

Declaration by Author:

I declare the work reported in the paper is original and carried out by the author. This paper has been presented in an international conference held at Pacific University, Udaipur.

Reports and references of the researchers mentioned in the paper have been acknowledged.

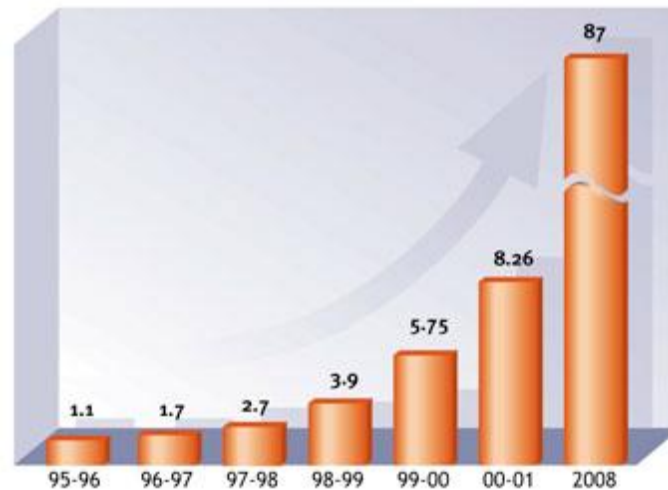
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Effective IT strategy for trade

Introduction

Information Technology (IT) is a tree with many intricate, intertwined branches. The objective of IT, is to provide accessibility to everyone. Today IT tools perform and control most business operations – from order to logistics, finance to marketing and in manufacturing and service industries, and geographically expanded from city to villages. This sector witnessed an unprecedented growth in the last two decades. Business opportunities are coming to India at a greater pace than anyone could have imagined a few years ago.

India IT Software and Services Industry (US\$ billion)



Source : NASSCOM MickensyReport

The Indian IT sector has expanded almost twice as quickly as the World-leading U.S. software industry did during the same period, although from a smaller base. It is predicted that by 2010, technology will be at least 150 times more powerful than early days. However against all odds, Indian IT sector is trying to put up a brave front. When we look at globalization, specific industries in emerging economies typically go through three waves of evolution viz. proving capability through people, offshore development and strategic value delivery.

This study related to the effective impact of IT on Indian trade, which covers strategies and systems. Business activities are to be performed with the help of IT and role of IT varies from business to business. India stands today among global contemporaries in the IT industry. India is synonymous with IT and we have at least two silicon valley viz. Bangalore and Hyderabad. Effective application system reflects on the readiness of the organization to meet impending challenges .IT revolution brought businesses together and exchange of information improved the quality and added value to businesses. For collecting and finding the information in a small span of time, networking is effectively

used. Communication among the people and organization is achieved by this networking connectivity.

Network Integration for gathering information

Networking integration means connectivity of resources. Connectivity forms a network through which we can communicate ,share, store and retrieve information. Earlier there was only physical and electronic connectivity, but today wireless connectivity has brought a real-time sense in the global technology World. Two distinct type of connectivities are - Connectivity within the country and Connectivity with the world. Thus intra-country & inter-country connectivities have to reckoned with. Connectivity provide flexibility and tools sharing and the main benefits accounting to business are – Access to remote information, Person to person communication , Interactive entertainment and Electronic commerce.

Connectivity can only be provided by the internet. Common methods of accessing internet which include dial-up, landline broadband (over coaxial cable, fiber optic or copper wires), Wi-Fi, satellite and 3G technology cell phones. Broadband is faster than the dial-up connection and reliable too. Number of organisations provides internet connection with different speeds.

- MTNL/VSNL/BSNL
- Airtel
- Tata Indicom
- Sify
- Reliance Communications

Internet Usage and Population Statistics Report of India :

YEAR	Users	Population	% Pen.
1998	1,400,000	1,094,870,677	0.1 %
1999	2,800,000	1,094,870,677	0.3 %
2000	5,500,000	1,094,870,677	0.5 %
2001	7,000,000	1,094,870,677	0.7 %
2002	16,500,000	1,094,870,677	1.6 %
2003	22,500,000	1,094,870,677	2.1 %
2004	39,200,000	1,094,870,677	3.6 %
2005	50,600,000	1,112,225,812	4.5 %
2006	40,000,000	1,112,225,812	3.6 %
2007	42,000,000	1,129,667,528	3.7 %

<http://www.internetworldstats.com>

During the past year internet users world wide has increased as shown in table 2.

Internet Audience Growth in the Asia-Pacific Region			
April 2008 vs. April 2007			
	Total Unique Internet users		
	Apr-07	Apr-08	% Change
Asia Pacific	280,418	318,623	14
China	90,274	102,848	14
Japan	53,685	55,260	3
India	22,395	28,375	27
South Korea	26,323	25,652	-3
Australia	10,048	10,904	9
Taiwan	9,245	10,388	12
Malaysia	7,462	8,327	12
Hong Kong	3,525	3,718	5
Singapore	2,216	2,298	4
New Zealand	1,937	2,161	12

Source: comScore World Metrix

The geographical distribution of internet makes an individual aware of day to day business scenario. Main advantages are-

- Increase in productivity and efficiency of resources
- Small organization can also compete
- Dissemination and sharing of information
- Worldwide exchange of information
- Access to remote computers
- Access to electronic mail possible

The internet connectivity has changed the way business is performed. Today there is direct interactions between businesses and their stakeholders. In this IT driven techno World all activities are based on information and through which we get knowledge, which inturn is used for decision making. Knowledge is an important tool for an organization.

Knowledge in business organization

The role of knowledge in a business organization cannot be under estimated. Knowledge is defined by three factors i.e Justification, Truthfulness and Belief of the statement. These factors can be elaborated on the basis of research, invention and innovation, through effective information technology tools and strategies. Knowledge can be summarized as –

- ☞ an outcome of all information

- ☞ comprehensive draft
- ☞ consensus of building strategy

[Source – Dr. V.N.BRIMS Research Volume-1 , New Landscape of Business,Dr. Guruprasad Murthy]

Knowledge is defined as

- Expertise and skills acquired by a person through experience or education, the theoretical or practical understanding of a subject.
- What is known in a particular field or in total, facts & information.
- Awareness or familiarity gained by experience of a fact or situation .

Source—Wikipedia.

Knowledge is coined as identification, creation, representation, distribution and generation of knowledge based tools. In the 21st century, information revolution ushered in a knowledge society. The concept of knowledge management has emerged. Knowledge is as a competitive weapon. Without distinct knowledge, one cannot take decisions. For the growth of any organisation , there should be emphasis on knowledge management strategies.

The aim of knowledge management is consolidation and documentation, which could benefit/add value to the individual as well as organisations. In fact knowledge management is a tool with which people can drive on the successful path ahead. What type of knowledge you need and present is very important. Knowledge modeling is a state of the art tool that can be effectively designed by using information technology resources.

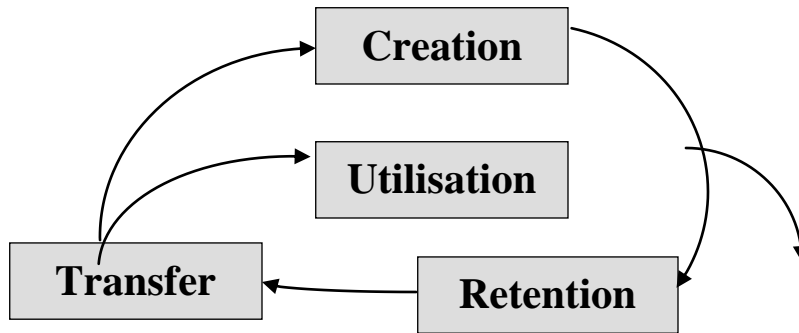
According to Neil Fleming the main phases of knowledge management includes:

- Data Collection
- Data inter-relationships
- Understanding patterns and principles.

According, to Newman, Kurt.W Conrad, knowledge bases help to evolve strategies, develop new practices and identify novel approaches to manage any organization. Knowledge can be understood as advanced technology resulting in systematic disciplined action.

A framework for Nationwide Knowledge Management shown below :

Four important phases of knowledge management system are shown in below:



Knowledge creation-This comprises activities associated with the entry of new knowledge into the system and includes knowledge development, discovery and capture.

Knowledge retention—This includes all activities that preserve knowledge and allow it to remain in the system once introduced. It also includes those activities that maintain the viability of knowledge within the system.

Knowledge transfer—This refers to activities associated with the flow of knowledge from one party to another. This includes communication, translation, conversion, filtering and rendering.

Knowledge Utilization-- This includes the activities and events connected with the application of knowledge to business processes.

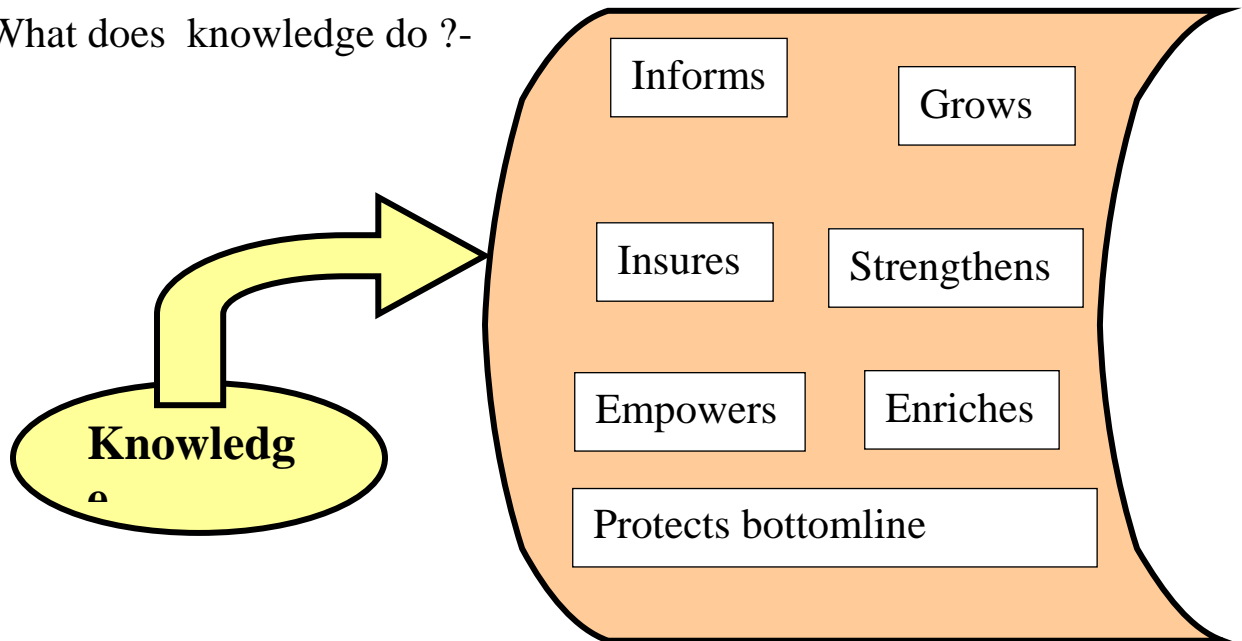
[Source-The knowledge management theory papers –A framework for characterising knowledge management methods practices & technologies, Brain (BO) Newman, Kurt .W Conrad Faculty at George Washington University January 1999]

According to a survey : Potential role of knowledge management is –

Improving competitive advantage	7.7
Marketing	7.5
Improving customer focus	7.3
Profit growth	7
Production innovation	7
Revenue growth	6.8
Reducing costs	6.7
Employee development	6.7
Investment	6.5
Achieving mergers	5.4

N.B. : Scores out of 10

What does knowledge do ?-



Source : Aptech Annual Report

It is believed that an organization's knowledge is embedded in process procedures, systems and culture, shaping the way the tangible assets of an organization are used in order to create value for the organization. Knowledge is an intangible asset, having an impact in creating a competitive advantage and impacting performance favourably. Information technology strategies help to build a complex knowledge management system. Collectively it helps to manage planned and unplanned situations. Various techniques and methods are used for efficient system. Agile approach in knowledge management system foster a flexible support for knowledge management system users.

Agile Approach in Knowledge Management System

Agile methodology encourages frequent inspection, adaption, leadership and philosophy that collectively encourage teamwork, self-organization, accountability and best practices.

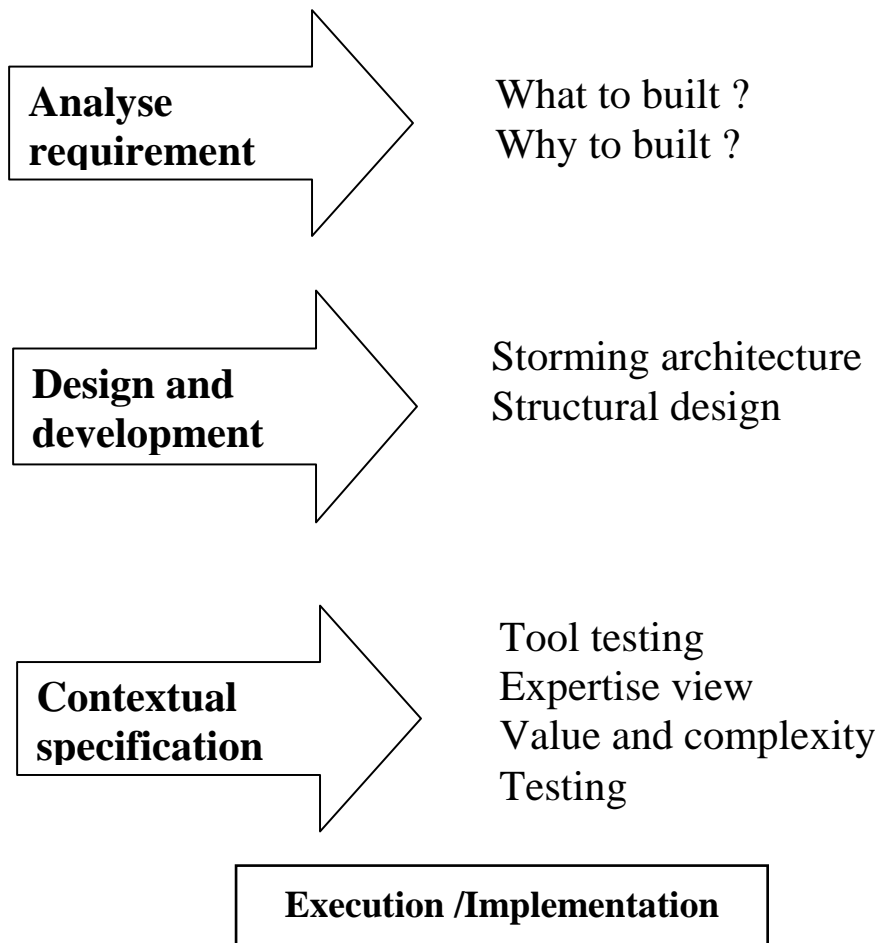
Source : wikipedia

“People are spending 80% of their time finding information , 10% putting it in order and only 5% making decisions. We have to find a way to reduce that 80%”

[Source :Susan Watts, BT's plans for an interactive computer university]

Agile approach is an effective tool for today's business World. Its an approach combined with flexibility, nimble & managed processes which support change, control, increased efficiency of organization and minimize time. Agile approach effectively manages the system and is transparent to all stakeholders. This methodology in the knowledge management system continuously increases the efficiency of a system, through continuous learning, as well as self-improvement. In the context of the global crisis, Agile approach can be very useful. This model brings integrity, flexibility, honesty, wisdom, competency, professionalism, intelligence, entrepreneurial spirit, efficiency, transparency.

Different phases of Agile driven knowledge management system

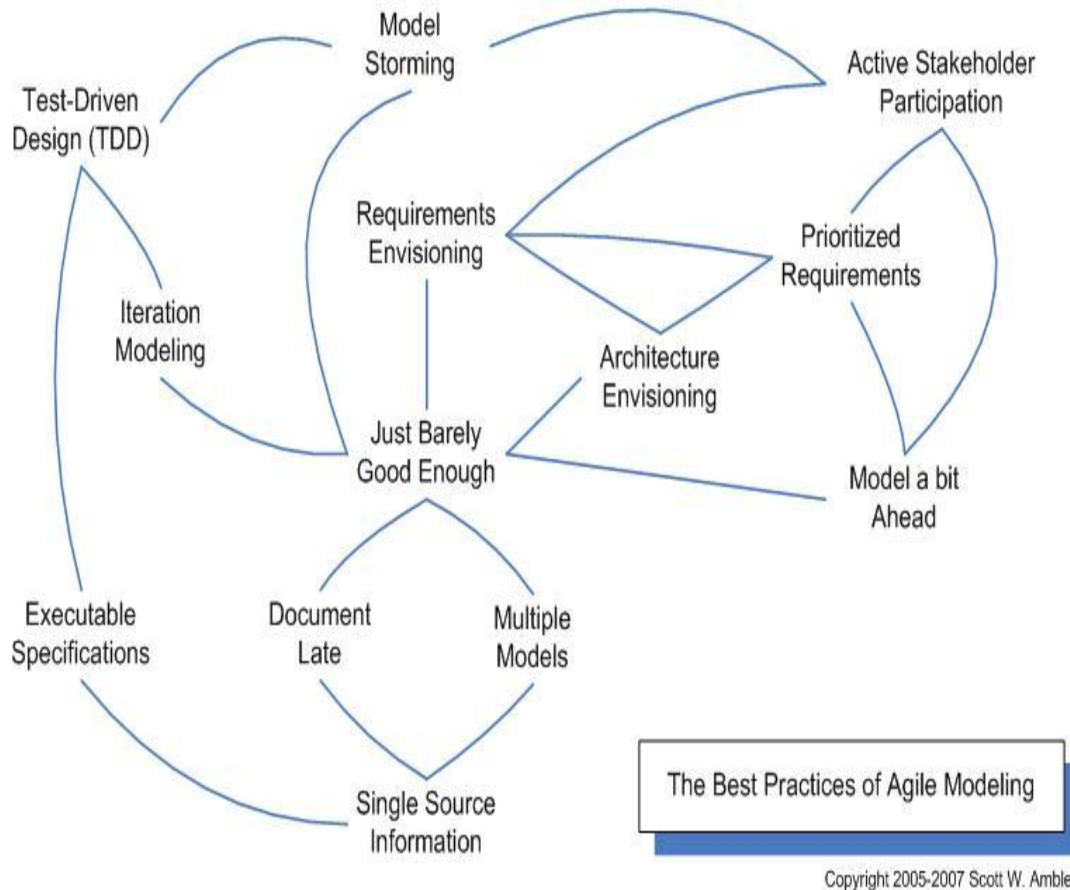


Agile follows waterfall model¹ with number of iterations. Iterations in system, helps to cogitate requirement change and difficulties during the various iterations and those can be modified to save time.

¹ The waterfall model is a sequential software development model in which development process flows steadily downwards (like a waterfall) through several phases viz. requirement, design and coding, integration, testing and implementation and finally maintenance.

Agile approach is adaptive rather than predictive. These following steps help to design an agile driven system :

- Modularisation – Identify the current state and find the gaps in existing system
- Adaption – Analyse the issues pertinent to change and trigger the changes by communication and assistance
- Structuring Information – It includes the functional processes related with semantic analysis to modeling
- Design and Evaluation – Finally frame the system mechanism and drive a qualitative and quantitative evaluation



What are the challenges ?

- ➔ Awareness of current thinking and future scenario
- ➔ Adaptation to change
- ➔ Innovation and cost effective solutions
- ➔ Wider perspective and roles/responsibility understanding
- ➔ Objective Assessment

Benefits of agile approach

- ☞ Sustainable cost savings
- ☞ Better quality and efficient service

- ☞ Highly skilled resources readily available
- ☞ Accessibility to growing pool of skills and capabilities
- ☞ Emphasis on speedy delivery
- ☞ Risk mitigation

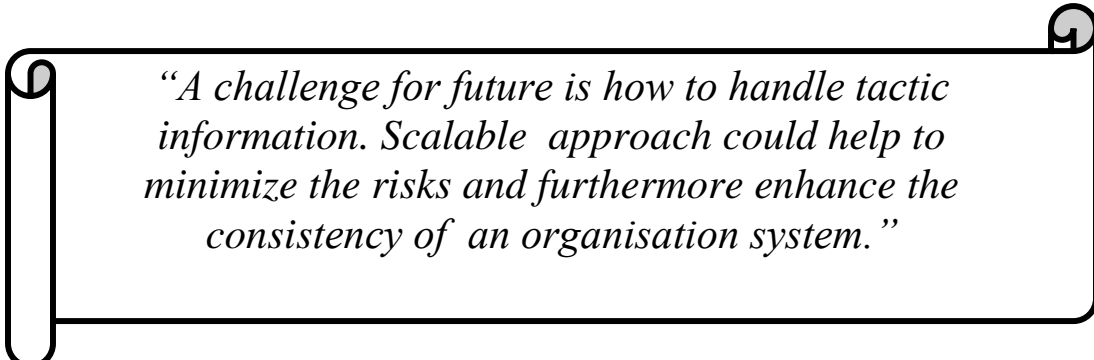
Conclusion

Today all around the World countries are suffering from crisis issues .Business decision makers have to re-visit ,re-design their objectives and then take appropriate decision.

In this regard Chandra Ranganathan,ET Bureau put's forth nine trends for IT 2009:

- ❑ *Geographical integration*
- ❑ *Offshore Service offerings*
- ❑ *Pricing- bang for every buck*
- ❑ *Vendor consolidation*
- ❑ *Contracts*
- ❑ *Techies will head home*
- ❑ *Currency headwinds*
- ❑ *Headcount addition*
- ❑ *Stpi extension crucial*

21st century is an era of information technology World combined with advent of internet and e-commerce tools. These tools are key assets for the growth of an organization. Visibility of organizational processes can help to relate or compute the performance and accordingly replenish the system. One can develop synergy between agile approach and knowledge management system. Agility is the ability to survive in an unpredictable techno World. This approach helps to beat competition. Information technology driven knowledge management system processes all operational level activities and also allows for fast, radical change. There had been several previous initiatives to improve the system. The most recent innovation in business World, 'agile approach' improves the quality of the delivered technology in useful increments with more contained costs.



“A challenge for future is how to handle tactic information. Scalable approach could help to minimize the risks and furthermore enhance the consistency of an organisation system.”

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