CHAPTER-3
Setting of the Research Problem

In this chapter the research problem is outlined, the purpose statement and objectives are defined and research hypotheses are described.

3.1 Purpose Statement

The research purpose is to examine the interaction process of organizational orientation in form of technology orientation with IT adoption factors short-listed for this study and evaluate its influence on the IT adoption process in organizations by studying Indian banking industry.

3.2 Research Objectives

In consonance with the earlier discussions, the present study has been designed to meet the following specific objectives:

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 depicting this interaction process; and

3. To evaluate how ‘Technology Orientation’ affects the ‘IT Adoption process’ in organizations by studying Indian Banking Industry.
3.3 Conceptual Framework

The conceptual framework for this research is based on the theories and postulates outlined extensively in previous research as defined in Chapter 1 & Chapter 2.

![Figure 4. Model of IT Adoption & Organizational Technology Orientation Interaction](image)

The Figure 4 provides a model portraying the interaction between Technology orientation and the process of IT adoption factors characterizing and influencing the effectiveness of IT adoption in organizations. As the IT adoption factors define and influence the IT adoption process in organizations, how technology orientation moderates this process by either influencing the type or intensity of this relationship or both is what is attempted to be explained in this model.
In this model the technology orientation influences the type and/or intensity of the relationship between the predictor variables viz., \textit{perceived organization effectiveness of IT Adoption} and the criterion variables that characterize the IT adoption i.e., \textit{extent of IT application, perceived ease of use by user, perceived usefulness by user, organizational support} and \textit{external factors} (Poku, 2003; Kamal, 2006).

As defined earlier research, technology orientation has been chosen for the purposes for this study as the organizational orientation. It doesn’t mean that organizations would not have other orientations at the same time. There will always be a mix of orientations in an organization and each will have its own important role to play. Orientation as defined is the degree to which any one particular functional or object orientation prevails over the way of thinking and actions of an organization. The orientations could be production orientation, technology orientation, marketing orientation, sales orientation or any other form of orientation but these won’t exist as a singular orientation, still the organization would tend to lean towards one or another.

Indian banking industry has traditionally been quite conservative and thus the dominant orientation in Indian banking organizations has been production orientation. The marketing orientation was missing due to no competition as well extensive controls under which it worked. Technology orientation was not the dominant orientation as there were too many vested interests which took a long time to come to terms with as it was found threatening due to feared job cuts. Globalisation, extensive negotiations with unions, various committees on introduction of technology over the years and toughening mandatory compliance
requirements of RBI started making technology as the mainstay of not only the strategies of banks but also the one of the main reasons of existence itself.

Literature indicates that before concluding the most suitable and appropriate orientation for the organization, it must evaluate all the elements that are required for success. The final result may be a strong market orientation but often a technology or production orientation could be the route to follow (Bennett and Cooper, 1979).

It also needs to be kept in mind that the technology needs to be understood before it can be utilized to its full potential. This process of understanding would not assume technology to be a mere efficiency tool but as a new organizational practice itself. For the organizations of the future who want to succeed over long-term, it is the technology orientation that must become the foundation of the broad based business orientation (Cairncross, 2002).


For some IT adoption factors, a modified version of a similar instrument which was developed by Computer Science and Telecommunications Board of National Research Council in 1991 and used by Kofi Poku (2003) was suitably adapted for IT adoption. Other items were adapted from the ‘Technology Acceptance Model’ by Davis (1989) and Davis et al. (1989). The Organizational Support and External factors adoption factors were adapted from Kamal’s (2006) model for IT innovation adoption in the Government sector.
Although the culture is considered a critical factor that influences information technology use and acceptance, Veiga et al. (2001) proposed that no changes need to be incorporated in the basic TAM model to include any cultural influences. On the other hand Anandarajan et al. (2002) ascribed a non significant relationship between perceived usefulness and PC usage in Nigeria to cultural factors that were different in abstractive cultures and associative cultures.

Western world generally is said to have abstractive culture characterized by belief of a rational cause and effect model to create perceptions. Whereas countries in Africa and Asia are assumed to have predominantly associative cultures wherein a logical basis may not be always present for relating events and forming perceptions. Still in this study relationship between ease of use and social pressure was as expected on the line of TAM model.

Another study that examined home computer usage in USA, Sweden and India provides a basis for the notion that perceived usefulness and ease of use do play a role in home computer use in India. In this study the attitude and normative belief structures predicted rate and variety of use in all the three countries (Shih and Venkatesh, 2003).

3.4 Model Constructs

3.4.1 Extent of IT Application

This adoption factor refers to the degree to which an organization incorporates information technology in assessing, formulating and implementing organizational decisions (Poku, 2003).
Information technology is purported to improve service quality levels by suggesting new service delivery methods, increasing customer intimacy, bettering response times to customer needs and making available to customers the wherewithal and means to help themselves. Its benefits come packaged with costs savings and improved productivity on various parameters thus improving the overall business performance.

Studies have suggested that there is a tendency in customers to try to manage the relationship themselves; using new technologies like internet and electronic data interchange (Stone et al., 1996).

Information technology not only improves the business processes but even fosters changes. IT has been utilized to radically redesign the business processes leading to improved business profitability and productivity (Shin, 1999).

The role of IT in decision-making is not only that of amalgamating information sources but even in choosing alternative strategies (Bettman et al., 1990). In decision evaluation role IT determines the positive and negative outcomes with reasons for the same (Zaltman and Moorman, 1989) and in decision implementation role, IT helps in the determining how decisions should be carried out (Nutt, 1986).

Despite these critical roles of IT in an organization, managements are concerned about underutilization of IT assets and low returns on their IT investments. Low usage of available IT systems and resistance to technology adoption is considered a major issue resulting in low returns from organizational investments in information technology (Sichel, 1997).
Research studies indicate that for better usage both the external variables like technical features and organizational environment and internal psychological variables viz., past education, attitude to system use, and prior experience need to be considered (Bajaj and Nidumoli, 1998).

For developing an effective IT implementation strategy in an organization, it is important to ensure compatibility of new technology with existing systems and procedures. This not only enhances user acceptance but also increases the chances of successful IT implementation (Beatty, 1990; Richardson, 1988, Snyder, 1991) whereas incompatibility of hardware, software and telecommunication networks negatively impacts inter-organizational information sharing (Dawes, 1996).

IT implementations also have a positive impact on customer relationships as these enable organizations to reach customers who are geographically remote (Quelch and Klein, 1996), facilitate customer surveys by performing sophisticated analyses of consumer needs, expectations and behaviour and in targeting specific customers and products (Dewhurst et al., 2003).

Extent of IT application is being measured in this research in terms of perceived pervasiveness of IT in organization activities, its influence on various parameters like decision making process, customer response, productivity, coordination among various departments, employee expectations, management expectations and its compatibility with earlier manual procedures and IT systems.

3.4.2 Organizational Support

This adoption factor refers to the mix of all the organization support variables that can aid or deter the IT adoption process effectiveness in an organization.
Udoka and Nazemetz (1990) have listed seven factors responsible for successful implementation of any innovation in an organization and these are: alignment of the core organizational system with the corporate strategy, strategy formulation process, existence of an educational program, top down planning & bottom up implementation, pace of implementation, adequacy of the particular technology to an application and alignment of strategy with the organizational culture.

Studies have reiterated that the important organizational factors for IT adoption include internal technical support, top management support, IT experience and training (Igbaria, et al. 1998; Premkumar and Roberts, 1999). Apart from the necessary positive management support, the proper allocation of sufficient resources for innovations implementation also becomes essential (Sherdian, 1992).

The success of the IT adoption process in organizations becomes more certain if the strategic efforts consider and target the level of IT knowledge among the IT professionals, level of IT knowledge among non IT professionals and lastly the level of IT use amongst all organization members (Mehrtens et al., 2001). It is the ability of the IT managers to recognize problems and concerns of current information systems and to propose and develop various options to improve the IT capacity of the organization which is considered a critical factor influencing IT adoption. This managerial capability is considered to consist of knowledge of IT, innovativeness and motivation (Kim and Bretschneider, 2004).

A crucial organization support variable that can be the cause of the difference between success and failure of any IT adoption initiative in an organization is the
top management support (Farhoomand et al., 1990). It is the ability of the top management, to recognize opportunities and then align all the activities of the organization to those opportunities, which becomes a determining factor in effective innovation implementation.

It has been postulated that IT innovation emerges constantly wherever top management values innovation and continuously promotes the value system and environment of the organization that supports and aids the innovation process (Quinn, 1988).

One important reason for the necessity of management support is that any new IT adoption initiative generally requires large investments and time planning. Hence the ability to provide support to IT managers to design and implement new IT systems that will also have the possibility of failure becomes crucial for new innovations (Miller, 1983). In addition it is important that the top administrators too have sufficient IT knowledge so that they will have a more positive attitude towards IT innovation adoption and thus also support innovation initiatives by IT managers (Kamal, 2006).

It has also been identified that updating organizational procedures to get value out of IT initiatives constitutes an important step in enhancing effectiveness of IT adoption. The other important initiative that needs to be taken is to encourage and motivate employees to use IT until its use becomes standard and the end objective of increasing productivity and efficiency is achieved (Cooper and Zmud, 1990).

Fink (1998) too in a study listed important intra organizational support factors that aid the IT adoption process as: internally available and dedicated resources for
promotion of IT, level and quality of in-house IT expertise, available IT resources and an appropriate IT selection for further implementation.

One word of caution in case of prior knowledge and experience with information technology as factors aiding the IT adoption process has been sounded by a study which found that too much experience may be as much an issue as too little as experienced users tend to find it more difficult to shift to a new system and may also form exaggerated criteria for their satisfaction (Kerr and Hiltz, 1983).

Organizational support is being measured in this study in terms of adequacy of internal technical support, top management support, experience with IT systems, extensive use of IT, IT knowledge at various levels, IT expertise at various levels, participation of employees in planning about IT and effective internal communication of IT innovations.

3.4.3 Perceived Ease of Use by User

TAM has defined perceived ease of use as a major determinant of attitude toward use and this is based on an individual’s evaluation of the mental effort involved in using a system (Davis, 1989). “Perceived ease of use” is defined as “the extent to which a person believes that using the system will be free of effort” (Doll et al., 1998).

Basically effort being a limited resource available with any person to be expended on multiple activities, the implication becomes that all else being equal, an innovation considered easier to use than another is more likely to be accepted and adopted by users (Radner and Rothschild, 1975). The opposite too holds true i.e.
where the systems are complex or difficult to use, they are less likely to be accepted as these will require more effort on part of the user.

Perceived ease of use also entails that existing routines and procedures are applicable to the work at hand and hence there will be no perception of uncertainty. Ease of learning is an important component of ease of using. The concept is that if the organization has to develop and adopt new procedures, which might be resource and time consuming, then perceived ease of use will be lower (Nelson and Winter, 1982; Argyris and Schon, 1978).

It is understood that information technology systems need to be less intimidating and more user friendly i.e. there is an inherent necessity for them to be easy to learn and use if user acceptance is required (Moon and Kim, 2001).

Extensive research has posited that perceived ease of use has considerable impact on usage intention whether directly or indirectly because of its influence on perceived usefulness (Agarwal and Prasad, 1999; Venkatesh, 1999, 2000; Venkatesh and Davis, 1996, 2000; Venkatesh and Morris, 2000). Improvements in perceived ease of use are considered contributing directly to improved performance (Lu et al., 2003) and influencing positively the perceived credibility of the IT systems thus increasing the chances of user acceptance and use (Wang, et al., 2003).

Whether an information system initiative will succeed or not also relies on the degree and effectiveness of the participation of stakeholders in the development process. It is advisable that key stakeholders are included in the system development process so that their interests are aligned (Heeks, 1999). Hartwick
and Barki (1994) who investigated the role of user participation in IT systems use seconded the idea of user participation in IT system development to be an important factor in attaining IT systems success.

Perceived ease of use is being measured in this research in terms of how clear and understandable is the interaction with the IT systems, ease of getting the system to do what is required, finding new ways of doing the job, the design of IT systems in the organization, employees enjoyment in using the systems and their constructive suggestions for improving IT.

3.4.4 Perceived Usefulness by User

Perceived usefulness is defined as “the prospective user’s subjective probability that using a specific application will increase his or her job performance within an organizational context”. If people believe that a certain innovation will help in performing their job better, they will be more likely to use it than if they do not recognize or value the innovation’s usefulness (Davis, 1989).

TAM model refers perceived usefulness in context of job related productivity, performance and efficiency and its professed direct impact on intentions to use (Davis, 1989). Usefulness is defined as improvement in output, efficiency, job performance, and job contentment in the immediate or near term and its influence on one’s career prospects or social status in the long term (Lu, et al., 2003).

Extensive research studies indicate the considerable effect that the perceived usefulness has on usage intention (Agarwal and Prasad, 1999; Venkatesh, 1999, 2000; Venkatesh and Davis, 1996, 2000; Venkatesh and Morris, 2000).
In a study on knowledge management systems some of the measures of perceived usefulness have been defined as; enhanced effectiveness, improved creativity, increased productivity, costs reduction, broad knowledge building, circumventing the repetition of same mistakes, contribution to hi tech image and improved customer services (Xu, 2005).

IT is postulated to strengthen human resource practices by aiding teamwork and improving communications among employees and managers (Dewhurst et al., 2003). It makes individual knowledge transfer easier that requires interactions within small functionally related groups (Kogut and Zander, 1992).

Measures of perceived usefulness of Information Technology systems in this research are in the terms of the automating earlier manual or tedious processes, access to in-depth information related to job, increase in productivity, improvement in working relationship with colleagues, allowing for a greater work control, enhancement in job quality and promotion of IT by co-workers.

3.4.5 External Factors

External factors refer to those factors or external associations that influence an organization and can range from no support to recommendation, request or offering incentives or exposure to penalties (Akbulut, 2002).

Uncertainty prevailing within organizational environment and a need for inter-organizational dependence gives rise to an impetus to IT adoption. The Indian banking industry which has to depend on electronic transfer of transactional information inter-banks and between banks and RBI, automatic pressure builds up on organizations to not only deploy IT systems but also to make them effective to
deliver results and interact with Central Bank and other banks (Cooper and Zmud, 1990).

The level of IT adoption and usage of innovations in the industry in general play an important role in pushing organizations to evaluate and adopt suitable technologies and innovations to remain relevant players (Iacovou et al., 1995).

Competitive intensity is considered a crucial factor in influencing IT adoption in the organizations. Any changes in the market place often forces organizations to explore for new methods to enhance their productivity and get a competitive advantage (Themistocleous, et al., 2004). The width and depth of product lines on offer and amendments in competitor’s strategies are positively associated with higher dependence on IT planning practices (Kearns and Lederer, 2004).

The Indian banks are not only under pressure due to fast globalization of the industry which is bringing in more IT savvy players into the market but also due to the mandatory compliances, both national and international, like Basel II which are being guided and encouraged by Government and central bank that are forcing them for rapid induction of technical innovations (Kuan and Chau, 2001).

External support in IT systems, systems administration, networking and consulting also may play a role in making the IT implementation a success or failure in organizations. The support of external vendors and consultants in design, implementation and post implementation will go a long way in aiding the success of IT adoption (Fink, 1998; Igbaria et al., 1998).
Government policies on trade, banking and investments, costs of technology and the existing national information infrastructure can also aid or deter the IT adoption process in organizations (Dasgupta, 1997).

Researchers have found that external factors relating to IT adoption that are common in various studies are; pressure from competitors, customers or suppliers, the role of government incentives, partners’ alliances, technological infrastructure, technology consultants and image of IT (Del Aguila-Obra and Padilla-Melendez, 2006) although some studies have found these external factors to be less significant than internal and technological factors (Teo et al., 1997; Teo and Tan, 1998).

Measures of the external factors influencing IT adoption in this study are adequacy of outside vendor’s technical support, use of IT in the banking industry, use of IT by partners and associates, support by government, use of IT by competition and influence of global accords on IT adoption in banking industry.

3.4.6 Perceived Effectiveness of IT Adoption

Perceived effectiveness of IT adoption refers to the degree to which organizations and individuals trust that the adoption of IT systems has been successful and has become part of day to day work. Although a successful IT implementation is professed to improve performance but on the other hand if not implemented by keeping in mind the human resource limitations, it can impede individual and/or it can retard individual and/or group performance (Templer, 1989).

Various criteria for measurement of IT effectiveness are mentioned in the literature studies. One important criterion for appraising the effectiveness of IT is
purported to be its importance to the users (Lucas, 1975). Another criterion is the institutional acceptance of a particular IT system, which is important for evaluating the IT performance of organizations (Swanson and Ramiller, 1997). Usually it is their apprehension for market competitive intensity and organizational performance that forces organizations to increase their investment in IT. A sustained demand is being made by organizations for targeting future growth and profitability through astute investments in IT (Dasgupta, 1997). Some studies in literature have argued that the effects of IT sometimes are not visible in organizational level financial outcomes (Strassmann, 1997) but are visible more on an operational level basically in shorter cycle times and enhanced customer satisfaction (Handfield and Pagell, 1995). It creates an expectation that IT adoption would enhance operational and quality performance.

Power (2004) has listed the following factors wherein the results of successful IT implementations may be reflected: enhanced customer satisfaction, reduction in finished goods inventory, decline in works in progress, less raw materials inventory, improved product tractability, superior stock accuracy, reduced time for annual stock takes, increased productivity, improved service quality, improved product quality, increased flexibility, increased sales, more profit, reduced cycle times, improved cash flow, reduction in claims, and reduced costs.

The impact of the information system as an organizational change agent is positively associated with the effectiveness of IT (Dias, 1986) and also its utilization is a parameter of its implementation success, effectiveness or acceptance. It has been suggested that the realization of user and management
expectations can also be considered possible indicators of evaluating the final success or failure of an IT implementation (Van D Ven, 1976). User satisfaction and quality of information constructs have been used to evaluate user's acceptability to measure the effectiveness of information systems (Bailey and Pearson, 1983).

Research studies have postulated that the IT implementations can be improved with dynamic management support, clear implementation goals, active user participation and training (Griffith et al., 1999).

The IT success has also been positively correlated with the perceived performance and importance of the following performance factors: functioning of existing transaction/reporting systems, linkage to strategic processes of the organization, amount and quality of user participation, responsiveness to new system needs, ability to respond to end user computing needs, IT staff quality and reliability of services (Miller and Doyle, 1987).

Perceived effectiveness of IT adoption in this research is being measured in terms of importance of IT in conducting business in banks, importance of IT in enhancing employees' job performance, use of IT in day to day activities, employees' participation in the IT adoption process, management support to IT adoption process, employees' comfort in using IT, IT being part of overall business strategy, communication of IT vision to employees and IT's usefulness in providing services to the customer.
3.4.7 Technology Orientation

Peters and Waterman's (1982) book titled "In Search of Excellence: Lessons from America's Best Run companies" increased the interest of managers in the concepts of corporate culture and its correlation with organization's success. Its main emphasis was on the idea that the key to corporate success is a strongly unified culture and this culture could be developed. The culture building exercise would involve articulating the desired set of values and then reinforcing these values with formal policies, informal rituals and jargon. Over time, these values would become shared and prized by all employees leading to better commitment, enhanced productivity resulting in more profits.

Organization culture is defined as a blueprint of basic assumptions invented, discovered or developed by a group as it adapts and becomes skilled to handle the dual challenges of external adaptation and internal integration. The new members are then taught these values as the right way to think, feel and act in relation to similar problems. The culture thus becomes the sum total of all the collective assumptions that a group has (Schein, 1992).

Martin and Meyerson (1988) identified three distinct cultural perspectives viz., the integration perspective, the differentiation perspective and the fragmentation perspective. The integration perspective holds a culture desirable where an organization wide consensus and consistency exists whereas the differentiation perspective considers that consensus rather than being organization wide occurs within the boundaries of a subculture. The fragmentation perspective views
ambiguity as the norm with consensus, and dissension both coexisting simultaneously.

The argument has been put forth that any corporate culture has elements of all the three perspectives and contains elements that can be understood only when all three perspectives are used (Martin, 1992). In essence within an organization there may be organization wide consensus on some issues, consensus only within some subcultures on other issues and an ambiguous state on the remaining.

Strategic orientation refers to an organization's style of doing business that is constantly influenced by a set of deeply rooted values and beliefs (Gatignon and Xuereb, 1997).

It has been theorized in the literature that the character of an organization emanates from its ideological orientation and those are power orientation, role orientation, task orientation and person orientation (Harrison, 1975). Power orientation tries to control its environment and crush all opposition. Role oriented organizations are generally rational and orderly whereas for task oriented firms attaining a goal is the highest value. The person orientated organizations exist to serve the needs of its constituents.

Another orientation mentioned in marketing texts is societal orientation. This is based on the premise that “a firm has additional responsibilities involving consumerism, the struggle of the poor for the subsistence... and responsibility for the use and pollution of society resources” (Cohen, 1991).

Two strategic orientations viz., customer and competitor orientations are generally well researched in the literature and these have been postulated to lead
to a superior performance (Narver and Slater, 1990). Importance of technology orientation has barely been addressed, as it is a more recent phenomenon when the technology is evolving rapidly and organizations need to keep up with these changes to remain relevant and competitive in the market place.

Literature suggests that marketing orientation consists of customer and competitor orientations and it has been postulated to be an important indicator of business performance and new product innovation (Cooper, 1994; Narver and Slater, 1990). Technology orientation subscribes to the philosophy of ‘technological push’ stating that consumers prefer technologically superior products and services whereas customer and competitor orientation subscribes to a pull philosophy. Technology orientation requires an organization to commit to R&D, acquisition of latest technologies and applying these technologies in all aspects of the organization (Gatignon and Xuereb, 1997; Wind and Mahajan, 1997).

Florida (1997) and Kuemmerle (1999) have referred to the distinction in technology and market orientation in their research studies. Florida (1997) deploys the term supply and demand orientation to refer to technology and market orientation whereas Kuemmerle (1999) uses the terms home base augmenting and home base exploiting respectively.

Supply orientation term implies the strategy to maintain competitive advantage by creating new technological assets and capabilities while demand orientation refers to creating products for foreign markets and providing technical support. Home base augmenting term has been used for investments in foreign R&D to acquire
new knowledge and capabilities whereas home-base exploiting refers to an organization seeking to exploit organization specific capabilities.

Studies have indicated that superior performance may also be the result of strategic use of information and an efficient information based decision making process (Lee and Tsai, 2005). Hence an organization could achieve better overall performance and also reduce information asymmetry through its strong orientation towards information processing (Hseih et al., 2006).

Research suggests that it is the strategic use of information and efficient information based decision-making that may be making marketing orientation generate superior performance (Hsieh et al., 2006). Hence technology orientation that encompasses all organization functions and activities may lead to more productivity, superior quality, quicker delivery, and improved customer satisfaction in the long run. Though it is understood that developing this orientation and embedding it in the organization’s DNA is a long drawn process.

It has been brought out in literature that technology adoption or usage decisions are known to generally illustrate a strong productivity orientation (Venkatesh and Brown, 2001). Research also suggests that managers with a higher technology orientation focus on deploying latest and complex technologies in new product development and use technical knowledge in meeting the user needs or combating competition (Poon et al., 2005).

There is a varied list of orientations that an organization could have and generally all organizations would have a mix of orientations with one or more than one being dominant at any point in time. For this study it is the technology orientation
that is being considered. It is defined as the organization’s deeply rooted set of values and beliefs regarding technology and use of this technology in all strategic and operational aspects of the organizational activities.

Technology orientation in this research is being measured in terms of as an enabler in providing flexibility in delivery of service, as a tool to provide responsiveness to the customer, as a tool to improve quality of service, product innovation through the use of IT, value creation by use of technology as an organization practice, producing and delivering to the customer at low cost and high efficiency, focus of sales promotion on product features and quality, and integration of control systems.

3.5 Research Hypotheses

The research hypotheses were formulated keeping in mind the specific relationships in the conceptual framework. In this study the IT adoption factors, as independent variables, considered are extent of IT application, Organizational support, External factors, Perceived ease of use by users, and Perceived usefulness by users. Their relationship with perceived effectiveness of IT adoption, the dependent variable, in the Indian banking industry has been studied from the point of view of the user community particularly bank branch managers and their equivalent.

As brought out in literature, any organization can and does have more than one orientation at any given time. It is the dominant orientation that characterizes the organizational orientation (Deshpande and Webster, 1989). For this study the orientation being focused on is the technology orientation. Whenever the
technology orientation is dominant and high the organization can be said to have a high technology orientation and whenever the technology orientation is low the organization can be said to have a low technology orientation.

This study examines the influence of technology orientation of an organization on the relationship between the IT adoption factors (the independent variables) and the perceived effectiveness of IT adoption (dependent variable) in an organization.

An organization needs efficient information systems to be able to compete in the market place, offer quality services to its clients with flexibility and convenience to the customers. This requires not only for technology to be deployed across the organization in all aspects but also delivering value by adopting technology as an organization practice.

**Hypothesis 1:** Technology orientation will influence the relationship between ‘extent of IT application’ and ‘perceived organization effectiveness of IT adoption’, such that the relationship between ‘extent of IT application’ and ‘perceived organization effectiveness of IT adoption’ will be positively pronounced for high technology orientation of an organization.

\( H_0 : \) There is no significant influence/impact of high technology orientation on the relationship between ‘extent of IT application’ and ‘perceived organization effectiveness of IT adoption’.

\( H_1 : \) There is a significant influence/impact of high technology orientation on the relationship between ‘extent of IT application’ and ‘perceived organization effectiveness of IT adoption’.
For any IT adoption initiative to succeed in an organization, the organization support for that initiative is considered an important factor. This support in form of top management support, IT knowledge across the various levels or organization etc. can be a key element to determine success or failure of any IT adoption exercise. A high technology oriented organization will provide the necessary environment that increases the perceived effectiveness of IT adoption.

**Hypothesis 2:** Technology orientation will influence the relationship between ‘organization support’ and ‘perceived organization effectiveness of IT adoption’ such that the relationship between ‘organization support’ and ‘perceived organization effectiveness of IT adoption’ will be positively pronounced for high technology orientation of an organization.

H_0 : There is no significant influence/impact of high technology orientation on the relationship between ‘organization support’ and ‘perceived organization effectiveness of IT adoption’.

H_1 : There is a significant influence/impact of high technology orientation on the relationship between ‘organization support’ and ‘perceived organization effectiveness of IT adoption’.

An organization that has a high technology orientation is better positioned to adopt new technologies. The new technological processes are generally designed to provide more pronounced ease of use by users leading to the users assimilating the technology better and faster thus contributing to and enhancing the ease of use feeling amongst them.
Hypothesis 3: Technology orientation will influence the relationship between ‘perceived ease of use’ and ‘perceived organization effectiveness of IT adoption’ such that the relationship between ‘perceived ease of use’ and ‘perceived organization effectiveness of IT adoption’ will be positively pronounced for high technology orientation of an organization.

$H_0$: There is no significant influence/impact of high technology orientation on the relationship between ‘perceived ease of use’ and ‘perceived organization effectiveness of IT adoption’.

$H_1$: There is a significant influence/impact of high technology orientation on the relationship between ‘perceived ease of use’ and ‘perceived organization effectiveness of IT adoption’.

As new technologies are deployed in an organization and users are afforded more opportunities to use them, they learn to appreciate better the extent of usefulness of these technologies. This leads to a better effectiveness of IT adoption in organizations.

Hypothesis 4: Technology orientation will influence the relationship between ‘perceived usefulness’ and ‘perceived organization effectiveness of IT adoption’ such that the relationship between ‘perceived usefulness’ and ‘perceived organization effectiveness of IT adoption’ will be positively pronounced for high technology orientation of an organization.

$H_0$: There is no significant influence/impact of high technology orientation on the relationship between ‘perceived usefulness’ and ‘perceived organization effectiveness of IT adoption’.

$H_1$: There is a significant influence/impact of high technology orientation on the relationship between ‘perceived usefulness’ and ‘perceived organization effectiveness of IT adoption’.
H_1 : There is a significant influence/impact of high technology orientation on the relationship between ‘perceived usefulness’ and ‘perceived organization effectiveness of IT adoption’

Many a times an organization may be pressured to adopt new technologies under external pressures of competition, governmental regulations or prevalent use of technology with partners and trade associations. This external environment sometimes provides an impetus to organization to assimilate a new technology faster. A high technology orientation of an organization may aid this process.

**Hypothesis 5:** Technology orientation will influence the relationship between ‘external factors’ and ‘perceived organization effectiveness of IT adoption’ such that the relationship between ‘external factors’ and ‘perceived organization effectiveness of IT adoption’ will be positively pronounced for high technology orientation of an organization.

H_0 : There is no significant influence/impact of high technology orientation on the relationship between ‘external factors’ and ‘perceived organization effectiveness of IT adoption’.

H_1 : There is a significant influence/impact of high technology orientation on the relationship between ‘external factors’ and ‘perceived organization effectiveness of IT adoption’.