

IMPACT OF ERP ON SUPPLY CHAIN MANAGEMENT

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Abstract- SCM is the management of the flow of goods and services, raw materials and finished goods from point of origin till consumption. Supply-chain management has been defined as the "design, planning, execution, control, and monitoring of supply chain activities with the objective of building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally. ERP system is an significant tool for information flowing, business processes planning, executing and controlling etc. SCM practices are extroverted doors of the companies in order to ensure mutual advantages in their own processes. Well implemented ERP systems and SCM practices are helpful in decision-making, planning, execution and also help in increasing the performance of firms. In this paper we will be discussing about various strategies and how to have good impact by choosing the best one.

Keywords- Supply chain management, Enterprise resource planning.

1. INTRODUCTION

Supply Chain Management is the procedure of stream of items and administrations which starts from the crude materials and finishes with the items utilization at end client. Each unit that partakes in the process must mean to limit the expenses and help the organizations to enhance their long haul execution, while likewise making an incentive for its partners and clients. The objective or target is to expand productivity driven esteem and responsiveness-driven an incentive in the meantime. The beneath figure demonstrates the stream of item, administrations and data from the maker to customer. A perplexing execution administration framework incorporates numerous administration forms, for example, characterizing targets, correspondence, arranging, observing, revealing and criticism. The organizations must comprehend which client needs or desires are not being met. And after that, set up change objectives, and actualize essential enhancements. Notwithstanding that, they likewise confront difficulties, for example, to comprehend expenses and benefits on an item, to be adaptable in changing business necessities, and to be illuminated about administration basic leadership procedures and alterations in methods for working together. Endeavours rely upon various sorts of data frameworks for overseeing routine business and settling on choices, for example, client relationship administration frameworks, production network administration frameworks and venture asset arranging. Store network administration frameworks causes associations to upgrade their associations with production network individuals and partners. Along these lines, the incorporation amongst ERP and SCM frameworks is a key to trigger the business execution of the organization.

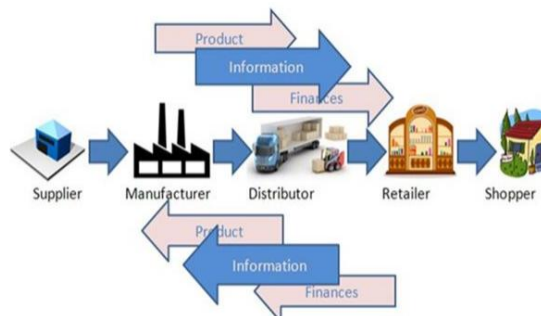


Fig 1. Supply Chain Diagram

2. BENEFITS OF INTEGRATING ERP AND SCM SYSTEMS

Software companies play a major role in integration of ERP and SCM systems. ERP refers to managing business information, integrating various systems and working processes, and ensuring best operational efficiency.^[2] It strengthens supplier relations which is important in businesses. It is needed in establishing a single extensive supplier view. By following some simple rules, companies can increase the chances of its success. Businesses must recognize many potential benefits of enterprise resource^[4] Some benefits of integration of ERP and SCM systems are as follows:

- Improved efficiency and productivity, lower costs for across multiple departments and organizations working within supply chain.
- Better customer service for increased customer.
- Increased capability to manage resources through a automated workflow.

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- Enhancement of speed of tasks and increase in production by through IT.
- Flexible supply chain solutions that can be readily adopted to meet the needs of changing circumstances or future business growth and expansion.

ERP systems play a key role in numerous features of the creation and maintenance of a exceptional Supply Chain Management process, which may include^[4]:

2.1 Supply Chain Planning-

Supply chain planning consists of choosing marketing channels, ways of promotions, determining the quantities of stock and inventory, and production policies. ERP systems offer a simple way to establish and modify the parameters within which a supply chain operates.

2.2 Purchasing, Acquisition and Execution-

ERP software applications which have high features provide a more effective way to handle acquisition and supply of the goods, services and other resources that are needed across the supply chain. From manufacturing and warehouse resources to transportation and execution processes, ERP systems offer cross-platform visibility on all aspects of the supply chain.

2.3 Monitoring and Maintenance-

The ability to supervise, review and modify supply chain efforts and activities in real-time is essential for ensuring your business is able to maintain the plasticity needed to stay in the edge and ensure cost-effective operations.

2.4 Measurement and Assessment-

Comparing actual activity against projected goals and targets can be all but impossible for those who rely upon a supply chain that utilizes multiple stand-alone systems and workflow processes. ERP systems offer exceptional information collection and organization to make sure that any unwanted inconsistency throughout the supply chain are quickly identified and effectively addressed.

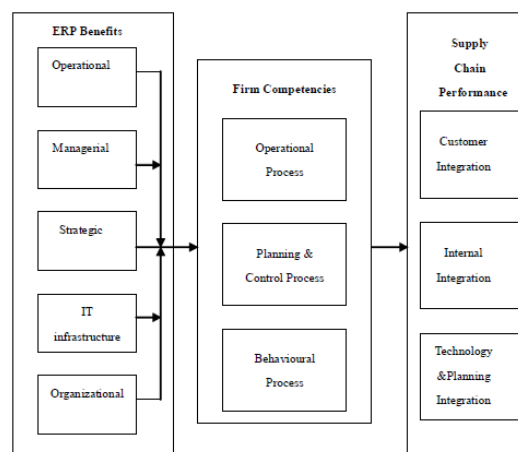


Fig 2.ERP benefits, firm competencies and supply chain performance.

3. INTEGRATION OF ERP AND SCM

ERP and SCM systems provide numerous benefits to an organization in terms of capabilities and functionalities. The integration of SCM and ERP allows to obtain greater transparency into all operations while increasing speed, efficiency and customer satisfaction. When it comes to SCM, businesses need to interact with suppliers and partners in order to obtain the raw materials and resources needed to bring finished goods to the market. ERP plays a vital role in encountering inefficiency, reducing waste and ensuring that workers are able in their work. The integration of both systems can be challenging but it is up to you to ensure that you and your staff fully acknowledge the role of ERP within the SCM process. The integration provides both intra-organizational and inter-organizational benefits. It also provides considerable edge over competitors.^[2] The integration of ERP and SCM systems can be made easier with the following considerations:

3.1 Implementation cost-

Companies must consider and evaluate the cost impact of both systems that are being integrated.

3.2 Business priorities-

Should be able to decide on which on to implement first among ERP or Supply Chain. In most cases, ERP starts with finance and business workflow, and companies build on from here.

3.3 Total cost of ownership-

There can be huge cost savings and also good user experience if both systems processes are merged to reduce the points of data capture.

3.4 Technology issues-

If the ERP and SCM systems are on identical technology platforms, integration is easier. Hence, ROI (Return On Investment)time is reduced.

4. STRATEGIES

4.1 Receive a request driven planning in view of ongoing interest-

The correct planning tools will guarantee an entire view and a effective response to dangers, for example, suppliers leaving business, real changes in governmental issues, normal cataclysms and so on. At that point organizations can change evaluating and advancements methodologies as indicated by current request, drive income development, or grow edges for appeal item with restricted market supply.

4.2 Build a versatile and sharp inventory network with fast arranging and coordinated execution-

When administrators can better understand and demand and hazard, they have to adjust their supply chains to changing business sector openings and occasions. Organizations must convey dynamic arranging capacities and persistently tweak operations to guarantee responsive readiness to take care of evolving demand.^[6]The old model was to hold up until the point that the finish of the month or quarter to move generation and supply in light of shipments and deals. The new model calls for more constant, dynamic store network acclimations to quickly react to showcase changes. This can limit or even dispense with stuns over the supply organize. The outcomes incorporate better visibility; upgraded coordinated effort over the esteem chain, including solid and unsurprising sourcing and supply, fabricating, transportation, warehousing, and appropriation; and quickened basic leadership with better investigation and support. In addition, product innovation and competitive advantage increasingly stem from the selection and management of suppliers and technologies. If a company can manage the information, people, processes, and decisions regarding a product throughout its lifecycle, it can achieve strong results and market leadership.

4.3 Streamline product plans and product administration for supply, assembling, and maintainability to quicken beneficial advancement-

Innovation is significant for being one step ahead of competition. In any case, advancement doesn't exist in a vacuum. To be fruitful, products must be made at the correct cost, place, and time. Plans must be enhanced for supply, manufacturability, and production network operations. Every obvious cost to convey must be precisely caught and broke down to keep up balance over the end- to-end business. Also, product innovation and competitive advantage progressively comes from the determination and administration of providers and advances. In the event that an organization can deal with the data, individuals, procedures, and choices in regards to an item all through its lifecycle, it can accomplish solid outcomes and market administration. There's no preferable approach to accomplish this over with consistent and clear cooperation forms over the end- to-end store network from interest, the market, and clients back to assembling and providers.

4.4 Adjust your supply chain with business objectives by incorporating deals and operations planning with corporate business arranging-

Despite the fact that deals and operations planning processes provide coordination among sales, manufacturing, and conveyance, there still are disconnects and holes among fund, system, and operations in many organizations. One approach to connect these holes is with coordinated business arranging that includes individuals, process, and innovation components of the business. This procedure coordinates budgetary vital planning and anticipating frameworks with operations arranging and enables shrewd exchange off choices to be made for the business. The subsequent marriage of end-to-end forms guarantees income objectives and spending plans created in fund are approved against a detailed, bottom-up operating plan and responsively executed. Simultaneously, the methodology accommodates the working arrangement against money related objectives. Genuine coordinated business arranging—made conceivable with cloud innovation—associates deals and operations arranging forms with corporate business arranging and empowers organizations to accomplish the right balance of supply and demand, lined up with vital business objectives. It gives continuous visibility to all the key measurements for progress—request, supply, product, hazard, and execution—over the association and all through the broadened inventory network.

4.5 Guarantee a dependable and predictable supply-

Without solid supply to client-facing stakeholders to meet settled-upon benefit levels, a producer will tend to hold inventory buffers to guarantee meeting client benefit levels. This costs the business and even may mean the wrong items are at an

unlucky spot, bringing about supply deficiencies. Taking a shot at ceaseless change and operational excellence methodologies is an establishment for fruitful end-to-end store network operations.

5. CHOOSING THE BEST STRATEGY

For organizations which have already implemented an ERP system, the collected information of the organization's existing workflow and processes may be used in order to build a more effective SCM process. Businesses that already use multiple stand-alone supply chain management systems stand to benefit from the integration and implementation of an ERP system that offers cross-platform access to the inventory, financial and manufacturing information needed to design a SCM process that will offer best performance. There are no specific rules when it comes to determining which system to implement first.^[5] Here are some tips to keep in mind before selecting best strategy.

5.1 Get upper management support-

Companies that are likely to struggle the most with ERP are the ones that lack upper management level involvement. Executives don't need to know every single configuration detail. But they need to be aware of the issues that are causing delays to the project. Without senior level support the lower level resources tend to not to implement project.

5.2 Don't forget mobile users-

Choose an ERP solution that allows users to be productive on their phone. And at the same time will ensure information security.

5.3 Make a clear and extensive list of requirements-

This should be done before you look out for vendors.^[1] You need to begin by carefully defining the scope of your project. Aim at particular business processes and system requirements. The more specific you are in your approach, the more detailed your vendors can be in their proposals. You also need to be clear before selecting your ERP system since projects that are not defined properly can lead to poor implementation.

5.4 Get reviews-

Ask the customers for the positive and negative feedbacks.. If a vendor can't have at least 5% of, happy customers, they may not have the experience you need. Similarly you can also ask colleagues for ERP recommendations.

5.5 Appoint an internal ERP product executive-

Do not rely on the vendor-appointed project manager only. Have someone in your staff for this. Select someone within the organization, who knows how to manage software systems, to serve as the project manager. That person shall be responsible for collecting all the user requirements, working with the vendor on data conversion, learning the new system properly and coordinating training to all employees. Provide the required time and resources for training on the ERP system. Identify department-specific needs, allowing for sufficient time to develop and deliver training programs.

6. CONCLUSION

ERP and Supply Chain Management frameworks offer different advantages to an organization as far as capacities and functionalities. The ERP framework gives intra-organizational and Supply chain gives inter-organizational advantages. For associations that have officially actualized an ERP framework, the gathered data and full scale perspective of the association's current work process and procedures might be utilized as a part of request to develop a more compelling and productive SCM process. ERP practices do not have any consequence on competitive edge but they have a positive impact on firm performance. The plan should be such that the company should gain advantage and not be in loss. An experienced team must be set in every company to make proper planning. By integrating SCM practices and ERP it is possible to increase the performance and competitive advantage. In order to achieve greater competitive lead, managers should adopt SCM practices.

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