CHAPTER-1
Introduction

1.1 Background

Since late 1990s and early 2000s, Information Technology (henceforth, IT) started making a significant difference to the work practices in organizations. The impact of IT even extended to requiring changes in organization structure and organization design. It was not only the organizations but even the economies entered a transformation phase with the growth and success of computer based information systems (Sharif et al., 2004).

There were heavy investments in acquisition of information systems by organizations. Large number of organizations converted to new modern technologies in information and communication area to try to gain competitive advantages (Caldeira and Ward, 2002).

At the same time, there were numerous reports of IT implementation failures across the globe. The possible reasons included the lack of knowledge about how social and organizational complexities were influencing IT adoption and implementation. There were instances of an average annualised loss per organization in business and productivity of USD 5 million in a survey for a project, resulting from Enterprise Resource Planning failures (Dryden, 1998).

The biggest challenge in implementing IT appears to be not technical in nature but human. There have been issues in IT implementations generally due to lack of user awareness, project management, and industry or organization culture (Russell and Hoag, 2003).
These challenges gave a fillip to research on Information Technology adoption and its use in the organizations. The user acceptance of information technology in the organizations has been found to be an intricate and vague but yet a very important phenomenon which decides the success or failure of IT implementations. Hence understanding the process and creating conditions for human organizations to adopt information systems has become a high priority research issue (Venkatesh and Davis, 2000).

Literature recommends adopting or introducing information technology as a part of a system or cluster of mutually reinforcing organizational changes (Milgrom and Roberts, 1992). Instituting changes partially by introducing IT without corresponding appropriate organizational changes or even partial changes generally leads to productivity losses instead of expected gains. The benefits that are expected because of introduction of IT systems do not materialize due to the negative interactions of the IT systems with existing organizational practices.

Research studies effectively illustrate the intrinsic need to match the organizational structure to technology capabilities and the inherent challenges in guiding the transition to information technology intensive processes (Brynjolfsson et al., 1997).

Various case studies and econometric work have identified the major drivers that aid and enhance the contribution of information technology in organizations and characterized them as new business processes, new skills and new organizational and industry structure. These studies have strengthened the belief that the investments in these organizational complements required to achieve successful
IT implementation may turn out to be much higher than the investments in IT itself (Brynjolfsson and Hitt, 2000).

1.2 The Problem

Indian banking industry, today is in the midst of an IT revolution. Banking automation is becoming a key strategic component due to the combination of regulatory mechanism and increasing competitive intensity. Bank managements are facing an immense challenge as although the need for induction of latest IT systems has become a foregone conclusion but there are concerns about the effective implementation of the IT systems and the return on these huge investments.

The continuously evolving changes in business environment and technology are changing the issues that need to be tackled by bank managements. The bankers’ mindset has to change radically towards various aspects of banking technology for the survival of their institutions. To gain competitive advantages, the financial institutions in the 21st century would need to constantly leverage latest technology and continuously introduce innovative financial products/services (Gulati et. al., 2002).

IT’s role as a vital component in the transformation of an organization has to be understood and appreciated by managements. Information Technology purports to provide impetus to the organization’s ability to change and to respond fast for immediate and direct economic benefit. It also streamlines the administrative processes and facilitates the decentralization of the scope and scale of the business (Farbey et al., 1994).
IT has provided the organizations, wherewithal to be more efficient, flexible and economically powerful. It will continue to be the centrepiece of the modern day network organization and enable them to be more self adaptive, reorganizing and explorative. Even though IT seems to be playing such a crucial role in the organizations what is important is to always keep in mind that it is not the only reason of progress or change. The aspect of human elements basically, personality issues and cultures play an important role in organizational operations including the effective and efficient deployment of IT (Chan, 2000).

The major contribution of IT in an organization is in enabling business processes and work practices and increasing productivity by reducing costs and increasing output quality (Brynjolfsson and Hitt, 2000). All these benefits can be diluted or even negated by user resistance to the introduction of new innovations and technologies in an organization. This has led to this aspect becoming one of the most studied currently.

For Indian banking Industry, to cater to this constantly changing external environment, it is becoming essential to consider IT as the strategic component that can help the banks to transform themselves. How such IT adoption process will interact with internal organizational environment and adoption factors needs to be understood better for facilitating this process.

Studies have concluded that just making changes to existing IT systems or introducing new IT systems does not guarantee successful implementations. The organizations need to keep in view the relationships between the IT initiatives and their interaction with the existing organizational culture. Exploring and
understanding this influence that the internal environment of an organization has on the success or failure of IT implementations is the key challenge for managements today (Harper and Utley, 2001).

This research examines the influence of organizational orientation particularly technology orientation on the IT adoption process in the India banking industry. The organizational orientations can either aid the innovation adoption process or act as a stumbling block. Hence it is important to understand better the process of interaction of these orientations with the IT adoption process.

Specifically this study addresses the following questions. At what different stages of IT various bank branches are at this juncture? Does technology orientation have an influence on the IT adoption factors chosen for this study viz., Extent of IT Application, Organizational Factors, Perceived Ease of Use by User, Perceived Usefulness by User, and External Factors, to enhance or reduce the Perceived Organizational Effectiveness of IT adoption.

This study attempts to answer these questions through a survey of a sample of bank branches of scheduled commercial banks spread all over India.

1.3 Justification

Bank managements are facing a dilemma as far IT is concerned. On one hand it is quite difficult to quantify the benefits of huge investments in information technology and on the other side technology is being viewed as an essential tool in obtaining a competitive advantage in the marketplace. However what remains a matter of concern is that the direct measurement of competitive advantage is difficult (Violino, 1997). But this dilemma is still not coming in the way of their
moving forward with IT investments due to the compulsions of high competitive intensity and ever changing customer expectations.

Despite this criticality of success of IT adoption process in Indian banks, little empirical research has addressed the role that organizational orientation plays and can play in the whole process. Poku (2003) has referred to the gap that exists in determining the role an organization's internal operations play in information technology adoption in organizations.

Research focused on this aspect of the IT adoption process would not only provide bank managements with helpful information concerning the problems that entrenched organizational orientation can create in the adoption process but also the possible intervention strategies that can be deployed to facilitate the whole process.

Banks and other stakeholders like Reserve Bank of India, Government of India, Bank Unions and Associations would gain by improving their understanding of the role that the banks' internal operations play in IT adoption and thus come up with more effective solutions to address the bottlenecks to resolve the problems.

Thus understanding the relationship between Indian banks' success in adopting information technology and the organizational orientation in form of technology orientation in either aiding or blocking this process is the aim of this study.

1.4 Research Objectives

To accomplish the research purpose, the following are the specific objectives that have been formulated:
1. To study the status of Information Technology in Indian Banks;

2. To examine the interaction of Technology Orientation and Perceived IT Adoption Effectiveness in organizations and develop a suitable model of this interaction process; and

3. To evaluate how Technology Orientation affects the IT adoption process in organizations by studying Indian Banking Industry.