

Improving Business Performance: Role of ICT in SMEs

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The emergence of Information and Communication Technology (ICT) is not only reshaping the business models but also intensely interlining enterprises across its internal as well as external value chain. In other words business enterprises are in the process of major transformation in order to meet the challenges of network economy. The role of ICT is redefined as a fundamental enabler in creating and maintaining a flexible business network of interorganizational arrangements – joint ventures, alliances and partnerships, long term contracts, technology licensing, and marketing agreement. Traditionally in house developed customized management information systems (MIS) have been used to enhance business networking and now enterprise resource planning (ERP) systems, supply chain management systems, customer relationship management systems (CRM) and e-Business portals are being used to establish business networking systems.

Most of the small and medium enterprises (SME) in India are in early stage of business networking as they have recently started adopting integrated information systems such as ERP and supply chain systems. The business performance problems associated with the lack of such systems are discussed below.

Problems due to lack of Integrated Transaction Information Systems

An integrated transaction oriented information systems is concerned with the seamless flow of data and work flow among the business functions of the enterprise resulting into improved administrative and operational efficiency in the organisation. The absence of such systems in the enterprise may result in to following business problems.

- High lead time in business processes
- High cycle time in business transactions
- High Inventory
- Poor utilization of financial as other enterprise resources
- Poor productivity
- High stock outs
- Etc.

Problems due to lack of Planning and Control Oriented Information Systems

The planning and control oriented information systems are concerned with improved coordination and collaboration among different business functions enabling enterprise to be more dynamic and intelligent in decision making. The lack of such systems may results into the following business problems.

- Poor utilization of enterprise capacities and resources
- Unsatisfied customers and suppliers
- Unable to handle competitiveness
- Poor flexibility in demand supply management
- Unable to plan growth and future
- Poor dynamism
- Etc.

Possible Information Systems Solutions for SME

There are following various options in choosing information systems for SME.

- Accounting software such as Tally
- In house developed customised software
- Integrated Transactional Information Systems such as Radix, MakeESS, Octopus-E and Tech Solutions etc.
- Micro ERP systems such as NAVISION
- Web Enabled ERP systems such as iBaaN, IFS etc.

Among the above options each has its own ifs and buts. Accounting software such as Tally is extensively used by most of SME's in India. Though Tally has many advantages it is limited by many drawbacks. It is an off the shelf package solely catering to the needs of the function of accounting and it is very low on user customization. It does not have planning capabilities. No feature of costing exists in the package. It is standalone package and hence non-integrated with the other business functions such as production, sales, distribution etc. of the company.

In-house developed customized information systems are generally time consuming and very often poor in maintenance. Retention of IT personal becomes difficult. It is functional automation system and lacks process innovation and systems integration capabilities.

The integrated transactional information systems such as Radix, MakeESS, Octopus-E and Tech Solutions etc. claim to offer integrated transactional oriented information systems solutions at an affordable cost. However since these systems lack in terms of planning capabilities, the implementation has to be accordingly designed. Apart not many examples exists to demonstrate the visible impact on the enterprise performance.

The micro ERP such as NAVISION is new to Indian SME's. Although it has been adopted by large number of SME's in Europe and USA, it has yet to demonstrate its presence and usefulness for Indian SME's.

The major ERP vendors particularly BaaN and IFS are found to be best fit for SME sector. **BaaN** has maximum presence among manufacturing SME's worldwide including India. ERP is defined as an integrated, multi-dimensional system for all functions, based on a business model for planning, control, and global (resource) optimisation of the entire supply chain, by using state of the art IS/IT technology that supplies value added services to all internal and external parties. **ERP is an integrated** systems that allow information to enter at a **single point** in the process (e.g., at the materials receiving stage of a manufacturing process) and **update a single, shared database** for all functions that directly or indirectly depend on this information. This integration should take place in **real-time**, not through interfaces or programs that transfer information to one or more modules only after the information has already been processed and updated in the module through which it entered the system. ERP would be enabling an enterprise to balance its resources such as manpower, machines, materials, money, methods and marketing to stay competitive in a globalize economy. An ERP solution covers all the functions like human resources, corporate finance, production planning and control, materials management, quality management, plant maintenance, services management and sales and distribution. In short, it controls the whole 'nervous system' of an enterprise.

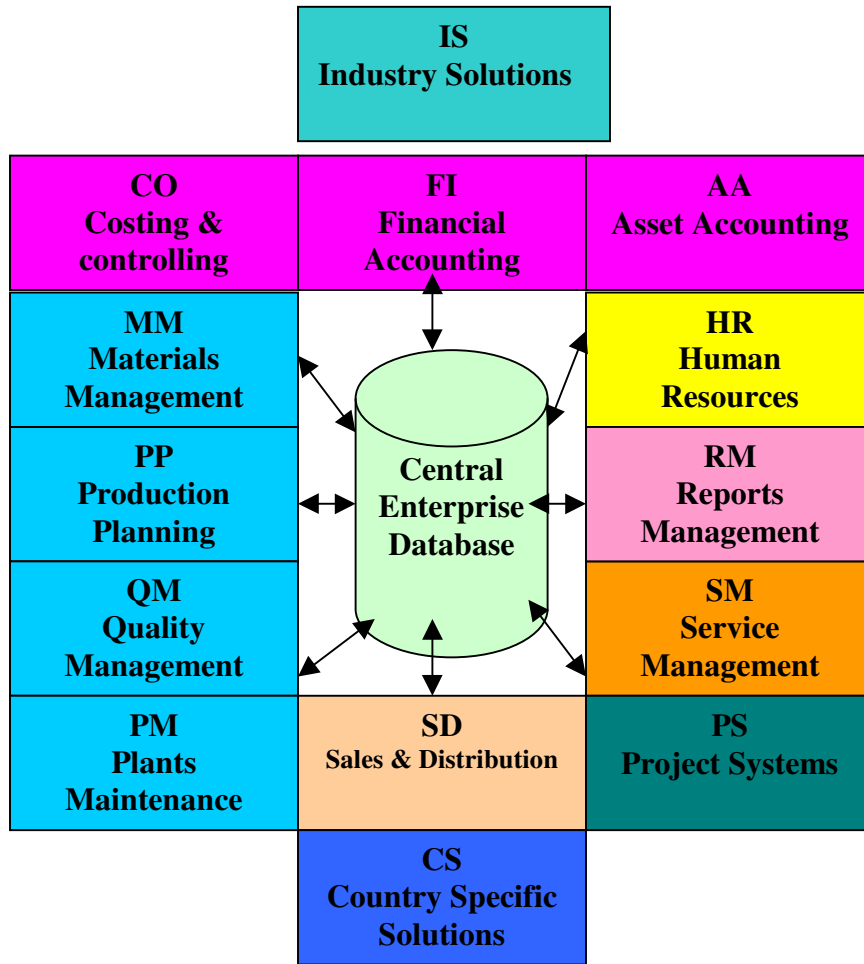


Fig.: Functional Modules of ERP Systems

Expected Tangible Benefits of ERP Implementation

- Substantial reduction in Inventory
- Substantial improvement in manpower and machines productivity
- Reduction in financial close cycle
- Improvement in cash management
- Reduction in wastage and improvement in its management
- Reduction in transaction cost of management

Expected Intangible Benefits of ERP Implementation

- Improvement in customer responsiveness
- Improvement in order management
- Improvement in production planning based on forecast received from sales
- Materials planning generated from the system to optimize inventory levels along with making material consumption details available on-line
- Automation of the import processes with item valuation details after considering the impact of freight, insurance, customs duty, other charges.

- Online availability of the inventory and its valuation, leading to visibility of both raw material and finished goods inventory at all stages
- product wise tracking of costs and revenues with consolidation of financial information
- Integration of cost and financial books, elimination of the need for reconciliation between the two, improved the account transactions.
- Real time tracking of material price and usage variances, efficiency variance.

The multiple benefits through successful utilisation of Information Systems (IS) also deliver advantage in 'Strategic', apart from 'Tangible' and 'Intangible' ways.

SMEs can adopt Information Systems system for many of the same reasons that large one do, but the most common reason is to establish a platform for growth.

It is therefore essential for Indian SMEs to absorb appropriate Information & Communication Technology (ICT) tools to leverage Business Advantage. Effective utilisation ICT tools will provide SMEs a disciplined business environment to operate in, where decisions concerning supply and demand are fully supported by facts and help Maximising Business Value in order to enhance Growth and Competitiveness.

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