

**Research Paper** 

Engineering

# **Emerging trends in Information Technology in** Management

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# ABSTRACT

The economies have been continuously evolving over the past sixty years and that even at a rapid pace in the last two decades. Intellectuals, scholars and think-tanks from disciplines as diverse as Economics. The amazing trends of Information Technology and Management Science generally agree that knowledge has been the pivot of this transformation. Acknowledging the importance of IT in management and the complexity of its nature, it will be very advantageous to try

to comprehend the upcoming trends & technologies concerning knowledge of information technology in management. In an attempt to address this issue, this paper throws light on such interesting issues and views them closely. The aim of this paper is to investigate the current understanding of such emerging and existing of magnificent role of information technology in management.

# KEYWORDS : component; formatting; style; styling; insert

# Introduction

21st century has been defined by application of and advancement in information technology. Information technology has become an integral part of our daily life. According to Information Technology Association of America, information technology is defined as "the study, design, development, application, implementation, support or management of computer-based information systems."

Information technology has served as a big change agent in different aspect of business and society. It has proven game changer in resolving economic and social issues.

IT management is the discipline whereby all of the information technology resources of a firm are managed in accordance with its needs and priorities. These resources may include tangible investments like computer hardware, software, data, networks and data centre facilities, as well as the staff who are hired to maintain them.

Managing this responsibility within a company entails many of the basic management functions, like budgeting, staffing, change management, and organizing and controlling, along with other aspects that are unique to technology, like software design, network planning, tech support etc.

The central aim of IT management is to generate value through the use of technology. To achieve this, business strategies and technology must be aligned.

IT Management is different from management information systems. The latter refers to management methods tied to the automation or support of human decision making. IT Management refers to IT related management activities in organizations. MIS is focused mainly on the business aspect, with strong input into the technology phase of the business/organization.

A primary focus of IT management is the value creation made possible by technology. This requires the alignment of technology and business strategies. While the value creation for an organization involves a network of relationships between internal and external environments, technology plays an important role in improving the overall value chain of an organization. However, this increase requires business and technology management to work as a creative, synergistic, and collaborative team instead of a purely mechanistic span of control.

# **IT management disciplines**



The below concepts are commonly listed or investigated under the broad term IT Management

- Business/IT alignment
- IT governance
- IT financial management
- IT service management
- Sourcing
- IT configuration management

IT managers have a lot in common with project managers but their main difference is one of focus: an IT manager is responsible and accountable for an ongoing program of IT services while the project manager's responsibility and accountability are both limited to a project with a clear start and end date.

Most IT management programs are designed to educate and develop managers who can effectively manage the planning, design, selection, implementation, use, and administration of emerging and converging information and communications technologies. The program curriculum provides students with the technical knowledge and management knowledge and skills needed to effectively integrate people, information and communication technologies, and business processes in support of organizational strategic goals.

## Manager should be know



- To explain the important terminology, facts, concepts, principles, analytic techniques, and theories used in IT management.
- To apply important terminology, facts, concepts, principles, analytic techniques, and theories in IT management when analyzing

complex factual situations.

 To integrate (or synthesize) important facts, concepts, principles, and theories in IT management when developing solutions to IT management multifaceted problems in complex situations.

The importance of IT management is to understand the managing data. There are also difficulties IT managers overcome. The amount of data is increasing; most of the data in is separated between the organizations and collected by different departments. They may not be using the same method or procedure. Data security, quality and integrity is most informant in receiving information. The sources have an impact also on the sources obtained; they may be internal or external. When the information structures do not transfer properly with each other, that can result in unreliable data. An important part to understand in an IT management is Data Governance. It is

process that spans all of the companies' processes and business. Without a structure your company will not be able to function properly. Applying these processes in Data bases, it your job to be able to communicate with other departments systems and develop precise communication and holding your organization accountable of certain data issues. Your design and programs helps increase design and technical knowledge throughout the business.

## Advantages of Information Technology in Management

Information technology, also known as IT, is a comprehensive term that includes all types of technology used to exchange, store, and use or create information. Commonly used information technology equipment includes computers, servers, peripheral devices, and Internet connectivity equipment and phone systems. From basic computer terminals to IP-based telephony systems, information technology is an integral part of most modern business operations.

## **Increased Efficiency**

The main advantage of implementing and improving information technology in a business is the increased efficiency that it brings. Businesses are built around all kinds of processes, and a lot of these processes are repetitive, slow, and boring for people to perform. Computers and systems can be designed and implemented to perform these processes based on strict business rules – processes such as service desk call logging, file archiving, or customer records management. These tasks could actually be done by people, but computers and systems can perform them more accurately (if designed well) and a lot faster than people could. This brings us nicely to the next advantage of information technology in business...

### More Useful And Relevant Work For Employees

We humans are fantastic creatures. We have highly developed brains, capable of making complicated decisions and improving our standard of living. We shouldn't need to spend our time performing repetitive work that computers could do for us. Many automated tasks can and should be performed by information technology systems. All we would need to do is provide the input, the system would then do the processing, and provide an output. This would free up our time and allow us to perform more relevant work, such as building relationships in the business, making decisions, developing ideas, and providing service to customers – things that are hard for computer systems to do!

#### **Better Decision Making For Management**

One of the most useful functions of and advantages of information technology is to store large amounts of data. Years and years of individual customer records, transactions, data movements and updates are stored all over company systems. This data can be used, aggregated, analysed and displayed in almost any format imaginable, to allow employees to make better decisions about their company. Data can show customer trends, financial analysis, system response times, profitable customers, anything that you have stored can be displayed in a suitable format. This allows employees – both analysts and management – to look at this data and make decisions on it to improve the company and provide a better service.

#### Improved Service To Customers

Over the years, information technology in businesses has improved to a point where it has helped provide a better service to customers. This can be measured in many ways – decreased hold times for customers dialing in, more accurate information being provided to customers for their accounts, faster turnaround times for products and services, better management of information and how to apply it to a customer. All of these points can be attributed to the advantages of information technology in business.

#### Communication

Rapid communications can help increase productivity, allow for better business decision-making and ease a company's expansion into new territories or countries. Email servers, routers, internal company billboards and chat services can serve as the backbone of a company's communications. These electronically based communication systems are used to disseminate routine and critical business information in a quick and efficient manner. IT equipment can be used to send business status reports to executives, to update employees on critical business projects and to connect with business partners and customers.

#### Efficiency

Streamlined work flow systems, shared storage and collaborative work spaces can increase efficiency in a business and allow employees to process a greater level of work in a shorter period of time. Information technology systems can be used to automate routine tasks, to make data analysis easier and to store data in a manner that can easily be retrieved for future use. Technology can also be used to answer customer questions through email, in a real-time chat session or through a telephone routing system that connects a customer to an available customer service agent.

### **Competitive Advantage**

Adoption of information technology resources allows companies to maintain a competitive advantage over their rivals. Companies using a first-movers strategy can use information technology to create new products, distance their products from the existing market or enhance their customer services. Companies that follow a low-cost product strategy can look to information technology solutions to reduce their costs through increased productivity and reduced need for employee overhead. Businesses can also build-in information technology to their products that makes it difficult for customers to switch platforms or products.

### **Economic Efficiencies**

Companies can harness information technology resources to lower their costs. Using IT infrastructure, redundant tasks can be centralized at one location. For example, a large company could centralize their payroll function at one location to lower employee costs. Economic efficiencies can also be realized by migrating high-cost functions into an online environment. Companies can offer email support for customers that may have a lower cost than a live customer support call. Cost savings could also be found through outsourcing opportunities, remote work options and lower-cost communication options.

To get ahead in today's business world, a company must utilize the right resources. One of the most effective, of course, is information technology (IT), which has become an essential tool for businesses across many industries.

The combination of computers, the Internet, servers, and other hightech equipment can have a profound impact on daily operations. Here are some specific advantages of IT and why it's worth implementing in your business.

#### Safeguarding critical information

Whether its customer contact info, inventory, or finances, you need to back up sensitive data and keep it out of the hands of the wrong parties. In the past, this was typically limited to saving information on a computer, disc, or USB, where it could be compromised or destroyed.

IT offers a significant improvement because it provides more comprehensive security for electronic information so you can have greater peace of mind that it won't be lost.

When you store data on multiple servers and allow access only to a small number of authorized individuals, it becomes extremely difficult for hackers to get a hold of it, or for a technological disaster to destroy it. Important information will remain in safe hands and your business will experience minimal downtime, even in a worst-case scenario.

#### Streamlined communication and collaboration

One of the main factors that determine productivity is how efficiently team members can work with others. In an increasingly globalized world, it's more and more common for companies to employ a dispersed workforce with people working in different states and even different countries.

Outdated systems can inhibit communication and collaboration, but information technology greatly improves it and allows team members to work side by side throughout all stages of a project, even if they're not in the same location.

Since it's just as easy to work remotely as it is from a central office, you can get more done in less time. By taking it one step further and utilizing mobile devices like smart phones and tablets, tasks can be completed even on the go and deadlines will more often be met.

This also minimizes the potential for mistakes, which should ultimately improve the customer experience.

#### **Top-tier talent**

With outsourcing made easier, information technology allows your company to attract some of the brightest minds in your industry. Since you're not relegated to a small geographical area, you're free to hire team members from all over the world.

This makes it ideal for companies in smaller towns that simply don't have the talent pool of larger cities. It can also help attract highly skilled individuals because of your business's efficiency. With organized infrastructure acting like a well-oiled machine, employee retention and minimal turnover should become more the rule for your company rather than the exception.

Financial savings: When it comes to costs, initial implementation of IT can be fairly high. However, the long-term savings usually justify those costs because the overall operating expenses tend to diminish.

One example would be effective employee training via a software program with which a neuropathy clinic could instruct a new employee on patient treatments, company policies, and responsibilities. Another example would be using a digital calendar and time tracking tools to ensure that shifts are always covered.

#### Expert support

By investing in IT infrastructure, you're typically covered whenever a tech-related issue arises. Whether you experience software glitch or a network goes down, having quick access to professionals ensures that your business will get the help it needs to stay functional.

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#### CONCLUSION

Information technology in management is a rapidly growing field with immense potential. Tracking all the day-to-day activities, development and research works related to knowledge is a herculean task. The field is very vast and is reshaping eventually with time due to the advent of new techniques and technologies Still it will be instrumental to work on some key technologies that seem to be more promising. This paper outlines those trends and technologies which will provide effective solution and advancement to the existing glitches that are being faced today. These technologies are not only individually beneficial but they have also got social benefits as they incorporate social informal conversations and practices.

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