

Survey on System Application Product (SAP)

Bubere Arfat, Ravindra Mhatre

Abstract - After the awake of globalization the business dimensions are very rapidly changing. The country specific challenges are added with the world economic conditions. No a part of business no matter the dimensions of operations remained unaffected by the world situations. This has compelled Indian Automotive component manufacturing Industry to vary the way of winding up business drastically. that they had to leverage on the globe class systems to be competitive, sustain in Global market and win in future. Process integration and a seamless flow of knowledge and data between various functions became the key to performance. A right choice of Enterprise Resource Planning (ERP) application was required to deal with this need. There are multiple enterprise resource planning (ERP) Applications are available within the market viz. Oracle applications, SAP, JD Edwards, PeopleSoft, Microsoft etc. SAP may be a proven and widely used ERP application which is capable of integrating multiple business modules, with each module representing a selected business function. Various modules in SAP application update and process transactions in real time mode. it's the flexibility to be configured to fulfill the numerous needs of the business..

Key Words - System application product, Enterprise recourse planning tool, organization, vision, mission, operational performance.

1. INTRODUCTION

With the awake of Globalization, Indian Automotive component manufacturing industry got enormous growth opportunity, but at the identical time it started facing newer challenges of the new era. The prevailing pricing because of the buyer's market arising out of the steep competition shrunk the profit margins drastically. The Industry realized that it'll not be to any extent further profitable to try and do a business within the same manner, they were doing in past. While, automotive market was growing very rapidly in India, it had been necessary to be competitive to catch up with growth and remain profitable. cut was the foremost avenue seen to extend the gross margin and sustenance within the market was banked upon highly competitive pricing.

To reduce the value, Industry realized, there was no other way than making overall improvements within the operations. to realize overall improvements, Industry put them self into a good deal of introspection. the foremost deficiency was observed within the integration of the various business functions. Industry realized the requirement of a decent integration of the various business processes. This was the requirement of knowledge and data flowing through the business processes. a necessity of seamless information and data flow, demanded Industry to create use of a well- integrated Enterprise resource Planning (ERP) tool. SAP had immerged as a strong ERP tool which may meet the industry demands.

The present study therefore deals with various aspects of SAP as ERP tool and the way it helps achieving overall operational improvements. Following aspects are covered

- Author Arfat Aziz Bubere is currently pursuing masters in Information Technology from University of Mumbai, India, PH-9773020605. E-mail: arfatbubere.ab@gmail.com
- Co-Author Ravindra Mhatre is currently Professor in University Of Mumbai, India, PH-9967719262.

as a part of this study

- Evolution and Journey of SAP as ERP application –The objectives and benefits
- The functional aspects of SAP – like Enterprise Modules, integration and technical aspects
- SAP implementation methodology and approach
- India Automotive component manufacturing industry – history, business challenges
- Significance of SAP in addressing the business challenges posed to Automotive component industry in India.

SAP has evolved many new dimension products which enhance the utilization of SAP ERP product and improves the efficiency of business. Such study for auto component manufacturing industry isn't seen.



Fig-1.1: SAP as ERP



Fig-1.2: SAP as ERP

Many companies find that they need problems with their end-to-end processes. that's where they'll implement SAP ERP to sharpen their core function with the end-to-end process. it'll help them to automate their enterprise and that they are going to be able to keep their operational processes up to now with the ever-growing industry. SAP can help to execute ERP solutions in various areas of industry. SAP ERP is employed round the world, in additional than 100 countries, which seems to be quite 50000 clients worldwide. Those numbers are expected to grow as more and more enterprises use the SAP ERP bandwagon. Companies love the very fact that they get real time updated information so that they can keep their edge and stay earlier than the sport.

This research topic therefore encompasses various aspects of SAP as an ERP software and also deals with the Challenges of Indian automotive component industry and the way SAP can benefit in these areas of challenges to achieve overall improvements.

Meaning of sap

SAP is that the acronym of System Application Products. As mentioned earlier, SAP may be a widely used and proven ERP application. SAP utilizes ERP software applications to enhance the performance of organizations' resource planning, internal control and operational control. SAP software is multi-module application software that integrates activities across functional departments, from product planning, parts purchasing, internal control, product sales and distribution, plant maintenance, internal control, human resource similarly as finance and controlling. Many other functions are often integrated using SAP software application.

SAP implementation as ERP application

The goal of SAP is to enhance and streamline internal business processes, which can sometimes require reengineering of current business processes. The common objectives which most of the industries communicate SAP implementation as follows

Business Visibility - SAP integrates business functions and provides the reports on various aspects of the business functions. This creates a visibility within the overall business. This visibility helps taking major operational decisions.

Alignment of strategies with operations – The business strategies decided by top management are executed in business operations. SAP helps to realize such alignment in planning and utilization of business resources across various business functions.

Reduce business risk: SAP provides a support of seamless data and data across business functions which reduces business risk

Improve financial management and enforce controls: Business transactions in SAP are tightly integrated and result into appropriate financial impact. This helps making financial control documents easily available and accessible to top management to enforce required controls.

Benchmark and measure operational performance parameters – SAP helps to line up and measure benchmark for operational performance parameters which ultimately result into improve efficiency and cut cost.

The components of an SAP system are the common components of a Management Information System (MIS).

- **SAP Software** - Module based ERP software is that the core of an ERP system. Each software module automates business activities of a functional area within a company. Common ERP software modules include product planning, parts purchasing, internal control, product distribution, order tracking, finance, accounting and human resources aspects of a company.
- **Business Processes** - Business processes within a company falls into three levels - strategic planning, internal control and operational control. ERP has been promoted as solutions for supporting or streamlining business processes in the least levels. Much of ERP success, however, has been limited to the mixing of varied functional departments.
- **.SAP Users** - The users of ERP systems are employees of the organization in the least levels, from workers, supervisors, mid-level managers to executives.
- **Hardware and Operating Systems** - Many large ERP systems are UNIX based. Windows NT and Linux are other popular operating systems to run ERP software. Legacy ERP systems may use other operating systems.

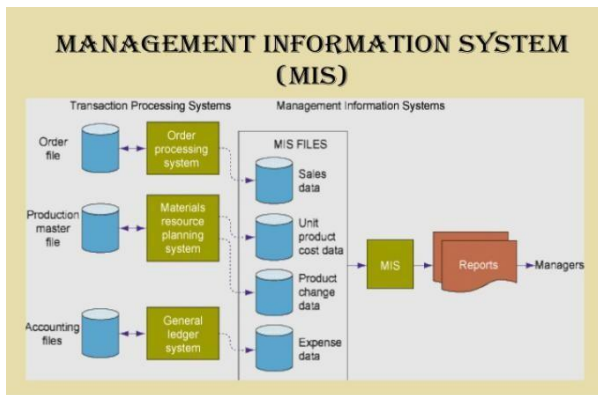


Fig-2: MIS architecture

2. RESEARCH GAP

After studying various papers published in journals and other literature with related subject, few gaps were identified. Such gaps are mentioned below.

- There is sufficient study found on SAP but the journey of SAP as ERP product and it's maturity with time isn't well complied in any single research
- Objectives of SAP implementation are covered in various studies but it varies in several studies because the objectives vary company to company. Thus a holistic compilation of normal set of objectives at one place is missing in any single study
- A collective view of SAP's different versions created from the start and relevant software, hardware, modular structures at one place isn't available in previous studies
- There are ample studies available which discuss the challenges of the Auto component manufacturing. But, the studies lack the main focus on the employment of SAP to trace relevant information within the study and produce the reports to assist overcoming such challenges
- The post SAP implementation scenario isn't properly covered within the previous studies

A collective study of varied implementation methods used for SAP implementation and also the reasons of failures don't seem to be properly covered in any single research

3. LITERATURE SURVEY

Nasscomm (2008) "IT adoption within the Indian auto component industry" has come up with an in depth study associated with the IT adoption in autocomponent industry in Indian context. this challenges of auto component industry, the expansion potential & need of IT

adoption is elaborated within the study. Various challenges in IT adoptions are discussed within the study..

Rubina Adam, Paula Kotzé, Alta van der Merwe (2011) "Acceptance of enterprise resource planning systems by small manufacturing enterprises" have mentioned with their study that limited research has been done to grasp the acceptance of ERP systems by small enterprises as compared to the larger companies. They therefore try to addresses this gap by considering the strategic, business, technical and human factors that influence the acceptance of ERP systems in small manufacturing enterprises. they need provided a consultative list of acceptance factors within the research which may guide future initiatives reaching to make sure the acceptance of ERP systems by small manufacturing enterprises.

Akondi Srikant (2012) "Significance of BPR and ERP Implementation in Healthcare Industry" imbibed the importance of business process reengineering and ERP implementation in Indian healthcare industry. within the process reengineering the present processes are challenged and also the processes which are universally employed in the actual industry are adopted. ERP implementation also strongly suggests removing the non-standard processes and recommends standardization. This helps the industry to compete & perform better within the segment. Although the study is about healthcare, it's also applicable to other segments in manufacturing.

Dr. Manas Kumar Sanyal, Sajal Kanti Bhadra, Sudhangsu Das (2012) "ERP implementation issues and challenges: A FISHBONE analysis in context to Indian industries" have focused their study on the Indian ERP implementations. They applied Fishbone analysis to spot the critical issues for Indian industries as they experienced during implementation of ERP in their organizations. Their findings show that certain factors, like improper system implementation strategies, lack of well- defined scope of implementation procedures, improper project planning and large customization of the system selected for implementation etc, have significant influences on the successful ERP implementations.

Indian brand Equity foundation (2012) "Operational excellence in Indian Manufacturing" during this study has explained the trouble Indian manufacturers are taking to realize operational excellence. it's explained how adopting World class manufacturing practices, implementing lean manufacturing practices helps to scale back costs & being competitive. Adoption of Total Quality Management (TQM) has improved the merchandise quality. Increasing use of IT solutions like ERP, Manufacturing execution systems (MES) has created required online data which enables faste

S.Hanumanth Sastry, Prof. M.S.Prasada Babu (2013) – “ERP implementation for Manufacturing Enterprises” have emphasized that the problems like demand fluctuations, balancing of demand supply elements & controlling operational cost cause acute customization at ERP backbone. they need also emphasized that the successful implementation of any ERP project requires all stakeholders having a transparent understanding of their role and responsibility within the process, further as realistic expectations about the post implementation scenario.

Subhash Chander Verma (2013) “A study of things to blame for growth, sickness, and Mortality of SMEs (bought out parts and ancillary) in MIDC Pimpri- chinchwad” has mentioned that the little scale industries are the backbone of the Indian economy. They fulfil the requirement of enormous scale industries by providing semi-finished parts at very competitive costs. He has also mentioned the factor which influences the expansion of SMEs & the explanations contributing towards the sickness of SMEs.

Londa L Lau (2010) “Managing Business with SAP: Planning, Implementation and Evaluation” This book provides a comprehensive overview of the assorted parameters for the successful implementation of the SAP as ERP application. This book is split into three major sections. the primary section introduces the inspiration for ERP and also the SAP technology. The second section deals with the evolvement of major activities of SAP since its inception from 1972. The third section explains how academicians can successfully integrate knowledge of the SAP R/3 systems into the undergraduate and graduate college courses.

IBM study paper (2004) “Challenges for the automotive industry in an on demand environment” contains the study conducted by IBM Business consulting who interviewed many business experts in automotive industry. the aim of this paper is to present a brief overview of the automotive industry and highlight challenges faced by the industry within the given period.

Timothy J. Sturgeon Johannes Van Biesebroeck (2010) “Effects of the Crisis on the Automotive Industry in Developing Countries “has published this paper as a hunt paper supported by Global Trade and Financial Architecture (GTFA) project. This paper examines the impact of the recent financial condition on global value chains (GVCs) within the automotive industry. the target of the paper is to produce a comprehensive view during this important industry, examine government responses to the recent financial condition, and supply an image of where the industry is headed i.e. a way forward for the industry, particularly in light of the increasing importance of both production and consumption in large developing countries like China and India.

RESEARCH METHODOLOGY

The proposed work involved during this study and also the methodology adopted for the proposed research work is as follows

Proposed research work

The proposed work involved is essentially studding various aspects of SAP & auto component industry

Study of varied aspects of SAP as indicated below

- SAP Evolution, journey and current status
- SAP modules
- SAP architecture and database
- SAP implementation methodology and approach

Study of varied aspects of automotive component industry as indicated below

- Automotive component Industry – brief history and current status
- Challenges
- A case study – How SAP implementation helped to attain improvements

Interviews of the relevant authorities in respective fields (SAP yet as Automotive component Industry)

The interviews of varied authorities like SAP consultants and practitioners, SAP project managers, automotive component manufacturers & the operation leaders in auto component industry would be conducted

Objectives

Objective of this research is principally to cater information, facts, data and analysis to the assorted segments of individuals viz. Auto component manufacturers, SAP professionals. Researchers and students

- Collective study of business challenges faced by Auto component manufacturers and make them aware how SAP can capture relevant information and generate reports to assist within the higher cognitive process
- Provide information to Auto comp manufacturers how their business processes will be integrated by using SAP
- Provide a collective information of varied aspects of SAP like as its software products, hardware, modular structure, to learn researchers, students and entry level SAP professionals
- Provide collective view on SAP’s development as ERP product over the period of time and build

comparison of SAP's business growth with competitors in same space

Provide information on implementation methodology of SAP and also the reasons behind the failed SAP implementations

SAP Modules

SAP works on 3 core functional areas like Logistics, Finance and Human resources. Different modules are created in these functional areas, which are tightly integrated with one another.

- Logistics - Logistics
 - Sales and Distribution (SD)
 - Material Management (MM)
 - Warehouse Management (WM)
 - Production Planning (PP)
 - Plant Maintenance (PM)
 - Project System (PS)
 - General Logistics (LO)
 - Quality Management (QM)

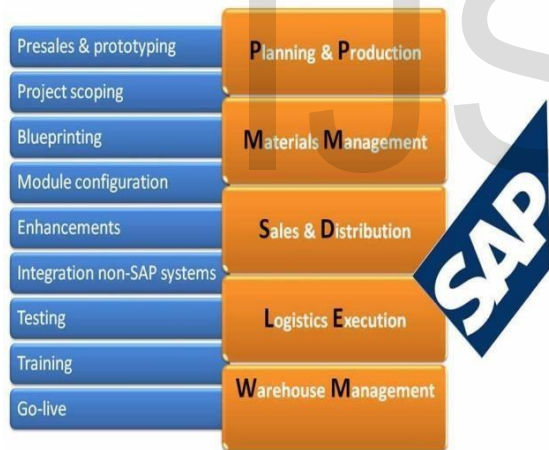


Fig-3: Logistics module

- Financial
 - Financial Accounting (FI)
 - Controlling (CO)
 - Enterprise Controlling (EC)
 - Investment Management(IM)
 - Treasury (TR)

FI Account Integration

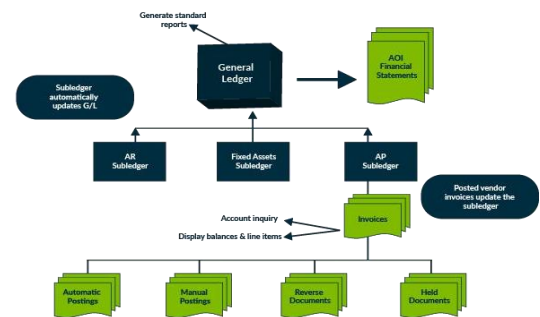


Fig-4: SAP accounting module

- Human Resources
 - Personnel Administration (PA)
 - Personnel Development (PD)



Fig-5: SAP HR Module

Apart from the core functions described above, SAP has also come up with some high end modules like Customer relationship management (CRM), Supplier relationship management (SRM), Product Lifecycle Management (PLM), Business intelligence and Business objects (BI-BO) etc.

3. CONCLUSIONS

This paper discussed about the SAP development in organization any module within the ERP system is implemented by the consultants engaged by the corporate. After the implementation (installation), the system needs to be utilized by the employees of the corporate who are called

the end-users. they need to be acquainted with the way the system works to urge optimum enjoy the system. Using the software at the top or after the implementation is an user is that the one who performs transactions in SAP after it goes live. Since the financial position of Indian farmers is incredibly weak, the loan facility provided by the industries through Bank encourages the farmers to grow more cane and also motivates the farmers. The loan amount is paid immediately to the Bankers from the farmers through factory also will increase the transactions of the Bank successively both bankers and farmers are mutually benefitted.

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