



جامعة الجميع الذكية
Everyone's Smart University

College of Engineering

M-PM

**Major Elements for Successful Application of the Supply Chain Management in 9 Governmental
Sectors around KSA and Their Customers Satisfaction**

**أثر العناصر الرئيسية للتطبيق الناجح لإدارة سلسلة التوريد في ٩ قطاعات حكومية متنوعة في جميع أنحاء
المملكة العربية السعودية ورضا العملاء عليها**

Advisor

Dr. Walid Solaiman - 2023

Prepared By

Student Name	Student ID
Team Leader -Fahad Makki	2021201443
Khaled Althofairy	213000923
Mohammed Abdullah	213000942

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1. Abstract

In their quest to excel in the competitive market in front of other private and public sector organizations, governmental organizations in the kingdom of Saudi Arabia have recently sought to adopt the supply chain management system as an effective mean to improve efficiency and performance, especially in the supply sectors.

This study deals with the factors that guarantee the success of the implementation of the supply chain management system, where the end beneficiary's satisfaction was adopted as the main indicator and the basic criterion of the success of the system implementation process.

A questionnaire was used as a measuring tool, where the sample space was a number of interested governmental organizations' employees. After analyzing the questionnaire's results, it was found that there is a positive relationship between the end beneficiaries' satisfaction on the one hand and a number of factors, on the other hand, namely, the senior management embracement of the supply chain management system implementation, accurate system selection, clarity of the adopted strategy and involving beneficiaries in the process of decision making.

The study has finally suggested several recommendations, the most important of which was to emphasize the good implementation of the aforementioned factors as a prerequisite of any project, as well as the need to benefit from the other's experiences and knowledge, such as governmental organizations that have previously implemented similar projects.

In brief, the main objective of this study is to find out the most appropriate and adequate ways to create an integrated, efficient, and updated supply chain network that can provide the governmental organizations' performance in the supply and procurement field.

Key Words: *Systems, Supply Chain Management, Customers Satisfaction, Governmental Organizations, Critical Success factors.*

2. Introduction

Considering the technology and telecommunications revolution prevailing in life in the contemporary world, it has become difficult, or even impossible, for business institutions to achieve the goals of survival and success without having a real competitive advantage among the others playing their roles in the market. Therefore, the competition for development and modernization has become a distinctive feature of this era.

Providing a package of better products and services with higher efficiency, greater speed, and lower cost than others is the main goal that any company or business institution sets its sight on to ensure its survival and success.

Recently, the fact has no longer been true exclusively for private sector companies but also has become the same for governmental companies and organizations in general, especially after the new economic trend in which governments tend to adopt the principle of free economy and open market, where the end beneficiary is the cornerstone of everything. I.e., where the better product or service is the basic and unique criteria to be taken into consideration, especially for a developing country such as the Kingdom of Saudi Arabia, considering the 2030 vision that seeks basically to improve and enhance the national economy as well as to raise the living conditions to the very best possible levels.

Of course, the first thing that business organizations seeking when they decide to raise efficiency and effectiveness is to benefit from modern technology and its applications, especially in the supply chain system.

The supply chain management system is one of the most important electronic systems in the business field; it mainly aims to achieve the final beneficiary satisfaction by providing the beneficiary's needs with the highest standards of quality, quantities, prices, and timing. The supply chain management system has a major role in the integrated management of all activities conducted to provide all kinds of products and services used in the production sector, e.g., raw materials, machinery, equipment, from producer to customers, with all accompanying information flows, so that the organizations' ability to achieve their objectives using the system is the basic criterion to measure the success of the supply chain management system implementation.

For a successful supply chain management system implementation, the system – like other electronic systems – needs a group of basic factors to be secured firstly, namely: the senior management embracement of the supply chain management system implementation, accurate

system selection, clarity of the adopted strategy and involving beneficiaries in the process of decision making.

These factors, and the relation between them from one hand and the end beneficiary satisfaction, on the other hand, is the core the discussion point of this study; especially that the beneficiary satisfaction is the main criterion of any business success, on the basis that the beneficiary's satisfaction is the main motivation for the continuity and success of any business.

This research study includes several sub-headings, namely, problem statement, the importance of the study, and the study objectives, followed by an extensive review of the literature related to the study's subject, divided into the theoretical framework and the previous studies.

After completing the theoretical part, the research hypotheses were formulated, and the methodology adopted was totally clarified, where a questionnaire was used as the measuring tool of the study. The questionnaire's data was collected, organized, and statistically analyzed to be presented and discussed to reach the results and conclusion. The study was finally completed with the lists of different scientific references that the researchers relied upon during their study.

2.1 Problem Statement

Pursuant to the aforementioned, business establishments as well as industrial and productive companies realized that they could no longer continue to provide or even receive their services in that traditional way based on paperwork and old administration styles, whose output-regardless of the extent of the employees' dedication to their work- can only be slow with poorly efficient supply systems compared to other modern systems, with many delays in delivering production requirements of raw materials, spare parts, service contracts, etc., which leads in turn to a negative impact on the final beneficiary's satisfaction 9 [1].

Actually, this modern tendency refers to the fact that technology and electronic applications are the predominant features of the current era, whether in the supply chain, operations management, maintenance operations, or others, as electronic applications and automated systems have proven their worth in the world of business management in terms of raising efficiency and effectiveness of organizations, which, in turn, granted these organizations more competitive advantages in from of the others whether in the local or global market, by helping them to offer more products, materials or services of higher quality, more quickly and at a lower cost.

However, bringing about a comprehensive shift in organizations from traditional paperwork and administration styles to modern electronic systems can't be arbitrary, but rather requires a solid scientific strategy and clear methodology that consider the factors affecting the successful use and application of such systems; otherwise, the transfer process may be random, and unable to achieve its intended purposes, or even to lead to counter results.

Therefore, (Al-Fifi, 1424), believes that the majority of governmental organizations in the Kingdom of Saudi Arabia have become among those seeking to achieve this paradigm shift in management style through the implementation of the necessary organizational reforms, as well as conducting a comprehensive restructuring of the organizational, financial, administrative, legal and technical aspects, along with the necessary reforms needed to create an updated organizational culture appropriate for achieving the desired goals. [1]

In the wake of the prerequisite reforms, namely, the organizational reforms and restructuring processes, the implementation of the Supply Chain Management System (SCM) is usually the first step taken by the organizations involved in the developing process to reach the appropriate efficiency and achieve the end beneficiaries' satisfaction.

This study comes to examine the effectiveness of implementing the supply chain management system in governmental organizations in the Kingdom of Saudi Arabia by identifying the most crucial factors for the success of implementing the system, as well as the relation between these factors and the essential criterion for evaluation of this experience, i.e., the ultimate beneficiary satisfaction. Perhaps this would be possible by discussing the following questions:

- 1- What are the most important factors for the success of implementing the supply chain management system in governmental organizations?
- 2- Is there any relationship between the success factors of implementing the supply chain management system and the satisfaction of the end beneficiaries of these organizations?
- 3- Do the success factors for implementing the system differ in influencing the administration's decision to adopt the implementation of the supply chain management system according to their relative importance?
- 4- What are the differences and consensus in the relative importance of these factors among the different governmental agencies?

2.2 Research Importance

In line with the great international and regional efforts aimed at the development and modernization of economic, social, and technological aspects of life, many governmental organizations in the Kingdom of Saudi Arabia, like others in different countries, have merged in the process of modernization, especially the automation of the current existing administrative systems, whether in Finance, Human Resources Management, Supply Chain Systems, or other fields (Al-Amoudi, 2009) [2].

The supply chain management system is one of the most important of such modern electronic systems in the field of administration since it has been used by different organizations to enhance their business operations and decision-making processes with a higher operational efficiency aimed at better beneficiaries' satisfaction.

Since the deep recognition and understanding of the factors of a successful implementation of the supply chain management system are considered as prerequisites, the importance of this research appears in its attempt to test a hypothetical model to determine the relationship between these factors and the basic criterion for evaluating and judging the degree of the system implementation in the KSA governmental organizations success, i.e., the end-user/beneficiary satisfaction.

2.3 Research Objectives

The governmental sector in different developing countries, especially those striving to achieve development and modernity, like KSA, realizes that it has no longer choices but to merge into the modern technological revolution dominating the current era, in an appropriate way to their capabilities and aspirations, to survive as well as having competitive advantages.

To achieve these aims, the supply chain system is placed at the center of the developing organizations' attention due to its profound impact on the wheel of production, and the end user's satisfaction, especially since supply chain systems are linked to a huge amount of information flow related to financing, supply and service contracts by producers, retailers, distributors, and customers. It has become evident that the more intense global competition, the more organizations are forced to rethink the suitability of their supply chain system to the principle of information integration.

Electronic Data Interchange (EDI), the core of the information integration principle, is one of the most intrinsic points affected by the adoption of an adequate supply chain management system. This fact comes within the framework of previous experience about the emergence of several complicated problems that adversely affect the supply operations due to the lack of information sharing among the supply chain management members, leading to many duplications, contradictions, and errors.

This research study seeks mainly, in addition to providing an overview of supply chain management, to identify the main factors for a successful supply chain management system implementation in governmental organizations and their relationship with end beneficiary satisfaction.

3. Supply Chain and Supply Chain Management

Supply chain can be defined as an international network operates for the purpose of supplying services or tangible products, ranging from raw materials, to all kinds of manufactured products to the end beneficiaries throughout physical distribution, cash payments and information flow, as shown in Figure 1:



Figure 1: Supply chain network

However, supply chain management is the management of the flow of goods and services, including all physical movement, storage, and inventory processes' activities as well as finished goods. Where this managerial activity continues from the point of origin to the point of consumption. The role that different organizations play in this regard is different, some

organizations are concerned only with its activities, however, others focus their attention on the whole supply chain activities.

Product Supply Chain Components: Basic chain

The basic supply chain consists simply of one producer, one supplier and one beneficiary. The basic flows of such chain consist of; the flow of physical product or services from suppliers to producer and finally to the end beneficiary, the flow of cash from beneficiary to the producer and finally to the raw materials supplier, the information flow along the chain and, eventually the reverse flow of returned products, like shown in Figure 2.

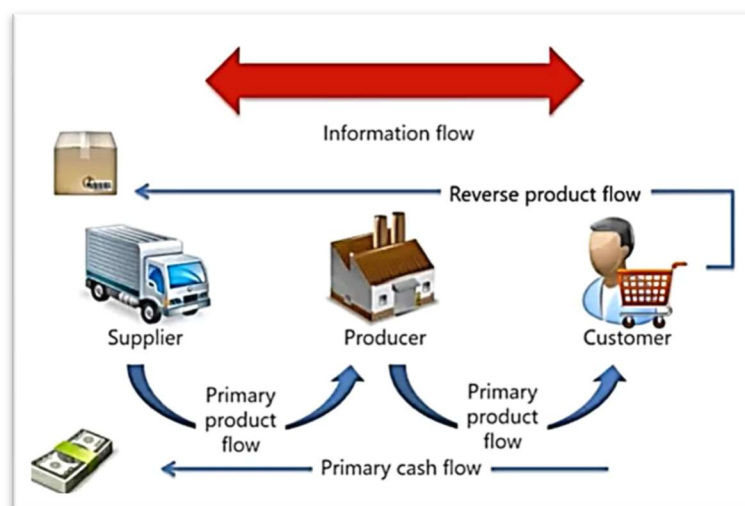


Figure 2: Product supply chain components

In general, it can be said that the basic supply chain consists of three main components, the first is the Seller, who could be a person or an organization responsible for (raw materials, energy, services, and components), producer; responsible for (components provided by the seller, furnishing goods and services) and finally the customer who received the finished products or services, as shown in Figure 3:

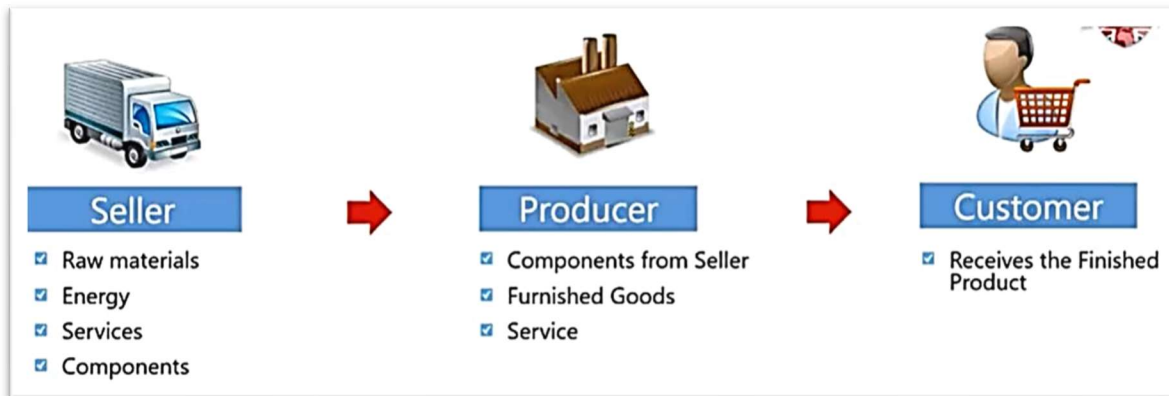


Figure 3: Supply chain entities

Supply Chain Strategies

Three types of strategies are used in supply chain management: Stable, Reactive and Efficient reactive. Stable strategy is focused on execution efficiencies. Reactive strategy focuses on fulfilling partners' demands, while efficient reactive strategy focused on the management of the total delivered cost of the finished goods.

Supply Chain flows

There are four types of flows in a supply chain, information, primary cash, primary product, and reverse product flow. Information flows include invoices, specifications, receipts, sales literature, orders as well as rules and regulations. While primary cash flow includes payments of products as well as supplies.

Primary product flow includes materials, components, finished products and supplies services. However, Reverse product flow includes returns for repair or replacement, recycling, and disposals.

Governmental Manufacturing Supply Chain

This type of supply chains, i.e., governmental manufacturing is a complex chain. Such chains have two levels of suppliers besides distribution centers and customers. The manufacturing unit is placed at the center of chain, where the direct suppliers providing materials and services for the manufacturer have their own suppliers, and distribution centers intermediate the chain between the manufacturer and the end customers. This whole chain can be illustrated as shown in Figure 4:

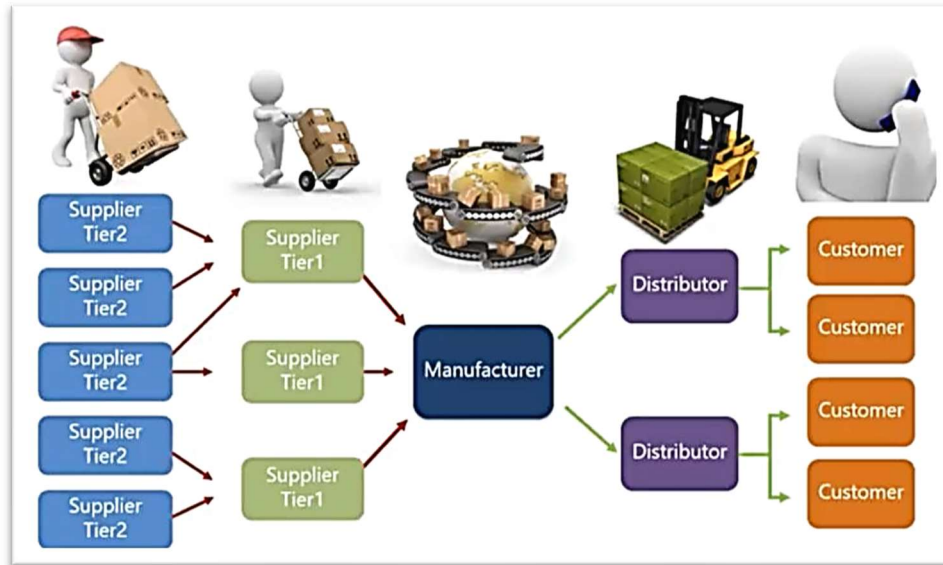


Figure 4: Governmental manufacturing supply chain

Services Supply Chain

Service organizations are all types of organizations excluding those operating in the farming, mining, and manufacturing fields, e.g., electricity providing, legal advising, real estate construction, and software companies.

An obvious example of service organizations is electricity providers, which receive their products, services and supplies and then distributes its services to the final beneficiaries; homes, commercial customers, etc.

Supply Chain Management

Two types of management are usually used in supply chain management: Vertical integration and lateral integration management.

First. Vertical Supply Chain Management

It is a form of management, a specific company owns the supply chain of the organization, where all kinds of products and market services are combined for the purpose of fulfilling the needs desired. The vertical integration style of management can grow from an entrepreneurial base. The main idea here is the addition of new departments and layers either by establishing new ones or by mergers and acquisitions.

The main advantages of such type of management are having more control, more independency and operations can be synchronized with other company functions.

Second. Lateral Supply Chain Management

Lateral management is an expanding style of management where the organization acquires a similar company operating in the same industry, by acquisition or merging, where the company produces different items relating to a specific product. This type of management can lead to monopolies, as companies can capture most of the market for a specific good or service.

The most important advantages of such type of management are achieving economies of scale and scope, focusing entirely on the business, and enhancing expertise as well as having a deep knowledge of the market.

Among the aspects distinguishing the vertical management from lateral are strengthening its own supply chain, costs reduction, capturing upstream and downstream profits and accessing downstream distribution channels. However, the lateral type distinguishes from the vertical in increasing the company size as well as diversification of products, achieving economies of scale, reducing competition, and increasing customers' base.

3.2 Supplier Relationship Management — (Processes and Tools)

Companies have paid great attention to working closely with supply chain partners, including customers and suppliers, and various types of logistics suppliers to ensure coordination and integration among partners. Building meaningful relationships across the supply chain has become a high priority. There are two types of vertical and horizontal logistic relationships.

Types of logistics relationships

Vertical relationships:

This relationship refers to the traditional links between supply chain companies such as retailers, distributors, manufacturers, and parts of materials suppliers. These companies relate to each other in the way buyers and sellers do everything. Particular attention is paid to the fact that these relationships contribute to achieving the company's individual objectives and the supply chain.

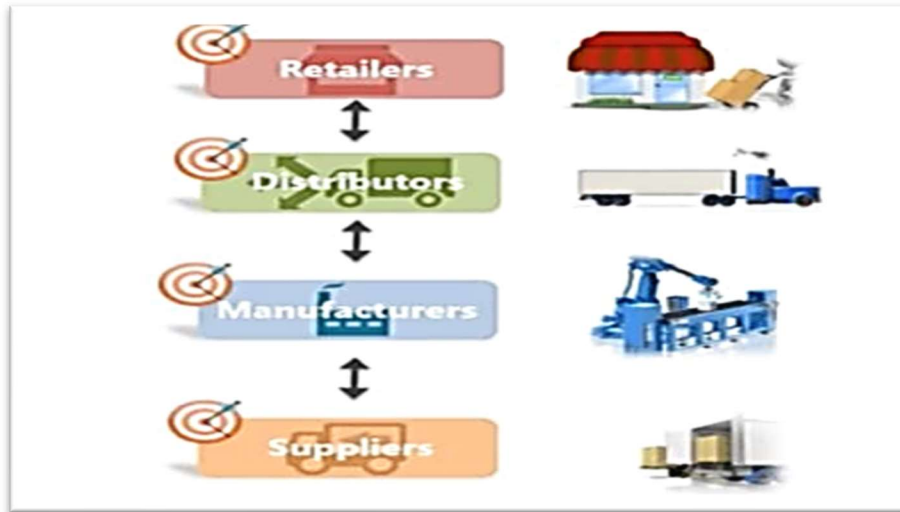


Figure 5: Vertical relationship

Horizontal relationship:

The horizontal relationship be a service agreement between two or more independent logistics service providers, based on investments in risk-sharing and trust cooperation and following mutually acceptable objectives. These companies belong to the same stage of the supply chain and typically produce or market the same product.



Figure 6: Horizontal relationship

The intensity of involvement (Arm's Length):

Intensity of participation as shown in the figure below. The range of relationship types extends from a vendor to a strategic vendor. The alliance in the traditional vertical context of the supplier is represented by a vendor or supplier of a product or service. There is slightly or no

collaboration with the buyer or buyer. A relationship with the supplier is a compromise, and the parties to a supplier relationship are said to be in competitive conditions. Since this is a significant distance, this form of the relationship suggests a relatively low or non-existent level of participation between the parties; an open competition relationship is appropriate for certain types of transactions—for example, one or more purchases of standard products or services.

The intensity of involvement (strategic):

The relationships suggested by a strategic alliance, two or more commercial organizations cooperate and voluntarily. I its business and practical objectives to help achieve long-term goals and objectives Strategic Alliance is highly relational in terms of companies involved this form of relationship generally benefits partners by reducing uncertainty by improving communication by increasing loyalty and establishing a, challenges Strategic commitments include the fact that it involves significant resource commitments on the part of participating organizations and high costs of change.

The intensity of involvement (collaborative):

By moving towards the Strategic Alliance, a partnership represents a personalized business relationship that produces results for all parties that are more acceptable than individuals. Partnerships are often described as collaborative.

Forming a supply chain relationship:

Form a supply chain relationship. The figure describes the steps in a process model to form a logistic relationship. Suppose a model for a manufacturing company because it forms a relationship with a logistics service provider. For example, a warehouse transportation company is so on.

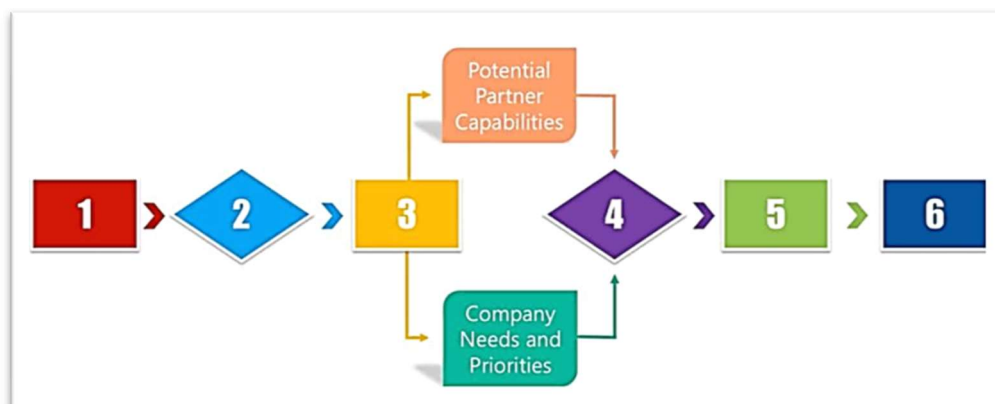


Figure 7: Successful supply chain relationship model

3.2 Successful Supply Chain Relationship Model

Step one (Perform strategic assessment):

This first step involves how the manufacturer becomes aware of its supply chain needs logistics and the strategies that will guide its operations. The logistics audit can bring the following useful information, business objectives and needs assessment of objectives, environmental factors from customer to supplier, and industry trends, identifying "discrepancies" between current and desired performance.

Step two (Decision from the relationship):

It is decided to establish a relationship, for example, in a manufacturing company where the decision concerns the use of an external logistics service provider such as a trucking company or an Express Logistics provider, and then a careful assessment of the main competence of the enterprise.

Step three (Evaluate alternatives):

Assessing other apparent levels of factors and facilitators may suggest the most appropriate type of relationship to consider if neither drivers nor facilitators appear to be present. The recommendation relationship is transactional alternately when all parties in the relationship share common factors and when facilitating factors are present, the relationship is justified.

Step four (Select partners):

Available districts or supply chain partner should only be conducted after a very close examination of the qualifications of the most likely candidates.

Step five (Structure operating model):

The relationship structure refers to the processes and priorities of the activities used to establish and maintain their relational components of the business model, including planning joint operational controls of communication risk and sharing rewards and contracts of trust and engagement contractual and financial-style investments.

Step six (Implementation and continuous improvement):

The implementation process can be relatively short or may be extended over a more extended period. The relationship's future success will depend directly on the organizations involved to achieve continuous and innovative improvements.

3.3 Types of Collaboration

The three important types of collaboration are vertical, horizontal, and full.

Vertical collaboration

Vertical collaboration generally refers to the collaboration between buyers and sellers in the supply chain. These are traditional links between supply chain companies, such as retailers, Distributors, manufacturers and suppliers of parts and materials.

Horizontal collaboration

Horizontal collaboration refers to a buyer-seller-seller relationship and, in some cases, even between competitors, this type of collaboration essentially relates to trade agreements between companies having parallel or cooperative positions in the logistics process or supply chain.

Full collaboration

Full collaboration is the dynamic combination of vertical and horizontal collaborations; only with full collaboration, dramatic efficiencies begin to occur with full collaboration. It is expected that all participants of the partnership will benefit.

Laws of collaborative:

Seven immutable collaborative logistics laws suggest creating fruitful collaborative relationships most effectively, authentic, and recognized benefits for all members. Dynamic measurement of the creation and evolution of collaborative partnerships encodes buyer-supplier relationships, flexibility, and security collaboration at all stages of the business—integration of open integration processes with other services and collaboration around critical logistics flows.

3.4 Supply Chain operation reference (SCOR) Model

This part covers the following.

1. The role of the supply chain council
2. Identify Supply Chain operation reference (SCOR) scope.
3. Describe the Supply Chain operation reference (SCOR) model structure.
4. Understand using of Supply Chain operation reference (SCOR)

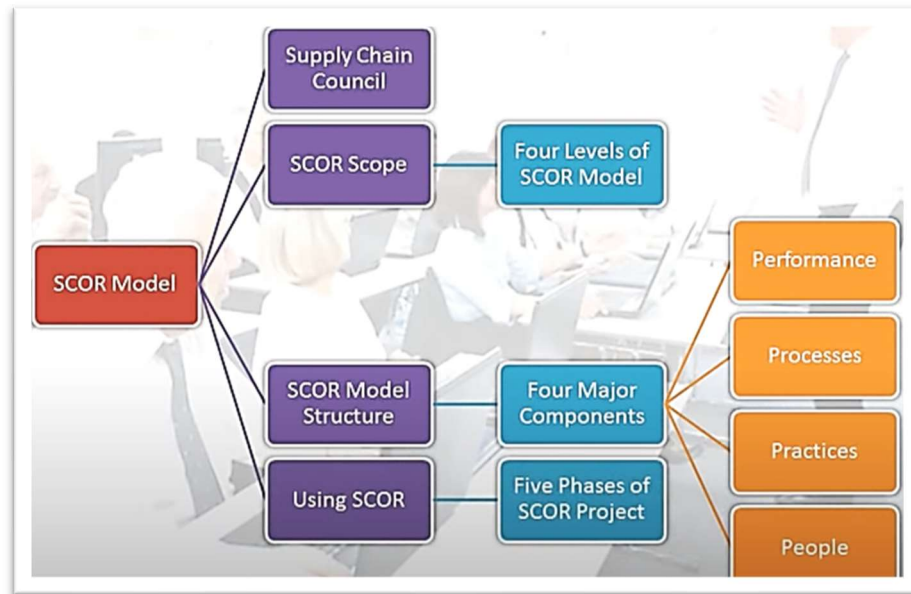


Figure 8: SCOR model

Supply Chain Council

The reference model of supply chain operations is the product of supply chain consulting. A global not-for-profit consortium whose diagnostic methodology and benchmarking tools help organizations dramatically and quickly improve supply chain processes. The Supply Chain Council has established the benchmark of the rating process to evaluate and compare supply chain activities and performance. The Supply Chain Council is a global, independent, non-profit company with members open to all businesses and organizations. The council focus on:

- Research, application, and advancement
- Promote next-generation supply chain management systems and practices.
- Provide training, certification, training, development, benchmarking, research, equipment development, coaching and cross-integration within the SCOR framework.

Score Scope

The Supply Chain operation reference (SCOR) model was developed to describe the business activities associated with all phases of customer demand satisfaction. The template itself contains several sections organized around the five main management processes: planning, source, manufacturing, delivery, and return, as shown in the following figure. When describing the supply

chain using these process building blocks, the model can describe very simple or very complex supply chains using a standard set of definitions.

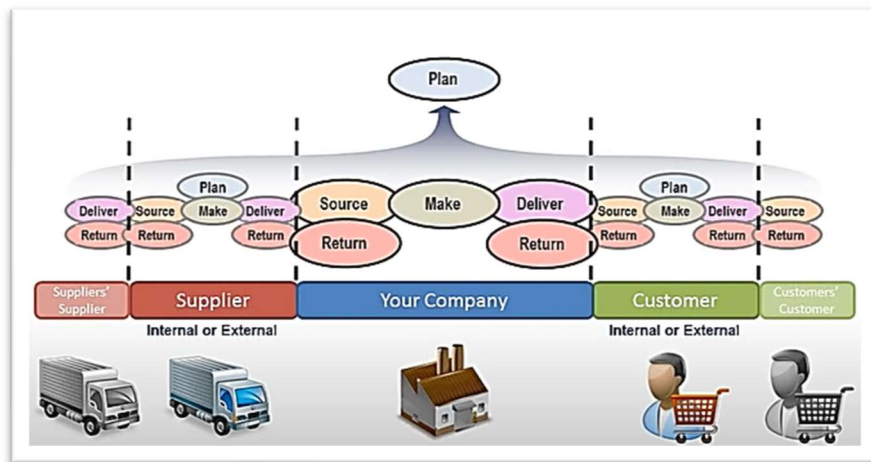


Figure 9: SCOR SCOPE

At the heart of the SCOR model is a four-tier pyramid representing a company's path to improving the supply chain. The model is designed and retained to support supply chains of various complications and across multiple industries. The Board has focused on three process levels and will need to expand the model to at least four using the organization-specific system and process practices.

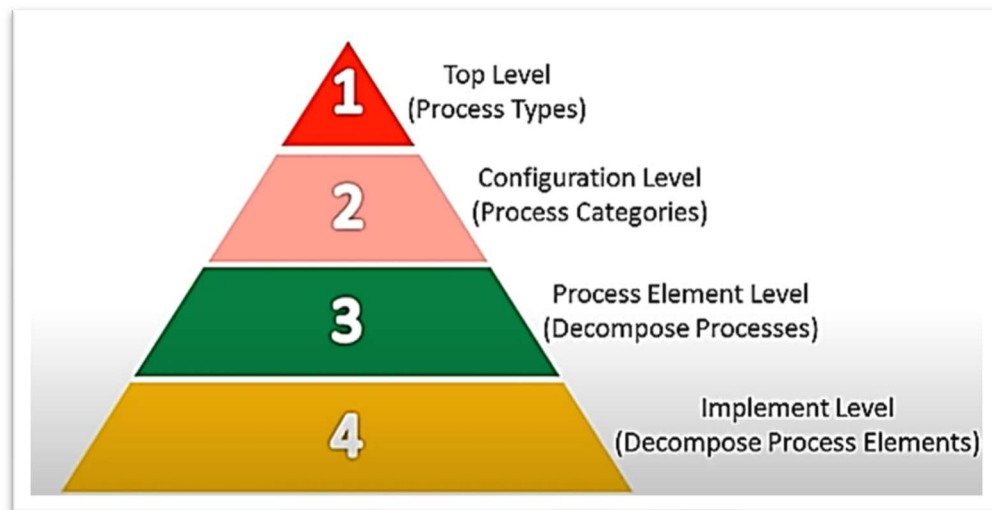


Figure 10: SCOR SCOP (Four Levels)

1. Top Level (Process Types) —Level 1 defines the scope and content of the supply chain operations reference model. Here is the basis of the performance objectives of the competition.

2. Configuration level (process categories): Enterprises implement their operational strategy through the configuration they choose for their supply chain.
3. Process element level (decomposition process): company able to compete successfully in selected markets, and consists of Definition of process elements, Process element information inputs and outputs, Process performance measures, Best practices, System capabilities required to support best practices, system, and tools.
4. Deployment level (decomposition process element): Defines practices to gain competitive advantage and adapt to changing business conditions. The SCOR model is a business process reference model illustrated in the following figure. It is a model that connects process elements, measurement best practices, and functionality associated with running a supply chain in a single format. The distinctiveness and power of the model and its successful implementation arise mainly from the common use of these four elements. It is essential to know that this template describes which processes are not working; in other words, the model focuses on the activity concerned, not on a person or organizational element that performs the action.

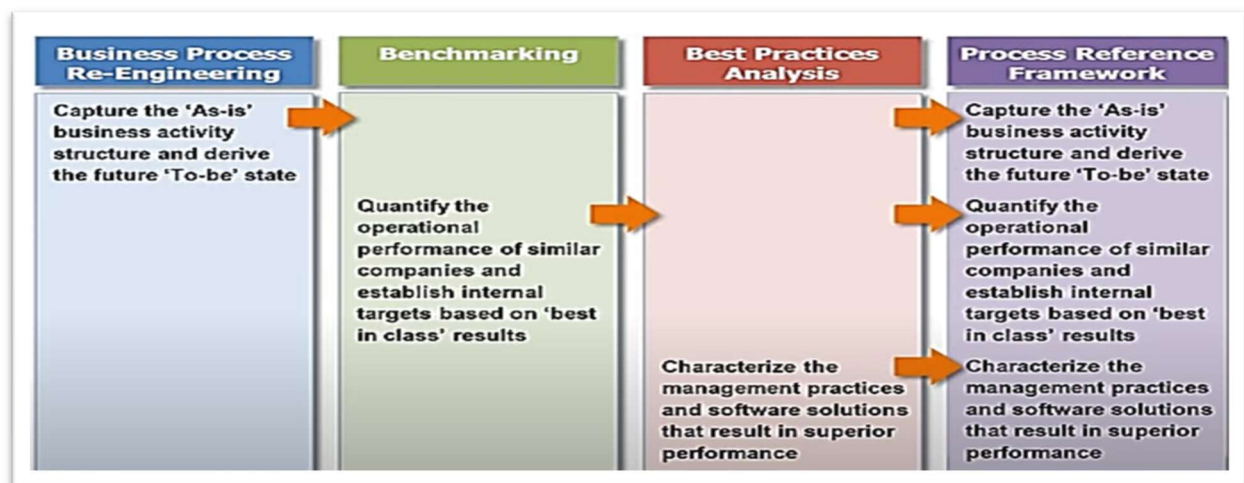


Figure 11: SCOR SCOP (Four Levels) 2

Score Model Structure

Describe process structural design in a way that makes sense for the critical business partner. Architecture is how processes interact, how they work, how they are configured, and the requirements (skills) of the staff performing the procedure. The SCOR reference model consists of four main components:

1. Performance: Standardized measures to describe process performance and define strategic objectives
2. Process: Standard description of management processes and process relationships
3. Practices: Management practices that produce better process performance.
4. People: Standard definitions of competencies, necessary to carry out supply chain processes.

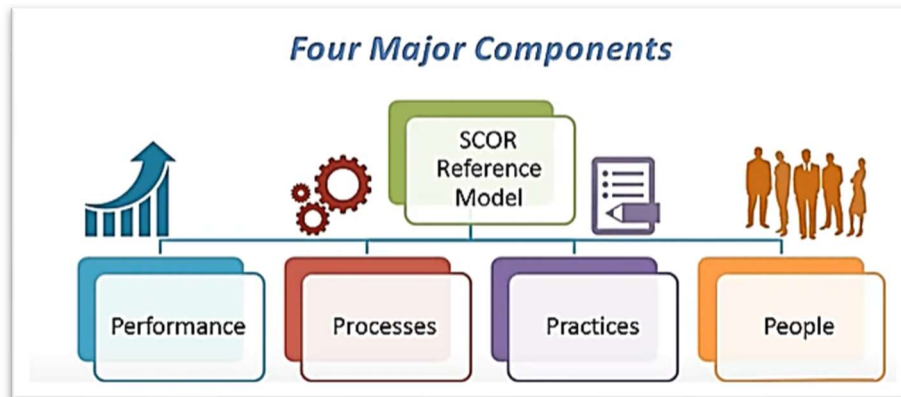


Figure 12: SCOR model structure

Performance

- The Performance section of the SCOR consists of two types of elements, the Performance attribute, which is a pool of metrics used to express a policy, and an attribute itself cannot be measured and serves to set strategic direction.

	Attribute	Strategy
Customer	Reliability (RL)	Consistently getting the orders right, product meets quality requirements
	Responsiveness (RS)	The consistent speed of providing products/services to customers
	Agility (AG)	The ability to respond to changes in the market (external influences)
Internal	Cost (CO)	The cost associated with managing and operating the supply chain
	Assets (AM)	The effectiveness in managing the supply chain's assets in support of fulfillment

Figure 13: SCOR model structure (Performance)

Process

The SCOR Processes section provides a set of predefined descriptions of the activities carried out by most companies to execute their supply chains effectively. The figure shows the levels in the processes of the SCOR model. The source of the SCOR Level 5 Macro-Process Plan for Delivering and Returning is well known and widely adopted. SCOR identifies more levels of towing processes, Level 2 indicates the scope of the process, and Tier Three processes focused on more detailed activity, a Tier 1 process encompasses multiple Tier Three processes allowing processes to upgrade to Planning, Origin, Manufacturing, Delivery, and Return Level 1 of processes.

Practices

Improve the environmental footprint of the supply chain. Improve the risk of an adverse event occurring by limiting the impact of an adverse event and improving the ability to recover from the event.

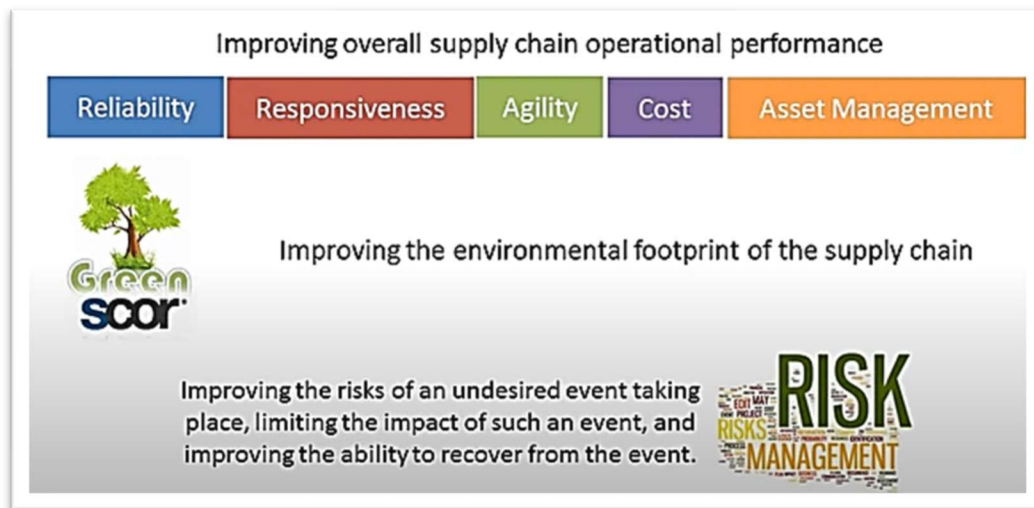


Figure 14: SCOR Model structure (Practice)

People

The people section of SCOR is a new corporate rating, a standard for describing the skills required to perform tasks and process management; SCOR recognizes five commonly accepted skill levels. These skill levels are also used as levels of maturity of processes or practices.



Figure 15: SCOR model structure (People)

Using SCOR

The Supply Chain Council supported and continued to help professionals, providing training focused on interpreting and using SCOR's expertise tells us that SCOR as a tool should be integrated into existing project methodologies used, where they exist. A typical SCOR project consists of the following phases:

1. Understand the scope.
2. Investigate the causes.
3. Identify solutions.
4. Design Solutions
5. Plan and launch change projects.

Understand the scope.

Understanding scope is defined by the following:

Business: Understanding the supply chain it serves.

- The products and/or services offered by the supply chain.
- Understand the competitive landscape of each product and market.
- Setup: Develop maps and thread diagrams
- Performance: Companies develop dashboards and can organize a benchmark to understand how their supply chain compares to similar supply chains. on a or more supply chains and one or several measures per supply chain.

Investigate causes.

Detection of Process Problems:

- Determine associated processes and gather information about how the process works.
- Detection of process problems: Determine associated processes and gather information on how the process works.
- Classify problems: group problems and performance processes Observed relevant, determine how it affects the overall situation.

Identify solutions.

Best research practices determine how others have resolved similar problems and identify best practices, software and tools for advanced practices, alternative practices, new technologies, internal knowledge. examine and select the impact of weight improvement compared to estimated cost, risk, effort, preparation time and feasibility, and select the appropriate solution scenario or best scenario for each problem.

Design Solution

Design solutions document new processes that technologies and organizations describe as statistical.

- Document processes: development of detailed transactional information
- Develop thorough process flows: document how the process is organized, who does it, and what information is used and created in each.
- Develop detailed work instructions: develop standard operating procedures for new processes and update them for all processes affected by the change.
- Requirements: Describe how new technologies exist or will support the new process
- Document transitions: describe dependencies and constraints associated with change and estimate resource requirements.

Plan and launch change projects.

Planning and launching change projects create the roadmap to implement changes.

- Define unique projects to implement: Combine changes that impact the same technology, organization, products, and processes.
- Critical path and dependencies: Document project dependencies.

- Manage project portfolio: prioritize projects based on expected performance, business strategy and other relevant projects.
- Start and monitor projects: Ensure that the project results in the desired change.

Supply Chain Council (SCC) recommend that:

Some projects are not all the same, as some projects require all the most detailed activities listed to ensure project results.

3.5 Supply Chain Management Technologies

Data capture, collection, and management technologies are always needed for businesses and organizations to support their decision-making and develop strategies.

Industry 4.0 and SCM

Industry 4.0 SCM offers a significant advantage over traditional SCM, allows aligned planning and execution while achieving substantial savings. For example, companies operating under a "plan-to-produce" model, in which product production is as closely related as possible to customer demand, must establish accurate forecasts. This involves juggling many inputs to ensure that what is produced meets market demand without exceeding it, avoiding costly surprises.

The Future of SCM

Innovative technologies will progressively be used to improve transparency and visibility on this network and further enable connectivity and use of SCM. The entire planning feature of SCM will be more intelligent to accommodate consumer demands. Adaptability will be a mandate. In this section, we will list five technologies used in supply chain management and discuss their benefits.

- Electronic Data Interchange (EDI)
- Enterprise Resource Planning (ERP)
- Radiofrequency identification (RFID)
- The Internet
- Internet of things (IoT)

Electronic Data Interchange (EDI)

(EDI) is the computerized exchange of trade documents in a standard electronic format between trading partners. EDI replaces postal mail, fax, and email. While email is also an electronic

approach, documents exchanged by email should continue to be processed by individuals rather than computers.

EDI benefits

The main advantages of EDI are often indicated by speed and accuracy; EDI can accelerate your business cycles by 61%. Furthermore, it can improve data quality by reducing failed transactions by at least 30% to 40%, eliminating unreadable write errors, fax/mail loss, key, and recovery errors. Also, it can reduce the time of the cash order cycle.

Besides, the most significant benefits of EDI are achieved at the strategic level of the enterprise by allowing real-time visibility of transaction status. This, in turn, enables faster decision making and improved responsiveness to changing customer and market demands and enables companies to adopt a demand-driven business model rather than a supply-driven business model.

Also, EDI optimizes the ability to enter new territories, markets and promotes social responsibility and corporate sustainability by replacing paper processes with electronic alternatives; automating paper tasks allows staff to focus on higher value-added tasks and provide them with the tools they need to be more productive.

Enterprise Resource Planning (ERP)

Enterprise Resource Planning (ERP) is defined as the ability to provide an integrated suite of enterprise applications. ERP tools share a typical process and data model, encompassing broad and deep end-to-end business processes, such as those in the areas of finance, human resources, distribution, manufacturing, services, and supply chain. ERP software contains applications that automate business functions such as production, sales quotation, accounting and much more.

ERP Uses include systems for Inventory management, Purchasing, Sales, Marketing, Manufacturing, Supply chain management (SCM), and Project Management

ERP Benefits:

- **Workflow Visibility and Optimization:** Now, even when you're in your office, you can open a shared database from your ERP suite to get real-time details on what is happening simultaneously at your manufacturing plants and distribution centres abroad right at home.
- **Business Intelligence and Data Analytics:** ERP solutions use BI tools to provide data collection, analysis, and reporting methods.
- **Scheduling solutions:** You can arrange when workers come into work, when stocks are delivered, and when their factories undergo maintenance. Next, coordinate each program

according to a single schedule so that all your services and supply chain partners stay on the same page.

- Risk management and data security: The organization manages a large amount of sensitive data. The use of a single ERP system ensures security by keeping all necessary documents and communications in one place. You can also reduce data duplication by keeping all the information in a consistent system.
- Customizable solutions: ERP software is available with custom modules to precisely meet your business needs.

Radiofrequency identification (RFID)

RFID is an automatic wireless identification (Auto-ID) and data capture technology that allows you to monitor objects using a tag that carries information. RFID consists of Tag, Antenna, and a Reader.

1. Tag: consists of a chip to store data about the object.
2. Antenna: provides communication between readers and labels.
3. Reader: a specialized radio transmitter and receiver.

RFID uses in Supply Chain Management:

The benefits of radio frequency identification (RFID) technology in the supply chain are powerful. It has the potential to revolutionize the efficiency, accuracy, and security of the supply chain, with a significant impact on overall profitability. Companies that have already adopted RFID technology will gain a competitive advantage through innovation and business differentiation. Companies with supply chains have already begun to explore how to apply RFID technology to improve supply chain management and collaboration. As a result, a company that adopts RFID technology saves billions of dollars and reduces the cost of its supply chain operations and can translate these savings into higher profit margins at the point of sale. In addition, a company can also reduce prices that helps to get inexpensive advantages over its competitors.

The Internet

The Internet is the largest network that allows computer networks worldwide run by companies, governments, universities, and other organizations to communicate with each other. The result is a mass of cables, computers, data centers, routers, servers, repeaters, satellites, and Wi-Fi towers that allow digital information to travel around the world. This will enable companies to make transactions with another company in seconds, minimizing efforts to find suppliers and

materials the company needs. In the supply chain field, the Internet has added value to the business to succeed. By connecting the company's processing information to employees, managers can run processes on all devices. The result is that technologies can monitor each process.

Internet Benefits

- The Internet offers many people the opportunity to work from home; Working from home can help reduce childcare expenses while saving money and time spent going to work every day.
- Online shopping: everyone can buy products while sitting at home, and the Internet allows everyone to compare prices between different companies and get to know people's opinions about the product through reviews on the Internet to help decide to buy the best products.
- Communication: You can send an email to anyone in the world in less than a minute, in different ways such as chat, online audio or video calls with anyone in the world.

Internet of thing (IoT)

More than 50 billion devices are expected to be connected to IoT. Currently, the cloud inventory system tracks items in real-time; products have RFID tags or barcodes to be scanned and identified by the system. This is how systems can track inventory levels, expiration dates, geographic location, expected demand and much more. With IoT, you can increase the ability to track and communicate with products. Built-in RFID tags can send information about temperature, weather, any damage to the object, traffic. The built-in GPS location allows users to know exactly where the item is located. Each item will have a unique identifier as a result, so you will be able to identify each item or piece of equipment; this will significantly decrease the withdrawal, a stock shortage, excess stocks too, can better analyze which areas are efficient and which are not, for example, can analyze if shipments are blocked in the traffic at a specific time of day, you can analyze whether items are best sold in particular locations, inventory tracking and monitoring will significantly improve with IoT.

3.6 Saudi Governmental Sector Companies Analysis

3.6.1 SWOT Analysis

Strengths

- 1- The government support represented by the Kingdom's higher management for development efforts in public sector as a part of the 2030 vision that seeks to modernize the Kingdom in terms of all components.
- 2- The serious governmental trend towards eliminating bureaucracy through automation, as well as reducing centralization and routine.
- 3- The serious governmental trend towards tightening control and supervision through the establishment of the Expenditure Efficiency Authority.
- 4- Enhancing the competitive advantage of governmental institutions by the establishment of local procurement system.

Weaknesses

- 1- Weak technological skills of public employees compared with the private sector employees' technological competencies as prerequisites for employment.
- 2- Weak motivation system compared with private sector, which affects the spirit of change adversely.
- 3- Weak organizational culture in the governmental institutions due to the weak training.
- 4- The weak comprehensive strategical planning in the governmental institutions.
- 5- The Kingdom's lack of an updated internet general network, as the system's implementation requires a huge number of large servers in addition to a tremendous follow-up by IT departments.

Opportunities

- 1- The wide spread of E-government principle in the world, and in regional countries; Gulf Cooperation Council (GCC) countries, which in turn motivates decision-makers for more support and embracement, in the form of allocation of additional large budgets for the development purposes.

- 2- The development and adoption of the concept of creativity and innovation in governmental institutions, which constitutes an important opportunity for the governmental sector to utilize innovations that are important enhancing productivity or overcoming obstacles.
- 3- The Kingdom's orientation towards the principle of experience exchanging with various regional and international institutions, which constitutes an important opportunity to governmental institutions to increase productivity and raise efficiency.
- 4- The introduction by the government of the principle of foreign, as many American global companies have opened regional branches in the Kingdom with the intention of becoming global trade centers.

Threats

- 1- The administrative obstacles in government companies represented in the opposing stances of some traditional leaders that may work to disturb the wheel of modernization due to their fears that their positions may adversely affected by the comprehensive changes.
- 2- Lack of conviction in the principle of modernization or its necessity on the part of public employees.
- 3- The absence of culture of ultimate beneficiary satisfaction in government institutions.
- 4- The lack of a clear link between the final beneficiary satisfaction criterion and the job benefits of governmental employees. Where salaries and bonuses that the employees receive are fixed and have nothing to do with the degree of the ultimate beneficiary satisfaction.
- 5- The high costs and administrative complications associated with the restructuring processes in governmental companies, which may threaten the application of the project.
- 6- Multiple security concerns that could lead to sudden system shutdowns, which could lead to dire consequences.

3.6.2 TOWS Matrix – Strategy

Strengths and Opportunities (SO)

- 1- Mobilizing the possible governmental leaders' energies to support the principle of e-government towards the application of supply chain management system.
- 2- Exploiting the governmental support to enhance the experience exchange through sending and receiving administrative missions.

Strengths and Threats (ST)

- 1- Exploiting the governmental support to push the process of governmental administrative restructuring to overcome the main obstacles facing the project's implementation.
- 2- Enacting administrative laws that oblige administrative leaders to design intensive training programs related to supporting organizational culture, creativity, and innovation.
- 3- Developing a proper plan to direct the sums saved by the rationalization processes towards supporting the implementation of the project.

Weaknesses and Opportunities (WO)

- 1- In front of the expected economic growth due to the introduction of foreign investments, intensive mandatory training courses must be held to raise the technological competences of public sector employees.
- 2- Directing the sums saved by the rationalization processes towards supporting governmental salary scales.
- 3- Establishing and supporting the performance-based reward system in the governmental sector.

Weaknesses and Threats (WT)

- 1- Enhancing the level of training for governmental public employees about raising the technological competence and security sense in relation to the automation of life aspects.
- 2- Harnessing energies for long-term comprehensive strategic planning.

3.6.3 Porter's Five Forces

Threat of New Entrants

In fact, the threat of new entrants is considered as a constant and continuous threat if business activities continue. The chance of new entrants increases due to the increase of economy, as strong economy increases the willing of new entrants to access into the market and offer their products and services.

In this context, the Saudi government runs an integrates system to support governmental companies in the face of new entrants, including the automation of life aspects for the purpose of saving time, effort, and expenses in the daily life activities.

Establishing new companies that meant to support the 2030 vision, supporting and modernizing import and export sectors are also among the governmental actions towards enhancing efficiency, especially after the establishment of The Expenditure Efficiency Authority and the introduction of local procurement system.

Supporting the principle of experience as an alternative to total reliance on academic degrees and raising the salary scale and incentives as well as among the governmental activities to support the government sector.

All pervious activities are considered as governmental measures to confront new entrants' threat, as well as to enhance the competitive advantages of the governmental sector companies. In general, new entrants' threat here is balanced.

Bargaining Power of Customers

In fact, although the bargaining power of customers is considered as a weak factor in porter's model, this aspect is of a great importance and strength in the context of study under consideration. This study revolves around the success factors of applying the supply chain management system and depends on the ultimate beneficiary satisfaction as a primary criterion for measuring the success of this project, that is why the bargaining power of customers has such great significance in this vein.

Despite all efforts made by the government to raise end beneficiary satisfaction as previously discussed in terms of automation, reducing expenses, time and access difficulties, the bureaucratic culture that used to dominate governmental procedures still casts a shadow on the perceptions of citizens, i.e., the collective awareness of citizens still favorites private sector institutions as more rapid, efficient, and less bureaucratic and adherent to routine.

On the other hand, so far, the Saudi government has not established an independent and clear system for utilizing the citizens / beneficiary's feedback, as the single form of such consideration is confined in the notorious traditional complaint boxes, that used to have no effect.

Consequently, the governmental sector lacks a tool to measure the degree of satisfaction of the end beneficiaries, which is a major defect towards the basic criterion measuring the project's success.

In the same context, the lack of consideration of the beneficiaries' feedback is considered as an obstacle to the principle of involving the end beneficiaries in decision-making process, which is one of the success factors of the project.

Bargaining Power of Suppliers

Despite the utmost importance than suppliers have in any business, in that they considered the basic building block to ensure the continuity of business and its uninterruptedness, and hence, their pivotal role in controlling prices.

However, in the case of the Saudi government companies, suppliers cannot be considered a major threat to the governmental Saudi sector.

This is, in fact, due to the financial, material, natural and political capabilities that the kingdom of Saudi Arabia possesses, which enable it to provide a wide and diversified network of approved suppliers that the Kingdom can utilize, as Saudi Arabia is one of the most important and largest energy suppliers all over the world, in addition to the increasing and outstanding oil-independent industries sector.

Threats of Substitute Products or Services

The risk of substituting government products is considered small, given the pivotal government role that forms the lifeblood of Saudi society.

Considering the 2030 vision, the Kingdom seeks to activate the non-oil-dependent industries sector within the framework of diversifying sources of income in the Kingdom.

This orientation led to the entry of government companies into various productive and service sectors and industries, so the government companies are considered a major participant factor in the various sectors serving the society.

Rivalry among Existing Firms

Of course, Saudi government companies face strong competition from their counterparts in the private sector, therefore, in its endeavor to confront competitors, the government seeks to strengthen the position of governmental companies.

One manifestation of this orientation was the establishment of new governmental companies supporting the 2030 Vision, to reduce costs and accelerate services.

On the other hand, the government took an important step to support its companies, by introducing the local procurement system. In this context, the Saudi government provides support and privileges for those companies that buy from the local content of goods, as well as products made in Saudi Arabia, whether manufactured by Saudi factories or factories operates inside Saudi Arabia. So, these companies willing to buy the local content of materials and products receive special governmental support and special prices and advantages differ from importers from outside Saudi Arabia.

In the same context, the government provides opportunities for those companies willing to enter into agreements and understandings with Saudi governmental companies and plants to obtain a “Content Certificate”, which secure more support, privileges, and advantages.

Such a step is considered important in supporting governmental products and companies in exchange for competitors.

From another standpoint, the current governmental salary support system in governmental institutions is considered as another supporting point in motivating employees to produce more to face the strong competition in the Saudi market.

3.6.4 PEST Analysis

Political Factors Analysis

In the world of business and commercial activities, political and security stability means almost everything. The Kingdom of Saudi Arabia is one of the most stable countries in the Arab region and the Middle East region. What is more, the Kingdom is considered as a guarantor of stability in the surrounding region in general.

This role is due to the special political and religious status that the Kingdom enjoys. In addition to the wide good global and regional political relations of the Kingdom, the Kingdom is described as an adequate shelter for the holiest places for more than a billion and a half of the world’s population, i.e., Muslims.

Depending on the above, the Kingdom is considered as an important target for investors from all over the world, as the political and security stability guarantee an excellent environment for economic activities.

At the level of the internal politics, the general political orientation in the Kingdom is considered a helpful factor in supporting the general economy. This was exemplified by the establishment of a new governmental body known as The Expenditure Efficiency Authority; a governmental administrative body that monitors all governmental institutions on the spending side. This body is considered as an important factor helping in rationalizing spending, suppressing corruption, and determining the best spending targets.

Moreover, one of the important political influences in the Kingdom is the political orientation to reconsider the appointment system of administrative position, so that real experience is the basic criterion instead of scientific certificates, which is an administrative benefit that the Kingdom acquired through experiences exchange with other political and managerial regimes. Which is considered as another helpful factor to the efforts of development and modernization.

Economic Factors Analysis

Despite the difficulties the Kingdom faces due to Corona pandemic and the regional political fluctuations, the Kingdom has achieved good economic performance and growth in recently.

According to experts, the Kingdoms GDP reached USD 793 bn in 2019, and GDP per capita USD 23,265, while the annual variation of the Economic Growth reached 0.3% with Unemployment Rate 5.6, down from 6.0 the previous year.

According to experts' forecasts published in November 2020, they believe that the Saudi economy is heading towards a strong recovery after the decline in the economic contraction due to the pandemic and related weak oil production and local lockdown measures. Where the government revealed its budgetary forecast with a decrease in spending by 7.3% and increase in revenue by 9.8%. Such figures are considered reassuring figures to the labor market and economy in the Kingdom (Focus Economics, 2020) [3].

From another perspective, the recent introduction by the government of the principle of foreign investment plays a crucial and pivotal role in the wheel of the Kingdom's economy. That is, many American global companies have opened regional branches in the Kingdom with the intention of becoming global trade centers. Such a step can attract more investment, financial and human support to the Saudi economy, which all expected consequences of creating new opportunities for employment, operation and raising efficiency, i.e., to raise Saudi standards to meet American and European ones.

Social Factors Analysis

The social aspect is one of the most crucial aspects affecting the labor market and the economy wheel in the Kingdom of Saudi Arabia, one of the most important developing countries in the Middle East seeking to development and modernization considering the 2030 vision.

Among these factors is the demographic formation of the Saudi society. As statistics indicate that more than 70% of the Saudi society is less than 30 years old, i.e., a young society.

Of course, this demographic formation gives the economic and business in the Kingdom of Saudi Arabia an important impetus by securing an important reserve of learnable and developing workforce.

On the other hand, the Kingdom has been witnessing a crucial and historical social development considering the new social laws and regulations in the Kingdom for years now, in terms of easing restrictions on women's movement and increasing women empowerment in the field of economy, production and societal mobility; an aspect that adds momentum to the business in KSA in addition to the youth's momentum.

In another aspect, the easing of social restriction and regulations on the life of entertainment institutions and social communication has created an open society that encourages attracting more investors and economic and financial competencies, as well as increased the momentum of the business activities and commercial exchange in society.

Technological Factors Analysis

Technology is an important concern of the Saudi government now, as the Saudi government started to adopt the issue of automation in all life aspects as much as possible, for the sake of improving living conditions, promoting economy, and moving in the direction of the complete modernization in the Kingdom.

For example, the government has been working for years now on the full automation of Customs System, whereby a complete supply chain network has been established to serve international shipping companies as well as communicating with shipping agents, through a complete electronic system including submitting papers, applications, etc.

As part of the efforts, the new King Abdullah Port has become 100% automated, where the ultimate beneficiaries can now complete the final handover procedures of shipments within only 24 hours, instead of 4-5 days.

In fact, this means a lot regarding reducing paperwork and costs, speeding up performance, increasing ultimate beneficiary satisfaction and enhancing effectiveness and efficiency.

Here, it should be noted that these measures have greatly increased import and export operations in the Kingdom, which lead to support the movement of domestic and international trade, i.e., accelerating the economy wheel in the Kingdom so that exports have become the second largest income after petroleum in the Kingdom.

In another area, the Kingdom has implemented an automation system in official personal transactions, e.g., issuing identity cards, driving licenses, passports that have been extended for five or ten years, all through an integrated electronic system, in which beneficiary fills out an electronic application via a smart application, including electronic payment processes, and then, receiving the formal papers through alternative reception networks for official governmental offices. This led to a quantum leap in achieving the ultimate beneficiary satisfaction, as well as saving large administrative expenses by reducing needed jobs, time and building consumption as well as administrative expenses.

In general, the Saudi government began years ago to automate all possible aspects of life, by transferring these activities from a hard to soft copy.

Literature Review

4.1 The Concept of Supply Chain Management

Since the early nineties in the twentieth century, both productive and service provider organizations have realized that the quality standard of products and services, whether those they need and receive or those that they produce and provide, is no longer the only criterion, but the way in which organizations receive their needs and provide their products and services has become a competitive standard for quality of the products and services themselves.

This realization has stemmed from the understanding that the ultimate beneficiary's satisfaction is not made up of separate parts but instead is an integrated feeling and perception. Products and services that the beneficiary receives are, of course, the essence of the commercial process; however, the way in which the beneficiary receives them in terms of timing, speed, cost, and efficiency is an essential partner determining the degree of the beneficiary's satisfaction. Based on the above, organizations have directed their attention to the supply chain management system they rely on, on the premise that the efficiency of this system is a basic condition or prerequisite condition for their own efficiency and ability to survive and compete.

(Al Kanani, 2009) believes that the supply chain works throughout the integration of all operations conducted by different units of the organizations in an extended chain until the end beneficiary himself, whatever were the beneficiary receives, tangible products or services. All this in addition to the accompanying information flow that forms an additional value of the beneficiaries. [4]

The supply chain can also be defined as “the framework that the organization uses to integrate all of its different functions, starting from the original suppliers and ending with the end consumers, for an efficient securement and delivery of products, goods, materials, and services, seeking for increasing the efficiency of internal processes management and maximizing the value of products and services from the ultimate beneficiary perspective (Saber, 2008) [5].

The Supply chain board seeks to persuade a more comprehensive description of the supply chain by suggesting that, in addition to the above, the supply chain also includes the management of supply and demand systems, sourcing of raw materials and spare parts, production and assembly operations, distribution and delivery processes to the final customer.

The previously mentioned definitions can be summarized in the idea that supply chain management is a comprehensive administrative process with all its basic components; planning, organizing, directing, and controlling for all components, processes, phases, and activities of the

supply chain, in an integrated and continuous form of management processes until the end-user. This is true whether the beneficiary receives tangible products and materials or services, in addition to accompanying information that adds value to beneficiaries.

However, the supply chain may expand beyond the size of a particular organization. A group of organizations and companies may participate in constituting a single supply chain so that several organizations participate in different processes and activities to produce and manufacture products or to generate services targeting the end-beneficiaries, whether in the early or final stages so that the supply chain consists of several companies playing different roles between suppliers, distributors, and final customers.

Supply chain systems have several crucial goals, on top of which, of course, bringing about end-beneficiary satisfaction as a basic criterion for the survival of organizations through the enhancement of their competitiveness.

Among its objectives, which may not appear to the end customers directly, but can be touched in the final form of the service or product provided, is to reduce costs of the resources on which the manufacturing or assembly of the products depends, and to increase efficiency and effectiveness, in addition to its endeavor to reduce inventory costs by reducing its levels, as well as increasing profits and improving the advantage of cooperation and coordination among all units and members of the supply chain system.

4.2 The Main Components of SCM System

In his PHD thesis of Business Administration, (Soin, 2004) asserted that the main components of the supply chain management can be summarized as following:

- 1- Logistics: this phase includes transportation activities, moving materials inside the facility and for the clients outside as well as the reverse transport.
- 2- Planning: the process of forecasting product demands, including the cooperation and coordination efforts among departments within the facility.
- 3- Procurement: the phase that includes the central procurement, strategic resources, and the reduction of suppliers' numbers.
- 4- Inventory Management: the process of inventory managing and reduction.
- 5- Manufacturing Methods: the process of choosing or specifying the best manufacture styles that guarantee the best possible cost, quality and quantities matching the beneficiary's needs.

- 6- Order Management: the electronic style of order management, including purchase and payment processes.
- 7- Internet Based Integrated Network: the processes of linking the supply chain management with the beneficiary, in addition to the internal coordination between all levels. Where the internet is used as a basic engine, as well as activating the concept of the e-commerce.
- 8- IT Based SCM: the process of providing an access for beneficiary to the supply chain system.
- 9- Clients' Affairs Management: the management of technology, processes, information, and personnel.
- 10- Measures and Indicators for performance management and improvement: the process of tracking the main factors affecting supply chain management. [7]

The SCM components can be illustrated as shown in the Figure:

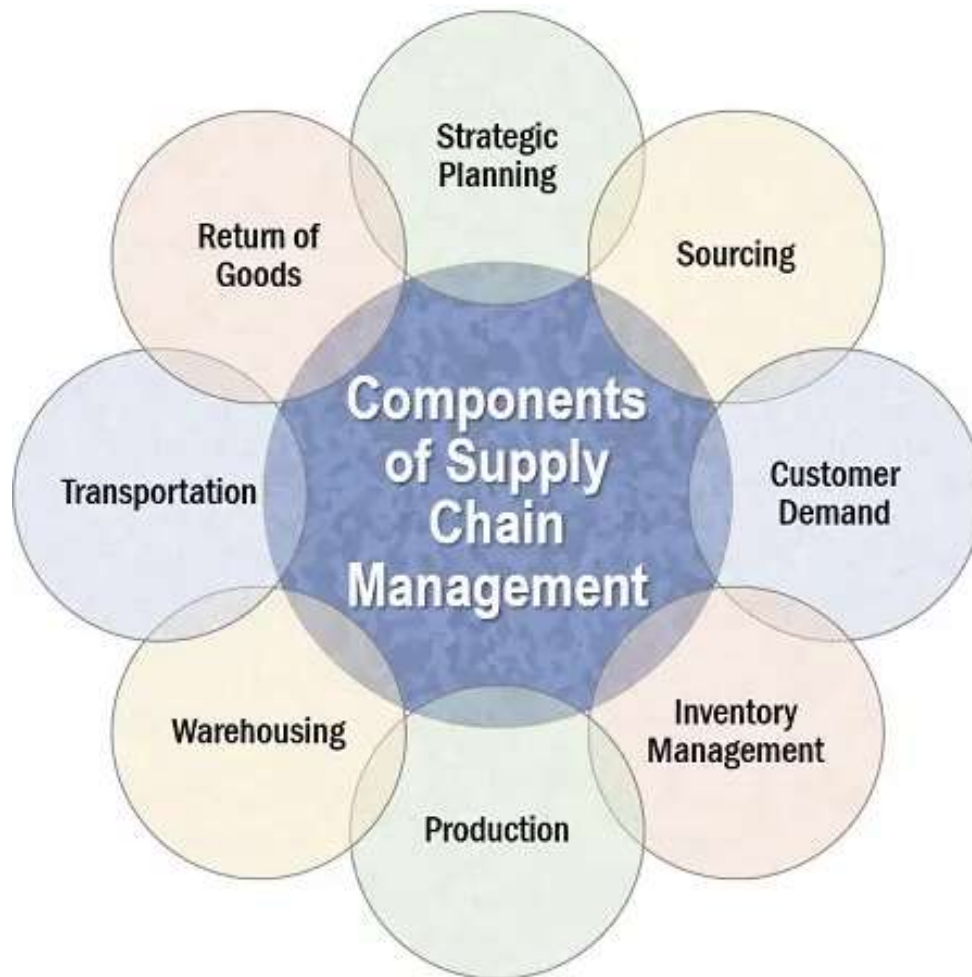


Figure 16. <http://learnersdestination.com/supply-chain-management-scm>

4.3 Management Information System (MIS) for Supply Chain Management:

MIS for supply chain system is an integrated and comprehensive electronic system providing several functions and information, in addition to an access used by beneficiaries to reach all needed information and to review all parts of the supply chain.

This system has plenty of advantages in regard with beneficiaries, e.g., reviewing product information, marketing services, catalogs, prices, contacting beneficiaries, order management, contacting suppliers, information exchange, purchase orders, following up production process, suppliers' inventory in both cases, receipt, and handover, local or international follow up, providing a real information as well as data flow among institutions (Soin, 2004) [7].

4.4 SCM System Implementation

Like others, SCM applications can be provided by:

- 1- In-house Application Development: The mean by which all institution's needs are collected and passed to those in charge of the development of the proper applications inside and outside the institution.
- 2- Ready Mode Applications: The method in which applications are previously developed based on the ideal practices. These ready applications are usually exposed to special modifications commensurate with the special institution's needs.

This method has been considered as the best, for several advantages like follows:

- a- Best international practices application.
- b- The ability to keep up with all developments using licenses.
- c- The availability of technical support for these applications via their licenses.
- d- Avoiding most applications' problems (Applications Bugs).
- e- The availability of flexible pre-made data templates based on pre-made database.
- f- Providing pre-made reports and forms.

4.5 Factors for Successful Implementation of Supply Chain Management System:

Kinaxis Group carried out a paper titled "The seven factors for the success of supply chain management projects", to determine the extent to which these factors are appropriate for the industry applications, that is why their list were put in comparison with another list belongs to one of the most famous organizations: Standish Group. According to Standish Group study – Boston

that dealt with more than 70,000 IT projects since 1985 to find out the success factors for achieving the best results. Ten Factors were found to have a significant impact on the implementation of supply chain management system (Kinaxis, 2010) [8]. Some other studies asserted that there are more than 52 factors. These factors can be summarized as shown in Table. 1

	Success factors of implementing SCM	Effectiveness %
1	Stake holder's participation	20
2	Senior management embracement	15
3	Clear busines goals	15
4	Good program selection	15
5	An expert project manager	10
6	Small objectives	5
7	System needs	5
8	Competitive staff	5
9	Proper planning	5
10	Project owner	5
	Total	100 %

Table 1: Success factors of implementing SCM

Many studies have been trying to determine the relationship between the efficient implementation of SCM systems and the degree of beneficiaries' satisfaction, especially, in the governmental organization. While this study aims at discovering some of the adequate SCM implementation benefits, which can be summarized as following in Table. 2.

No.	Benefits
1	Inventory reduction and efficient inventory management
2	Cost reduction
3	Increasing visibility (significant reduction of uncertainties)
4	significant reduction or complete elimination of bullwhip effect
5	Improve resource utilization
6	Increase productivity, organizational efficiency and improved services
7	Building and strengthening social bonds
8	Early problem detection
9	Quick response
10	Reduce cycle time from order to delivery
11	Better tracing and tracking
12	Expanded network
13	Earlier time to market
14	Optimized capacity utilization

Table 2: Adequate SCM implementation benefits.

4.6 Previous Studies

This section deals with the previous studies dealt with the same of similar topic; the application of supply chain management system, and the factors for the success implementation of SCM. It aims also at reviewing the most important findings of these studies, in addition to the extent to which these findings are different from or like the findings of the study under consideration.

Poonam (2010) aimed at identifying the success factors of the implementation of ERP systems, including supply chain management systems in Indian Selling companies. The study found that the most important success factors are senior management support, appropriate product selection, project management, team building, education, and training [9].

Kinaxis (2010) identified seven factors of successful SCM, namely, support of senior management, setting realistic goals, effecting planning, strict supervising, adequate resources flexibility and carrying out the necessary tests [8]. In the same context, Enporion (2009) stated that the success factors can be summarized as: the compatibility between the organization's mode and

strategy, the compatibility between the organization's model and culture, taking the employee's skills and experiences into account in the organization's model, long-term programs timetable and the activation of communication and cooperation by the formal and informal procedures [9].

Taylor and Gullen (2009) carried out a study aiming at identifying the factors for as successful usage of advanced e-commerce system from the point of view of beneficiaries, namely, the workers in the field of British health services, the study found that there are five groups of factors affecting successful implantation of advanced e-commerce systems: system quality, information quality, management commitment, reliability, and information security. Where information quality and the system were the most important [10].

Jafari et al. (2006) , in their study of success factors in implementing enterprise resource planning and supply chain management systems in Malaysian companies. They identified several factors for successful implementation of their system, where supporting senior management and objectives clarity were the most important ones. [11]

Sion (2004) in his PhD thesis of supply chain management, studied the success factor for implementing supply chain management in high-tech companies. The study provided a framework of recognizing the facilities performance and how supply chain management helps companies to compete and succeed. The conclusion of the study was that there are no differences among success factors, even with comparison with ordinary companies.[7]

Nagi et al. (2004) studied the success factors of implementing internet-based supply chain management, the findings pointed to five main dimensions of the basic success factors: communications (among employees and between them and the senior management), the senior management commitment, attention to data security, training and education, and the availability of high reliable hardware and software needs.[12]

Among the Arab studies that dealt with factors affecting the end beneficiaries' satisfaction in regard with supply chain management system is Kaoud (2007), the study concluded that there is a strong correlation between the availability of quality characteristics of management information systems and the ability of these systems to meet the beneficiaries' needs and desires.[13]

Al-Amoudi (2009) findings pointed to several results, the most important of which there is a statistically significant effect of operating and managing management information system requirements on the telecommunications companies' employee's performance. [2]

In the same context, (Al-Masoud, 1420 H) studied the factors affecting the administrative communication effectiveness with the Saudi governmental agencies. Findings pointed to that the

technical factors related to the group of means and methods used in communication, organizational factors, environmental factors, and psychological and behavioral factors are the most important affecting factors. [6]

A research was undertaken with the aim of identifying the reality of government procurement management. In most government agencies, the concept and tasks of governmental procurement are unclear, according to the report. Similarly, procurement operation and those administrative units engaged in it did not receive adequate attention in accordance with their functions.

The findings concluded that there is no strategic business for the governmental units that can be developed, except the insurance system of the governmental procurement as well as the implementation of its projects and executive regulations.

Reviewing the related literature; previous studies was of a great benefit for the advantages it granted the researcher by providing the necessary knowledge, literature, findings, and recommendations in the field of the current study topic, which helped the researcher in designing the study's measurement tool, i.e., to start from where others have ended.

However, it was evident that each study has a different perspective from which it addresses the main topic. In addition, most study's findings asserted that there several factors affecting the successful implementation of supply chain management system, with obvious similarities in these factors, with differences in their importance, that varies according to the organization's activity or geographical considerations.

Moreover, reviewing the related literature reveals the importance of currying out the current study due to the lack of addressment of the topic under considerations, as most of such studies have been conducted in Western or Far Eastern business environments. The reviewed literature shows the sever lack of studies discovering the success factors for implementation of supply chain management system in the governmental organization in the Kingdom of Saudi Arabia, which supports the conclusion of the real importance of carrying out the current study.

5 Methodology

Based on this study's nature, it will rely on the survey research method to know the relationships between variables and provide analysis, answer the questions of the study, and thus achieve the purpose of the study and its objectives.

4.7 Research Method

Based on the theoretical framework, literature, studies related to this topic and depending on the researcher's preliminary surveys and his experience in consulting in applying this type of system in government and business organizations, this study adopted the following two dimensions to measure its variables: the first dimension is to measure the participant's demographic characteristics. The second dimension is the critical success factors for applying supply chain management systems and their relationship to beneficiary satisfaction.

The second dimension consists of (23) paragraphs that measure the study dependent and independent variable as follows: paragraphs (6-10) measuring the support of top management as an independent variable), paragraphs (11-14) measure the participation of beneficiaries as an independent variable, paragraphs (15-18) measure the clarity of the strategy as an independent variable, paragraphs (19-23) measure the good choice of the system as an independent variable, and paragraphs (24-28) measures the satisfaction of the beneficiary as a dependent variable. The study variables were measured by developing a questionnaire for this purpose. The ordinal scale was used, which included five levels, the upper bound defined by the phrase "Strongly Agree", and the lower bound was determined by the phrase "Strongly disagree". By giving five points for the answer (strongly agree), four points for the answer (agree), three points for the answer (neutral), two points for the answer (disagree) and the answer (strongly disagree) one point.

4.8 Test of Hypothesis

The success factors of the application of supply chain management systems are classified into three main factors: strategic factors, the most important of which are the existence of strategy, the commitment of top management and change management program existence. Tactical factors, the most important of which are the selection of the system, application methodology, beneficiary participation: operational factors, the most important of which are infrastructure, data, information, procedures, and policies.

The existence of organization's strategy, top management commitment, system choice, and beneficiary participation is among the most critical factors affecting the successful application of supply chain management systems, (Poonam,2010) and (Kinaxis, 2010) was chosen to test the extent of a relationship between these factors on the one hand and the satisfaction of the beneficiaries on the other according to four hypotheses:

1. There is no positive and significant relationship between the support of the top management of the system's application and the beneficiary's satisfaction.
2. There is no positive and significant relationship between the clarity of strategy and the satisfaction of the beneficiary.
3. There is no positive and significant relationship between the good choice of the system and the beneficiary's satisfaction.
4. There is no positive and significant relationship between the participation of beneficiaries in applying the system and the satisfaction of the beneficiary. [9] [10]

Figure 16 (study chart and independent variables and their impact on the dependent variable) shows:

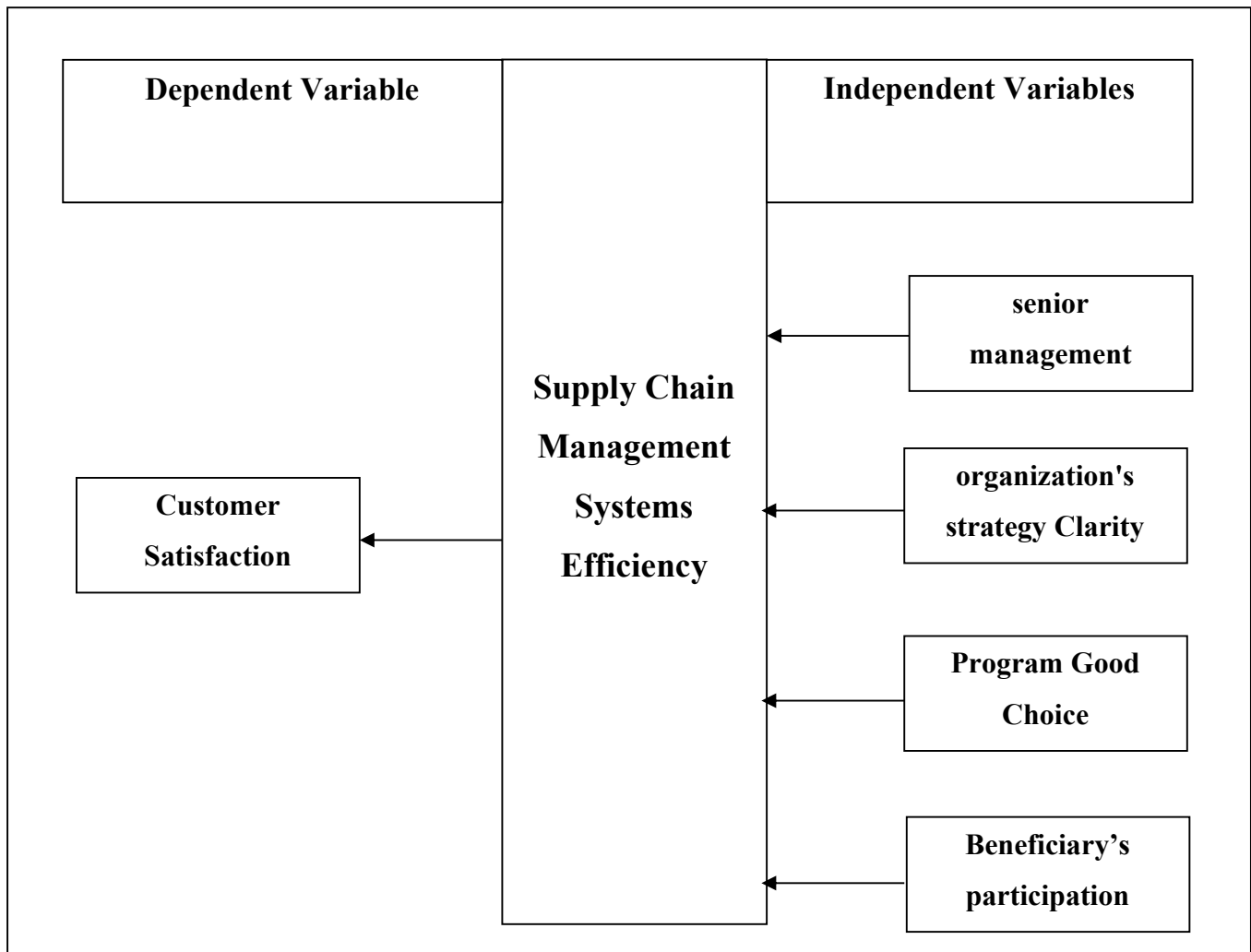


Figure 16: Supply chain management system success factors model and its relationship to beneficiaries' satisfaction

4.9 Study and Sample Selection Community

The study community consists from all governmental workers for the Saudi Arabia government organizations who are dealing with supply chain systems in these organizations , and to find out organizations which are applying these systems, Producers of systems has been called such as SAP and Oracle, and teams that working on it in some organizations of the government in addition to the departments concerned in those organizations , it have been shown to the researcher that the organizations of government that applied systems chain of supply are: the Saline Water Conversion Corporation , National Water company, Saudi Post, Saudi Electricity Company, Royal Commission for Jubail and Yanbu, the Council of the Shura , and the University of Al - Baha , and

King Fahd University of petroleum and minerals, and King Khaled Hospital (The number of employees estimates who are dealing with these systems in the eleven ten employees are about 3800 employee). The size of the sample has been determined using the following equation, (Ali Mia, 2007) (13), $\frac{n}{((n-1)+b^2)+1}$ here n is the size of sample, b is the allowed error to the sample size.

A percentage of 5.5% of the users of supply chain management systems in governmental institutions equals-after applying the previous equation: $\frac{3800}{((3800)0.003025)+1} = 304$ size of sample
330 = size of the sample.

Around 300 questionnaires have been distributed, and 190 were recovered, which formed a percentage (61% of the study) of the sample.

4.10 Data Collection Method

After looking at the theoretical aspect and the results of previous studies on the success factors for the application of the supply chain management system in organizations and other study variables, the researcher designed a questionnaire to measure the relationship between the variables of the study based on some of the measures used by the researchers in the literature and have been developed to cope with the supply chain management system in government organizations In Saudi Arabia.

To confirm the survey's ability to measure research variables, it has been subjected to a group of experts specialized in the application of supply chain management systems and resource planning systems. To explore their opinions on its ability to measure the study variables and ensure the clarity of its paragraphs and accuracy scientifically.

Besides, Alpha Cronbach has been extracted for the internal consistency of all the measures of the study combined, it was (0.941), which is a very high stability rate, as well as the researcher, extracted the coefficient for consistency for every variable as it is shown below:

Variable Name	Alpha Cronbach Value
Top- management support	0.967
Clarity of Strategy	0.987
Good Selection Program	0.956
Beneficiary Participation	0.978
Beneficiary Satisfaction	0.992

Table 3: Alpha Cronbach values

4.11 Statistical Analysis Methods

After the collection of data and review to ascertain their validity and variability, Data was introduced into the statistical program SPSS and was statistically processed to answer study questions, using the following statistical methods:

- Average mean.
- Standard deviation to determine how far the average values deviate.
- Frequencies and percentages to identify the study sample members' characteristics and determine their responses to the study scale.
- Pearson Correlation

5. Results and Analysis

This part of the research explains the presentation and analysis of the collected data in this study and then draw the most critical conclusions that have been recommended; to help government organizations in Saudi Arabia to know the essential commons to be observed to ensure the successful application of supply chain systems and their relationship to the satisfaction of beneficiaries.

5.1 Description of Data

Table 2 provides information about the sample's demographic characteristics; the Table shows that more than 82.5% of the sample companies contain more than 1000 employees, 11.5% has between 50 and 1000 employees, and only 6% contains below 50 employees.

Table 1 also provides information about the study sample's job level; the percentage of officers is 65%, Department head is 30.6% and 4.4% managers.

Furthermore, the Table shows that 26.2% has a secondary school degree or lower, 65% with a bachelor's degree, and 8.7% has post-graduate degrees. Besides, 50.3% of the sample didn't apply the supply chain management system, and 49.7% participated.

Number of Employees	Frequency	Percentage
Below 50 employees	11	6.0
Between 50-1000 employees	21	11.5
More than 1000 employees	151	82.5
Sum	183	100.0
Job Level	Frequency	Percentage
Employee	119	65.0
Department Head	56	30.6
Manager or Higher	8	4.4
Sum	183	100.0
Education Level	Frequency	Percentage
Secondary School or lower	48	26.2
Diploma/B.A./BSc.	119	65.0
Higher than BA/BSc.	16	8.7
Sum	183	100.0
Did you participate in applying Supply Chain management systems?	Frequency	Percentage
Yes	91	49.7
No	92	50.3
Sum	183	100.0

Table 4: Demographic characteristics of the sample

5.2 Purpose of the Study

The importance of research

It is vital of keeping up with global and regional changes in various economic, social and information technology fields; many enterprises have begun to move towards a broader environment for the interconnected electronic environment by applying several information systems such as financial systems, human resources, supply chain systems and other support systems for the management of enterprises (Al-Amoudi, 2009) [2].

The supply chain management system's application is one of the essential strategic systems on which organizations rely in conducting their business and making decisions efficiently and

effectively. Besides, Knowing the factors of the successful application of this system is very important to ensure the application's overall success.

The importance of this research is shown in trying to test a hypothetical model to determine the success of the application of supply chain management systems and the satisfaction of the beneficiary in government organizations in Saudi Arabia.

5.3 Research Objectives

The research seeks to achieve the following objectives:

1. Study the extent of beneficiaries' satisfaction with the supply chain management system.
2. Define the relationship between the success of the application of supply chain systems and user satisfaction in government organizations.
3. Know the positive functions of applying supply chain management system in government organizations.
4. Disclosure the difficulties facing the application of chain management supply systems in Governmental organizations.
5. Discover the factors affecting the implementation of the supply chain management (SCM) system.

5.4 Hypotheses Variables

Variable's analysis:

The following is an analysis of the data related to the research variables as revealed through the field study and the conducted statistical tests. It should be noted here to the classification criterion for general approval or vice versa, in relation to the weighted average values depending on the value of this average and if the value of 4 is greater than this statement. If the value 3 is less than it, it indicates the absence of positive approval for this factor.

Independent variables

Top management support

According to the trends and views of the sample of staff from table 3, most employees headed towards approval and is clear that the weighted average total (4.04). The amount of evidence that the employees' attitudes and opinions indicate the positive trend towards the support of top management in their accusations of implementing the supply chain management system.

Beneficiary participation

Table 5 shows the opinions of beneficiaries participating in the supply chain management system for applying the system in business (planning, design, selection), according to the trends and views of the sample of staff, the overall trend goes towards approval.

According to the results shown in table 5, it becomes clear that the overall weighted average is (3.97), which indicates that the attitudes and opinions of the employees indicate the tendency towards approval and the positive trend towards the participation of the beneficiaries of the system of beneficiaries.

Clarity of the strategy

According to the data in Table 5, for the descriptive statistics of the variable clarity of the strategy for implementing the supply chain management system, according to the trends and opinions of the sample vocabulary of the employees, most of the statements tend to be fully approved. It is evident that the overall weighted average is 3.97, indicating that employee trends and opinions indicate a trend towards approval and a positive trend towards clarity of the strategy for implementing the supply chain management system.

No.	Phrases	Weighted Average	Standard Deviation	Variation Coefficient	Rank
1	Top management support applying system and work for its success	4.15	0.67	16.2	1
2	The top management puts the system among its priorities	4.13	0.68	16.5	2
3	Top management participates in the system implementation process	3.97	0.80	20.1	3
4	The Top management encourages employees to be creative and innovative in implementing the system	3.94	0.83	21.2	5
5	The top management directs and motivates the employees to use the system	4.02	0.84	20.8	4
The overall average		4.04	0.76	18.9	

Table 5: The first axis: means, standard deviations, and coefficient of variation for expressions describing support for top management in your organization to implement a supply chain management system.

5.5 Good Choice of Supply Chain Management System

According to the data in Table 6, of the descriptive statistics of the good selection of the supply chain management system (software), according to the employees' trends, opinions, it appears from the Table that the overall weighted average is (4.07), which means that the employees' opinions indicate a trend towards approval and a positive trend towards how to select the supply chain management system (software) properly.

No.	Phrases	Weighted Average	Standard Deviation	Variation Coefficient	Rank
1	Beneficiaries participate in the system implementation process	4.03	0.60	14.8	1
2	Beneficiaries participated in proposing ways and means to raise the efficiency of the system implementation process.	3.89	0.66	17.1	2
3	Beneficiaries participate in re-engineering the current business procedures to implement the system.	3.98	0.83	20.8	4
4	Beneficiaries participate in updating the data necessary to implement the system	3.95	0.73	18.4	3
The overall average		3.97	0.70	17.8	

Table 6 The second axis: means, standard deviations and coefficient of differences for expressions describing the participation of the beneficiaries of the supply chain management system in the implementation of the system (planning, design, selection)

No.	Phrases	Weighted Average	Standard Deviation	Variation Coefficient	Rank
1	The organization has a clear vision regarding the strategic objectives of implementing the system	3.93	0.73	18.5	1
2	There is a clear alignment between the mission of the organization and the strategy of implementing the system	3.97	0.78	19.7	3
3	The strategy for implementing the system is concerned with the satisfaction of the beneficiaries of the system	3.99	0.79	19.7	2
4	There is acceptance from employees and officials in the organization of the system implementation strategy	3.98	0.80	20.1	4
The overall average		3.97	0.78	19.5	

Table 7 :The third axis: means, standard deviations, and coefficient of variation for expressions that describe the strategy's clarity for implementing the supply chain management system.

No.	Phrases	Weighted Average	Standard Deviation	Variation Coefficient	Rank
1	The program is easy to use	4.01	0.77	19.3	4
2	Programs Screens work is simple and easy	4.11	0.77	18.8	2
3	The program is adjustable according to the need of the beneficiary	4.03	0.77	19.1	3
4	Program reports reflect the actual reality of the data	4.08	0.80	19.5	5
5	The program is integrated with existing systems	4.07	0.75	18.4	1
The overall average		4.07	0.77	18.9	

Table 8: The fourth axis: means, standard deviations, and coefficient of variance for expressions describing a supply chain management system's proper selection.

5.6 Successful Supply Chain Implementation

The satisfaction of the beneficiary (the dependent variable):

Table 7 shows the beneficiary's satisfaction variable's descriptive statistics regarding applying the supply chain management system and the sample's opinions and opinions according to the sample's trends and opinions.

It is evident from Table 9 that the overall weighted average is (4.16), which shows that the attitudes and opinions of the employees indicate the trend towards approval and the positive trend towards the beneficiary's satisfaction. Table 9 shows the fifth axis: means, standard deviations, and coefficient of differences for expressions describing the beneficiary's satisfaction with the implementation of the supply chain management system.

No.	Phrases	Weighted Average	Standard Deviation	Variation Coefficient	Rank
1	System output was as expected	4.02	0.66	16.3	2
2	The system is considered a shift in the organization's culture and work style	4.21	0.67	15.9	1
3	The system overcomes previous difficulties	4.11	0.74	18.1	3
4	I recommend using the system in other organizations	4.19	0.78	18.5	4
5	In general, I am satisfied with the use of the system in the organization	4.13	0.83	20	5
The overall average		4.16	0.75	18.1	

Table 9 The beneficiary's satisfaction with the implementation of the SCM system.

Hypotheses results

Table 9 shows the results, showing a weak positive relationship between the phrase: "The management supports the application of the system" and the beneficiary's satisfaction with the application of the supply chain management system, which is 0.157. top management puts the system among its priorities "and satisfaction of the beneficiary on the application of supply chain management system as the correlation 0.154 level coefficient was 0.05, and the results also showed the presence of a positive medium relationship between the term" top management is involved in the process of implementation of the system ", and user satisfaction from the application of supply chain management system as the correlation 0.220 level of significance 0.01 coefficient reached, as the results showed the presence of a medium positive relationship between the term "top management encourages staff creativity and innovation regarding the application of the system" and the satisfaction of the beneficiary on the application of supply chain management system, reaching the correlation 0.316 at significance equals 0.01.

There is a weak positive relationship between the term "top management is working to guide employees and motivate them", and satisfaction of the beneficiary on the application of supply chain management system as the correlation 0.170 coefficient stood at 0.05 and concluded that there is a positive and significant relationship between the support of top management in the organization to implement the chain management system The supply and the beneficiary's satisfaction with the implementation of the supply chain management system, as the support of the

top management usually gives the issue high importance and therefore the workers in the implementation of the system strive to succeed in this.

No.	Statements for Top management support for applying the system	Beneficiary's Satisfaction	Significance
1.	The top management supports the implementation of the system and works to make it a success.	0.157*	0.036
2.	Top management puts order among their priorities.	0.154*	0.039
3.	The Top management is involved in the system implementation process	0.220**	0.003
4.	Top management encourages employees to be creative and innovative in implementing the system	0.316**	0.000
5.	The top management directs and motivates the employees to use the system.	0.170*	0.022

Table 10: Spearman Relation Coefficient

• *Significant at 0.05

** Significant at 0.01

Second: Hypothesis states that "there is no positive and significant relationship between the clarity of the strategy and the beneficiary's satisfaction." To answer the question, the Spearman test was used to test this:

Table 10 shows the results, where the results indicate the existence of a strong positive relationship between the phrase: "The organization has a clear vision regarding the strategic objectives of the application of the system," and the user's satisfaction with the application of the system. 0.01. a strong relationship is positive between the phrase: "There is consensus clear between the organization's mission and system application strategy" and satisfaction of the beneficiary on the application of supply chain management system as it stood, the correlation 0.413 level coefficient of significance 0.01 and explained the results of a strong positive relationship between the phrase: "concerned with application of the system satisfaction strategy beneficiaries of the system "and the satisfaction of the beneficiary on the application of supply chain management system, reaching the correlation, 0.514 level of significance 0.01 coefficient, showed a strong positive relationship between the phrase:" There are accepted by employees and officials

of the organization's strategy application system "and user satisfaction from the application chain management system Supply, as the correlation factor is 0.458, with a significance level of 0.01, and we can conclude from this that there is a strong positive and significant relationship between the degree of clarity of the strategy of implementing the supply chain management system and the implementation of the supply chain management system. Supply chain management, where the clarity of the system's implementation strategy acts as a guide for the implementation process, reduces the potential for project failure, which affects the beneficiary's satisfaction with the implementation.

No.	Statements for clarity of the strategy	Beneficiary's Satisfaction	Significance
1.	The organization has a clear vision regarding the strategic objectives of implementing the system	0.384**	0.000
2.	There is a clear alignment between the mission of the organization and the strategy of implementing the system	0.413**	0.000
3.	The strategy for implementing the system is concerned with the satisfaction of the beneficiaries of the system	0.514**	0.000
4.	There is acceptance from employees and officials in the organization of the system implementation strategy	0.458**	0.000

Table 11: Spearman Relation Coefficient

** Significant at 0.01

Third: Hypothesis states that "there is no positive and significant relationship between the good choice of the system and the beneficiary's satisfaction." To answer this question to test this hypothesis, the Pearson test was used:

No.	Statements for the good choice of the system	Beneficiary's Satisfaction	Significance
1.	The program is easy to use	0.436**	0.000
2.	Programs Screens work is simple and easy	0.524**	0.000
3.	The program is adjustable according to the need of the beneficiary	0.425**	0.000
4.	Program reports reflect the actual reality of the data	0.501**	0.000
5.	The program is integrated with existing systems	0.445**	0.000

Table 12 Spearman Relation Coefficient

** Significant at 0.01

Table 12 shows the results. The results indicate a strong positive relationship between the phrase: "the program is easy to use" and the beneficiary's satisfaction with implementing the supply chain management system, with a parameter of 0.01, the parameter is 0.436. She indicated a strong positive relationship between the phrase: "working on the screens is simple and easy" and the beneficiary's satisfaction with implementing the supply chain management system. Beneficiary "and satisfaction of the beneficiary on the application of supply chain management system as the correlation 0.425 coefficient reached the level of significance 0.01 and showed a strong positive relationship between the phrase:" The program reports the actual reality of the data and user satisfaction from the application of supply chain management system reflects as the correlation 0.501 level factor of significance 0 01. The results also showed a strong positive relationship between the phrase: "the program is integrated with the current systems" and the beneficiary's satisfaction with implementing the supply chain management system. The supply and the beneficiary's satisfaction with implementing the supply chain management system, as the good choice of the system, increase the chances of success and reduces the chances of resistance to change, affecting the user's satisfaction.

Fourth: states that "there is no positive and meaningful relationship between the beneficiary's participation in the system's implementation and the beneficiary's satisfaction" to answer this question to test this hypothesis.

No.	Statements for beneficiary's participation	Beneficiary's Satisfaction	Significance
1.	Beneficiaries participate in the system implementation process	0.287**	0.000
2.	Beneficiaries participated in proposing ways and means to raise the efficiency of the system implementation process.	0.295**	0.000
3.	Beneficiaries participate in re-engineering the current business procedures to implement the system.	0.366**	0.000
4.	Beneficiaries participate in updating the data necessary to implement the system	0.338**	0.000

Table 13 Spearman Relation Coefficient

** Significant at 0.01

Table 13 shows the results, which indicate the existence of a positive intermediate relationship between the statement: "The beneficiaries participate in the application of the system" and the beneficiary's satisfaction with the application of the supply chain management system. The beneficiaries participate by suggesting ways and means to increase the efficiency of the system implementation process. Supplying and the beneficiary's satisfaction with the implementation of a chain management system, as the correlation coefficient reached 0.01, at a level of 0.295. The results also showed that there is a positive intermediate relationship between the statement: "The beneficiaries participate in the re-engineering of the current work procedures to apply the system" and the beneficiary's satisfaction with the application of a 0.01 supply chain management system, and a. beneficiaries participate in the update data necessary for the application of the system "and the satisfaction of the beneficiary on the application of supply chain management system as the correlation 0.388 level factor of significance 0.01 and conclude that there is a positive medium relationship between the participation of the beneficiaries of the chain management system supply in the business application system) test planning The design of (the beneficiary's satisfaction with the implementation of the supply chain management system, as the participation of the beneficiaries in the implementation of the system, increases their acceptance of responsibility for this application's success, which in turn increases the application of the system.

6. Conclusion and Recommendations

Many governmental organizations have recently applied a supply chain management system to raise the efficiency and effectiveness of task and improve their performance with reducing time & cost to reach win – Win strategy.

This study examined the success factors of implementing the supply chain management system in governmental organizations in Saudi Arabia.

Studying the relationship of these factors with the beneficiary's satisfaction is one indicator of successful implementation.

This relationship was examined by distributing a questionnaire to a sample of the employees of the target organizations. After analyzing the data with SPSS, the study found:

According to the total weighted average (4.04), employees positively tend towards top management's support in their accusations of implementing the supply chain management system. The employees' attitudes and opinions indicate the tendency towards approval towards the positive effect of the participation of the beneficiaries in the supply chain management system for applying the system in business (planning, design, selection), with a total weighted average of (3.97).

There is an agreement between employees indicating a positive trend toward the clarity of strategy for implementing the supply chain management system with a total weighted average of (3.97).

The results also show that employees agree on selecting the supply chain management system (software) towards the beneficiary's satisfaction, with a total weighted average (4.07).

Also, there is a weak positive relationship between the role of top management to guide employees and motivate them and the satisfaction of the beneficiary on the application of supply chain management.

A positive and significant relationship between the clarity of the strategy and the beneficiary's satisfaction.

A positive and significant relationship between the good choice of the system and the beneficiary's satisfaction

A positive and meaningful relationship between the beneficiary's participation in the system's implementation and the beneficiary's satisfaction.

This study aimed to prove the positive impact of some of the main factors on implementing the supply chain management system in governmental organizations due to their effective role in achieving the set goals. The Data that were statistically collected and analyzed on the validity of

the study hypotheses in terms of the existence of a relationship between some of the success factors of the application of the supply chain management system and the satisfaction of the beneficiaries:

1. The importance of considering the preparation of the good work of the application of government supply chain in the management of organizations before the implementation of those projects through access to financial and moral support from the top management of good selection of appropriate systems, in addition to the preparation of human resources based on the implementation of those projects.
2. Ensure a clear and specific strategy regarding implementing the supply chain management system in the relevant government entity and ensuring that this strategy is consistent with its mission and vision, and vision.
3. The necessity to involve the beneficiaries of these systems in the implementation process impacts the project's success. This is during the various stages of the project, especially in re-engineering the current work procedures.
4. The exchange of experiences gained between the different government authorization (which have previously adopted such systems), especially since there is a very great similarity in applying those projects, and sometimes the many.
5. Studying the impact of the other application success elements, such as change management, project management, selection of the implementing agency, availability of structure, and others.

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