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**Resource planning for SMEs**

Enterprise Resource Planning (ERP) systems are integrated systems for managing all phases of production and service-based businesses. These systems align human resources management, supply chain management, financial management, manufacturing, and distribution with fundamental and core accounting functions. These are real-time systems that make use of software technology to integrate the management of business processes.

An ERP system helps synergize the resources of the organization – it essentially creates a synergy of materials, money, machine, and human resources. To put this in context, an ERP system works to integrate the processes and data of an organization into a unified system accessible in real-time. A typical ERP system would achieve this integration by utilizing a combination of computer hardware and software components. A common feature in most ERP systems is a unified database where data is stored for and accessed by the various modules of the ERP system.

There has been a realization across the global business environment that, despite the dynamic nature of the business ecosystem, it is possible to develop and maintain a customized business solution that can cater to the day-to-day business requirement and can still be updated. This is a good fit for SMEs as the automated business processes, and data management can ensure that the SMEs don’t overstaff. Generally, ERP systems can help SMEs in a number of ways.

A big problem for most SMEs is finding the balance between overstaffing and understaffing. By implementing an integrated system like the ERP systems, the business manages human resources to perform optimally without necessarily overworking staff or have redundant staff. In line with optimizing tasks by creating trackable milestones that help individuals perform efficiently, the ERP systems are vital in helping SMEs optimize their processes. From lead generation, lead management, and conversion to customer relationship management, SMEs can track processes and information and ensure that there is a resource person to manage the relationship as well as the customer.

One of the challenging tasks for most SMEs is data storage, administration and management. By its simple usage, an ERP system helps create a database that can be managed for further optimization solutions and business intelligence. One of the first processes executed when setting up an ERP system is setting up the firm’s general ledger. Every task, process or person on the system has dealt with money and is automatically tied to the GL.

As of 2018, the global ERP software market was valued at $35.81 billion. The market had a projected growth of $78.40 billion by 2026, which translates to a compounded annual growth rate (CAGR) of 10.2 percent. As of 2019, the top ten ERP software manufacturers accounted for about 32.1 percent of the global ERP applications market. The ERP applications market has two major arms – ERP Financial Management and the ERP Services and Operations applications.

Setting up ERP systems for SMEs can take three forms. The first option is to buy a readymade ERP system from global ERP suppliers like SAP, Oracle, and Microsoft. The second is to get an ERP system vendor to custom build the ERP system to the business requirements of the SME. The third option is to use open-source ERP providers that allow users to change the software source code and make modifications that tune the software to the user’s requirements.

Depending on the mode of operation of the SME, the ERP solution deployed can be any – Discrete, Process, Engineering-to-order, Mixed-mode manufacturing, Distribution, Professional Services Automation Software, and Multi-Industry ERPs. Discrete ERP systems are for manufacturing SMEs, as they combine parts and components to develop finished products. SMEs must define the types of components and the quantities required for manufacturing the finished products. This is called the Bill of Materials (BOM). The process ERP systems combine ingredients and raw materials and create different batches of similar product units. Process manufacturers use formulae and recipes and a definition to mix these to achieve the finished products.

ERP systems are important to SMEs. From discussions, it is apparent that an ERP system is a premium product as you will get maximal utility for the cost, irrespective of how much the product cost.

An ERP solution helps create the environment for compiling and storing data, making it easy to generate robust reports that can show you areas of efficiency and opportunities for improvement. When implemented effectively, ERP systems always reduce administrative costs. With fewer manual processes weighing down employees, they can focus on profitable and innovative projects.

An ERP system needs to take the data once, and periodic processing is automated. This eradicates problems like missed orders, communication breakdown, and inventory mishaps. In the end, the business can guarantee reliability to customers and employees are more productive, which translates to growth for the business. With an ERP system in place, the staff can handle order management with increased production volume. Automation can take the workflow burden off your employee, freeing up more hands for your other processes.

Despite the benefits of ERP systems, there also are problems associated with the deployment of ERP systems in SMEs. First, ERP systems are expensive. The sources for developing ERP systems are imported with a devalued currency. The second challenge is resources. Local developers must comply with the requirements of global practices which require a specific level of qualification. Third, personalization became a complicated process to explain to companies and technical consultants, which makes deploying ERP solutions difficult. Last but not the least, small business behaviour is also a challenge which normally is not considered favourable with the ERP implementation.

In Pakistan, there are locally produced ERP systems and imported pre-packaged ERP systems. However, SMEs must determine needs and expenditures before choosing the ERP system to deploy. According to analysts, deploying an ERP system takes about four to eight months but can extend to a year, depending on the market analyst, staff, engineers, and support personnel. It is easier to tailor the customers’ requirements to local ERPs, and implementation time is shorter. However, a high degree of customization creates problems for context-specific procedures and some requirements.

To sum it all up, deployment of ERP systems has become the need of the hour for SMEs. The sooner the SMEs of Pakistan realize this, the better it is for them. Further to this, the operational efficiency of the SMEs powered by ERP systems will eventually impact the overall economy of the country in a positive way.

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