

## **CHAPTER 3**

# **RESEARCH METHODOLOGY**

### **3.1. OVERVIEW:**

Quantitative research in the form of questionnaires survey distributed to meet research objectives. The survey targeted individuals whom are adult working in Iran and Malaysia who were affected by Information systems (i.e., their employers adopted significant ICTs and they personally used Information systems for work-related purposes) in both countries to specify different organizational culture and investigate the effect of differences on employees behavior to use internet as one aspect of new technology in organization.

The study investigated two main research questions posted earlier, namely:

- Do different culture affect the transfer of technology in organizations?
- How does perceived quality of working life affect the intention to use new technology in organizations?
- How different dimensions of the culture effect using new technologies in organizations?
- Is there any difference in willingness of using new technologies in different cultures?

These dimensions (organizational culture including five items namely power distance, uncertainty avoidance, individualism/ collectivism, masculinity/ femininity, long-term orientation and behavioral intention in technology acceptance model and perceived quality of working life) are derived from Greet Hofstede's cultural theory (1977) with five items, TAM or Technology

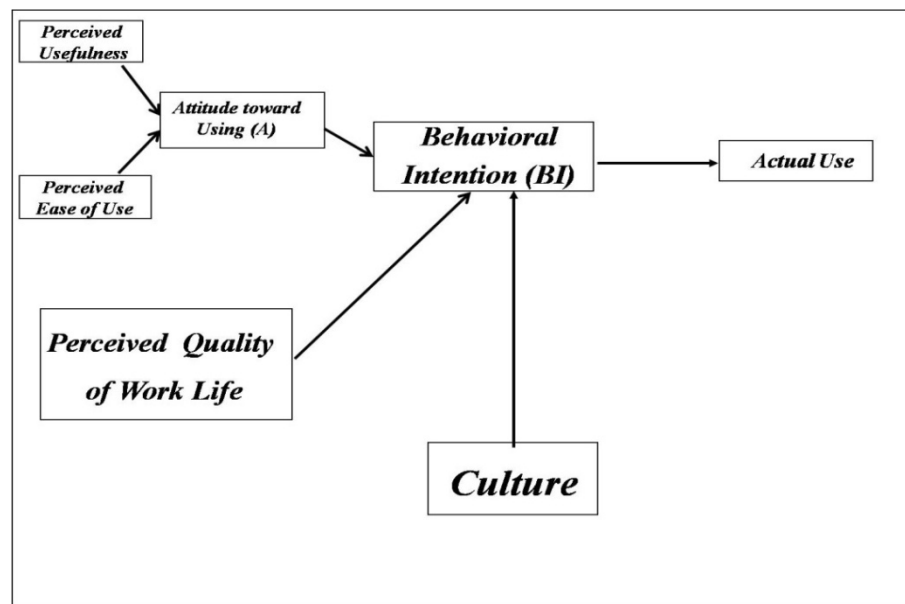
Acceptance Model by Davis (1989) with one item used from five items and Perceived Quality of working life from Beasley (2005) respectively.

The purpose was to identify which dimensions being perceived as the most important elements in transferring new technologies in organizations. Two Muslim countries, Iran and Malaysia, chose to compare different cultures and the effect of these cultures in accepting new technologies.

### **3.2. THEORETICAL FRAMEWORK**

The theoretical foundation for the research was established through the literature review in the areas of organizational culture and adapting new technologies researches various on countries including Malaysia and Iran. Dimensions of organizational culture were extracted from Greet Hofstede's cultural theory (1977) and for adopting and accepting new technologies the "Technology Acceptance Model" by Davis (1989) used which both are well-known theories in their own area. The proposed conceptual framework is as shown in Fig.3.1.

Fig 3.1: Proposed Conceptual Framework



### 3.3. VARIABLES

The research paper has three constructs namely organizational culture, perceived quality of working life and behavioral intention. Culture and perceived quality of working life are independent variables where behavioral intention is dependent variable.

### 3.4. SELECTION OF MEASURES AND RESEARCH INSTRUMENT

The questionnaire used for this research was combination of technology acceptance model questionnaire by Davis, Culture by Hofstede and perceived quality of work by *Beasley, John W. (2005)*. The response format was based on likert scale from 1 to 5, with 1 being the “Strongly Agree” and 5 being the “Strongly Disagree”. According to Cresswell (2003), Likert’s method yields higher reliability coefficients than interval scale. Lissitz and Green (1975) found that from statistical perspective, scales with 2

response options have less reliability than scales with 5 response options. Moreover, this is further supported by Cresswell (2003), reliability seems to level off after 5 scale points, thus, suggesting minimal incremental utility of using more than five scale points. “The open ended Likert scale made the variables a continuous variable, which allowed these variables to be analyzed by using descriptive statistics, correlations and regression analysis. The descriptive statistics allow us to measure using mean, median and standard deviations. Therefore, the questionnaire had the necessary tools for these goals and clearly communicated to the sample population” (Hin, 2007)

The questionnaire consists of 61 questions where the first nine were demographics such as age, gender, marital status and etc. and next 23 were related to technology acceptance model (TAM). Thirteen questions derived from literature review of perceived quality of working life and finally the last 13 were directed to Hofstede’s culture theory. The sample of the questionnaire is available in appendix.

### **3.5. HYPOTHESIS:**

**H1, NULL:** There is no relationship between perceived Quality of Work Life and behavioral intention to use new technologies in organizations.

**H1, ALTERNATIVE:** There is relationship between perceived Quality of Work Life and behavioral intention to use new technologies in organizations.

The perceived quality of work life refers to the beliefs developed by individuals about the physical and psychosocial work environment. The usage of new technologies will

depend on the perception people develop about the contribution of new technologies to the improvement of the quality of work life.

**H2:** Culture (four dimensions: Power distance, uncertainty avoidance, masculinity/femininity and individualism/collectivism) has relationship with behavioral intention.

The null hypothesis can be explained as: There is no significant difference between different cultures in terms of intention to use new technologies.

Some necessary steps to get the result for the hypothesis above are testing that two cultures have significant differences by comparing the means and then study each cultural dimension's relationship with intention to use new technologies separately. By comparing the relationships, results can show the effect of culture on using the technology: **H2a:** There is a significant difference between Malaysian culture and Iranian culture in terms of using new technology.

### **3.6. SAMPLING DESIGN**

The sample for this study will be consisted of employees in Malaysian and Iranian IT based organizations which used internet in work. The data collection was conducted in Klang Valley area and Tehran (capital city of IRAN). The respondents were selected using the convenience sampling technique with questionnaires distributed at University of Malaya, University of Tehran, offices throughout the Klang Valley and Tehran in different industries.

The study will be conducted in two subsidiaries of organizations operating in two countries sufficiently varying in term of culture according to Hofstede's cultural dimensions indexes. The sample will be composed of workers (all categories of occupations) using the internet. The data collection will be conducted through questionnaires. All of the questions in the survey will be based on previous well-validated instruments. Data analysis and model testing will be conducted using SPSS version 16.

### **3.7. MEAURES**

#### **3.7.1 TAM**

A number of standardized instruments measuring these constructs have been developed and have proved to have acceptable IS/IT properties. In this study, the questionnaire provided by Davis, F. D. (1986) will be used.

#### **3.7.2 CULTURE**

In assessing four selective dimensions of culture, Hofstede (2001) questionnaire will be used to measure different dimensions.

#### **3.7.3 PERCIEVED QUALITY OF WORK LIFE**

Beasley, John W. (2005) was developed questionnaire on the basis of the literature with 13 questions in 3 categories for analysis which used for this study.

### **3.8. DATA ANALYSIS TECHNIQUE**

After the data is collected, it is analyzed using the statistical software SPSS. Usage of the statistical techniques was according to commonly accepted research assumptions where appropriate. The analyses involved in this study to meet the research objectives, are: (1) find the correlation of culture and perceived quality of working life with behavioral intention in both samples of Malaysia and IRAN, and (2) t-test analysis is adopted to identify the significant difference between Iranian and Malaysian cultures and investigate how strong are each of the dimensions in each culture.