

Analysis of Impact by SAP in ERP

Ayush Kumar¹, Vanishree K²

¹UG Student, RV College of Engineering, Bengaluru, Karnataka, India

²Professor, Dept of Information Science and Engineering, RV College of Engineering, Bengaluru, Karnataka, India

Abstract - Organizations requires information management to collect, organize and analyze information for the benefit of an enterprise. These informations are related to customer relations, accounting, finances, supply chain, inventory management etc. These interrelated information require sharing of data from one entity to another. Proper understanding of these data helps in better planning and utilization of resources thus helps saving time and money. Use of ERP softwares streamlines the flow of information and the processes are end to end connected. It provides single view of customers and organizations can better serve them. Teams can efficiently work by getting the information then need when required. Modern ERP software are flexible, secure, cloud based and supports large variety of business processes.

Key Words: Budget planning, finance, management, ERP

1. INTRODUCTION

Budget planning is the process of analysing the income and expenditure of a person and making a plan for the future. Budget planning process involves constructing the budget and its utilization in order to control the operational activities of a business. [1] Budget planning's primary goal is to reduce the likelihood that an organization's financial results would be less favorable than anticipated. Making a budget is the initial step in budgetary planning. The subsequent actions are taken to achieve this. Spending plan arranging is the method involved with fostering a financial plan for an association, office, group, program, venture or drive. Financial plans are an arrangement to burn through cash to accomplish goals. It is absolutely impossible to isolate the cash from the goals. In that capacity, spending plans and system are arranged together. Big organization and enterprise use dedicated team and softwares to keep track of their income and expense. Some of the major software used in this process are SAP, Infor, Oracle NetSuite, etc.[2]

2. FEATURES OF ERP

2.1 Accounting and Finance Management

One of the core functions of ERP software is the management of accounting and finances. ERP software enables to effectively manage accounting and financial needs thanks to its robust capabilities and built in automation. It's simple to manage activities from billing to crucial accounting processes

like accounts receivables, accounts payables, cash flows, foreign currency transactions, and forex, etc. also provides with timely, accurate assistance as needed.

2.2 Purchase and Sales Processing

By streamlining the order management process from order to invoice to cash, ERP software increases process efficiency.

Additionally, ERP software makes stock and other supply purchases simpler because to its comprehensive tracking capabilities.

Any firm needs to process purchases and sales, thus ERP software flexibility is essential. This is due to the fact that order processing varies amongst businesses. At different periods, for various items and parties, or during a different cycle for purchases and sales, the same organization may occasionally follow a different approach.

There are ERP or accounting software programs that are made to be flexible and allows to handle the sales and buy processes however one see fit without having to alter how to run business.

2.3 Inventory Management

Any business must manage its inventory well to succeed.

The results of the firm will improve as its management improves. Similar to cash flow, it has the power to create or ruin the company. Here are some reasons why ERP software is essential.

ERP software assists in managing ideal inventory levels by automating the inventory management process. With its integrated reporting system, one may anticipate stock movements and get knowledge of stock patterns, gaps, low-yielding products, etc. Here, ERP software should be one that delivers timely, accurate, and usable data that is essential for making decisions.

2.4 Cost Control and Analysis

Even the smallest expenses, when added up, have the ability to negatively affect the organization in a number of ways. With the use of ERP software, organisation can keep tabs on the expenses incurred by various projects, units, departments, etc. organisation can also set a budget and monitor discrepancies with it. The knowledge gained from

ERP software enables organizations to reduce the cost of underperforming and underperforming regions.

2.5 Insightful Reports

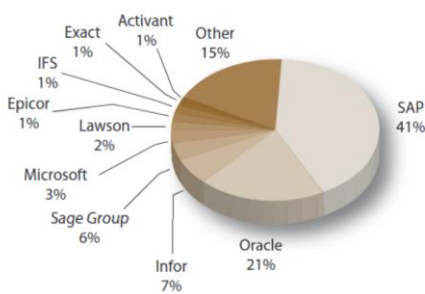
As company expands, company begin to look for more business-related information, such as profitable products, fast-moving products, how old the stock in the warehouse is, how to reduce costs, etc.

Making sure information is shared and various functions perform together successfully becomes much more difficult. This is the reason that ERP software report analysis is a priority.

ERP software gives organizations and teams comprehensive information that enables management to make the best decision possible by integrating all functions and processes into a single system. ERP software minimizes the time needed to manually gather data, reconcile it, and then put it into a readable format by automating the report generating process.

3. MARKET CAPITALIZATION OF ERP SOFTWARES

ERP solution being complex and expensive, it is difficult to find a market for it. The market for ERP software is growing rapidly. Firms tends to opt for ERP software because of its flexibility and ease of use. Large share of the market is captured by few key players in the industry. some of the major developer of ERP solutions are SAP, Oracle, SAGE group, Microsoft etc. These organizations are developing softwares catering to various industries.



Source: AMR Research, 2007

Fig-1: Market capitalization by various ERP vendor by revenue, 2006.

ERP solutions, along with core enterprise planning functionality are integrating other add on functionalities such as customer management, product life cycle management etc. These solutions have significantly increased the market share of the industry.

Application Segment	Revenue, 2005 (\$M)	Revenue, 2006 (\$M)	Revenue Share, 2005	Revenue Share, 2006	Growth Rate, 2005-2006
Enterprise Management	4842	4912	62%	53%	1%
Human Capital Management	921	1347	12%	15%	46%
Supply Chain Management	606	769	8%	8%	27%
Customer Management	1014	1725	13%	19%	70%
Product Lifecycle Management	166	178	2%	2%	8%
Sourcing and Procurement	243	305	3%	3%	26%
Total	7801	9237	100%	100%	18%

Source: AMR Research, 2007

Fig-2: ERP license revenue and share by application segment, 2005–2006

4. ERP SOLUTIONS

4.1. SAP S/4 Hana

SAP S/4 Hana is ERP Business suite provided by SAP. It is meant to replace SAP ECC/ERP, with simple tools built specifically for SAP Hana. It uses Fiori UI 5 to build design and frontend of the system. It uses SAP Hana database which is in memory column oriented relational database known for high performance and large data handling capabilities. SAP Hana is developed and marketed by SAP SE.

- Intelligent process automation across end-to-end business
- Personalized insight to decide and act immediately
- Complete support to enable compliance with key regulations
- Protection of SAP applications and data with embedded cybersecurity

SAP S4 Hana follows three tier architecture which is divided into three layers. First layer is data layer in which data persistence is maintained in Hana database. Application tier is used to maintain business log and application processing of data. In User interface layer data is displayed to the user and provides means to interact with the data in by creating, deleting, updating and analyzing of the data. Using three-tier architecture, SAP S4 Hana is able to provide complete solution for business. It also facilitate in parallel development of each layer independently.

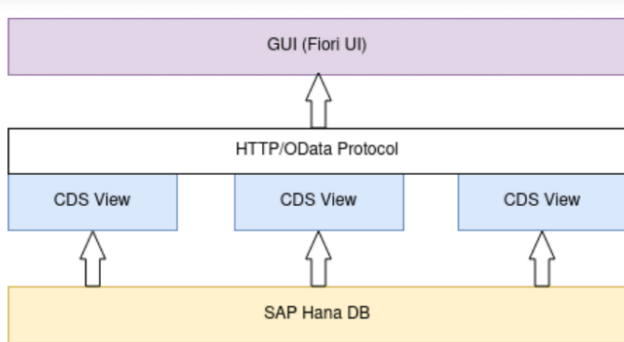


Fig-1: Architecture of SAP S/4 Hana

While some may require an entire fiscal year, most large businesses start their budgeting processes 4-6 months before the beginning of the financial year. Most businesses set monthly budgets and perform variance analysis. The business goes through a number of stages beginning with the first planning stage until finally implementing the budget. Common procedures involve coordination among executive management, setting goals and objectives, creating a thorough budget, compiling and updating the budget model, and reviewing and approving it by the budget committee.

4.2 SAP ByDesign

ByDesign is an integrated software suite by SAP built to run end to end business process for small and medium enterprises on cloud. ByDesign includes functional units for Human, Customer, Resources, Sales, Financials, Procurement, Service and Supply Chain. [3] It is a two tier cloud business management application that helps corporations and the subsidiaries in managing their business processes. Various departments of the organization can leverage from this application to streamline their work and minimize data duplications. [4] ByDesign is a cloud based application that is designed to be easy to use and easy to maintain. Integrated information provides real time insight and reduces the complexity and overall cost of maintaining on premise systems and IT infrastructure. [3]

These are the solutions provided by SAP ByDesign for Financials:

- Accounting: Efficient processing of account receivables and payments, Taxation, and Accounting Integration. Helps in efficient planning using automated and sharable reports.
- Payroll: Payroll processing, Payroll Integration, and Payroll Automation.
- Cash Flow: Cash Flow Management helps in tracking real time transaction data and sales data.

These are the solutions provided by SAP ByDesign for Customer Relationship Management

- Marketing: Helps with tracking lead and opportunity. Helps with automated marketing campaign and in generating leads.
- Sales: helps in drilling down of sales funnel and improve sales flow using customer driven data.
- Services: Provides enhanced reporting of customers for better servicing.

These are the solutions provided by SAP ByDesign for Human Resource: Organization management: Provides simplified onboarding of employees and helps in managing employee data.

- Workforce administration: Smooth and automated workflow for administrative work like payroll.
- Time and attendance: Centralized data and automated reporting.

These are the solutions provided by SAP ByDesign for Project Management:

- Accurate Data: transparent and accessible data from different source.
- Augmented oversights: Complete oversight over customer life cycle from lead to after sales services.
- Custom reports: Real time update on reports and analytics.

These are the solutions provided by SAP ByDesign for Procurement:

- Centralize: Centralized storage of all purchase records.
- Audit: Helps in Auditing of balance purchase and Tax.
- Reports: Automatically deliver comprehensive procurement information.

5. RESULT AND ANALYSIS

ERP solution implementation is one of the most important parts of the organisation functionality. Improper implementation of ERP can lead to drastic Failure of the firm. Implementing ERP is a complex task and it may take several years to implement. The ERP solution is a combination of several independent modules and it is important to understand the different modules and their requirement prior to their Integration. ERP solutions are currently used in wide range of industries, education, healthcare, manufacturing, banking and many other sectors. ERP solutions are making its way into the public sector providing efficient solution to track and analyses data and better

management of government services. Though the ERP solutions are expensive and implementation is time consuming, they are very useful and can be used to improve the efficiency of the business.

6. CONCLUSION

SAP is one of the leading players of ERP solutions. SAP ERP is available worldwide across 5 industries, 37 languages, and 45 localizations. SAP ERP is used in Industries related to retail, insurance, public sector, oil & gas, media, utilities, plant maintenance and various lines of businesses like R&D engineering, commodity management, finance, and HCM. According to Gartner, SAP has a 24 percent market share for ERP, while competitors Oracle, Sage, Infor, and Microsoft each have 12 percent, 6 percent, and 5 percent, respectively. Small, mid-sized, and large businesses make up nearly all of the end users of ERP software. In next few years the global ERP market is projected to produce USD 41.69 billion. Around the world, 80 percent of the Fortune 500 corporations list SAP as a customer. For customers to have access to the platform on the cloud and any device, SAP is also growing its presence with cloud platform in addition to on premise solution.

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