CHAPTER 3
THEORETICAL FRAMEWORK

3.1 Introduction

Based on various adoption theories (Theory of Reasoned Action (TRA) (Fishbein & Azjen, 1975) and Technology Acceptance Model (TAM) (Davis, 1989), Unified Theory of Acceptance and Use of Technology (UTAUT) model (Venkatesh et al., 2003)), the following factors are derived to represent the theoretical model in FIGURE 3.1. Finally, the factors discussed in this chapter will be mapped in a conceptual model that will form the basis for the empirical research.

3.2 Factors affecting Intention use to e-Government System (Citizens’ Perspective)

3.2.1 Dependent Variable

3.2.1.1 Intention to use e-Government System

There are different theoretical models and frameworks used in the e-government literature to explain intention to use and actual use of egovernment public services by citizens and organizations (Carter & Belanger, 2005, 2008; Ebbers & van Dijk 2007; Layne & Lee, 2001; Lau et al. 2007; Reddick, 2005, 2004; Van Dijk et al. 2008). Warkentin et al. (2002) describe adoption as the intention of citizens to engage in e-Government to receive information and request services from the government. Carter and Belanger (2005) measure it as intent to use, while Gilbert and Balestrini (2004) measure it as willingness to use e-Government services. Both willingness and intention to use could be considered as one-dimensional measures of adoption. The relationship between intentions to use e-Government services along with ten independent variables are measured using this model.

3.2.2 Independent variables

3.2.2.1 Perceived Ease of Use

Perceived ease of use is defined as “the degree to which a person believes that using a particular system would be free of physical and mental effort” (Karavasilis, I et al., 2010). More and more people tend to use a particular website because of its simplicity and adaptability. Perceived Ease
of Use and Usefulness are important dimension to identify citizens’ satisfaction (Yoo and Donthu, 2001; Davis, 1989). Perceived ease of use can also be defined as a user’s trust which favors to tend to go for a particular web site of being its userfriendliness, adoptability and a zero free zone of physical and mental effort. Perceived ease of use is powerful inner urge and a spot shoot of people/citizens’ satisfaction.

3.2.2.2 Perceived Usefulness
Perceived usefulness is defined as “the degree to which a person believes that using a particular system would enhance his or her job performance” (Karavasilis, I et al, 2010). Perceived usefulness refers to the state of mind to which a person feels to put his seal of endorsement for using a particular system that would enhance his or her job performance, whereas perceived ease of use is the degree to which a person feels that using a particular system would be free of effort (Davis et al. 1989).

3.2.2.3 Perceived Risk
Perceived risk is defined as “combination of uncertainty plus seriousness of outcome involved” (Horst et al. 2007). As well risk it can be as defined “the citizen’s subjective expectation of suffering a loss in pursuit of a desired outcome” (Warkentin, M. et al, 2002). Always risk factor is negatively correlated with the intention use services. Perceived risk can be defined as to be or not to be, either one would be an unseemingly loomed outcome.

3.2.2.4 Computer Self Efficacy
Compeau and Higgins (1995b) defined computer self-efficacy as “an individual’s perceptions of his or her ability to use computers in the accomplishment of a task”. The definition is based on the concept of self efficacy introduced by Bandura (1986) as “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not only with the skills one has but with judgments of what one can do with whatever skill one possesses”. Computer self efficacy can be defined as one’s confirmed multi-skilled judgment to bring about the desired results through the use of computer.
3.2.2.5 Local Language
Communication and interaction should be meaningful, only if internet language is in the local language and this will lead to understand them the facilities offered by ICT. In the present context the reason for not reaching the advantages offered by government through ICT because of illiterates are being unable to understand the content and services other than their own language and this local language barrier somewhat pulls down the mighty power of e-Government system (Yong, 2004).

3.2.2.6 Familiarity
Familiarity is a process of human mind to bring back or to recollect the past experiences to present in our mind. Our mind registers and interacts with new things when we hear or see them for the first time, which it learns and records and brings back when we happen to see something similar (Luhmann, 1979). In the same way citizens, who are not familiar with the use of online system, they become more familiar once they come in contact with the government agencies for their operational technique.

3.2.2.7 Personalization
In the online environment, the need for personalization is important as well, since there is no direct contact between citizens and the government. In the absence of personalization, citizens may have ripples of dissatisfaction concerning the method of payment, delivery methods and service process. Hence, the government must ensure that tailor-made and need-based online services and personalization are made available on e-Government system (Madu & Madu, 2002; Lee & Lin, 2005 and Hongxiu & Reima, 2009).

3.2.2.8 Security
Security is defined as protecting user’s information from misuse and malpractice. There is a general feeling among citizens that there is lack of security while doing online transaction on e-Government website (DeBenedictis et al, 2002). In e-Governance operations, the complete security, privacy and unsnooping of information is an unstated agreement between the citizens
3.2.2.9 Computer Anxiety

Computer anxiety is defined in many ways by different authors, but each one definition is close to each others. Computer anxiety refers to individual’s apprehension when he or she is faced with the possibility of using computers (Simonson et al., 1987, cited in Venkatesh, 2000). Moreover, Howard and Smith (1986) define that computer anxiety as the tendency of a person to experience a level of uneasiness over his or her impending use of a computer. Initially computer anxiety unnerves the user because of not being habituated and feels uncomfortable entering into new system. Several researches have investigated computer anxiety as a key factor in influencing the different types of technology intention such as E-mail (Elasmar & Cartar 1996) and computer usage (Compeau & Higgins 1995).

3.2.2.10 Website Quality

Website can be termed as a brain of our human body which controls every activity and therefore the quality of website must be unequable and free from ambiguity with simple good design where mass people can easily follow the content. In all respect website should establish its simplicity in satisfying user’s requirements then only it can be called a well designed website. While accepting and supporting of Nielsen (2000) view, poor quality of website will produce a violent backward swing and produce a negative emotional sensitiveness. Researchers reasonably brought out the factors that significantly affected the success of websites especially within the domain of electronic system (Kuan et al., 2008).

3.3 Theoretical Model for Citizens’ Perspective

The theoretical model utilized ten independent variables (perceived ease of use, perceived usefulness, security, perceived risk, computer self efficacy, computer anxiety, local language, website quality, familiarity and personalization) and one dependent variable (intention to use) to formulate the theoretical model used for the study. Based on the above discussed independent and dependent factors the theoretical model is derived (Figure 3.1).
3.4 Factors affecting Intention use to e-Government System (Employees’ Perspective)

3.4.1 Dependent Variable

3.4.1.1 Intention to Use

Intention to use is defined “as a citizen’s intention to adopt and make use of a certain tool in the future” (Ajzen, 1988; 1991; Taylor & Todd, 1995; Venkatesh & Brown, 2001; Venkatesh et al., 2003). The measurement for intention to use includes the intention to use the technology, predict and plan to use the technology in near future. In this study the factor intention to use is used to measure the behavioral intention of the employee to use e-government system.

3.4.2 Independent Variable

3.4.2.1 Performance Expectancy

Performance expectancy is defined “as the degree to which an individual believes that using the system will help him or her to attain gains in job performance” (Venkatesh et al., 2003). Performance expectancy is the exception of his or her skilled capacity coupled with by using new system will strengthen their belief to attain a high degree of job performance.
3.4.2.2 Job Fit

Job fit is defined as “the extent to which an individual believes that using a technology can enhance the performance of his job or her job (e.g. obtaining better information for decision making or reducing the time required for completing important job tasks)” (Thompson et al., 1991). According to Tomatsky and Klein’s (1982) in their innovation adoption theory, they found that factor job fit help the employees to complete their task on quality assured time bound framework. It also is use to measure the performance of an employee based on the newly implemented e-government system.

3.4.2.3 Facilitating Conditions

Facilitating conditions is defined as “the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system” (Venkatesh et al., 2003). Facilitating condition can be defined as an individual agreement with the atmospheric condition favoring him to have strong faith or belief on an organization and infrastructure to support the user system. Favorable condition is not the only factor but the user’s adequately trained IT knowledge will certainly push him towards the use of new technology. In this study, facilitating conditions is measured by identifying the ability of the person to access the online e-government system with the help of his or her past experience in the field of information technology. According to Venkatesh et al., (2003) argues that facilitating conditions construct is not a significant factor for predicting intention, but it can be used to identify factor for technology usage. Mahadeo (2009) opined that the factor facilitating conditions are considered to be a motivating factor for citizens’ intention to use e-government services.

3.4.2.4 Compatibility

Compatibility is defined as “the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters” (Rogers, 1995). In this study compatibility mainly focus on the existing work practice along with the way of conducting the job with the new system. Computerized system, being a versatile one to assists for establishing and to measuring the ability of employee performance in comparison with the use of tradition method.
3.5 Theoretical Model for Employees’ Perspective

This theoretical model is designed based on the above discussed independent and dependent factors. This model utilized four independent variables (performance expectancy, effort expectancy, facilitating conditions, compatibility) and one dependent variable (intention to use) to formulate the theoretical model for employees’ perspective (Figure 3.2).

FIGURE 3.2 THEORETICAL FRAMEWORK