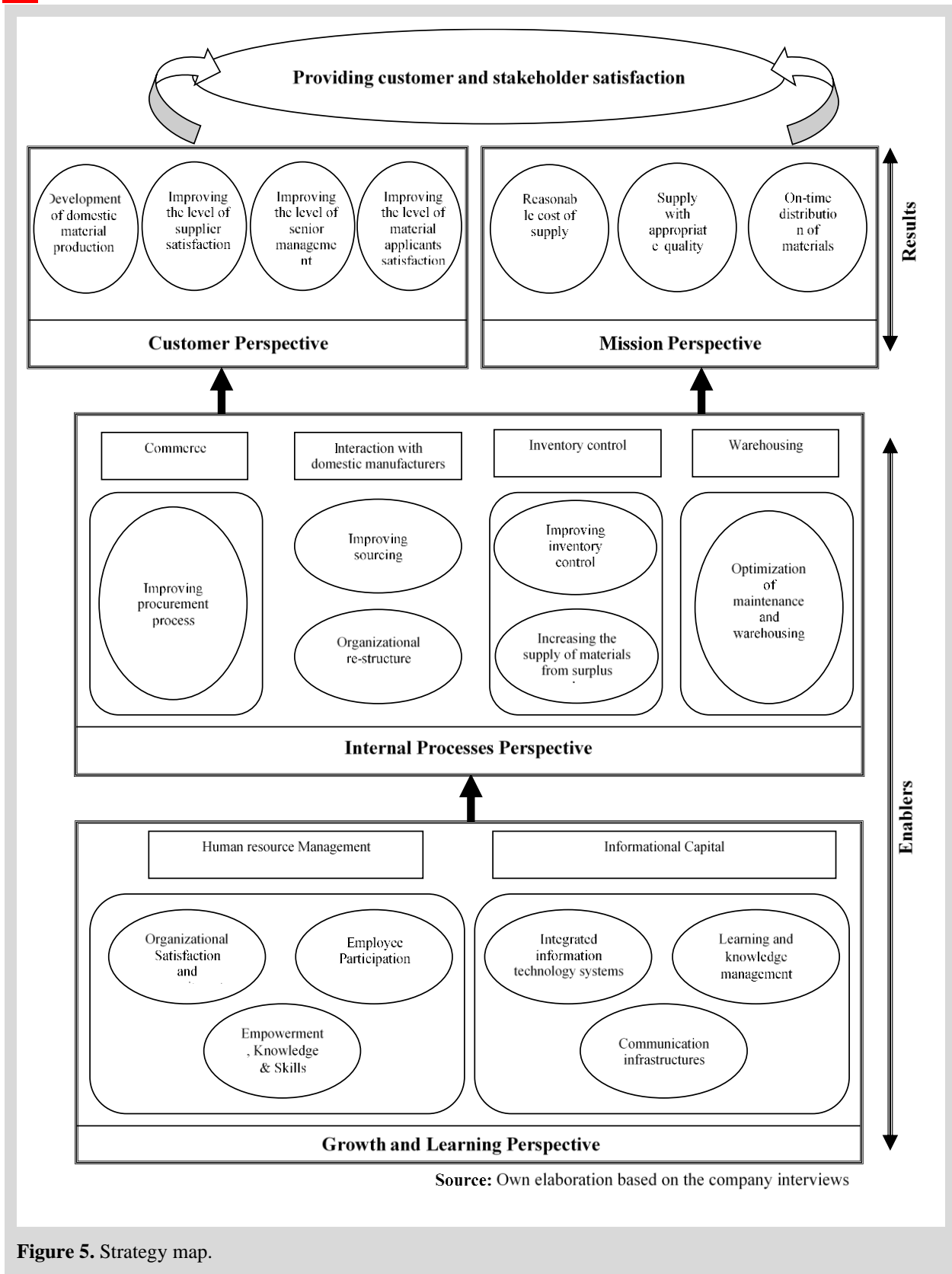


Figure 5. Strategy map.

#### 4. Conclusions

The procurement and supply system has an important

role in carrying out IOTC primary activities by providing timely and economic materials needed by the company.



It is worth noting that any negligence in the provision of materials will disrupt the petroleum exports of the company. Development of a strategic plan for the procurement and supply system of the company was done in this paper. "Supplying and maintenance of materials and goods required by various projects and operational departments of IOTC with appropriate cost, speed and quality" was determined as its mission. After that, by analyzing the internal and external situation of the company, the strengths, weaknesses, opportunities, and threats were analyzed and strategies were formulated. Then, using the balanced scorecard approach, strategic goals were developed. Finally, considering the cause and effect relationships between strategic goals in the four perspectives based on the balanced scorecard approach, a strategy map was developed and presented. Furthermore, the following policies can be recommended based on the conducted interviews:

- Systematic communication of the financial affairs of the main company with the procurement and supply system can facilitate and expedite the processes
- Planning for technical and documentary recognition of surplus electrical, mechanical and chemical items due to changes in the company's projects and determining their reuse
- Coordinating with other companies and managements of the Petroleum Ministry in order to transfer or sell surplus items
- Applying appropriate executive economic methods (such as cost-benefit analysis) to optimize and reduce banking, insurance and logistics costs
- Identifying and controlling the quality of defective or damaged goods in order to repair defective items and reuse them to eliminate unnecessary orders

Designing the metrics and indicators based on the balanced scorecard approach and using them to evaluate the performance of the procurement system concerning the long-term goals can be proposed as a suggestion for future research.

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