The Effect of Strategic Planning of Information Systems in Improving the Performance of a Supply Chain

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Abstract

Nowadays, due to the communication and the daily use of "strategic information systems" in the industry, business organizations and business firms, and the existence of the supply chain, as one of the most fundamental of business (manufacturing, industrial, services), the link between suppliers and customers in these categories, which is one of the most fundamental issue in this series. The relationship between these two variables can help develop and promote the managers, functioning growth and success of an organization, so they can use the proposed methods to achieve a high level of efficiency and improvement in the performance of supply chain management competitive advantage and create value-added appropriate use of information systems. In this research, by showing the strategic planning process, from the design stage to plan information systems, a model has been suggested for supply chain management. The model indicates 4 indexes discussing the level of Strategic Planning of Information Systems in two phases, which describe the relationship to improve supply chain performance. Finally, the validation of these 4 hypotheses will be examined. Accordingly, the presented model, in each stage the main activities will be illustrated.

Keywords: Planning of information systems, Strategic planning, and Performance supply chain management.
Introduction
The main purpose of the activities, which is related to supply chain management, is to satisfy customers’ demands in order to deliver customers products and services with maximum quality and minimum prices.[1] Currently, changes in consumer preferences, global trade liberalization, the Internet, E-commerce, increases of tendency to outsourcing and even environmental issues are being studied in relation to supply chain management. In other words, competitive global marketplace and changing customer requirements has led the organization to broadly address the issue of supply chain performance improvement. In this era, a potential way to maintain competitive advantages and improve organizational performances is supply chain of goods. Thus, there are no competitions between firms, but the competition exists in supply chains. And, it is shown that more effective functions in supply chains can improve the efficiency of the organization.[2]

On the other hand, information systems play the role of integration and coordination between the various sectors in supply chain and the efficiency of these systems has a direct impact on the efficiency of supply chain performance. The role of information systems on the organizational performance has been changed effectively, and nowadays information systems are creating value for the organization.[3] Strategic Planning of information systems is defined as the process of determining the series of computer programs, which supports the business process of organizations. In today's complex, competitive and economic market, strategic planning of information systems has been proposed as a vital factor for disease organizations and it is a wonder that instead of profit, IT managers and information systems have ranked it as the highest management options.[4] Given the important role of information systems in the supply chain, it seems that the strategic planning for information systems has an important effect on improving supply chain design and planning and organizations are required to pay attention to the issues related to strategic planning of an information system in designing and planning their supply chain.

Problem Statement
Today, supply chain faces with unstable environment due to increased competition and changes in technology levels. On the other hand, with the arrival of information systems, strategic planning of information systems has emerged to respond to the uncertainties in the new field along with each organization to these changes. Institutions face with competitive market challenges and intense pressures of globalization, competition and cooperation, diversity of customer requirements and short product life cycles and supply is considered as a matter of principle. Perhaps after customer relationship management, supply chain and logistics management of production and service requirements, the greatest form is organization of production and service.

Today, organizations can not separately succeed in management competition and increase their market shares as manufacturing and service units, and they require a planned and systematic collaboration with their suppliers and customers. This partnership requires a careful and systematic monitoring, and in case of neglect, organizations will decay and give its competitive share to competitors or newcomers in the industry [5].

On the other hand, the role of information systems on organizational performance has changed significantly, and today, information systems are creating value for the organization. So, if an institution wants to achieve a sustainable competitive advantage, it is vital that the institute considers all of the surrounding factors of development of information systems,
which can make binding planning stage. In today’s competitive and complex economic, strategic planning of information systems has been proposed as a vital factor for many organizations, and it is no wonder if IT managers and information systems have ranked it as the highest management options. According to the mentioned issues and the impact of strategic planning of information systems on organizational performance and the interaction of organizational performance based on supply chain performance, it is intended to study the relationship between the above-mentioned issues and present a model for effective supply chain planning.

History of the Research
The need to reduce costs more than ever on the one hand to improve the process of demand-oriented and customer satisfaction on the other hand made the concept of supply chain increasingly important to businesses, and organizations are looking to expand this concept in the context of their systems. [6]
In other words, global competition and the change customer needs have led organizations broadly improve their supply chain performance.
On the other hand, the role and effectiveness of information systems in the organization are expanding and Investment has increased in this area. In addition, strategic planning of information systems has become one of the important administrative activities in the field of information technology and information systems. Researchers and writers have notably considered the strategic planning of information systems as an important issue, which IT managers are facing. This is due to increase investment in information systems and increases the strategic impact of information systems on business. Information systems play an important role in the supply chain. Information systems integration and coordination between different parts of the supply chain is due to the dependency chain information systems that the strategic planning of information systems has a vital role to help avoid wasting opportunities, duplication of effort and waste of resources plays.

Supply Chain Management
Supply chain is a network of partners, independent partners who not only supply goods, but also supply the required services network. This action motivates the demand and study of network capabilities simultaneously and resources, also it improves the performance of market leadership. Another commentator has described the supply chain in this graph: A supply chain directly or indirectly contains all the stages to meet the demands of the customers. A supply chain is a network of organizations with different processes and activities that create value in the form of a product or service to the final customer. [7] In other words, the supply chain includes all the necessary processes to produce, distribute and deliver the product or service to the final customer. Supply chain is dynamic and consists of a constant flow of information, products and capital between the various stages. Various processes can be performed at any stage of the supply chain, and these stages interact with each other. [8] In general, supply chain is a chain that contains all activities associated with the flow of goods and material into a product, from raw material procurement stage to the final delivery to the consumer.
Figure 1: An overview of a five-part of supply chain counting the final customer as a component of the supply chain.
Figure 2: example of supply chain
Internal Supply Chain

Figure 1: The stages of the supply chain (Sunil Chupra, Peter Meindel, 2001)

Figure 2: Example of supply chain

The Main Objective of Supply Chain
The main objective of the activities related to the supply chain is to satisfy customers' demand. That is, products and services are delivered to customers with maximum quality and minimum price at the time. Currently, changes in consumer preferences, global trade liberalization, the Internet, E-commerce, the increase tendency to outsource and even environmental issues related to supply chain management has been studied. In the other words, competitive global marketplace and changing customer requirements has led the organization to improve supply chain performance broadly. Nowadays, one potential way to maintain competitive advantage and improve organizational performance is "supply chain efficiency". In this way, the
competition is between supply chains, not organizations, and it shows that effective supply chain improves organizational performance efficiency [9]

Components of Supply Chain
By linking circles to each other, comprising the activities of firms in the manufacturing, designing and delivering goods, supply chain is formed, and they may be simply related to operation and the effective factors of business enterprise. Firms and individuals are involved in the supply chain. Individuals active in this chain include manufacturers, suppliers of services such as distribution and transportation, retailers and consumers. In other words, the processes and organizations that supply chain includes are goods, services and requirements to produce and deliver them to the consumer. Thus, the supplier is at the beginning of the supply chain, and consumers are at the end of it. Coordination between circles through the existing supply chain is beneficial to suppliers, manufacturers, suppliers, and consumers. [10]

Supply Chain Strategies
The Pressure Strategy of Supply Chain
In the pressure supply chain, production and distribution decisions are based on long-term predictions. Generally, a manufacturer to calculate and forecast demands based on the orders the wholesalers place. Thus it takes more time till a pressure supply chain responds to market changes. Due to the importance of long-term predictions, the four principal predicted outcomes and their impacts on the supply chain are much given.

- Prediction is always inaccurate.
- The longer term the prediction is, the more inaccurate the prediction will be.
- Updating the data leads to better prediction.
- Dense and massive predictions are more accurate and precise.

The Stretching Strategy of Supply Chain
The production and distribution of stretching supply chain is proportionate and consistent with actual demand up to the level of prediction. In a superior stretching system, a company does not maintain any stock. That is, it only produces after customers’ orders. These systems are attractive because they allow companies to remove the stock, lower lash effect and increase the level of service etc. Unfortunately, when product delivery period (from the moment of order until delivery) is so long, in which the effective response to demand information is impractical, applying stretching strategy is very problematic. Profit and loss impact of supply chain strategy and stretching strategy led to the creation of a new strategy that uses the benefit of both models and in this way the new pattern is formed.

The New Model: Supply Chain with Pressure – Stretching Strategy
In this type of chain, some stages of the supply chain, generally early stages (raw materials) will benefit from pressure, while the rest of the stages use stretching strategies. The figure 3 indicates this strategy. [11]
Lash effect in supply chain
One of the dynamic issues in supply chain is "bullwhip effect". That is means that small changes in product demand from the consumer will be created in the south point of the supply chain. The fluctuation of the demand becomes larger and larger during the course backwards in the chain.[12]

Management Administrative Functions in the face of obstacles and challenges in implementation of supply chain

1. **The Structure of Supply Chain Partners**: This function is determined and used to satisfy customers, and it develops the organization's competitiveness. In addition, it creates a strong chain and coordinates the development of new products, as well as augmenting the quality and reducing costs.

2. **Implementation of Participatory Communication**: This function is considered to share information among partners in the chain. In general, this function expands its supply chain to partnerships with external factors.

3. **Strategic Supply Chain Design to Profitability**: With regard to effective participation, this kind of management function is led and guided by agents outside of the organizations. They align the wishes of the members of the chain to enhance profitability of the strategy.

4. **Supply Chain Management Information**: This function uses new technologies to transmit information and correct supply chain

5. **Cost Reduction in Supply Chain**: The main indicator of the effectiveness of a supply chain is cost reduction, which is one of the highest goals of the organization.

Criteria to Assess Supply Chain Performance

**Criterion 1: Customer Satisfaction:**

A) Flexibility: Flexibility is the ability to provide products or services that meet customer and individual demands.

B) The response time to customer: customer response time is the time a company spends to get required information and respond to the customers` request.

**Criterion 2: Supply Chain Costs:**

A) Costs associated with assets and Investment return: Supply chain assets include accounts receivable, plant, equipment and inventories.

B) Data processing fee: Includes costs related to data entry, the demand flows, discount bills.
Criterion 3: Planning Order
   A) Order of lead time: the length of time between the customer’s orders and receipt of the goods or the service by the customer.
   B) The path of customer demand: By analyzing the track order, some volume activities can be reduced, which do not contain add value.

Strategic Planning of Information Systems
Strategic planning of Information Systems is defined as the process of identifying a portfolio of highly effective computer programs that need to be aligned with the organization's strategy and to have the power to create competitive advantage against competitors for the organization. Strategic systems are essential for a company to achieve its competitive advantages.[13]

In order to call a system, a strategy, it should do considerable business performance. A way to compete or communicate with customers and suppliers and the difference between strategic information systems and other information systems such as transaction processing systems, management information systems and decision support systems is that strategic information systems should focus only on strategies. Although the competitive advantage that a company may acquire from strategic information systems, this is not without risk. Therefore, if an institution wants to achieve sustainable competitive advantage, it is vital to consider all factors surrounding the development of strategic information systems, which shows the planning stage binding. Planning for the development of information systems is based generally on demands and requirements of users and a good financial justification. The concept of strategic planning information systems evolved during the 80s. The major difference between strategic planning of information system with prior planning is that strategic Planning Information Systems emphasized on strategic alignment and competitive effects. On the other hand, strategic planning of information systems includes Search for software programs, which has important effects on competitive advantage or has the ability to build a competitive advantage. Earl (1999) mentions the alignment of information systems with business objectives and effective use of information technology to create a competitive advantage as dual key strategic planning information systems. The importance of information systems strategic planning process is found in the texts related information systems.

The Purpose of Strategic Planning of Information Systems:
One of the key objectives of planning information systems in the organization is identifying positive opportunities and documenting knowledge in the organization. Today, the biggest challenge for organizations is to know if the information we have at hand is of the required quality. This word can be summarized into flexibility, accuracy, reduce time, relevance, credibility and completeness. [14]

The Process of Strategic Planning of Information Systems:
This process is described as a set of specific tasks:[15]
   • The awareness strategy, we will focus on the planning process to gain proper knowledge about competitors, resources, customers and regulators. Organizations should carefully organize the teams that have more knowledge and ability. At this stage, the support of top management raises confidence in the organization and perpetuates the financing of the project.
At the stage of analysis of the situation, if a detailed review of business organization and information systems takes place, a better understanding of the requirements of the organization can be achieved from the requirements of organizations. At this stage, studying the external environment of business and IT environments to obtain better knowledge about the organization of the other things helps to provide a better foundation for planning.

The third stage, understanding is strategy. Understanding the strategies by identifying and evaluating opportunities provides more realistic alternatives. Setting goals for IT allows organizations to align information technology business goals of the future.

The next phase is strategy. With high probability, strategy formulation satisfies planned objectives by exact determination of the application (processes, architectures and projects). Better prioritizing leads to a greater chance of meeting the targets.

The implementation is the last stage. The more attention is paid to change management and implementation plan, the better implementation is carried out.

Role and Scope of Strategic Plan for Information Systems
This activity is a broad movement, which enables organizations to identify priorities for the development of information system. These projects have been created to build the capacity and the impact on competitors or alignment with business goals. The main focus of this program is to focus on the implementation of new information systems in organizations. David suggests that the Strategic Plan for Information Systems can cover a wider range of information systems. [16]

- Correction legacy systems in organizations.
- Large projects and new information systems.
- New technology and emerging infrastructure of the organization, especially those who try to bring unity in the organization.
- New research projects in the field which opens new ways for the organization.

Strategic planning methodologies of information systems
Planned activities are planned at higher levels of the organization and developed for a long-term framework. In many cases, it is seen that organizations have failed to use and benefit from information systems. This was due to the weakness in the management of the new situation. Thus, it is desirable that information systems have the ability to change and adapt a new situation (internal and external requirements). Given that today's business environment is rapidly changing, and it is turbulent and unpredictable, organizers have planned a methodology to develop information systems. Organizations are looking for a flexibility to quickly adapt to a changing environment and thereby gain a competitive advantage over their competitors.
In Table 1, a variety of methodologies are depicted. [17]

Table 1: methodology of strategic planning of information systems

<table>
<thead>
<tr>
<th>Company / originator</th>
<th>Methodologies</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM</td>
<td>Business Systems Planning (BSP)</td>
<td>1</td>
</tr>
<tr>
<td>Rockart</td>
<td>Key Success Factors (CSF)</td>
<td>2</td>
</tr>
<tr>
<td>Martin</td>
<td>Information Engineering (IE)</td>
<td>3</td>
</tr>
<tr>
<td>Holand</td>
<td>Strategic Systems Planning (PSP)</td>
<td>4</td>
</tr>
<tr>
<td>TOGAF</td>
<td>Architecture Development Methodology (ADM)</td>
<td>5</td>
</tr>
<tr>
<td>Alkinson</td>
<td>Methodology of Master Plan</td>
<td>6</td>
</tr>
<tr>
<td>Inmon</td>
<td>Information Systems (Architecture (ISA)</td>
<td>7</td>
</tr>
<tr>
<td>Nolan &amp; Norton</td>
<td>System Architecture and Investment Strategy</td>
<td>8</td>
</tr>
<tr>
<td>-</td>
<td>Value Chain Analysis Methodology</td>
<td>9</td>
</tr>
</tbody>
</table>

The Description of Three Types of Methodologies

- **Key Success Factors (CSF):** Methodologies are the key factors for setting the key information requirements and are used for the success of the organization and managers. This methodology mainly focuses on key information needs of senior executives and builds information systems around the key demands. For basic information needs, this methodology focuses more on internal resources and value-added aspects and ignores the value-added aspects of information systems.

- **Strategic Systems Planning (PSP):** Strategic planning systems focus on the functional areas of business and data architecture is achieved from business operating models. Data architecture and system design can be used to determine new application. Strategic planning system is very detailed, time-consuming and costly and the planning team requires a high degree of expertise and IT information to do strategic planning systems.

- **Value Chain Analysis:** Value chain Analysis is a graph analysis of business activities and work. Each company provides a set of activities such as to design, manufacture, develop and support of its products. Value chain analysis of business emphasizes on processes and activities that are value-added and can effectively be used in the processes of IT. The emphasis of this methodology is more on manufacturing organizations, however, it is not appropriate for service organizations.
The conceptual model (theoretical)

(Mentzas, 1997)

In the first step and stage, this model is more used for organizational strategies, which is also in the direction of the supply chain. In addition, it is used and applied for identifying, collecting and analyzing competitors, domestic and environmental factors. Also, in the second step of planning and development, these strategies are used for the organizations and supply chain, which improve their performances.

**Research Methodology**

The goal of this study is an applied research and it is a survey. Also, in terms of method, it is among descriptive surveys.

**Assumptions:**

**Assumptions in the Design Stages:**

1. High-level understanding strategy of designing phase information systems is effective in order to improve the supply chain performance.
2. High-level understanding of analyzing the situation in the design phase information systems is effective in order to improve supply chain performance.
3. High-level understanding strategy in the design phase information systems are effective in order to improve supply chain management.

**Assumption of the Planning Stage:**

4. High-level understanding strategy in planning stage of information systems is effective in order to improve supply chain performance.
The method of Data Collection
This study is based on a sample size of 120 people according to Morgan and Krejcy. About 92 people were designated and the questionnaires were distributed among them. The information used in this study is based on methods of libraries including books, journal articles, research reports and Internet use, as well as strategic planning questionnaire according to the strategic planning information systems, which was carried out with the consultations of experts in this field. The validity and reliability was measured and evaluated as well. Its reliability was Cronbach’s alpha and its value is obtained for a total of 0.891 questionnaires. Also, the measure of scale is Likert’s questionnaire scale.

Data Analysis
Descriptive data analysis: Analyzing the questionnaires revealed that the majority of managers are between the ages of 20 to 30, which is shown in the table 2.

Table 2: Frequency distribution of subjects by age

<table>
<thead>
<tr>
<th>Percent</th>
<th>Abundance</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>59.8</td>
<td>55</td>
<td>20 to 30 years</td>
</tr>
<tr>
<td>34.8</td>
<td>32</td>
<td>30 to 40 years</td>
</tr>
<tr>
<td>5.4</td>
<td>5</td>
<td>40 years and older</td>
</tr>
<tr>
<td>100.0</td>
<td>92</td>
<td>Total</td>
</tr>
</tbody>
</table>

After checking the managers` level of education, it was found out that most of them hold PhD, shown in the table 3.

Table 3: Frequency distribution of participants by level of education

<table>
<thead>
<tr>
<th>Percent</th>
<th>Abundance</th>
<th>Level of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.7</td>
<td>20</td>
<td>BA/BS</td>
</tr>
<tr>
<td>31.6</td>
<td>29</td>
<td>MA/MS</td>
</tr>
<tr>
<td>46.7</td>
<td>43</td>
<td>PhD</td>
</tr>
<tr>
<td>100.0</td>
<td>92</td>
<td>Total</td>
</tr>
</tbody>
</table>

Finally, after reviewing the experience of these managers, it was found out that they have more than 15 years of executive experience, shown in the table 4.

Table 4: Frequency distribution of participants according to work experience

<table>
<thead>
<tr>
<th>Percent</th>
<th>Abundance</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5</td>
<td>5</td>
<td>Under 5 years</td>
</tr>
<tr>
<td>25.0</td>
<td>23</td>
<td>5 to 10 years</td>
</tr>
<tr>
<td>22.8</td>
<td>21</td>
<td>11 to 15 years</td>
</tr>
<tr>
<td>46.7</td>
<td>43</td>
<td>Over 15 years</td>
</tr>
<tr>
<td>100.0</td>
<td>92</td>
<td>Total</td>
</tr>
</tbody>
</table>

Analytical data: In analyzing hypotheses, we have used the binomial test; the results of the tests are shown in the table 5.
Table 5: Statistical analysis, hypothesis testing hypotheses with the binomial

<table>
<thead>
<tr>
<th>Effectiveness</th>
<th>Test result</th>
<th>Error rate</th>
<th>The level of significance</th>
<th>Observation possibility</th>
<th>The majority of the observed number</th>
<th>Variables and indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective</td>
<td>Rejecting the null hypothesis</td>
<td>0.05</td>
<td>0.00</td>
<td>0.81</td>
<td>75</td>
<td>Awareness Strategy</td>
</tr>
<tr>
<td>Effective</td>
<td>Rejecting the null hypothesis</td>
<td>0.05</td>
<td>0.002</td>
<td>0.75</td>
<td>69</td>
<td>Situation Analysis</td>
</tr>
<tr>
<td>Effective</td>
<td>Rejecting the null hypothesis</td>
<td>0.05</td>
<td>0.00</td>
<td>0.71</td>
<td>66</td>
<td>Savvy Strategy</td>
</tr>
<tr>
<td>Effective</td>
<td>Rejecting the null hypothesis</td>
<td>0.05</td>
<td>0.00</td>
<td>0.79</td>
<td>73</td>
<td>Developing strategy</td>
</tr>
</tbody>
</table>

Friedman’s test for ranking indicators and factors are shown in the table 5, and you can see the ranking of factors and indicators in the table 6. These ratings illustrate the importance and lack of importance of the indexes.

Table 6: Friedman test for ranking variable elements

<table>
<thead>
<tr>
<th>Number</th>
<th>Significance level</th>
<th>Degrees of freedom</th>
<th>Chi square</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>0.000</td>
<td>3</td>
<td>132.692</td>
</tr>
</tbody>
</table>

Table 7: Ranking of factors affecting chain performance improvement

<table>
<thead>
<tr>
<th>Rank</th>
<th>Average rating</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.89</td>
<td>Awareness Strategy</td>
</tr>
<tr>
<td>4</td>
<td>4.67</td>
<td>Situation Analysis</td>
</tr>
<tr>
<td>3</td>
<td>4.99</td>
<td>Perception Strategy</td>
</tr>
<tr>
<td>2</td>
<td>5.13</td>
<td>Strategy formulation</td>
</tr>
</tbody>
</table>

**Strategic Awareness:** Since the significant level of strategic awareness for the index (0.000) is lower than the amount of error 0.05, it means the hypothesis based on this matter is approved, which the high attention to strategic awareness in the design phase of information systems is effective to improve supply chain performance. The average rate and the rate level of strategic awareness is (6.89).

**Situation Analysis:** Since the significant level of situation analysis for the index (0.002) is lower than the amount of error 0.05, it means the hypothesis based on this matter is approved, which the high attention to situation analysis in the design phase of information systems is
effective to improve supply chain performance. The average rate and the rate level of situation analysis is (4.67).

**Strategy Understanding:** Since the significant level of strategy understanding for the index (0.000) is lower than the amount of error 0.05, it means the hypothesis based on this matter is approved, which the high attention to strategy understanding in the design phase of information systems is effective to improve supply chain performance. The average rate and the rate level of situation analysis is (4.99).

**Strategy Development:** Since the significant level of strategy development for the index (0.000) is lower than the amount of error 0.05, it means the hypothesis based on this matter is approved, which the high attention to strategy development in the design phase of information systems is effective to improve supply chain performance. The average rate and the rate level of strategy development is (5.13).

**Conclusion**
Supply chain management network of organizations is connected upstream to downstream through the processes and activities involved and the products and services offered to the final customer value. More broadly, a supply chain includes two or more organizations that are legally separated and intertwined by the flow of materials, information and finances. Additionally, IT is like a neural network for the supply chain. Studies indicate that information technology plays a vital role in supply chain management, and, in fact, it seems that the use of information technology is crucial especially in businesses that have crucial rapid progress. In addition, plays the role of information systems integration and coordination between different parts of the supply chain and the efficiency of these systems has a direct impact on the efficiency of a supply chain. Studies show that the most successful organizations have used e-commerce applications to improve customer service and improve the quality of information in their organization. The model provided in the entire chain can help IT administrators and organizations. Also, each stage considers and completes the previous stage, and changes in the environmental factors leave less effect on the chain performance. Finally 4 influencing factors (knowledge, analyze the situation, perception, formulation), as our hypothesis, were identified in the two phases of design and strategic planning of information systems and they received approval by testing the assumptions. Activities that developed the strategic planning process of Information systems can be helpful for organizations and managers.

**Suggestions and findings based on the results of the assumptions**
The high level of understanding to knowledge management strategy is recommended to private banks. In the design teams and supply chain planning, it would be better to involve several members of the organization's strategic plan for information systems. Because, these organizations are involved with major strategic and well acquainted with the different facets of organizational performance during the planning. In addition to people with information and guarantees, we must, firstly, coordinate IT development strategies in organizations and then develop it based on the existing situation for real. In the development of strategic planning, supply chain information systems include:
• Develop and convey policies in order to create a commitment of the top management of the organization.
• Explain and convey the objectives of macro and micro planning.
• Determine the key planning issues.
• Determine the instructions of organizations and teams.

According to the confirmation of this hypothesis, at this stage of the supply chain, it is recommended to the managers to review the documentation for the analysis of the status quo, because it will help the project team to understand the organization much better. The purpose of analysis of the organization's strategic planning information systems is to collect details about business to have a complete understanding. With the use of above-mentioned documentation, the supply chain design team can aim at the analysis stage in the strategic planning of information systems and Collect details about the business to complete recognition.

• Analysis of the methods SWOT (identifying strengths, weaknesses, opportunities and threats).
• Determine the financial, physical and information flows in the organization.
• Develop procedures to analyze the situation (to sustain the analysis of the organization).

The emphasis on the above hypothesis is proposed in high regard of understanding strategy:
• The current set of objectives to all employees.
• Strategic planning system in line with objectives.
• Formation of intelligent database of supply chain.
• Develop and evaluate opportunities for improvement in the organization.

With high-level understanding to strategy and emphasis on hypothesis, the suggestions are as follows:
• Training courses to all personnel associated with the policy and organizational goals.
• Evaluating the performance of programs in achieving objectives.
• Creating infrastructure software to improve the performance of the chain.
• Developing processes using the bpm method.
• Determining the critical success factors.
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