

STUDY ON THE TOPIC IMPACT OF ENTERPRISE RESOURCE PLANNING ON SUPPLY CHAIN MANAGEMENT

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In

INTERNATIONAL TRANSPORTATION AND LOGISTICS
MANAGEMENT

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CERTIFICATE

This is to certify that the dissertation titled – **STUDY ON THE TOPIC IMPACT OF ENTERPRISE RESOURCE PLANNING ON SUPPLY CHAIN MANAGEMENT** is a bonafide record of project done by Aneeta Mary Mathew. It is also certified that the above work has not previously formed the basis for the award of any degree, diploma, fellowship or other similar titles, and it is an independent work done by the student.

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DECLARATION

I, ANEETA MARY MATHEW (Reg.no: 1905305009) student of School of Maritime Management, Indian Maritime University- Kochi Campus hereby declare that this project report titled “A STUDY ON IMPACT OF ENTERPRISE RESOURCE PLANNING IN SUPPLY CHAIN MANAGEMENT” submitted in partial fulfillment of the requirement for the degree of **Master of Business Administration in International Transportation and Logistics Management** is my original work carried under the guidance of my project guide. It has not formed the basis for the award of any degree/diploma or associate ship of any University/Institution. The information submitted is true and original to the best of my knowledge.

Date: 29/06/2021

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Place: Ernakulam

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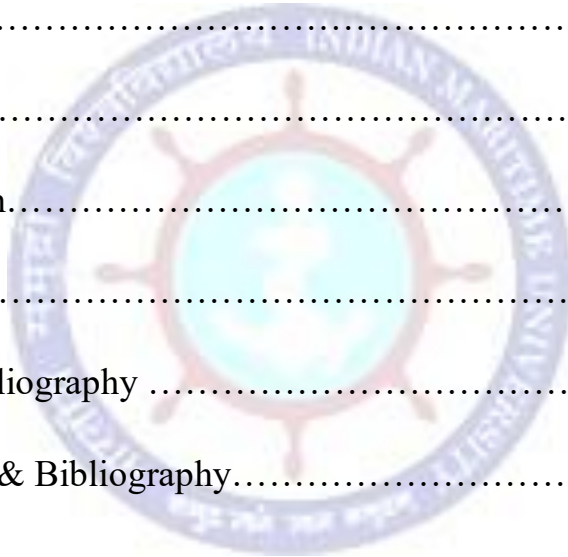
I express my sincere gratitude towards my faculty guide Dr.Sreejith.U, professor IMU for the whole hearted cooperation and support. And I thank all the staff of IMU Kochi campus for their whole hearted cooperation and support.

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ABSTRACT

To survive and remain ahead in the present serious world organizations are pushed as far as possible in search for organizational abilities and technologies. Of those Supply chain Management and Enterprise Resource Planning are the two most essentially utilized terms. To remain and survive in the competition organizations are compelled to speed the production, reduce their expense and improve performance. These three components go connected at the hip and to accomplish these factors, information exchange from both inside and outside assumes the key part. Supply chain management is the term utilized dealing with this exact information in and out and ERP is the innovation utilized for accomplishing same.

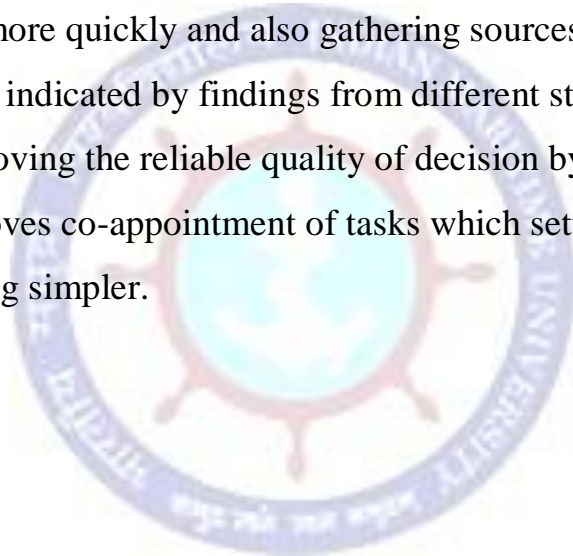
The motivation behind this exploration is to proceed in this field of study and take care of genuine issues with ERP execution. With the approach of globalization ERP programming has arisen as a significant space of interest for some business associations.

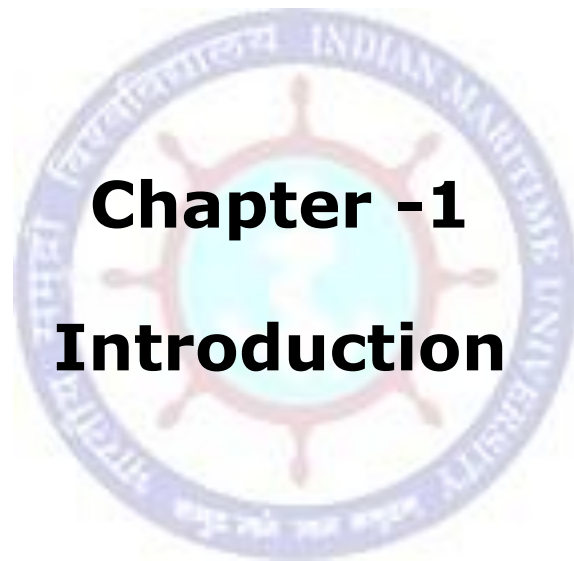
There are two principle research directions in these examinations which include: first, how to carry out ERP system in an enterprise and second, what are the benefits of this system in settling variety of issues an organization may experience.

The primary area, on which the vast majority of the studies have effectively engaged, contains concentrates on the asset, timing, economy and accomplishment of the implementation of ERP. Despite what might be expected, our studies addresses the elements of ERP in vital and operational levels and furthermore targets getting the significant challenges and drawback on implementation of ERP frameworks into an organization.

The outcomes recommend that ERP systems in its present status have a modest task to carry out in getting supply chain integration and management. With the significant improvement in the field of communication and IT arrangements we can expect a period shift where numerous solutions could be accessible for better interfacing of ERP systems and thus which can help in accomplishing a lot better supply chain management.

Many investigations guarantee that the significant benefit of an ERP system is that it is coordinated and centralized. An ERP system offers the leaders the methods for upgrading the information about the interaction which thus assists with settling on solid decision all the more quickly and also gathering sources to help their decisions. Anyway as indicated by findings from different studies it is clear that ERP assists with improving the reliable quality of decision by shared cooperation of the members, improves co-appointment of tasks which settles on between related decision making simpler.





Chapter -1

Introduction

1.1 Introduction

It has been twenty years since the inward operations are being smoothed out, manufacturing support up, nature of the items are being improved, the expenses of manufacturing are being diminished however now the organizations are zeroing in on the decrease of coordination by mean of putting right supply chain techniques for the greatness of organization. Another issue comes after the cost of adjustments that are regularly made in the extension and approaches of the supply chain management (SCM), which is the coming of the network economy. These days, there is more straightforwardness in the business sectors where there is more customization added to the requests of the customers. However, it has been seen that there is consistently an addition in the costs for the business world. The improvements in the supply chain management (SCM) can significantly affect the organizations.

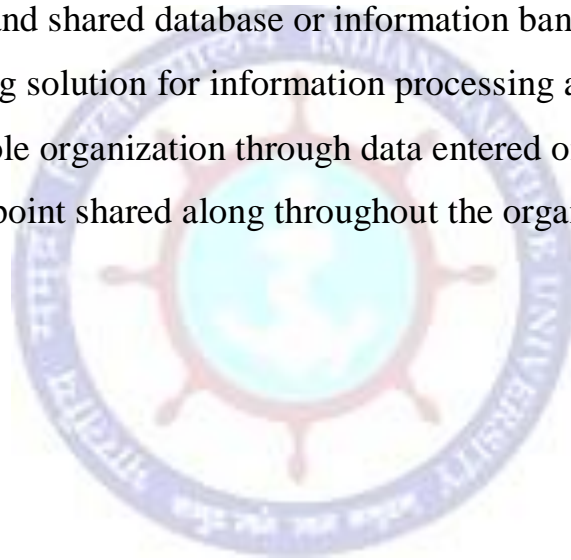
There is a fast development in the literary works that are being distributed about the models for new business following the period of internet in any case, the greater part of them have pushed upon the way that supply chain management the executives is additionally enrolled as skill component with the developing contest in the business.

It is additionally fascinating the Enterprise Resource Planning (ERP) is likewise growing in the business pipelines where the organizations are starving to make enhancements in their production supply chain management activities. Undertaking Enterprise Resource Planning is likewise considered as an extension of the Market Requirement Planning (MRP) which is being dispatched during the 1970s and furthermore the Manufacturing Resource Planning (MRP II) which was presented in the following many years of 1980s.

For survive in the present unique era, organization need to accelerate, quality and adaptability and furthermore reduce their expenses, in such conditions to make up the exhibition of organization, their opposition is essential. To accomplish such reason, admittance to exact also, significant data inside and outside the organization and productive utilization of them play the key role. To accomplish this reason, the information technology tools and information system also, compelling utilization of Information innovation is so significant, and keep the competitive advantages.

What is ERP?

Enterprise Resource Planning or ERP system or ERP programming is a solution for deal with all the information necessities and functionalities of a business firm from a centrally store and shared database or information bank. ERP addresses an integrated programming solution for information processing and generation of data and reports for the whole organization through data entered once and prepared centrally, then, at that point shared along throughout the organization.



1.2 Evolution of ERP



Material Requirement Planning (MRP) –

Created in 1970s, Material Requirement Planning is broadly used methodology for production planning and planning for business. It is the methodology installed in many commercially accessible software applications. The function of MRP is to give material accessibility i.e, it is used to produce necessity amounts on time. This process includes monitor of stocks and order, leading to automatic making of procurement proposition for buying or production. The primary goal of MRP is to determine which material is required, amount required and by when it is required.

Manufacturing Resource Planning (MRP II) –

Created in 1980s, Manufacturing Resource Planning is a development of closed circle MRP for dealing with a whole manufacturing organization. This system

gives information that is valuable to all functional area and supports cross-functional interaction. It supports sales and marketing by giving and orders promising capacity. It's a wide based resources coordination system including different areas of a firm in planning processes, like marketing, finance and HR.

Enterprise Resource Planning (ERP) –

Created in 1990s, Enterprise Resource Planning is establishment system for domestic and worldwide operations, supporting most or all useful areas in their day by day operations. It's anything but a business technique and a set of industry-domain explicit applications that form customer and shareholder communities value network system by empowering and optimizing enterprise and between enterprise collaborative operational and financial processes. ERP at it's anything but a viable method of centralizing information and work process measures through data management. Since ERP keeps the entire workflow information in one spot.

Enterprise Resource Planning(ERP II) –

Created in 2000s, ERP II is name currently use to depict ERP. Essentially, it is replacement of ERP. It's a business technique and set of collaborative operational and financial processes and beyond business. This new plans of action reflects an increased business focus on inside integration. Data in this is inside and externally distributed and subscribed. It incorporates departmental modules, CRM, SCM and different stakeholder modules.

1.3 Objectives

1. To analyze the role of Enterprise Resource Planning (ERP) in the upgrade of tasks inside the organization.

2. To analyze the role of Enterprise Resource Planning (ERP) in the improvement of operations being out limited by the organization.
3. To analyze the help of Enterprise Resource Planning (ERP) towards the Supply Chain Management (SCM) operations.
4. To analyze the role of Enterprise Resource Planning (ERP) in making the decisions in Supply Chain Management (SCM).

1.4 Aim of the study

The reason for this research is to proceed in this field of study and tackle real issues with ERP execution, and ultimately make logical tools for these systems. With the approach of globalization ERP programming has arisen as a significant space of interest for some business organizations. As organizations are increasingly more interested to execute ERP systems into the organizations, the requirement for appropriate execution of the equivalent has expanded too.

The actual benefit of the ERP itself can be depicted as its primary disadvantage. ERP permits simple access to dependable coordinated information however though its greatest disadvantage is its integration of its system which is the fundamental issue in its implementation. A few researches show that ERP will not have the option to settle on decision by itself, and some others say for settling on decisions dependent on information store in ERP, the integrity of the system and calculation enhancement is inescapable.

Then again the entire system processes and information combination organization is consistently vital tool for supply chain management and essential for implementing the process. Application for supply chain measure demonstrating in analytic layer, which should connect with ERP, will cause to executing standard

processes and supply chain cooperation. This study attempts to bring out how information transparency effect on enterprise business and accordingly reduce operational cost. This study likewise expects to learn about the ERP impacts in supply chain decision making, and absolutely ERP's role on executing standard supply chain process and SCM cooperation. This study likewise learn about supply chain issues and how to improve supply chain performance by implementation ERP.

Research questions

The study is being led following these examination questions:

I. What's the effect of Enterprise Resource Planning supporting supply chain management?

II. What's the effect of Enterprise Planning system on organizational decision making?

1.5 Significance

ERP plays a significant part in Vendor Managed Inventory. A manufacturer generates stock (VMI) is a measure where the manufacturer creates request for the maker dependent on the demand made by the distributor using ERP. During this process the manufacturer follows commonly concurred objectives between the manufacturer and distributor for filling rates and exchange costs. In such manner, some requesting model in Vendor Managed Inventory (VMI) for the retail business will be talked about, and its impact on supply chain coordinated effort component is investigated, and the interaction cost reduction as a supplier.

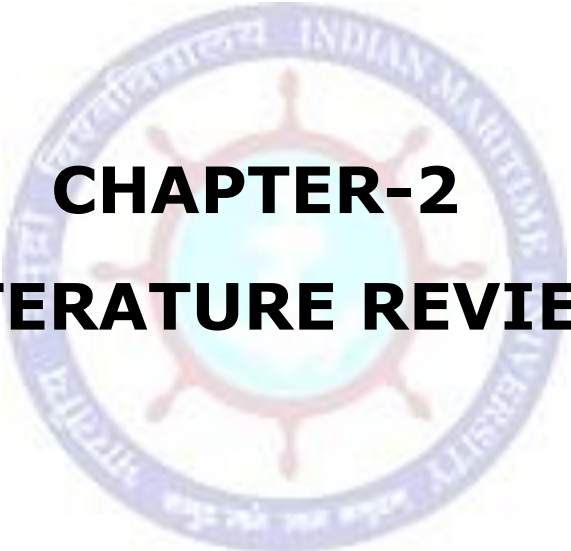
There have been various researches in the field of ERP and its benefits on its implementation. Our point is to bring out how significant is to integrate ERP into the entirety system so the system can yield long term benefits in long time run. The explanation we stress how significant is the ERP implementation be like big bang impact which changes the movement of the entire organization and proper comprehension of the system and co-activity for implementation of the system between the individuals from the organization are vital since people are willing to change yet a change however large as an implementation of ERP may be not very effectively satisfactory. Accordingly we bring out how helpful can be ERP for a larger scope like decision making and proper administration of the supply chain. Additionally our significant point is to draw out the advantages of ERP in cost reduction during requesting especially with respect to VMI.

1.6 Research Approach

The basic methodology of the study is from the available literatures on the impact of Enterprise Resource Planning on the Supply Chain Management. The study will help for the future. The study is done also by the various available literatures on the Enterprise Resource Planning and Supply Chain Management.

Data Collection

In this study secondary data are utilized. The study is utilize the past literature that are available. The literature that depends on the Enterprise Resource Planning will be evaluated while the literature that depends on the Supply Chain Management will also be accessed. The study will likewise access those literary works that are separately available about the Enterprise Resource Planning and the Supply Chain Management.



CHAPTER-2
LITERATURE REVIEW

2.1 Literature Review

It is a business management system that integrates all facets of business including planning, manufacturing, sales and marketing.

The two key components of ERP are

1. Common data base
2. Modular software design

Integration is the most important benefit of the ERP. ERP's main benefit is to integrate data and process from all areas of an organization and unify it for easy access and work flow.

Advantages of ERP system

- A totally integrated system
- The ability to streamline different processes and workflow
- Lower cost
- Improved customer service
- Better tracking and forecasting
- Improved efficiency and productivity level

Disadvantages of ERP

- Need to reengineer the business processes
- Customization in many situations is limited
- Cost prohibitive in install and run

Before ERP

It is also known as decentralized system.

Numerous data are disparate information system are developed individually over the time. So integrating the data become time and money consuming. There is duplication of data. High inventory, material and human resource cost.

After ERP

It is also known as centralized system.

Data maintained at a central location and shared with various departments.

Departments the access the data or information of the other departments. It eliminates duplication. Provide information across departments in real time.

Increase productivity, reduce material cost, better inventory management. Better customer interaction, improves customer service.

In the Delphi study on the future of the ERP in supply chain management, first the executives find that

- (1) further integration of processes among suppliers and customers across the whole supply chain
- (2) on-going changes in supply chain needs and required adaptability from IT
- (3) more mass customization of items and service prompting increasing groupings while diminishing process durations and inventories
- (4) the locus of the driver's seat of the whole supply chain
- (5) supply chains consisting of a few free enterprises.

Second findings are ERP was viewed as offering a positive contribution

- (1) more customization of items and services
- (2) more normalized process and information

(3) the requirement for worldwide IT systems

(4) more transparency of the commercial center.

The following key findings of current ERP systems in giving effective Supply Chain Management support arise as the third finding from the study

(1) their inadequate extended enterprise usefulness in crossing organizational limits

(2) their inflexibility to consistently changing production supply chain needs

(3) their absence of functionality beyond overseeing transactions.

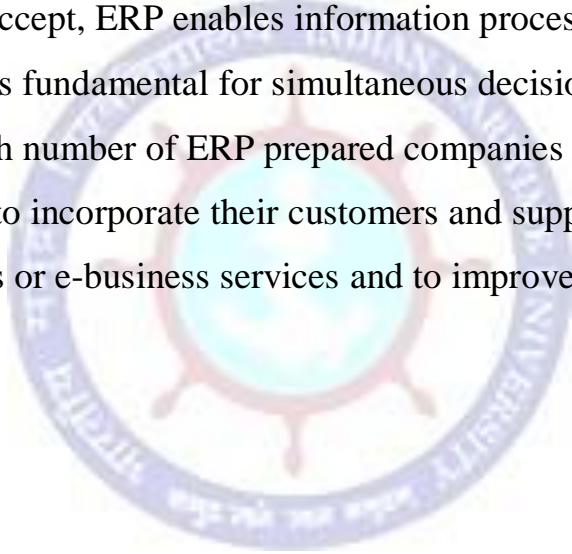
(4) their closed and non-measured system engineering. These limitations come from the way that the first generation of ERP items has been designed to integrate the different activities of an individual firm. In present day SCM, however, the unit of analysis has become a network of organizations, delivering these ERP items inadequate in the new economy.

This from the study of ERP on SCM by the European Delphi Study

Managers in different industrial fields, particularly in the manufacturing area, are attempting to have a superior control over the supply chain. To accomplish this techniques, administrators attempt to utilize successful strategies and methods like lean production, just of time (JIT), total quality management (TQM), and Enterprise Resource Planning (ERP). Firms with information advantage as well as successful SCM are more likely to have a superior control over their suppliers.

With this in mind, different firms in many countries have been interested in IT in permuting the construction of domestic and worldwide market businesses. A decent number of organizations and companies have focused on or effectively satisfied the implementation of ERP systems. This system is particularly designed

to coordinate with different business processes. Huge investments in IT systems have enabled organizations to share significant volumes of data and information along the supply chain, making real time collaboration effort among the partners of the supply chain, as well as improving inventory management and distribution. As certain analysts accept, ERP enables information processing and data and transmission which is fundamental for simultaneous decision making and SCM skills. Besides, bunch number of ERP prepared companies have expanded the scope of the system to incorporate their customers and suppliers into the system to give more e-business or e-business services and to improve the functionalities of the supply chain.





CHAPTER-3

RESEARCH DESIGN

3.1 Role of ERP in SCM

In this part, we will deal the benefits acquired by the implementation of ERP over the supply chain the management and how ERP system helps on organization to make decisions. Then, at that point we will deal with the coordination, cooperation and integration in the supply chain. And afterward we will continue by considering helpful components including vendor managed inventory (VMI). Hence, we will look at the role of ERP systems in making the information structure, process backing and cooperative components in the supply chain.

NETWORK ECONOMY

Supply chain network is an organization which comprises of supplier, manufacturer, distributor, customers and numerous others. There are three types of flow which needs close co-activity and co-ordination.

1. Material flow – This is a physical flow which addresses the movement of item from supplier to customer just as the movement of item from customer to supplier in instance of servicing, repairing and so on
2. Information flow – This is a flow of information which addresses the transmission of orders, following of order and so on. This information flow is consistently co-ordinated with the physical flow of products.
3. Financial flow – This flow addresses the credit terms, payment and transfers and other possession arrangements. This flow requires highest level of co – activity between the individuals from the supply chain.

These networks of organizations are thus upheld by the three main pillars.

1. Process which decide the company's capacity to manage coordination foster new item and knowledge management.

2. Organizational design which decides the connection between the different individuals across the supply chain. This structure can be classified vertical integration and horizontal incorporation.

Innovations used by the organizations which help in easing out the activities identified with process furthermore, organizational management.

3.2 BENEFITS OF ERP ON SUPPLY CHAIN MANAGEMENT

An ERP framework can offer high worth to any organization whose point is smooth planning and execution of related activities to accomplish long term benefit and keep a strong competitive edge. This is the primary reason an ever increasing number of organizations are attracted towards purchasing and implementation of the technologies like ERPs.

- **Improved Supply Chain Network:** ERP gives total visibility across the supply chain network which is exceptionally unthinkable in the manual process. With the implementation of ERP an organization can screen all the status and exercises of all suppliers, plants, storage spaces and every one of the individuals from the supply chain which makes it simple for communication all through the organization. This helps in successfully tracking and managing the processes, right from ordering, directly from manufacturing, and shipping to the customer. The status of all the operations can be checked whenever and correct whenever in the case of issues.
- **Minimized delays:** Many supply chains which are not designed with the ERP systems have effectively positioned complaints over poor business

connections and just as loss in business. Some of the complaints are late shipments from vendor, crashes on production lines, error in distribution channel. These all have adverse consequences on organization and result in bring about adverse consequence with the customer who are the primary attraction for a supply chain network. With the implementation of ERP all the activities can be co-ordinated and executed guaranteeing higher levels of on time distribution across the chain.

- **Enhanced Collaboration:** ERP assists organization with having an authority over all the suppliers also, distributors. This makes the capacity to understand what they are doing all the time. ERP overcomes any barrier between supply chain partners. With ERP every one of the individuals across the organization can share vital information like demand, determining reports, inventory levels, status of production, transportation plans and a lot more in on time. This kind of accessible real time information makes the supply chain process to run immaculately
- **Reduced Costs:** An ERP can assist with reduce costs from numerous points of view. It can help improve inventory management working with just in time which eliminates the strain about the accessibility of raw materials and hence the requirement for storing the raw products can be disposed of. It empowers more effective demand planning so the production levels can be set to address customer necessities without the shortage. It can likewise help to improve relationship with vendors and wholesalers, so decision makers can distinguish cost cutting opportunities.

Key roles of ERP Supply Chain Systems

Demand and Planning

Naturally creates demand when orders are placed. ERP smoothen supply chain development by making effective job scheduling. Therefore, supervisors can know continuously what resources are being consumed and which resources are utilized. This assists them to plan product delivery dates.

Procurement

An ERP Supply Chain Management System offers more successful approaches to manage procurement and supply of products, services and different resources across the chain. A few manual tasks like communicating with vendors or suppliers and monitoring communication can easily automate with Supply Chain ERP.

Production

The system empowers the production of bill of material for every item. After production begins, all records for machine and work resources are made and refreshed in real time. All delivery documents are recorded through the ERP Supply Chain System for appropriate management, eliminating with mistakes because of manual processes.

Shipment

When the thing has been shipped, the ERP Supply Chain Management software can make an invoice that must be finally shipped off the customer. It additionally helps in keeping a central store for customer shipments and all delivery details to guarantee that items are followed through on schedule. Moreover, functionalities in

the system helps in choosing packaging methods and set rules for quality check for both inner and outside packages.

COORDINATION DIMENSION

Supply chain management is established on the way that an organization may not successfully and productively achieve the whole process associated with manufacturing an end result out of raw materials. That is the reason the interrelationships among the supply chain individuals require coordination so that materials, information and cash would circulate properly.

Supply chain coordination happens at three levels. At the primary level, coordination happens through the coordination of cross information. At the subsequent level, supply chain coordination takes shape in the collaboration of the supply chain individuals to make a joint coordination in information and materials. More significant levels contain a portion of the components from the lower ones. The most developed level of coordination happens in the effective management of information, materials and cash to boost the formation of value in supply chain.

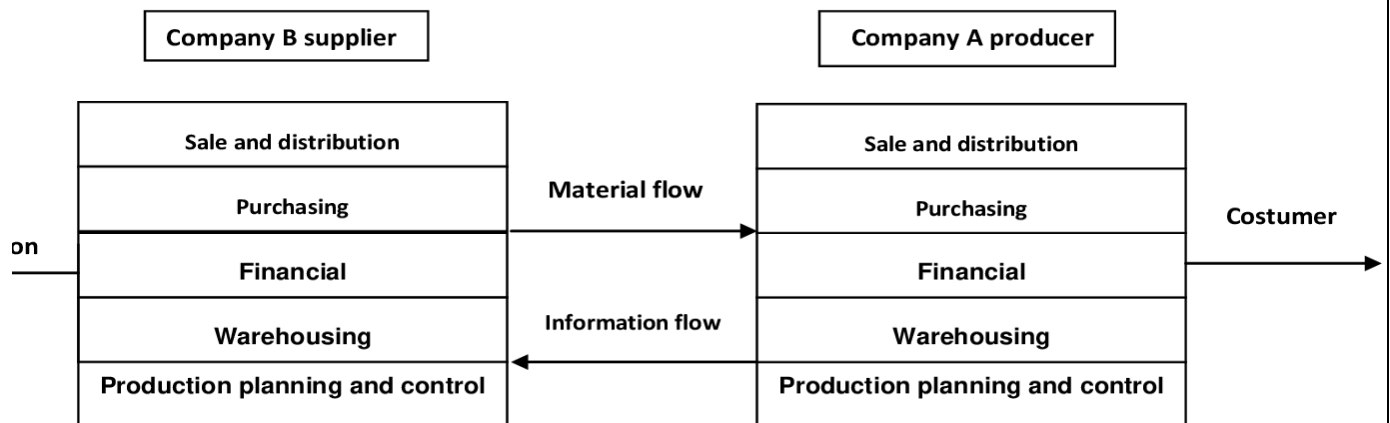
INFORMATION MANAGEMENT

Incorporation of the supply chain refers to the inward and outward integration as in inward business processes are to be incorporated and supra organization process to be joined. Incorporation of the internal chain means the intra-organizational exercises like purchase, warehousing, material management, transport and production. Regardless if intra organizational processes are completely incorporated, the competitive benefit of an organization may not continue independent of external coordination and cooperation with accomplices.

Information incorporation inside an organization happens through supporting core processes by a similar system and database. This is the strategy used to understand

the implementation of ERP system, process incorporation and enterprise information.

Information incorporation in the supply chain is a higher-request sharing of information that while it is probably going to share information using any specialized communication device, information coordination frequently indicates methodical strategies for information exchange.



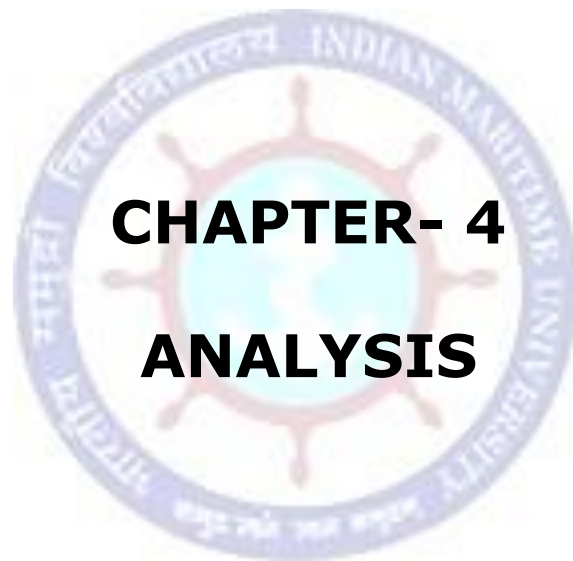
Sharing such data as information relating to point of sales from retailers or information related with the quantity of requests in two progressive stages in the supply chain may directly impact production planning, delivery and controlling individuals' supply. The fast improvements in information technology, for example, data base management system, network correspondence protocols, electronic interchange of information and internet, the progression of accurate and immediate data have been made possible. Sharing information across the supply chain might be viewed as a feedback among the supply chain individuals in the event that it is supported by information technology. A well planned sharing of information through DEI, Email and other information technology media is an answer for providing a supplier and his customer with speed, direct input, which helps the organization with utilize dynamic decision making.

Sharing information would enable different individuals from the supply chain to more readily manage with their interior processes and to improve their performance records, such issues as the impacts of information exchange on the intra-organizational processes and the arrangement of supra-organizational processes are not managed at this stage.

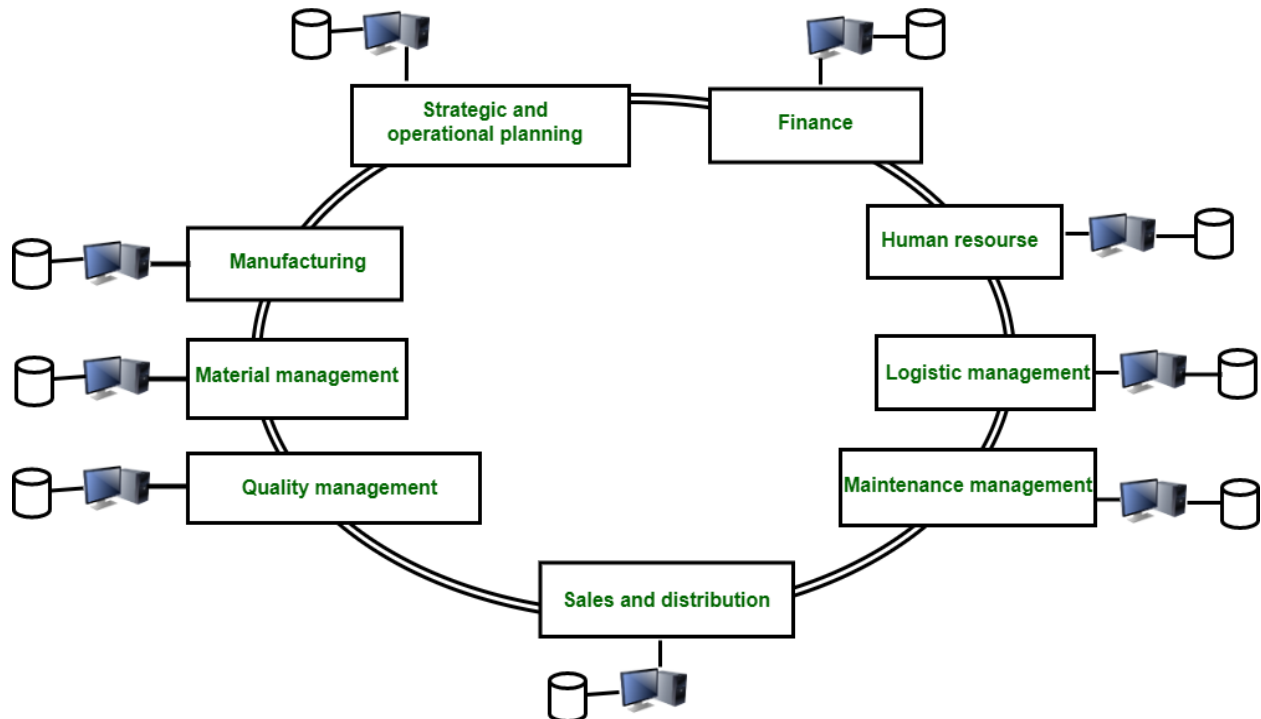
COORDINATION IN SUPPLY CHAIN

Coordination in the supply chain would be conceivable through the development of information coordination and cooperation components in the supply chain since that is the only method which creates a general image of the supply chain dependent on which it gets possible to enhance a supply chain as per its specific qualities. At this level of cooperation in the supply chain, i.e., when cooperation and coordination are acknowledged in the supply chain, the basic structure proper for making mass customization can be executed in the chain.

It will be feasible to achieve proper arrangements for estimating and discount only if the supply chain information is perfectly clear. To accomplish coordination among individuals from a supply chain, the specifics of that chain as well as the extremity of power in the chain should to be researched. That is, in the event that there is a powerful pole in the chain, it become a pioneer in the implementation of cooperation and integration in supply chain.



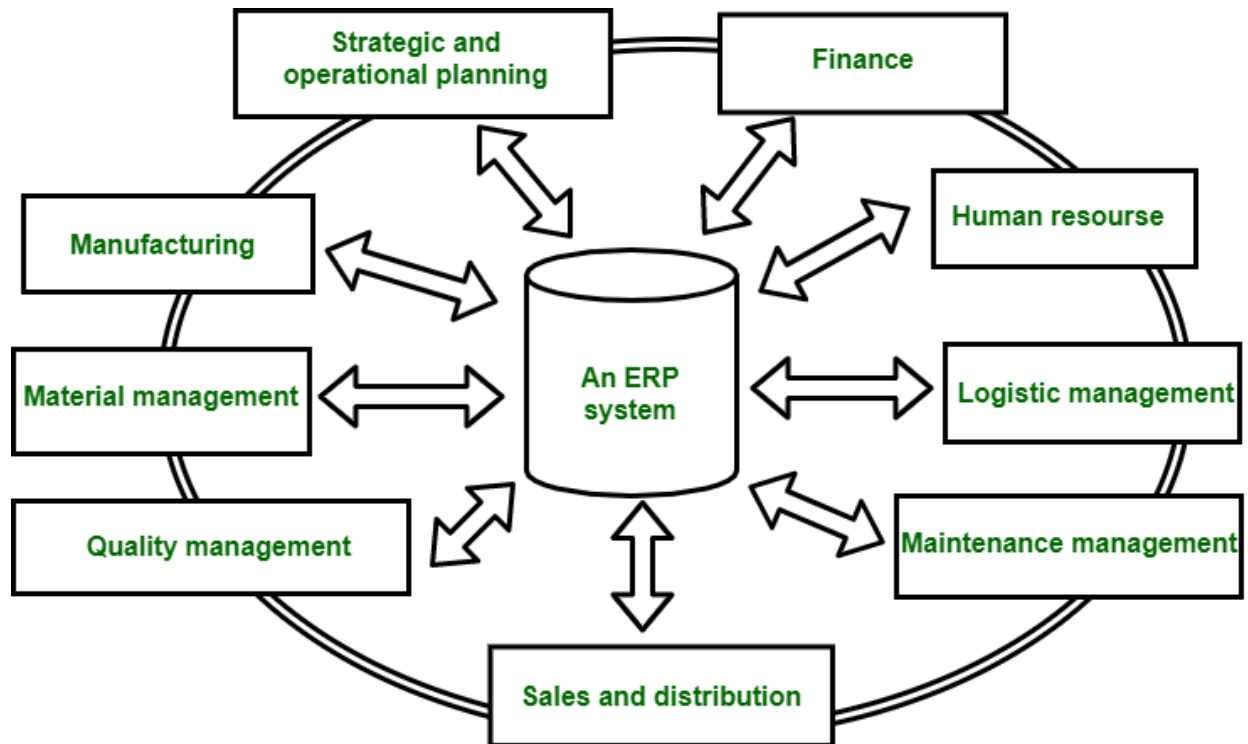
4.1 Before ERP



Prior to an ERP system, there are various databases of various departments which they are managed by their own. The workers of one department doesn't know anything about other department.

4.2 After ERP

After ERP system, database of various departments are managed by one system called ERP system. It keeps track of all the database inside the system. In this situation, representative of one department have data in regards to different departments.



The role of ERP in making the supply chain systems

To exchange data at the information level, the information resource distributed across the supply chain should be connected. Exchange at the information level can take as getting information from an ERP database to refresh another ERP database the data field of the information should be characterized in both of the database. In any case, if the data exchange is at the process level as processes in two organizations should be interrelated, the functional schedule of some of the organizational processes should be coordinated also. An illustration of this can be a situation in which the information relating to the vendor's distribution center is moved to the supplier. In this way, the data will be interpreted by the supplier's system and the distribution center stock level is lower than the admissible level, the supplier will be informed.

The logo of Indian Maritime University is a circular emblem. It features a central globe with a red and white design. The globe is surrounded by a blue ring containing the text "INDIAN MARITIME UNIVERSITY" in white capital letters. The entire logo is semi-transparent and serves as a background for the chapter title.

CHAPTER-5

FINDINGS AND SUGGESTIONS

With the rise of technology new developed programming's and architecture have been accessible for managing different operational levels in a supply chain management and one among these technologies is the broadly utilized Enterprise Resource Planning.

Different study through the literatures, it is apparent that manufacturing organizations have gone through many evolutionary changes. The idea of supply chain management has assisted organizations with compete flexibly. The significance of long term relationship has been enlightened in this work. Coordination, cooperation and integration will improve productivity not only to the manufacturer yet additionally to the supplier.

The timeliness and accuracy of request transmission and its satisfaction have always been a significant objective of supply chain management. There is a complexity in order processing due to the complexity of individuals in supply chain. This makes interaction complex and also setting a request across the complex system becomes request. Cost is a significant component in the supply chain and also playing down the cost is very essential.

The impact ERP implementation

*Improve information flow across subunits, normalization and integration facilities communication and better coordination.

*Enabling centralization of management activities like accounts and finance.

*Reduce information system maintenance cost and increase the capacity to convey new functionality.

*ERP helps in moving a firm from inefficient business process into accepted practice process.

Cooperation process situation joins up an inclusive organization of the raw material suppliers to the customers. In spite of process that utilized only to consider intra-enterprise supply chain, cooperative business processes to integrate all the steps that offer some value for the customer across the supply chain. Shared business processes have their own implication in various enterprises at various levels from the stock control to planning the product development. The supply chain information system supporting these processes hold a information structure which incorporates such components as the chain structure, product structure, forecast the demand and production stock management. These processes can be investigated from different viewpoints including the conceptual planning of collaborative business measures, the underlying technology for integration, modeling and confirmation, and adaptability.

STUDY OF ERP

These study which include first, how to implement ERP system in a company and second, what are the benefits of this system in resolving various issues an organization may experience.

The primary area, on which the most of the studies have effectively focused, includes concentrates on the asset, timing, economy and success of the implementation of ERP. There have been some studies to address the elements of ERP in strategic and operational levels. Studies on ERP are often grouped into two classifications: concentrates on the concept of ERP and studies on the system of ERP. Conceptual studies on ERP have focused on the potential impacts that ERP may have on the organization, while studies with systematic directions have assumed ERP as a tool for making a particular output.

The main classification goes for the study that research the implementation of ERP as well as issues relating to it, for example, socio-cultural components in the implementation of ERP, correspondence among ERP and business processes, ERP programming also, ERP for supply chain. The second classification includes studies that analyze the organization's benefit and performance after the implementation of ER. The third class includes studies that address the impacts of the implementation of ERP on the organizational management. The fourth classification includes studies focusing on ERP tools which envelop such issues as: system structure, programming language and information demonstrating, setting up logical relationship among ERP database tables and customize this system with actual data and states of business.

INFORMATION TECHNOLOGY

There are broad source of information's accessible which supports effect of information technology. Investment in information technology has brought about significant impact on productive levels, development and furthermore the value of business organization. There are also different works which have demonstrated that there are also sure outcomes on internal performance like inventory turnover. All these researches recommends that there are positive advantages from the implementation of IT system with successful ERP organization.

Organizations have given a significant consideration to the techniques for Manufacturing Planning and Control Systems (MPCS). The management obligations concerning the concept of MPCS include:

- Determining the requirements of a solid capacity to satisfy market demands
- Creating activities concerning scheduled production, labor and hardware composed in an appropriate function.

- Tracking materials and customer orders will support machinery planning and other assets.

MRP is a system which is probably going to help the concept of MPCS. This system, first created during the 1970s, serves as precision tools for the precise planning of materials in manufacturing also, production systems. A similar way, during the 1980s, alternative MRPII systems were presented which emphasized the optimization of production as to production assets. The primary ERP system was presented by SAP Company during the late 1980s. The system had the ability to integrate the whole business activities inside a corporation. ERP indicates a system whose modules integrate the entire processes inside an organization like planning, production, sales, marketing, distribution and accounting. It uses a similar database and function in the entire organization. ERP systems are planned dependent on customer or server technology which contains three layers of database layer, application layer and graphical user interface. During the 1990s, suppliers of these system fused new modules with new abilities into ERP. These recently added modules incorporate advanced of planning and scheduling (APS), customer relationship management (CRM) and supply chain management (SCM). Each one of the module or combined module is called enterprise system.

These days number of studies would guarantee that use of ERP may not simply solve the issues presented in business conditions, but instead, these systems should be coordinated with other enterprise system. Such advances as programming system, database and decision support system (DSS) utilized in advanced ERP systems are not really developed by ERP suppliers themselves; rather, they are recently established technologies incorporated with big business system by ERP-designer organizations, and accordingly these systems have acquired a higher

importance. This hypothesis has helped develop a second era of Enterprise Resource Planning (ERP II).

ERP AND DECISION MAKING

Studies show that ERP alone has a positive effect of different decisions. ERP's advantages in operational dynamic in the field of design process, programs planning and production operations, warehouse management, quality management and HRM.

During recent years, businesses spent billions of dollars to implement and utilization of ERP, identify implementation objectives of ERP and usage planning for ERP is one of the basic variables for successful implementation, for example, standardization of business processes and coordinating operations with the information are primary objectives of ERP.

ERP incorporates the inside processes inside an organization; hence, it's anything but a chain the management viewpoint. In any case, this integration gives organizations with an instrument for the integration and optimization of the supply chain. To effectively coordinate the supply chain, organizations need to exchange a lot of programming and operational information so that through facilitating with the prompt availability of individuals to such information as production planning, delivery of materials and retail location, the supplier customer relationship will be improved. ERP structure may not support business models across the supply chain. Be that as it may, taking a macro level viewpoint on the supply chain and utilizing such technologies as internet and Extended Mark Up Language (XML), organizations might be fit for distributing the processes all through the supply chain. A basic factor in supply chain management is to use ERP system in

coordinating the information relating to the chain individuals. However, due to the presence of discrepant ERP systems in various enterprises, this factor has endured numerous challenges in the supply chain. In short an ERP system gives an organization with the following benefits:

- Reduce operational expenses and improve effectiveness
- Gain better visibility of exchanges across the enterprise
- Make better business decision
- Deliver the perfect item at the perfect time
- Keep customer guarantees
- Adopt producing best practice, including lean

In numerous cases, researches have accepted ERP as a basic structure for other enterprise system, especially the supply chain management. In certain cases, organizations have drawn on the data separated by Extraction, Transformation and Loading technique (ETL) from ERP databases to show as well as recreate the supply chain organizations and make on strategic decision. There have been studies to investigate the usage of hidden informational ERP systems in implementing supply chain management dependent on Supply-Chain Operations Reference (SCOR), which recommend that it is unavoidable to utilize the data relating to the supply chain management, extraction and the concentrated information in enterprise databases because the data is supra-organizational.

Exploration points on decision supportive systems can be divided into three classifications:

The first classification includes studies that focus on information recovery. From the first, the database of decision support system (DSS) were unstructured records, however they were displaced by logical databases then. There are new storage

technologies, for example, information warehousing, on the online analytical processing (OLAP) and report generator, which are utilized for recovering data. The second classification incorporate studies that look to explore the development of decision making models including optimization models as well as statistical and logical tools which use such projects as Visual Basic for modeling and characterizing decision making processes. The third classification incorporates studies that deal with the information concerning decision making, presentation and assisting the decision maker to choose potential option for decision making, perceiving the results of each one of these options. A few of the strategies, utilized for problem solving in decision support system and explored at the pertinent knowledge levels.

Studies are effectively done to help improve understanding of the ERP decision making. Anyway there still remaining concerns over the suitability of the ERP software. Ability to deal with the confusion must be acquired through experience and Managers are posted on their seats based on their degree of experience. Anyway ERP can help in helping the authorities in decision making. ERP systems can help in decision making and in this part we have assembled some of the benefits acquired by ERP system which helps in quick decision making. In the current business environment data is the key advantage of an organization. In the event that the organization doesn't have an effective system that gives the decision maker the required or the right data at the right time, then the chance of that organization prevailing in the future will stay a secret.

The essential fundamental qualities of data are accurate, importance and timeliness. The accessible information must be reliable and applicable for the decision maker to settle on decision at right time. In the changing industry environment the time accessible for organization to respond to the change in

market trend is very little. With the implementation of ERP system, the organization will actually want to work as a single substance and takes into account the requirements of organization as whole. The strength of an ERP system is integration and automation and that is the reason implementation of ERP will help in improving accuracy and in better decision making. For instance resource management is one of the greatest issues frequently experienced by the managers and through the data system, it is possible to resolve the issues and move the necessary resources with in most brief possible time. Consequently the process isn't stopped and the time is likewise saved.

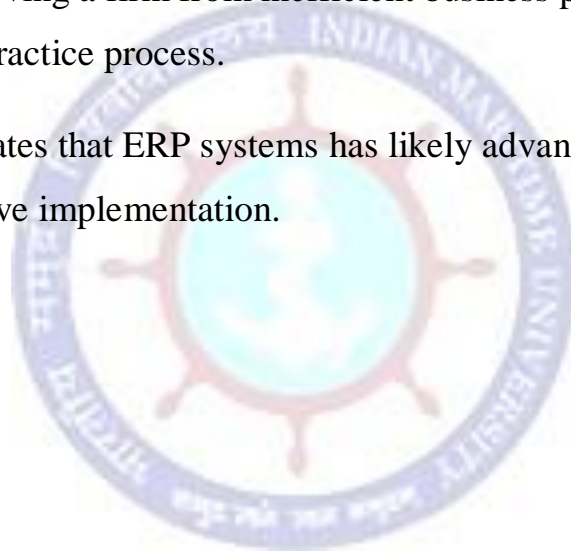
Integrating ERP systems with decision support system bear a few benefits including the improvement in clearness and quality of information, upgrade in understanding and the limit with regards to the implementation of supra-organizational decision making. ERP systems can be used to gather and consequently integrate different, discrepant information from various corporate divisions; in any case, they may not be analyzing these information for making specific decisions inside a enterprise. Consequently, the integration of ERP systems with decision support systems through utilizing Enterprise Applications Integration technologies (EAI) helps changes the information into knowledge. The integration of decision help systems with ERP systems makes it conceivable to separate the integrated information from a database and then to find the patterns and interrelations of the data, thus the transformation of the information into knowledge.

The effect of ERP execution consistently branch out into four classes.

- Improve information flow across subunits, standardization and combination of facilities communication and better coordination.

- Enabling centralization of managerial activities like account and payroll
- Reduce data framework upkeep cost and increment the capacity to send new usefulness.
- ERP helps in moving a firm from inefficient business process into acknowledged practice process.

These above studies states that ERP systems has likely advantages on the organization on effective implementation.





CHATER-6

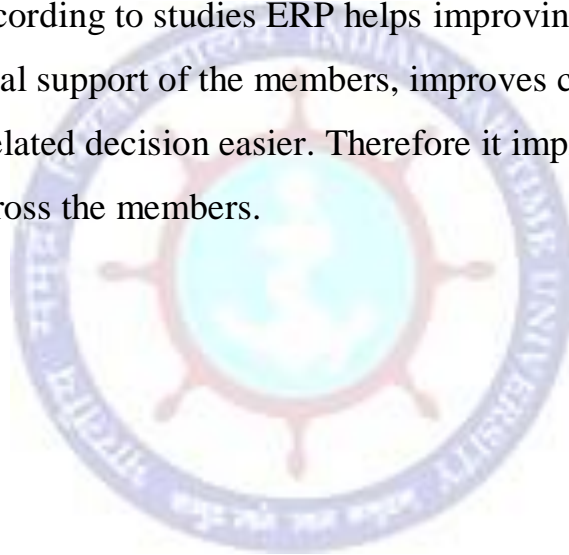
CONCLUSION

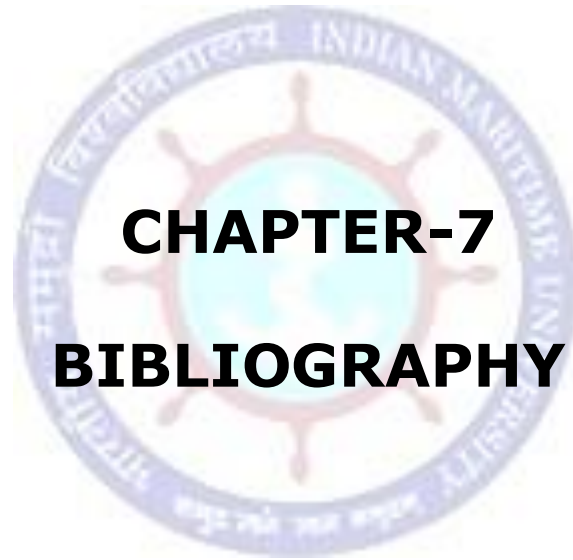
In this study, we contemplated enterprise resource planning (ERP) supply chain management systems and decision making system. In the review of literature that how ERP impact on supply chain management. The past findings recommend that this system has effectively solved some of the supply chain issues yet not others. Few studies have shown that ERP systems are a basic part of the organizational system. In this study, research is how ERP systems can be utilized to make the underlying information structure of the supply chain. This fundamental structure can be considered as the center transactional layer of different systems. The transactional layer has been made by connecting ERP systems. It is feasible to solve the supra-organizational issues of the chain through processing transactional information. In this manner, the analytical layer which supports decision making and supra-organizational issues must be made through a information structure or the transactional layer. As such ERP isn't sufficient to solve all the issues of the supply chain; in any case, there are a few consideration that make ERP an essential for analyzing the supply chain issues and organizational decision making, including: sharing immense information in the supply chain processes, the ability to absorb this data in the organizational and utilizing cross-organizational data in addition to intra-organizational data in the chain processes. In short, ERP is a system which helps commercial region like money, logistics, sales, production and distribution and etc which are interrelated with one another so that if an action is enrolled at one place it reflects immediately at all other places. The analytical layer should be made considering the enterprise strategic and strategic issues and their role in supply chain. ERP also has some significant drawbacks which are over shadowed by its benefits. ERP focuses around production level and in this way they have a weak analyses. So it is most important to have highly skilled experts to

use the software in the planning level. Another detriment is that ERP systems are so costly and complex and hence it becomes harder to implement on various systems. Along these lines the significant requirements of an ERP system is that it needs to fit with all other information systems and should be adaptable and simple to change with the difference in processes and tools of any layer of a system. It needs re-designing in all the processes and tools in a business part and this according to our findings it has been the greatest disadvantages of ERP systems. As per our findings the findings coordination and operation of ERP systems with different systems depends absolutely upon skilled operators and laborers. The significant conclusion from the findings is that should very little assistance from ERP on supporting supply chain management in broadened enterprises. It was astonishing that ERP has become a standard though having a major benefit. After the establishment of ERP into an organization a process direction happens which will act as a back bone however inside a single organization business regions and supply chain management. However, ERP systems are not compactable to help SCM across various enterprises and along these lines IT solutions are required. The rise of IT solutions has encouraged the implementation of ERP across its limits. Development of internet and communication systems will help interfacing the individual ERP implementation. According to the studies ERP systems in its current state have an modest role to carry out in acquiring supply chain integration and the management. With the significant improvement in the field of communication and IT solutions we can expect a period shift where numerous solutions could be accessible for better interfacing of ERP systems and thusly which can help in achieving great supply chain management.

The significant benefit of an ERP system is that it is coordinated and centralized. An ERP system offers the decision maker for upgrading the information about the

process which helps to make reliable decision more quickly and gathering sources to help decisions. It also assists managers with taking care of more large and complex issues. According to studies ERP helps improving the unwavering quality of decision by mutual support of the members, improves coordination of task which settles interrelated decision easier. Therefore it improves the fulfillment of decision process across the members.





CHAPTER-7

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