



Business Applications for Small and Medium Enterprises

Challenges and Solutions

Guide for Small and Medium Enterprises aimed at helping them in understanding the classification of business applications.

Background

Most of the companies today use Information Technology in one way or another. The most common form of IT usage is through the internet – email, netbanking, online filing of applications, ecommerce are all different types of internet based applications that are increasingly becoming more and more popular.

Besides internet there is also an increasing penetration of IT in the office. Most of Indian businesses use software which is either standard software like Tally, Oracle or customized software which is developed or modified for unique business requirements.

Different types of software applications used by companies are given in table below

Software Application	Examples	Attributes
Internet / Web based (hosted) applications	Email, Ecommerce, Online Filings	These are standard applications which are normally free and available for use through internet.
Packaged Software	Tally, Oracle 9i, Microsoft Office, SAP	Again standard applications which are not free but are licensed. Customization to suit business requirements may or may not be allowed. ERP falls in this category.
Custom built Applications	Billing, Inventory, Attendance, CRM	This is a very large and diverse set; applications can be very small and do only one specific task – for example export invoice and document printing - or can be very large and complex – for example an application which includes sales, purchase, inventory, accounting and production.
SaaS Applications	Salesforce, EazeWork, Intuit, SuccessFactors	New types of applications have been becoming very popular with the businesses globally. These are available on the internet and are not free but the fees are linked to usage.

Two important aspects of these applications which we will talk about are

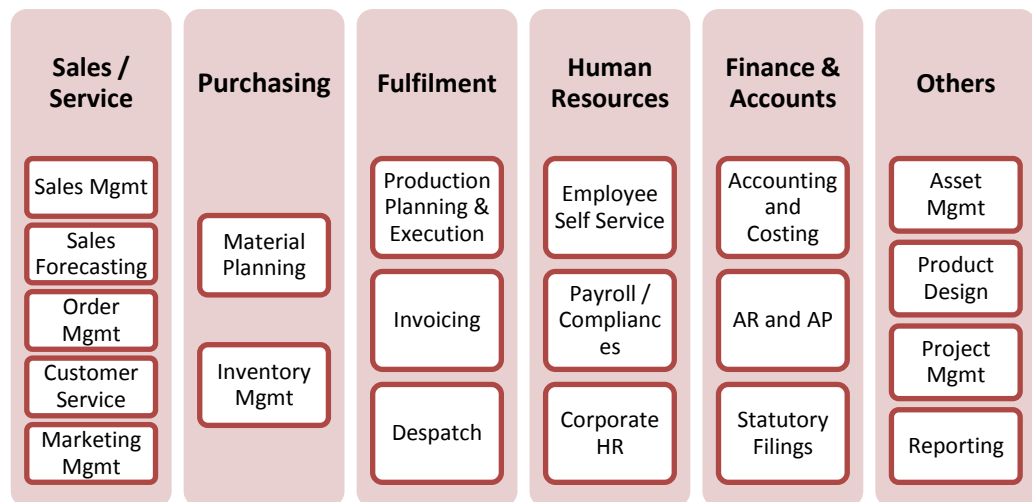
- a) Level of customizability
- b) Ease of deployment and maintenance

Custom build applications - whether they are for one function or integrate processes across the company like an ERP – are the easiest ones to customize. While the Internet based or SaaS applications are the most difficult to customize, these applications can however be configured to meet a particular company's requirements. Customization involves additional coding while configuration is based on settings which are inputted by the user.

Internet based or SaaS applications are easy to maintain and deploy because these applications are hosted centrally and it is easy for the software company to upgrade or ensure that the applications are bug free.

Business Applications needed by SMEs

Business applications can be categorized based on the functionality they support and the types of users which use them. While there are various models and categorizations of these business applications the classifications are not consistent and at times confusing. What applications are needed obviously depends upon the type of industry and the two major differences are between Services and Manufacturing industry. In this paper we are primarily discussing the requirements of a typical Manufacturing Industry.



The best way to classify these applications is to identify which business vertical they primarily support. While there are some applications which fit within one vertical – for example Payroll – most of the applications are integrated with other applications and depend upon information from across verticals. We have shown these applications in the vertical which has the most relevance for ease of classification.

Sales / Service

While Sales has always been a critical function for traditional SMEs a large number of manufacturing based companies are also realising the importance of providing services to their customers. These services are in the form of onsite support, installation, warranty etc. This section covers all the aspects of Pre-Sales, Sales, Marketing and Service while along maintaining a very clear view on the Customer Account Management.

Sales Management – The scope of this application can be divided into three parts

1. Sales Activities management : day to day activities of a Sales team which include generating lead, following up on leads, providing customers with quotations, interacting with production and purchase to give specific commitments to customers, filling up daily sales report
2. Marketing and Sales Information management : management of special campaigns, schemes, discounts and customer focused marketing programs are integrated in this application to provide a consistent view to the sales team, product brochures and demo items are tracked and managed
3. Sales Channel management : assigning leads to sales partners, tracking performance against targets, integrating with inventory and sales information

Sales Forecasting – applications use various statistical and input based methods to help the Business Head, Sales Head arrive at the Sales forecasts. There are various models and the right fitment based on the product-market characteristics is done by the Sales planning person. Depending upon the type of business – B2B (business to business) vs. B2C (business to customer) the role of sales and inventory data from the channels varies. This application helps the Sales team to agree on targets which are arrived at after considering various factors.

Order Management – Once the Salesman or the Channel partner has closed the order the whole process of ensuring that the items ordered are delivered in time as per required quantities is managed through this application. The constraints of excess or shortfall of supply are managed using business rules or customer priorities. Information from Production, Invoicing and Distribution applications is integrated to ensure that the Customers are provided accurate and up-to-date information.

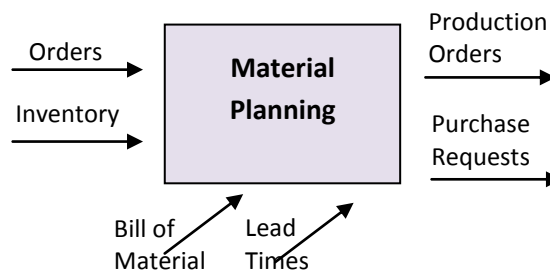
Marketing Management – This application is useful for companies which are in an FMCG, Retail or other similar B2C businesses and where Marketing, Product Management and Brand Management are highly evolved. From a SME in a manufacturing based business this application is “nice to have” but not “top priority”. From a scope point of view, this application helps the marketing managers in optimizing spend and measure the effectiveness of marketing campaigns. It also integrates both online (internet based) and offline marketing processes. It provides data and tools to define target markets, do a test marketing launch and measure results.

Purchasing / Commercial / Procurement

Traditionally purchasing or commercial department has been the one which has had the least amount of computerization. With need of greater transparency and accountability companies have realized the importance of systems which provide the Purchasing team visibility and information which helps them in decision making.

The Purchasing applications can be divided into three groups

Material Planning – This is the cornerstone of any manufacturing system and its scope is not limited to Purchasing. The traditional MRP (Material Requirements Planning) and MRP II (Manufacturing Resource Planning) applications have been now broken down into different systems. Material planning starts from confirmed orders and uses the information on inventory of all types including Raw Material, Work in Process, Finished Goods and information on Processing times and Bill of Material to arrive at the quantities that need to be a) Purchased and b) Produced



Inventory Management – Decision on how much stock to keep of various types of materials which have different consumption rates and different purchasing lead times is often based on the knowledge and gut feel of the purchasing person. This application takes away the guess work and provides the purchaser a scientific basis of deciding upon the order quantity and stocking levels.

Fulfilment / Production

Manufacturing includes primarily two types of processes –

1. Discrete manufacturing which involves manufacturing of individual items through stage-wise conversion and assembly. E.g. Casting, Electrical components, Garments
2. Process manufacturing when the input material is converted into finished product through a continuous process which are mostly chemical in nature. E.g. Petroleum, Chemicals, Fertilizers, Cement

Design of applications for these two manufacturing systems is significantly different and requires a careful analysis before implementation. Since most of SMEs are in discrete manufacturing the applications which serve this market are more popular.

Manufacturing Planning and Execution – Applications which are meant to support manufacturing planning and execution provide the users with functionalities to address the following questions around planning

- a) How much should we produce so that the production capacities are optimized and at the same time the inventory levels are maintained at a minimum while meeting all the customer orders
- b) How should a rush order be handled in the setup, what orders can be put on hold without violating firm supply commitments
- c) There has been a unforeseen breakdown or rejection due to quality issues, what should be the course of action

Good planning cannot be done without accurate data and Execution systems provide a close track on data. Since the manufacturing processes have multiple stages and the amount of material being worked upon is significant these execution systems are integrated with shop floor equipments and control systems to eliminate excessive data capture.

Invoicing – For all companies the ability to meet customer demands is highly dependent upon their ability to balance what is available and what is going to be produced in short term with what is required. In an ideal scenario there is enough time between the order confirmation and despatch but in reality this does not happen. Invoicing systems serve multiple purposes like

- a) It integrates with the Order Management system to ensure that the quantities which are getting invoiced are in line with what has been asked for and what is available
- b) It helps in generating all the statutory documents needed for dispatch of products
- c) It also provides information to Accounts on receivables

Despatch – This application helps the logistics (stores and transportation) teams to do the following functions

- a) arrange for transporters or other relevant modes of transport to pick up material
- b) generate loading slips which helps the Stores personnel in picking the material and loading
- c) if required creates a route which involves multiple drop points to reduce the overall transportation costs
- d) track the shipment as it moves till it reaches its destination and provides updates to customers and company on

This application handles both the Warehouse and Transportation aspects of business which are also called as Logistics. For an SME where warehousing and transportation is mostly outsourced this application helps in getting visibility on operations and better controls.

Human Resources

Human Resources function is one of the most neglected areas in an SME because business priorities are always forcing the company to focus on immediate goals. The lack of focus on HR creates a vicious cycle wherein the company is not able to attract good talent and consequently not able to grow. All successful companies which have grown from a humble beginning have one thing in common – employee friendly policies with a very through execution.

Corporate HR – An HR manager needs to work closely with Heads of various departments to ensure development and execution of various plans. This application is designed to meet the requirements of the HR Manager and his team. Areas which fall under this application are

- **Recruitment:** Process of getting the requirements, posting the requirements, short listing candidates, screening and tracking candidates, conducting interviews and rolling out offer letters to selected candidates is a long drawn process involving multiple people from the company. The application provides users with the work flow required to manage this process.
- **Performance Evaluation:** The annual exercise of Performance Evaluation helps employees and their managers assess the performance and provide feedback. This is critical for a company for many reasons but is often not done or done in a very hurried manner. The applications in this area are designed to help manage the process which the company selects and provide for complete documentation, decision making and reports.
- **Promotions and Salary increments:** Associated with Performance Evaluation are the Promotions and Salary raises. Giving authorities to the departmental heads on deciding

upon promotions and salary increases backed with right amount of controls helps in managing the employee satisfaction levels.

Employee Self Service – All the administrative processes like Leave, Expense reimbursement, Asset allocation, Transfers, Advances, Income Tax declarations, Retirement, Resignation and Final settlement are managed through this application. As the name suggests this application is mostly used by employees to get serviced from internal functions like HR, Administration, Accounts.

Payroll / Compliances – Salary calculations and disbursement of salary is managed through this application. Inter-linkages with leave, advance and salary increase are maintained to ensure accurate calculations. All statutory deductions or payments like Income tax, Provident Fund, ESI, Gratuity are also managed here. With the Government moving on online payments of TDS integration with these sites is also getting covered.

Finance and Accounts

Financial management and Accounting controls are the backbone of any company, it is not only required for good fund and cost management but is also a statutory requirement for registered companies. There are many popular applications which help companies manage their Finance and Accounts, these are the first applications that gets implemented by any company including SMEs.

Accounting and Costing – These applications help company in managing their accounts and track costs. Planning for capital expenditure, budget allocation, monitoring of expenditure, booking of expenses through vouchers, tracking of costs or purchasing manufacturing transportation etc. are all managed through this application. As can be seen the scope of this application cuts across all departments – and is integrated with other applications like Material Planning, Order Management, Inventory Management.

Accounts Receivables and Accounts Payables – Managing vendor payments and ensuring that the buyers are paying in time is managed through this application. It helps the accounts persons to track the aging of debtors and optimally utilize funds which are available with them to make payments to creditors. A forecast of cash and bank position is generated based on placed Purchase Orders and received Sales Orders to get a view of short to mid-term requirement of funds.

Statutory Filings – All records which are mandated by the authorities, deductions and payments which have to be made and statutory statements like P&L and Balance Sheet are managed through this application. It is integrated with the other two applications and at the backend and has a customizable reports which allows for users to modify the filings if there are any changes in regulations.

Others

Asset Management – Company asset management applications help in keeping a track of fixed assets like capital equipment, plant and machinery and other assets. The details of assets, servicing and maintenance history, usage profile are captured, these help in planning for asset maintenance and carrying out repairs and maintenance tasks on schedule. This is also called as Plant Maintenance by some companies. The application helps Purchase, Administration and Maintenance engineers to order spares, monitor maintenance contracts and ensure that the assets are performing well.

Product Design – Research and Development or Design is a function that is mostly outsourced or a very limited part is kept in-house by SMEs. This application does not replace a full fledged Engineering / CAD application which is very specialised and used by design engineers, rather this application manages the documentation, drawings, bill of material of products which are in the design process. It provides a central database of all design documents, approved purchase sources, product specifications and manages the workflow of a design project. Once the design

project is successfully completed the product is transferred to Production with appropriate documentation and records.

Project Management – Companies in project or contract based businesses need to manage their projects from start to finish. A project consists of phases, activities and tasks which need to be completed in a certain manner, resources which are needed to carry out the tasks are a mix of people and equipment and these needs to be planned for. A project management application provides the functionalities to plan, monitor, control and track the progress of a project. Reports on adherence to time schedules and cost targets are also available.

Reporting – though this is listed as others this is actually an application which integrates with all other applications to ensure that the users are getting the reports they need. Typically the application development team designs some standard reports and allows the users the flexibility either using these reports or creating their own reports.

Conclusion

Which of these business applications are relevant for your business? And how should we go about implementing these?

Answer to this question depends upon various factors, some of them are

- Nature and stage of evolution of your business. Value chain of the business
- What are the core competencies around which your critical differentiators are built
- What are the future plans in terms of growth and areas of focus
- Financial and managerial resources
- What competitors are doing
- Where customers and business partners gain maximum value

EazeWork has the expertise to help you answer these questions, please refer to SaaS Assessment and SaaS Application development services at <http://www.eazework.com/services/> or [Contact Us](#).

About the Author

Chintan Tyagi is the CEO of EazeWork – a company providing business applications to SMEs on SaaS platform. Chintan has rich experience in working with different types of industries and has implemented and managed implementations of various business applications. He has founded EazeWork along with three other co-founders to build, deploy and deliver business applications as a service to their clients.

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