

Information Technology's Part In Excellent Business

Rakesh Kumar Giri

Research Associate & Technical Training Executive
Ebullient Information Systems, Chennai

Abstract: A conceptual framework about the role of information technology in business excellence is presented in this study. These days, information technology and computers are integral components of any organization. Any organization that wants to compete must invest in information technology, much as accountancy and law. Technology presents a challenge to conducting business as well as an opportunity to expand. According to my research, a lot of companies have implemented Enterprise Resource Planning (ERP) systems to handle their data processing and business transaction demands, marking a large-scale use of information technology. A logical and scientific approach to managerial decision-making, as well as the application of quantitative techniques and models employing computer information technology to solve managerial challenges, have been made simple by the use of information technology in business. Low-cost company operations can also be made possible by information technology in the workplace. For example, a lot of businesses and business owners turn to telecommuting when they need staff. It has been noted that the importance of IT in company is growing daily and that it is currently impossible to run a firm without it.

IndexTerms: Information Technology, Business, Enterprise Resource Planning,

I. INTRODUCTION

Computers and information systems are essential parts of every business today. Like accounting and legal, every business needs to invest in technology to compete. Technology is both a cost of doing business, and an opportunity to do more business. Most people I talk with recognize the necessity of having a computer, an email address, and a web site, but still look at the upfront cost more than other issues.

1. Information Technology (IT) (information technology) is a term that encompasses all forms of technology used to create, store, exchange, and use information in its various forms. It's a convenient term for including both telephony and computer technology in the same word. It is the technology that is driving what has often been called "the information revolution." In other words, Information technology is the technology involving the development, maintenance, and use of computer systems, software, and networks for the processing and distribution of data. It is a Set of tools, processes, and methodologies and associated equipment employed to collect, process, and present information. In broad terms, IT also includes office automation, multimedia, and telecommunications.
2. Business Excellence Business excellence is the systematic use of quality management principles and tools in business management, with the goal of improving performance based on the principles of customer focus, stakeholder value, and process management. Key practices in business excellence applied across functional areas in an enterprise include continuous and breakthrough improvement, preventative management and management by facts. Some of the tools used are the balanced scorecard, Lean, the Six Sigma statistical tools, process management, the Baldrige Criteria for Performance Excellence and project management.

II. LITERATURE REVIEW

Rai et al. (1997) has examined the relationship between measures of information technology (IT) investment of corporate business performance. The results of their study suggested that IT investments have begun to show results in proving they can make a positive contribution to firm output and labour productivity.

Mendonca (2004) in his theoretical paper evaluated that a course on leadership in Information Technology is distinct from a management course. While the latter is focused on implementation, the

former focuses on larger organizational issues and the impact and use of IT. Because it supports the understanding of IT and its effective use, the –Organizational Impact of IT course is appropriate for more than just IT students or professionals.

Al-adwan and Almashaqba (2012) have examined the importance of information technology in the business value performance. A survey has been conducted by him with the help of questionnaires. The results of their study suggest that the information technology has an impact on their employees, especially in the areas of training and development and communication. This study suggested and concluded that the organization should adopt formal and scientific approach about the use of information technology.

III.OBJECTIVES OF THE STUDY:

1. To analyze the role of information technology in business.
2. To study the impact of information technology in different activities of the business.

IV.RESEARCH METHODOLOGY:

The data for this research paper is totally secondary in nature. An attempt has been made to study the role of information technology in business excellence. Data has been collected from various newspapers, journals and websites related to information technology.

V.INFORMATION TECHNOLOGY IN BUSINESS:

Information technology is a very vast subject in itself. After spending some time working with dozens of businesses, I think it is time to take a step back and look at the big picture of technology in business. Let us take a reporter's view of the topic, and ask the basic questions: who, what, where, why, when, and how much?

WHY?

What are the benefits of technology for a business? There are many, but most fall under a few categories:

- Reach more potential customers, develop a business relationship with potential customers
- Streamline operations, reduce costs, improve efficiency, maximize profit, minimize waste, devote talent to core business instead of overhead
- Provide better service to customers
- Support better relationships with key partners
- Allow customers to better guide the business

The very first question businesses should ask before spending any money or time on technology is, –why am I doing this? If there is not a core business benefit to be gained, why do it in the first place?

HOW MUCH?

Established businesses outside the technology industry typically spend between ½ percent and 10 percent of their annual revenue on technology spending, depending mostly on the industry. Manufacturing and retail are typically at the low end of this range, while finance and health care are typically at the high end. If you are at the low end of technology spending for your industry, you may be missing out on some key benefits technology can provide. If you are at the high end, you may be spending more than you need to on proprietary solutions, or you may be leading your industry with some strategic investment.

WHAT?

What costs do you need to consider as part of your technology budget? These break down into several categories:

- Initial cost—hardware and software, and training
- Ongoing cost—maintaining systems, including licenses for proprietary software, hosting, and support
- Upgrade cost—cost of upgrades, and expected lifespan of systems/frequency of upgrades
- Value proposition—how much employee time will the system save? How much new business could the system generate?

- Opportunity cost—how much potential revenue is lost by not implementing a system? What are your competitors doing in this area?

WHERE?

Should you spend most of your technology budget on infrastructure, hosted applications, custom line-of-business applications, or what? The answer to this depends a lot on your industry, but even more on your specific business. Generally, most businesses spend around half of their technology budget on infrastructure—computers, networking equipment, and Internet Service Providers (ISPs). As the world moves more and more online, and open source software becomes more compelling, there are huge opportunities for savings in these areas, for businesses that can take advantage of them.

WHEN?

There's a fine line between too much and not enough. Spend too much on technology, and it will consume your time and budget, leaving you ill prepared to do anything else on your business. Spend too little and your competition may improve their business to the point that you can't compete.

WHO?

Finally, you need to decide who to help you implement technology in your business. Will you do it yourself? Do you purchase an off-the-shelf product? Do you use free software? Do you hire a programmer to create a custom system? Do you use a hosted system? Do you hire a consultant to help?

Obviously, as an open source consultant, I think the answer is usually hire a good consultant to help you use as much quality free software in your business as possible. Whether or not to use a hosted system depends on your specific business needs.

VI. FUNCTIONS OF I.T IN BUSINESS

The role of information technology systems in a business environment can be classified into four broad categories. These categories include function performance, communication through networking, management and enterprise roles. Information technology provides commercial and industrial systems for businesses. These systems enable businesses to function effectively and efficiently.

FUNCTION I.T SYSTEMS

Function IT systems are applications that allow individuals to function effectively in the workplace. Examples of common IT systems that enhance workplace functions are word processor applications, spreadsheet applications, statistical analysis software and computer aided design (CAD) programs. Employees can work and perform their task individually or collectively using these specialized software technologies.

NETWORK I.T SYSTEMS

Network IT systems allow effective communication within and outside an organisation. Examples range from simple e-mail (electronic mail) to blogs, wiki sites, IM (instant messaging) and electronic conferencing systems. These types of technologies promote interaction and collaboration among working groups and also facilitate quick information flow at all levels.

MANAGEMENT I.T SYSTEMS

Management IT systems (MITS) can be defined as planned applications that are designed to process data and transform the processed data into useful information for management decision making. In a typical scenario, management operates at different levels and so it is possible to apply management information systems at these varied levels.

Basic examples of management information systems are human resources management systems, financial management information systems and marketing management information systems.

ENTERPRISE I.T SYSTEMS

Enterprise IT systems are technologies designed to integrate and manage entire business processes for large organisations. Typically, enterprise application software is hosted on large servers over a computer network. Transmission of information can either be internal or external.

Examples of enterprise information systems may be accounting software, health care specific software or Electronic Data Interchange (EDI). Another good example of software application within this category is Customer relationship management software (CRM).

VII. APPLICATIONS OF I.T IN BUSINESS

EDI (Electronic Data Interchange)

It facilitates exchange of orders between different businesses and allows **Just In Time** stock ordering. Other businesses place orders electronically once production schedules have been set for the next period. With computerised stock control, businesses should be able to check stock levels almost on a real-time basis. Stock checks are still required to reconcile stock levels that may be incorrect due to faults in scanning or because of pilferage or other wastage.

CAD/CAM - COMPUTER AIDED DESIGN/COMPUTER AIDED MANUFACTURE

Computer Aided Design and Computer Aided Manufacture are two systems that tend to work together. Computer Aided Design helps design products on computers, rather than having to create endless drawings. The system can create realistic 3D images of the finished product. CAD also allows virtual testing of the product before it is actually made, dramatically reducing lead times and minimising waste in new product development. CAM uses computers to control tooling such as CNC and other robotised machinery.

PROJECT MANAGEMENT

The key Project Management tool that appears in A-level Business Studies is Critical Path Analysis (CPA), also known as Network Analysis – see separate Tutor2U revision note for details of CPA. Project Planning software, such as Microsoft Project, allows project managers to enter tasks, lead times, dependencies and staff skills and availability, even allowing for holiday, and the system will produce an optimised work schedule. Any student who has attempted to produce even a simple CPA will appreciate how helpful such a software package would be!

MRP/ERP – MANAGEMENT RESOURCE PLANNING/ENTERPRISE RESOURCE PLANNING

These are names for computer systems that attempt to manage the whole company and draw together all aspects of its operations and administration. In practice, this is a considerable challenge and the software firms that offer this service tend to do so by integrating a number of existing systems to allow them to ‘talk’ to one another by exchanging data. Students with a particular interest in ICT might wish to do their own research about ‘middleware’ and XML, a set of data standards that software developers adopt to help with systems integration.

VIII. I.T ENABLERS FOR BUSINESS PERFORMANCE MANAGEMENT

Business Process Automation

The growing importance of business processes orientation in organizations has fostered the usage of business process modelling suites during the last years. While the main reason for starting process modeling usually is documentation – typically in the context of business process reengineering or improvement projects – many organizations later recognize that process models play an important role in the realization of adequate IS support for business processes. In this regard, a process model can be used as blueprint for the design of a workflow that coordinates activities, resources, and data according to the underlying business process.

REAL-TIME ANALYTICS

Real-time analytics aim at shortening the period of time between the occurrence of a business event that requires an appropriate action by the organization and the time the action is finally carried out. According to Hackathorn (2003), the additional business value of an action decreases, the more time elapses from the occurrence of the event to taking action. The elapsed time is called action time and can be seen as the latency of an action.

PROCESS PERFORMANCE MANAGEMENT

The main idea of process performance management is to control the execution of business processes by comparing process models (i.e. to-be models of business processes) with data collected during process execution (i.e. as-is- models of business processes) in order to identify potential for improving process execution and to recommend the appropriate modifications to the processes. In order to make this concept work, two mechanisms are needed: Firstly, a mechanism for measuring process performance has to be

established. Secondly, a mechanism has to be installed that allows for the translation of process analysis results into recommendations for appropriate improvements of the process design.

IX. PRECAUTIONS AND PREVENTIVE ACTIONS WHILE USING I.T

1. Make backups of all software including operating system, so if a virus attack has been made, you can retrieve, save copies of your files and software.
2. Inform all users that the risk of infection grows exponentially when people exchange floppy disks, download web material or open e-mail attachments without caution.
3. Scan all programs that might be executed and files before opening them.
4. Have anti-virus software installed and updated regularly to deduct report and disinfect viruses.

X. CONCLUSION

From all of the aforementioned research, it is clear that information technology is essential to business excellence. This article demonstrates how a number of current IT industry advancements come together to establish an architecture that satisfies business needs for an adaptable, integrated business performance management. The way technology has transformed our lives has left us all in a state of shock. A few decades ago, none of us could have predicted the existence of anything like Google, which would provide us with knowledge on anything and everything. It lowers expenses, saves time, and produces work of higher quality. It also aids in making the most use of limited resources. IT makes it easy for a firm to reach new heights. Today's businesses cannot function without IT.

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