

**THE INTERACTIVE EFFECT OF COMMUNICATION SATISFACTION  
AND CULTURAL DIMENSIONS ON ORGANIZATIONAL  
COMMITMENT: A CASE OF FOUR UNIVERSITIES IN YEMEN**

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## ABSTRAK

Kajian ini mengkaji kesan interaktif daripada kepuasan komunikasi dan dimensi budaya terhadap komitmen organisasi. Selain itu, kajian ini turut mengenal pasti kesan penyederhanaan budaya bangsa terhadap perkaitan kepuasan komunikasi – komitmen organisasi. Untuk mencapai objektif kajian, data kuantitatif dikumpul daripada staf akademik yang berkerja di empat (4) buah universiti di Yaman. Pensampelan rawak terstrata digunakan dalam pemilihan sampel dan sejumlah 362 orang staf akademik terlibat dalam kajian ini dengan mengisi dan mengembalikan borang soal selidik yang diagihkan kepada mereka. Para peserta kajian terdiri daripada mereka yang datang dari lima (5) kerakyatan yang berbeza, iaitu Mesir, Iraq, India, Malaysia, dan Yaman. Analisis statistik yang digunakan untuk menganalisis data kajian merangkumi statistik deskriptif, ANOVA, korelasi Pearson, regresi berganda, dan regresi berganda hierarki. Dapatan kajian menunjukkan bahawa tahap kepuasan terhadap amalan komunikasi dalam kalangan staf akademik adalah daripada rendah hingga sederhana. Komitmen terhadap organisasi dalam kalangan staf akademik adalah pada tahap sederhana. Dapatan juga menunjukkan bahawa terdapat banyak perbezaan yang signifikan di antara staf akademik Yaman dan staf akademik bukan rakyat Yaman dari segi tahap kepuasan komunikasi berhubung dengan sembilan (9) dimensi kepuasan komunikasi. Keputusan analisis korelasi menunjukkan perkaitan bivariat positif yang signifikan di antara dimensi kepuasan komunikasi dengan tiga (3) dimensi komitmen organisasi. Analisis regresi berganda pula menunjukkan bahawa perspektif organisasi; maklum balas staf / personel; kualiti media; dan komunikasi pengurusan atasan adalah dimensi kepuasan komunikasi yang banyak memberi ramalan tentang komitmen yang paling efektif. Sementara itu, kualiti media merupakan satu-satunya dimensi yang boleh meramal kedua-dua komunikasi selanjar dan normatif. Keputusan regresi berganda hierarki menunjukkan bahawa dimensi budaya negara menyederhanakan perkaitan di antara dimensi kepuasan komunikasi dan dimensi komitmen organisasi. Kajian menunjukkan bahawa perkaitan di antara komitmen organisasi dengan kepuasan komunikasi yang secara signifikannya positif adalah terkesan atau dipengaruhi oleh budaya bangsa. Dapatan kajian ini memberikan suatu ilmu berguna kepada pihak universiti dan organisasi yang mempunyai pekerja yang terdiri daripada pelbagai bangsa. Di samping itu, dapatan ini juga diharapkan dapat memandu pihak universiti berkenaan untuk memahami signifikan dan kepentingan kepuasan komunikasi kepada staf mereka agar mereka lebih komited dalam melaksanakan pekerjaan. Dapatan ini juga membantu pihak pengurusan universiti berkenaan membangunkan strategi untuk menilai tahap kepuasan komunikasi dalam kalangan staf, dalam usaha menyediakan suatu persekitaran akademik yang sihat bagi mencapai natijah atau hasil yang berkualiti tinggi.

**Katakunci:** kepuasan komunikasi, komitmen organisasi, kebudayaan kebangsaan, Yaman

## ABSTRACT

This study investigates the interactive effect of communication satisfaction and cultural dimensions on organizational commitment. The study also aims at identifying the moderating effects of national culture on the communication satisfaction-organizational commitment relationship. To achieve the objectives of the study, quantitative data were collected from academic staff working in four universities in Yemen. Stratified random sampling was employed in the sample selection and a total of 362 academic staff participated in a survey by returning the study questionnaire distributed to them. The study participants were from five different nationalities i.e. Egyptians, Iraqis, Indians, Malaysians, and Yemenis. Statistical analysis used for analyzing the data of the study included descriptive statistics, ANOVA, Pearson Correlation, Multiple Regression, and hierarchical multiple regression. The findings of the study indicated that the academic staff's level of satisfaction with communication practices has ranged from low to moderate. The academic staff's organizational commitment was also moderate. The findings also showed many significant differences between Yemeni and non-Yemeni academic staff in the level of communication satisfaction with regard to the nine dimensions of communication satisfaction. Results of correlation analysis indicated significant positive bivariate relationships between communication satisfaction dimensions and the three dimensions of organizational commitment. The multiple regression analysis showed that organizational perspective; personal feedback; media quality; and top management communication are the communication satisfaction dimensions that very much predict the affective commitment, while media quality was the only dimension that predicts both continuance and normative commitment. The results of the hierarchical multiple regressions indicated that national culture dimensions moderate the relationship between communication satisfaction dimensions and organizational commitment dimensions. The study has indicated that the relationship between organizational commitment and communication satisfaction which is significantly positive is affected by national culture. The findings of this study provide a valuable knowledge to universities and organizations which have multinational staff working in them and guide these universities to understand the significance and the importance of communication satisfaction for their staff to be highly committed in order to perform well. The findings also help the management of these universities to develop strategies for elevating their staff's communication satisfaction level in order to provide a healthy academic environment and to reach a high-quality outcome.

**Keywords:** communication satisfaction, organizational commitment, national culture, Yemen

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## **LIST OF ABBREVIATIONS**

<b>CS</b>	Communication Satisfaction
<b>CSQ</b>	Communication Satisfaction Questionnaire
<b>IDV</b>	Individualism
<b>LTO</b>	Long- vs. Short-Term Orientation
<b>MAS</b>	Masculinity
<b>MHESR</b>	Ministry of Higher Education and Scientific Research
<b>NC</b>	National Culture
<b>OC</b>	Organizational Commitment
<b>PDI</b>	Power Distance
<b>UAI</b>	Uncertainty Avoidance
<b>VSM</b>	Value Survey Module

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

This chapter introduces the background of this study under section 1.2, followed by the problem statement in section 1.3. Research questions covered in section 1.4 and research objectives are then presented under section 1.5. Section 1.6 discusses the significance of the study. The last section illustrates the organization of the thesis.

#### **1.2 Background of Research Problem**

Universities are considered as important organizations which include within them a big number of academic and administrative staff. These academic institutions play an important role in the development of any nation in the world (Gizir & Simsek, 2005). As such, the Yemeni government tries its best to pay greater attention to the universities on which development of the country is dependent (MHESR, 2007).

Since Yemen is considered as one of the under-developed countries, Higher Education in Yemen is still very young. It began with the establishment of the first university, Sana'a University, in 1970 and then Aden University has been founded a little later in 1975. In the 1990s, there was rapid expansion of higher education: six new universities were established in 1994 and eleven in 1996. Presently, there are a total of twenty universities seven of them are public universities and the other thirteen are private ones which offer diverse courses of studies. Further, there are a number of two colleges and several postsecondary specialized education institutes (Supreme Council of

Education Planning, 2003). In the twenty Yemeni universities, there are a total number of 196,081 students enrolled (The Yemeni Central Statistical Organization, 2006).

According to the statistical yearbook (2006) that produced by The Yemeni Central Statistical Organization, there are a number of 6905 academic staff working in all the twenty universities all over Yemen. A total number of 5805 of them are local academic staff, Yemeni staff, and the other 1100 are foreign academic staff, Non-Yemenis. The Non-Yemeni academic staff are of different nationalities, (i.e. Malaysians, Indians, Egyptians, and Iraqis).

In Yemen, the main objectives of the Ministry of Higher Education And Scientific Research (MHESR) in Yemen are to improve the quality of the graduates of universities and other higher education institutions with a particular emphasis on acquiring breadth and depth of knowledge, problem-solving skills, critical and creative thinking, communication skills, lifelong learning, IT skills, and proactive participation in achieving their personal and national aspirations (MHESR, 2007). It aims also to show excellence in teaching, learning, research and service to society, and enhances Yemen's quality of life. Obviously, these objectives reflect the roles the universities play in the development of the country (MHESR, 2007). The universities provide the nation with the qualified workforces who participate in the construction and development of the country. They also provide the research which helps in the advancement of the country in various aspects of life (Gizir & Simsek, 2005; Alfantookh & Bakry, 2008).

Academic staff are the central elements in educational system holding various important responsibilities (Malik et al. 2010). They are the most valuable assets to universities as so the staff high performance is required for the universities to achieve their objective and gain success (Kaulisch, 2006). Malik et al. (2010) has asserted that

the overall performance of universities depends upon their academic staff and ultimately their level of commitment and job satisfaction. In order to achieve that success, the academic staff should experience high level of organizational commitment (Malik et al. 2010) and that is closely related to communication satisfaction (Varona, 1996; Mustaffa, 2004; Hsu, 2002).

Organizational commitment was a widely studied factor in management literature (Buchanan, 1974; Allen & Meyer, 1990; Shore & Wayne, 1993; Finegan, 2000; Freund, 2005). This factor is even more important to study in academic institutions such as universities as these universities are the sources of human resources and sole responsible for educating and preparing the intellect of nations (Malik et al. 2010). Organizational Commitment (OC) has become a very important organizational variable because loyal employees are seen as the most important resources of the organization (Downs et al., 1996). As among the committed employees turnover is less and that reduces costs and increases productivity (Stumpf & Hartman, 1984).

In universities the academic staff are the most important resources, and it is essential that the staff that universities employ should be of the highest quality and of highest commitment so they can play the fullest possible role in ensuring that universities fulfill their mission to provide education, conduct research and provide community service (Malik et al. 2010). Thus, understanding the academic staff behaviors and attitudes needs more attention in educational organizations (Tsui, & Cheng, 1999). This study is another effort which aimed at investigating the relationship of communication satisfaction and organizational commitment among university multicultural faculty in universities of Yemen.



A report entitled "National Strategy for the Development of Higher Education in Yemen", produced by the Yemeni Ministry of Higher Education and Scientific Research (MHESR) (2005), showed that there is a problem of low organizational commitment among the academic staff in the Yemeni universities. Malik et al. (2010) has concluded that universities need to be agreeable places to work, in order to attract and retain staff, and in order to secure their commitment to the university. In the same way, universities ought not just to be places where staff come to work and then go away, but communities to which they feel committed and where they want to spend their time together with their colleagues and students. Malik et al. (2010) confirms that higher education is not immune to the problem of academic staff's low level of organizational commitment which could result into unfavorable economic and non economic outcomes such as high exit turnover, reduced teaching effectiveness and intellectual development of the students. Therefore, according to Malik et al. (2010), it is important to policy makers and universities managements to take necessary actions to make their core workforce highly satisfied and committed.

According to the MHESR (2005) report, it has been clear that academic staff in universities in Yemen regard their university post as a secondary interest, while they undertake other roles, often requiring big deal of commitment. It was also clear that these arrangements are often not to the benefit of students, and there are cases reported where staff are regularly absent even from the lectures which they are committed to give. Moreover, there is no full commitment of staff which means that universities and their students are not always well served by their staff.

In an analysis of strengths, weaknesses, opportunities, and threats (SWOT) reported by the Yemeni MHESR (2005), they include the absence of a culture of

personalized interactions between teaching staff among themselves and also between the staff and their students as one of the main weaknesses of the universities in Yemen. They also include the experienced academic staff leaving for "greener pastures", as one of the main threats that is of great concern for the universities management (MHESR, 2005).

According to Ahmad (2006) and Hargie et al. (2002), effective communication is a key to organizational accomplishment. Therefore communication should have been located by organizations in their strategic planning process. Examining communication effectiveness plays a practical role in shaping the organization's communication strategy. Hargie et al. (2002) agree that employee communication satisfaction is important as it plays a central role for employees' organizational effectiveness. Hence, if communication satisfaction among the staff is low that will result in low organizational commitment, more absenteeism, greater employee turnover, and less productivity (Hargie & Tourish, 2000).

As noted by Applbaum et al. (1973), communication process in any organization affect many facets of this organization such as customer service, personal development, teamwork, leadership, organizational climate, culture, job satisfaction, and productivity. Thus, the process of communication is vital in all areas of life, since interaction of any kind requires forms of communication; from personal relationships and interaction to business relationships and interaction. If lack of communication can cause a failure in relationships, so, obviously, it can also cause employee dissatisfaction, and create problems with efficiency and productivity in an organization as well (Villegas & Cervený, 2004).

Obviously, a high quality university requires a sense of community and a common culture and this, of course, desires the existence of a healthy communication process for such goal to be achieved. Many researchers have showed that internal organizational communication is important for improving employee productivity and performance and for positive organizational outcomes (Argenti, 1998; Clampitt & Downs, 1993).

### **1.3 Statement of the Problem**

The rapid increase of the universities in Yemen recently made a need to a big number of foreign academic staff to work in these universities since the local staff could not cover the job. This, in fact, forms a multicultural faculty to work in these universities. Downs & Adrian (2004) argues that multicultural staff working together in one organization may have difficulty getting along since they do not understand each others' languages, traditions, and humor. This misunderstanding leads to mistakes that weaken productivity. The influence of culture is the main cause in this lack of communication. Hence, the cultural differences made problems in communication and reflected on the staff's productivity.

As mentioned earlier, in universities or in any academic and educational institutions, the academic staff are the most important assets since the success of these institutions depends on their performance and commitment (Malik et al. 2010). OC refers to ones attachments to his/her employing organization (Mowday et al, 1979). Researchers claim that strong employee commitment in an organization will thus results in low turnover and weak ones result in high worker turnover; which costs money to hire and train each replacement (Riketta, 2002; Allen & Meyer, 1996; Cohen, 1993; Stumpf

& Hartman, 1984). Reichheld (1996) argued that developing employees who are loyal to the organization will pay off in more satisfied customers. Committed employees are believed to dedicate more of their time, energy and talents to the organization than those who are not committed. This reflects an individual's willingness to work towards and accept organizational goals (Reichers, 1985). In other words, committed staff are more likely to be better service quality performers due to their willingness to engage in discretionary effort beyond the normal call of duty.

Major reviews in this area prove that these effects are quite robust. For instance, Mathieu and Zajac (1990) has conducted a meta-analysis which showed that organizational commitment consistently and strongly predicts attendance and lateness and correlates negatively with turnover, the intention to search for job alternatives and to leave one's job. Thus, there is convergent evidence that employees with low organizational commitment tend to leave the organization more quickly as opposed to people with a high organizational commitment, and that committed employees are willing to invest more effort on behalf of their organization in comparison with uncommitted employees. This demonstrates the importance of organizational commitment for organizations.

According to Downs et al. (1996), OC is important because loyal employees who identify closely with the organization are seen as an organization's most important resources. Turnover is less among committed employees (Stumpf & Hartman, 1984), thus reducing costs and increasing productivity. Wakefield, Price and Mueller (1986) indicate that OC has an important impact on the working behavior of employees. In view of that, Abu Bakar (2010) points out that Mathieu and Zajac's (1990) meta-analysis of organizational commitment showed that the commitment measures might be better

suited to predict behavior than broad measures. Randall et al. (1990) concluded that particular form of commitment may be related to specific behavior at work. Accordingly, in a test of her multiple constituency frameworks, Reichers (1985) has shown that the understanding of organizational commitment could be enhanced by recognizing that employees can be committed to multiple sets of goals. Reichers (1985) further suggested that organizations could better be viewed as aggregates of various constituencies that may have conflicting goals and values. Therefore, it is very important to specify the nature of these values and goals in order to predict staff's commitment (Reichers, 1985; Abu Bakar, 2010).

Researchers in organizational behavior have identified multiple components of OC, but none has received as much attention as affective commitment (Allen & Meyer, 1996; Matthieu & Zajac, 1990). Abu Bakar et al. (2010) reviewed Mathieu & Zajac's (1990) meta-analysis of OC and concluded that affective involvement is the most relevant constituent as a behavioral predictor of individual in an organization among the three OC components proposed by Allen and Meyer (1990). Allen & Meyer (1996) indicated that though affective commitment is seen as the most influential dimension affecting various work aspects, the other two dimensions of commitment has their own behavioral consequences to the individual employee or the organization. It has been found that each form of commitment is correlated with many organizational outcomes (Allen & Meyer, 1996) although correlations are strongest in case of affective commitment (Meyer et al., 2002).

Iverson et al. (1999) showed that the three forms of commitment should have distinctive outcomes as a consequence of the differences in motives. Therefore, a greater understanding of the types of commitment with respect to their antecedents and

organizational outcomes is required (Iverson et al., 1999). Meyer et al. (2002) in their Meta analysis of empirical studies on OC showed that the three dimensions of commitment are related yet distinguishable from one another. Allen and Meyer (1990) and Meyer and Allen (1991) argued that it is likely that the three conceptual different dimensions of commitment have different antecedents and different implications for work relevant behaviour. Based on this idea they created the three-component model of organizational commitment and accordingly, this model is used in this study. Thus, as OC is a desirable outcome, it is necessary to examine the extent into which staff feel committed to their universities and it is important also to find out how this desirable high level of OC can be achieved.

As indicated by Suliman (2000), although the Arab researchers believe that committed workforce is a powerful source of success, OC research in the Arab world is somewhat disregarded. The first published studies in examining the OC level in organizations in the Arab world is that of Awameleh (1996) and Darwish (1998). Awameleh (1996) has investigated the OC of the Jordanian civil service managers. He proves that these high managers are highly committed. And depending on Awameleh's (1996) results, Suliman (2000) has recommended that the focus of commitment research, especially in Arab world, should be on the bottom and middle level employees. Ballout (2009) argues that there has been an increase attention given to the study of organizational commitment and its correlates in western setting; however, the study of organizational commitment in the Arab World as a non-western setting is still lacking. Ballout (2009) has recommended that researchers need to test the applicability of the western management theories such as Allen & Meyer's (1990) organizational commitment model in new cultural settings like the Arab World.

It has been observed that communication has a positive effect on OC, and hence should be seen as one of its important antecedents (Postmes et al. 2001). One of the most striking findings of Mathieu and Zajac's (1990) meta-analysis was the strong impact of communication on OC. Communication may be the most vital process which leads to the success or failure of an organization and leads also to high or low OC. Obviously when CS is low, the OC is also affected (Downs & Adrian, 2004). Through the communication process employees learn what is expected from them, find out how to perform in their responsibilities and become aware of what their leaders think of their work (Likert, 1993; Schuler, 1995). According to Greenbaum, Clampitt, & Willihanganz, (1988), most communication scholars and researchers argue that communication is one of, if not the most important component leading to improving productivity, performance, positive organizational outcomes and to an organization's success. They indicate also that "communication is of fundamental importance in the operation of all organizations".

Literatures (Varona, 1996; Mustaffa, 2004; Carrie`re & Bourque, 2009) indicate that communication satisfaction is very much related to organizational commitment. Yet, only one study among all these studies has examined organaziatonal commitment as a multidimensional construct (Mustaffa, 2004). Most of the studies have measured organizational commitment as a unidimensional construct, however, recent studies have acknowledged that organizational commitment is a multidimensional construct (Meyer & Allen, 1991; Meyer et al. 2002). Moreover, among these studies, there is no single study that examines the relationship between communication satisfaction and organizational commitment in the educational setting. According to Carrie`re & Bourque (2009), the relationship between communication satisfaction and organizational

commitment is more recent and still less understood. Carrie`re & Bourque (2009) indicated that research interest in the domain of communication dates back to many years ago. Over the last decades, a large body of literature has emerged. Despite a century of enquiry, interest on the subject matter remains strong. The reason behind that is, according to Carrie`re & Bourque (2009), due to the increasing complexity of modern organizations and the dynamic and diverse environments in which they operate. On the basis of these two rationales, further research is needed to scrutinize this variable and also examine its relationship with organizational outcomes such as organizational commitment. Thus, the current study is conducted in order to examine the relationship between communication satisfaction different dimensions and organizational commitment dimensions in the Yemeni setting attempting to fill this gap.

Intercultural experiences create challenges to one's personal communication skills. One has to learn how to deal with unexpectedness, ambiguity and otherness as well as the resulting culture shock. The knowledge, skills and attitudes that are necessary for successful intercultural communication have to be observed, discussed and practiced (Ruben, 1976; Huber-kriegler & Strange, 2003). Effective intercultural communication skill is "the ability of an individual or a group to achieve understanding through verbal or non-verbal exchange and interaction between cultures" (Ricard, 1993). Bakel (2002) has claimed that the literature about intercultural communication shows that differences in culture are the major cause of any international assignment problems. The adapting process is the same for almost every culture, but it can create many problems in the case of cultures that are not close to the home culture.

A review of the communication studies literature indicates that there are studies in recent years have recognized the relationship between communication and national



culture (Morley, et al. 1997; Chow, et al. 1998; Nes, et al. 2007; Meeuwesen et al. 2009; Akkirman & Harris, 2005; Al-Nashmi & Zin, 2011). Yet, among these studies, there are only few studies which examine the relationship between satisfaction with communication practices and national culture (Akkirman & Harris, 2005; Al-Nashmi & Zin, 2011).

There has been also recognition of a relationship between communication satisfaction and organizational commitment (Varona, 1996; Mustaffa, 2004; Carrie`re & Bourque, 2009). However, there are very few studies in the existing literature about the national culture moderating effects on the relationship between communication satisfaction and organizational commitment (Akkirman & Harris, 2005). Varona, (2002) has recommended that multinational research is needed to demonstrate the conceptualization of communication satisfaction and organizational commitment in different countries and cultures around the world. He mentioned that the need for more international communication research is essential. However, much more research is needed to investigate national and cultural differences on both the constructs.

Research in communication in the Arab countries has been also neglected. Very few researchers have done academic researches in this area (Alyami, 2002; Alawi et al. 2007). Alyami (2002) has looked at the relationship between superior-subordinate communication and job satisfaction among employees in four public companies in Saudi Arabia. Alyami (2002) claimed that his study is the first one in the literatures in the Arab World that has discussed the importance of communication in the organizations. Al-Alawi et al. (2007) investigated the role of certain factors such as communication between staff, interpersonal trust, rewards and organizational structure play in the

success of knowledge sharing. The findings indicate that communication as some of the other factors play an important role in the knowledge sharing success.

As far as Yemen, as one of the Arab countries, is concerned, the issues of OC and CS remain unexplored. To the best of the researcher's knowledge after reviewing the literature related to this study's variables, this work is the first in the Arab world that tries to investigate the relationship between CS, OC, and national culture. Further, this study is the first study in Yemen as well as in the Arab world to perform CS Audit. There is no evidence that a communication audit has ever been conducted in Yemen. Therefore, this study will add knowledge to the research field, especially in the Arab World. As communication and CS audits are trying to investigate strengths and weakness of organizational communication to improve organizational effectiveness (Gray & Laidlaw, 2004), this study represents a significant contribution to the development of research on national culture, CS and OC and to improve the organizational effectiveness in the Arab organizations as well. The study provides data necessary to improve the academic staff commitment and to lower the turnover intent in universities. The implication of the findings of this study may have a significant impact on the academic staff activities, training, and organizational effectiveness of the universities in Yemen.

Therefore, this study aims at investigating the relationships between CS and OC of both the local and foreign teaching staff in the Yemeni universities. It aims also at exploring the national cultural dimensions which affect the relationship between CS and OC. Those staff that interacts with their own community and don't mix with staff from other culture will fail to understand the culture of others and can't be satisfied with the communication process and they might not accomplish their communication goals. This

dissatisfaction may lead to insufficient work achievement for the staff in doing their job and may also lead to low OC in these academic organizations (Downs & Adrian, 2004).

In multicultural organizations, a large portion of communication occurs between people with different cultural backgrounds. Culture can be viewed as a cumulative deposit of knowledge, experience, meanings, beliefs, values, and attitudes (Porter, 1972). Therefore, lack of proper understanding and awareness of others cultural factors among staff prompted this research to explore the relationship between CS, OC, and national culture and expands it into another region, namely, the Arab World.

#### **1.4 Research Questions**

To explore the relationships between communication satisfaction and organizational commitment of the local and foreign academic staff in universities in Yemen, the following research questions were addressed:

- Q1: What are the differences in communication satisfaction level between Yemeni and non-Yemeni academic staff?
- Q2: What is the relationship between dimensions of communication satisfaction and organizational commitment dimensions of the Yemeni and non-Yemeni academic staff?
- Q3: Do the national culture dimensions moderate the relationships between communication satisfaction and organizational commitment?

### **1.5 Objectives of the Study**

The principle aim of this research is to investigate the relationship between communication satisfaction and organizational commitment of members of the multicultural faculty in universities in Yemen.

To be specific the aims of this study are as follows: To determine

1. the differences in CS level between Yemeni & non-Yemeni academic staff.
2. the relationship between dimensions of communication satisfaction and organizational commitment dimensions of the Yemeni and non-Yemeni academic staff.
3. the national culture dimensions which moderate the relationship between CS and OC.

### **1.6 Significance of the Study**

This study contributes to the existing literature in many ways. First, this study extends beyond previous research by providing an understanding into the relation between the communication satisfaction dimensions, organizational commitment dimensions and dimensions of national culture of the teaching staff in the Yemeni universities. The present study is different from the previous studies in this area in several aspects. This study goes a step farther by examining the relations between the three so mentioned constructs all together. As such, the determination of how these variables are related will provide valuable insight into the organizations and educational institutions, especially the Yemeni universities stability and the staff development and

performance. It may assist international as well as local staff to be able to help, improve working relationships, and understanding of intercultural communication in universities. In addition, the international teaching staff can gain a better understanding of the cultural differences in communication. This understanding of the different cultures in communication can help them in performing their job in a better way and reach a communication satisfaction and ultimately attain high organizational commitment.

This research makes a second contribution to the current literature by providing the first communication satisfaction auditing in the Arab World; particularly in the academic institutions. This will be attracting researchers' attention to enrich this important area for the sake of improving the workforce commitment and satisfaction which leads to the development of all the organizations in Yemen and the Arab World and that will, according to Malik et al. (2010), lead to the country development and reviviscence. It will inspire the researchers to explore further towards this field of study. This research will add knowledge to the field of study, especially in the Arab world.

The third contribution of this research is that it investigates real issues related to communication satisfaction among a multicultural team performance. It recognizes the differences in culture, communication and commitment between the Yemeni academic staff and the non-Yemeni ones. Effective and clear communication of team members is one of the critical factors for achieving high-performing work teams (Shonk, 1982). Therefore, this research lies in examining multicultural team dynamics from communication prospective. The study will also provide additional empirical evidence about the multidimensionality nature of the concept of communication satisfaction in a non-western setting. The researcher used the nine dimensions of CS i.e. subordinate communication, horizontal communication, top management communication,

organizational perspective, organizational integration, media quality, personal feedback, supervisory communication, communication climate which have been grouped by Pincus (1986) in to three dimensions.

The forth contribution of this study is its replication of Hofstede's (1994) Value Survey Module (VSM). The study will add some new findings to Hofstede's cultural index since Hofstede dealt with the Arab countries as a region and did not measure the cultural differences for the countries separately. Leat and El-Kot (2007) stated that Hofstede generalized his results in some cases, such as all Arab countries, depending on his samples that represented only few countries. Hofstede presented findings relating to Arab societies in general. Using Hofstede's Value Survey Module (1994), new findings for the five national culture dimensions will be added to literature by measuring the national culture for three different nationalities in the Arab World, namely, Yemeni, Egyptians, and Iraqis.

The sixth contribution of this study is that the three-component model of OC has been taken as a popular concept in western society but the applicability in non-western context has not been tried. So this study contributes to the knowledge by providing result of the use of this model in nonwestern context. The results of the study will provide evidence that the OC is indeed multidimensional construct and is generalizable to non-western organizational context.

Seventh, CS has been investigated and audited for decades throughout the non-educational organizations, yet it is a recent concept in the education industry, especially universities. Recently, only two studies have investigated the concept of CS in the context of education (Ahmad, 2006; Meintjes & Steyn, 2006). However, these studies perform a CS audit in a single cultural context where the respondents come from one

nation. On the other hand, this study has carried out a CS audit in a multicultural educational context. This will contribute to the existing literature by measuring communication satisfaction in a multicultural educational setting.

## **1.7 Organization of the Thesis**

This study is organized into five chapters including the introduction. The details of all the chapters are described below.

Chapter 1 includes a discussion on the background of the study, the statement of the problem, research questions, research objective, and significance of the study. Chapter 2 consists of review of related literature and research related to the problem being investigated. It includes also the theoretical aspects related to the study variables and hence research hypotheses are developed to answer the research questions based on the extensive literature review and the problem statement. The methodology and procedure for the study are presented in chapter 3. Chapter 4 presents the results of the analysis and findings emerging from the study. The last chapter, chapter 5 provides a summary of the study and the study findings. It includes also the discussion of the study findings. It presents also the contributions of the study findings and discusses limitations of the present study and explains how the findings have implications to future research practice.

## 2

**LITERATURE REVIEW****2.1 Introduction**

This chapter begins by explaining the conceptual aspects of the study variables, communication satisfaction, organizational commitment, and national culture. Next, the relationships between the study variables are explained. Previous studies related to the study variable are also discussed in this chapter. The theoretical framework with the research model that determines the relationship between the research variable is presented. The last section presented in this chapter comprises the hypotheses of this study.

**2.2 Communication Satisfaction**

Communication is vital for any institution and organization since it is the vehicle of human interaction. Scholars believe that a positive communication environment contributes to organizational efficiency (Ahmad, 2006). Many researches have revealed that there is a relationship between communication satisfaction and; organizational identification (Nakra, 2006); productivity (Clampitt & Downs, 1993); organizational commitment (Varona, 1996; Mustaffa, 2004); job performance (Pincus, 1986); job satisfaction (Gulnar, 2007; Downs & Hazen, 1977).



Communication satisfaction has been defined by many scholars as an individual's satisfaction with various aspects of communication in interpersonal, group, and organizational contexts (Downs & Hazen, 1977; Hecht, 1978). According to Downs & Adrian (2004), communication satisfaction previously was thought to be a one-dimensional construct. It has been defined in the past as "the personal satisfaction inherent in successfully communicating to someone..." (Thayer, 1969) (p.144). Redding (1972) raised a very important question that whether communication satisfaction may indeed be a multidimensional concept. He claimed that communication satisfaction refers to the overall degree of satisfaction an employee perceives in the communication environment. Such questions often spur theoretical and empirical research (Downs & Adrian, 2004). Downs & Hazen (1977) asked the same communication satisfaction question. And as an answer to this question they managed to develop a questionnaire and administer it to 225 employees from many kinds of organizations. Researches on the dimensionality of Communication Satisfaction (CS) have then proved that this construct is not a one-dimensional variable but it is a multidimensional one (Downs & Hazen, 1977; Clampitt & Downs, 1993).

Varona (1996) has claimed that the communication satisfaction construct, operationalized by Downs & Hazen in 1977, has become a successful research stream in organizational communication. Downs & Hazen (1977) produced the Communication Satisfaction Questionnaire (CSQ) as the first means of communication satisfaction audit for the organizational communication research. The CSQ has initially been developed by Downs and Hazen as an attempt to discover the relationship between communication and job satisfaction.

### **2.2.1 Communication Satisfaction Dimensions (Downs and Hazen, 1977)**

Downs and his colleagues (Clampitt & Downs, 1993; Downs & Hazen, 1977) have proposed that communication satisfaction consists of eight stable dimensions: communication climate, supervisory communication, organizational integration, media quality, horizontal communication, organizational perspective, personal feedback, and subordinate Communication.

#### **2.2.1.1 Communication Climate**

According to Downs & Hazen (1977) communication climate reflects the organizational and personal communication levels. It includes items such as the extent to which communication in the organization motivates and stimulates workers to meet organizational goals and the extent to which it makes them identify with the organization. It also includes estimates of whether or not people's attitudes toward communicating are healthy in the organization. So it reflects the level of satisfaction with personal and organizational issues (e.g., attitudes, problem understanding, motivation, identification) (Lee, 2001). Workers often tend to think of climate when they respond to general questions asked about communication (Downs & Adrian, 2004).

#### **2.2.1.2 Supervisory Communication**

Supervisory Communication includes both upward and downward aspects of communicating with superiors. This dimension includes three principle items: the extent to which a superior is open to ideas, the extent to which the supervisor listens and pays attention, and the extent to which guidance is offered in solving job-related problems.

There are many studies that have investigated supervisory communication as a variable that influence several organizational outcomes (Abu Bakar, 2009). Abu Bakar (2009) has established a positive relationship between supervisory communication and commitment. In the same way, Vuuren et al. (2007) has indicated that there is a positive relationship between supervisor communication and organizational commitment. Supervisors have a key role related to communication in the organization because they will set the underlying tone used by employees in interpreting messages (Van Vuuren et al., 2007).

Research has demonstrated that employees' relationship with the organization is improved when supervisors communicate in a timely and accurate way (Mathieu and Zajac, 1990; Putti et al., 1990). Mathieu and Zajac (1990) have suggested that a supervisor who provides more accurate and timely types of communication enhances the work environment and thereby is likely to increase employees' commitment to the organization. Hence, interactions between the supervisors and employees are the base of effective communication and have the power to strengthen or weaken their commitment to the organization (Mathieu and Zajac, 1990).

### **2.2.1.3 Organizational Integration**

Organizational Integration revolves around the degree to which individuals receive information about the immediate work environment. Items include the degree of satisfaction with information about departmental plans, the requirements of their jobs, and some personnel news. Such information makes the individuals feel vital part of the organization (Downs & Adrian, 2004).

### **2.2.1.4 Media Quality**

Media Quality deals with the extent to which meetings are well-organized, written directives are short and clear. It covers the degree to which the total amount of communication in the organization is about right. It obtains reactions to these important communication channels.

### **2.2.1.5 Horizontal Communication**

This dimension is also called the co-worker Communication which concerns with the extent to which horizontal and informal communication is accurate and free flowing. This dimension also includes satisfaction with the activeness of the grapevine. Downs & Adrian (2004) argue that much of the communication at work takes place horizontally among colleagues, peers, and fellow workers where the hierarchical relationship is not there. These horizontal interactions happen informally. Downs et al. (2002), as cited in Downs & Adrian (2004), have found that these interactions often stimulate organizational commitment. They argued that people remain working in organizations because they enjoy interactions with the people they work with.

### **2.2.1.6 Organizational Perspective**

This dimension deals with the broadest kind of information about the organization as a whole. It includes items on notification about changes, information about the organization's financial standing, and information about the overall policies and goals of the organization.

### **2.2.1.7 Personal Feedback**

The personal feedback dimension contains questions about supervisors' understandings of problems faced on the job and whether or not employees feel the criteria by which they are judged are fair.

### **2.2.1.8 Subordinate Communication**

This portion is filled out only by those with supervisory responsibilities, does not appear on the form filled out by non supervisory employees, and may be omitted entirely. It taps receptivity of employees to downward communication and their willingness and capability to send good information upward, Superiors are also asked whether they experience communication overload.

Pincus (1986) has added another dimension to CS, namely, top management communication. This dimension becomes the ninth dimension in CS and it focuses on the employees' perception of the top management and their communication practices.

### **2.2.1.9 Top Management Communication**

This dimension deals with the communication of top management with employees in the organization. It focuses on top management attitudes towards openness to new ideas, caring, and willingness to listen (Downs, 1990). According to Downs & Adrian (2004), communication from top management plays the strongest role in determining commitment. The way top management communicates the identity and the vision of the organization affects individuals' visualization of the organization.

Thus, communication satisfaction is seen by Downs & Hazen (1977) as a multidimensional concept resisting the idea of communication satisfaction as a unidimensional one. This indicates that individuals are not merely satisfied or dissatisfied with communication in general, but can express varying degrees of satisfaction about definite categories of communications (Meintjes & Steyn, 2006).

Pincus (1986) has revised Downs & Hazen (1977) instrument first by adding the ninth dimension i.e. top management communication and then by differentiating between three dimensions of communication satisfaction. He simply clusters the nine dimensions into three dimensions of communication satisfaction. These three dimensions are the relational dimension, the informational/relational dimension, and the informational dimension. There are many recent studies that adopted Pincus' model of communication satisfaction (Meintjes & Steyn, 2006; Taylor, 1997). Meintjes & Steyn, (2006) recommended that this three dimensional model is reliable measurement for investigating communication satisfaction but it needs to be refined in multicultural environments.

### **2.2.2 Pincus's Communication Satisfaction Model (1986)**

Pincus (1986) has grouped these nine dimensions of the CS into three categories.

These categories are as follows:

#### **2.2.2.1 Relational Dimensions**

The dimensions included under this category focus on the satisfaction with the communication relationships with other members in the organization. This category includes three dimensions, subordinate communication, horizontal communication, and communication with top management.

#### **2.2.2.2 Informational Dimensions**

The dimensions under this category focus on the satisfaction with the content and flow of information throughout the organization. These dimensions are media quality, organizational perspective, and organizational integration.

#### **2.2.2.3 Informational/Relational Dimensions**

These dimensions focus on both relational dimensions and the informational communication and it includes supervisor communication, personal feedback, and communication climate.

Pincus (1986) has tested this categorization using factor analysis by restricting the analysis to three factors and concluded that the distinctions between factors were absolute. The categories were not mutually exclusive which means that the theoretical

definitions provided should not overlap; each should be separate, distinct and exclusive (Gray & Laidlaw, 2004).

According to Ehlers (2003), communication satisfaction is studied in the workplace because employers seek for the development of their employee's efficiency in communication so they can perform their job. Furthermore, the construct of communication satisfaction should be studied because employees should ideally be satisfied while working. Ultimately, better communicators create a more optimal workplace. Most of the organizational communication researchers have considered employees' attitudes by analyzing the concept of communication satisfaction.

It needs to be mentioned here that there are very few organizational communication studies focusing on universities and academic staff (Gizir & Simsek, 2005; Ahmad, 2006). At the same time, many researchers have examined the relationship of Communication Satisfaction with many organizational variables such as; organizational identification (Nakra, 2006), productivity (Clampitt & Downs, 1993), organizational commitment (Varona, 1996; Mustaffa, 2004), job performance (Pincus, 1986), job satisfaction (Gulnar, 2007; Downs & Hazen, 1977). In all of these studies researchers focused only on the relationship between communication satisfaction and another organizational variable ignoring the role that culture can play in moderating these kinds of relationships. Therefore, this study is a modest attempt to fill this gap and that will be by examining the relationship between two organizational constructs being moderated by an important variable that is culture. Furthermore, the relationship that is believed to exist between these communication satisfaction and organizational commitment is more "implied" than "demonstrated" (Varona, 1996). And until present



few researches have investigated the relationship between these two important organizational variables (Varona, 1996; Mustaffa, 2004).

### **2.3 Organizational Commitment**

Organizational commitment (OC) has been the subject of continued research interest for several decades because of its relationship with individual and organizational performance and organizational effectiveness (Allen & Meyer, 1996; Mathieu & Zajac, 1990). A consistent theme throughout the commitment literature is that high levels of commitment are associated with positive outcomes for the organization (Mathieu & Zajac, 1990). OC construct is widely described as a key factor in the relationship between individuals and organizations (Laka-Mathebula, 2004). Many researchers have ascertained that highly committed employees are more likely to continue working with the organization and endeavor and contribute in the achievement of the organization's goals and objectives, (Moday et al. 1982; Meyer et al. 1989) and that go with Spector's (2000) definition of OC as the degree to which the employee feels devoted to their organization. Reichers (1985) indicates that OC can be accurately understood as a collection of multiple commitments to various groups that comprise the organization. This view sees organizations as coalitional entities that compete for the individual's energies, identifications, and commitments. These entities and their constituencies espouse a unique set of goals and values of other organizational groups (Reichers, 1985).

This concept of OC has been popularly developed in the literature on industrial and organizational psychology (Cohen, 2003). Yet, Suliman & Isles (2000) stated that although there are plenty of studies have been done by many researchers trying to explore the nature of OC, the issue remained "ill-defined" and "ill-conceptualised".

However the popularity of the notion of OC for researchers is increasing. Scholl (1981) claims that the way OC is dealt with depends on the approach to commitment that one adheres to.

### **2.3.1 Models of Organizational Commitment**

It has been two decades since Mathieu and Zajac (1990) conducted meta-analyses of the antecedents, correlates, and consequences of organizational commitment. At that time, researchers were making a distinction between only two forms of commitment: attitudinal (e.g., Mowday, Steers, & Porter, 1979) and calculative or behavioral (e.g., Becker, 1960). Moreover, they noted that researchers were beginning to identify other forms of commitment. A decade later, Suliman and Isles (2000) showed that there are four main models that conceptualize and explore OC, namely; the attitudinal model, the behavioral model, the normative model, and the multidimensional model.

The attitudinal model initiated by Porter et al. (1974) is the most famous model in conceptualizing OC (Mathieu and Zajac, 1990; Suliman and Isles, 2000). OC is, according to this model, defined as "the strength of an individual's identification with and involvement in a particular organization" (Porter et al. 1974). It refers to the relative strength of an employee's identification with and involvement in an organization (Mathieu and Zajac, 1990). It is characterized by a willingness to exert considerable effort on behalf of the organization as well as a strong desire to maintain membership in the employment relationship (Mowday et al., 1982). Porter et al. (1974) further characterizes the concept of OC by three different factors. These factors are a strong belief in organization's goals and values and the acceptance of these goals and values; a willingness to exert considerable effort on behalf of the organization; and a definite

desire to maintain organizational membership. These three factors depict the association of the individuals and their organizations. It is like a linkage between both the sides.

The second model to define OC is the behavioral model which gives an emphasis on the view that employees' loyalty to their organizations is due to their investments (e.g. time, friendships, and pension) in these organizations (Suliman and Isles, 2000). According to Laka-Mathebula (2004), side-bet theory of Becker's (1960) has formed the foundation of the behavioral model. Becker (1960) has emphasized that employee commitment to his organization only happens once he has recognized the cost associated with leaving the organization. Kanter (1968), in the same way, has defined OC as a 'profit' that is associated with continued participation and a 'cost' which is associated with leaving. Therefore, employee's fear from losing these 'costs' makes him committed to his organization. Further, OC is viewed by Zangaro (2001) as behavior.

The normative model is the third model to conceptualize OC. This model views that congruency between employee goals and values and organizational aims make the employee feel obligated to the organization (Suliman and Isles, 2000). Likewise, Weiner (1982) has defined OC as "the totality of internalized normative pressures to act in a way which meets organizational goals and interests". According to this view, the reason that makes the employee highly committed to his organization is his believe that it is the "right" and moral thing to do (Weiner, 1982).

The last and the most recent model for defining OC is what is known as the Multidimensional model. This model assumes that OC is more complex than emotional attachment, perceived cost or moral obligation (Laka-Mathebula, 2004). According to Suliman and Isles (2000), many researchers have investigated this new conceptualization of OC. They assert that Kelman (1958) is the earliest scholar who has indicated to the

multidimensional model. His linkage of three dimensions, compliance, identification, and internalization and the attitudinal change shows the foundation for the multidimensional model. O'Reilly and Chatman (1986) have also confirmed the dimensionality of OC construct. They supported their view on the basis of the assumption that commitment represents an attitude towards the organization, and the fact that various mechanisms can lead to development of attitudes. Based on Kelman's (1958), they argue that commitment could take three different forms: compliance, identification and internalisation. They claim that compliance occurs when attitudes and behaviors are adopted not because of shared beliefs but simply to gain specific rewards. Identification occurs when an individual accepts influence to establish or maintain a satisfying relationship. Then, Internalization occurs when influence is accepted because the induced attitudes and behaviors are congruent with one's own values.

The latest multidimensional model to OC is that of Meyer and his associates (1991). Based on Becker's (1960) side-bet theory, Meyer and Allen (1984) initially proposed two components for OC. These two dimensions are: affective and continuance. They defined the first component as an employee's emotional attachment to, identification with, and involvement in the organization, and the continuance component as commitment based on the perceived costs associated with leaving the organization (Meyer et. al., 2002). Allen and Meyer (1990) later proposed a third component of commitment that is normative commitment which reflects a perceived obligation to remain in the organization.

### **2.3.2 The Multidimensional Model of Organizational Commitment**

Although early work in the area of OC was characterized by various unidimensional views of the construct, it is now widely recognized as a multidimensional work attitude (Mathieu & Zajac, 1990; Allen & Meyer, 1996). Meyer and Allen (1991) have developed a three-component model to capture the different forms of underlying mind-sets that reflect attachment to an organization. They identified three different dimensions of organizational commitment. These dimensions are affective commitment, continuance commitment, and normative commitment. This conceptualization of Meyer & Allen (1991) has become a widely accepted theoretical framework for several research studies (Allen & Meyer, 1996).

#### **2.3.2.1 Affective Commitment**

As it has been mentioned earlier, the affective commitment is the first component that was dealt with by Meyer and Allen (1984). It symbolizes the employee's emotional attachment to the organization. It also represents the identification with and involvement of the individual's in the organization (Meyer and Allen, 1997). Allen & Meyer (1990) argue that when individuals identify with the goals of an organization, they will develop emotional attachment to the organization and they will be willing to assist the organization in achieving these goals. The identification with an organization happens when the individuals own values are in harmony with the values of the organization so that the individuals are able to internalize the values and goals of the organization (Allen & Meyer, 1990). According to Meyer and Allen (1991), individuals who are affectively committed to the organization remain working for it because they want to. Meyer and

Herscovitch (2001) point out that affective commitment has been found to correlate significantly with a wide range of organizational outcomes such as turnover, absenteeism, and job performance. Of the three components of OC, affective commitment has received the most research attention (Mathieu and Zajac, 1990; Meyer et al., 2002).

### **2.3.2.2 Continuance Commitment**

Continuance Commitment is the second component in Meyer and Allen's conceptualization of OC. It has been defined by Meyer and Allen (1997) as awareness of the costs linked to leaving the organization. So staying and continued participation of the employee in the organization is dependent on "profit", on the other hand, leaving the organization and termination of service is associated with "cost". This dimension is essentially based on Becker's (1960) side-bet theory. The theory posits that as individuals remain in an organization for longer periods, they accumulate investments that become very costly to lose. And for the purpose of maintaining these investments, they stay longer in the organization.

According to Romzek (1990), these investments may comprise many benefits such as close working relationships with co-workers, time and money tied up in an organisation's retirement plan, special skills which are distinctive in a particular organisation, and several other benefits that make it too costly for one to leave the organisation. Thus, continuance commitment reflects a calculation of the costs of leaving versus the benefits of staying whereas affective commitment involves emotional attachment.

### **2.3.2.3 Normative Commitment**

The last dimension of OC mentioned by Allen and Meyer (1990) is Normative Commitment. Meyer and Allen (1997) define it as a feeling of obligation to continue employment. It is the normative beliefs of duty and obligation that make employees obliged to sustain membership in the organization. Individuals with a high level of normative commitment feel they ought to remain with their organizations (Allen and Meyer, 1990). The normative view is that individuals stay in organizations because it is the proper thing to do.

Randall and Cote (1991) argue that normative commitment is the moral obligation which the individuals develop after the organisation has invested in them. They indicate that when individuals feel that the organisation has spent either too much time or money developing and training them, they feel obliged to stay with the organisation. This type of commitment differs from the other two in the sense that it reflects a sense of duty and obligation to work in the organization (Jaros et al. 1993).

Meyer et al. (1993), concludes that individuals with a strong affective commitment remain with the organization because they want to; those with a strong continuance commitment remain because they need to; and the others with a strong normative commitment remain because they feel they ought to do so. Meyer and Allen (1991) acknowledge that the multidimensionality of organizational commitment reflects its highly complex nature. The three dimensions of organizational commitment appear to have different foundations. These dimensions are not mutually exclusive (Meyer and Allen, 1991).

As mentioned earlier, academics and human resource practitioners alike maintain a keen interest in organizational commitment because of its association with desirable outcomes, such as reduced absenteeism, reduced turnover, and improved job performance (Mathieu and Zajac, 1990; Meyer and Allen, 1997). Talking about Meyer and Allen's (1991) three-component model of OC, Meyer & Herscovitch (2001) have declared that it is now fairly well established in the commitment literature. Nevertheless, the majority of the commitment studies have been conducted in the western countries (Suliman and Isles, 2000 b). Meyer and Allen (1997) stated that there is a need for more OC studies to be conducted in non-western countries to determine whether their three-component model can be applied elsewhere. Meyer et al. (2002) has concluded that, "what is needed is a systemic cross-cultural research in which relations among the constructs are examined in the context of the existing theories (e.g. Hofstede, 1980, 2001); such research will make a particular valuable contribution to our understanding of commitment in the global economy" (p. 44). These conclusions results in grabbing the researcher's attention to conduct this study in Yemen, the researcher's country, using Meyer and Allen's (1991) three-component model in relation to communication satisfaction and cultural dimensions.

## **2.4 Communication Satisfaction and Organizational Commitment**

Likert (1967) has stated that organizations exist to achieve definite outcomes, and communication enables the organizations to accomplish its purposes which are profitability, productivity, satisfaction, and positive labor-management relations. Downs & Adrian (2004) has added organizational commitment to these four outcomes. The



degree to which these outcomes are achieved is an important standard for judging the adequacy of the communication system in the organization (Downs & Adrian, 2004).

Postmes et al. (2001) argue that communication creates the conditions for commitment; therefore, it should be studied as one of its antecedents. Empirical evidence tends to support this assumption. One of the most important findings of Mathieu and Zajac's (1990) OC meta-analysis was the strong impact of communication. Indeed, communication was the strongest of all antecedents reported. However, unfortunately only four studies were included in their analysis. The strength of this effect in itself provides a reason to explore the communication–commitment relation in more depth (Postmes et al. (2001). Organizational commitment has been one of the widely researched areas in relation to several organizational outcomes (Warsi et al. 2009). However, studies related to relationship between organizational communication and organizational commitment given less emphasis (Mustaffa, 2004).

The relationship between communication satisfaction and organizational commitment is also still more “implied” than “demonstrated” (Varona, 1996). There is a lack of research on the relationship between communication satisfaction and organizational commitment (Varona, 1996). There are, in fact, few studies that have examined the linkage between these two variables (Putti et al. 1990; Potvin, 1991; varona, 1996; Mustaffa, 2004; Carrie`re & Bourque, 2009). All these studies have tried to determine how the communication satisfaction to relate organizational commitment. A positive relationship has been shown between communication satisfaction dimensions and organizational commitment both through correlation and regression analysis. However, the strength of this relationship varies in accordance with the dimensions of communication satisfaction.

Putti et al. (1990) examined the association between communication relationship satisfaction and organizational commitment in an engineering company in Singapore. Top management and supervisor relationships showed the strongest relationship with organizational commitment. A study was conducted by Potvin (1991) investigated the communication satisfaction-organizational commitment relationship in three US organizations. The study indicated a positive relationship between both the variables and the strongest relations appeared between organizational commitment and both supervisory communication and communication climate.

Varona (1996) studied the relationship between communication satisfaction and organizational commitment in three Guatemalan organizations. He found a moderate positive relationship between both the variables. Subordinate Communication, Organizational Integration, Communication Climate, and supervisory communication had the highest correlation with organizational commitment in all the three organizations studied. Another study by Mustaffa (2004) indicated a positive relationship between communication satisfaction and organizational commitment. Communication climate, horizontal communication, and supervisory communication were the highest correlated dimensions with organizational commitment. Carrie`re & Bourque (2009) examined the relationship between internal communication practices, communication satisfaction, job satisfaction, and organizational commitment in a land ambulance service. Findings indicated that implementing effective and efficient communication practices that succeed in generating communication satisfaction amongst employees can enhance both job satisfaction and organizational commitment.

Studies, other than the ones mentioned earlier, have examined the relationship between some dimensions of communication and organizational commitment (Abu

Bakar & Mohamad, 2004; Van Vuuren, 2007; Abu Bakar, et al. 2009). Abu Bakar & Mohamad (2004) has attempted to test the relationship between supervisory communication and organizational commitment in Malaysian organizations. They reported a significant positive relationship between superior-subordinate communication and organizational commitment. Van Vuuren (2007) investigated the direct and indirect relationship between supervisor communication and employee's affective commitment. Van Vuuren (2007) found a significant direct effect of supervisory communication satisfaction on organizational commitment. Partial mediating effects of both organizational efficacy and perceived person-organization fit were also found on the relationship between communication satisfaction and affective commitment.

Another study conducted by Hassan Abu Bakar and his associates (2009) explored the relationship between leader-member exchange quality, supervisory communication and team-oriented commitment. A sample size of 201 Malaysian executives participated in the study. The findings of the study showed that leader-member exchange quality, supervisory communication influence overall team-oriented commitment. Abu Bakar et al. (2009) indicated that since commitment to the team is related to higher level of superior-subordinate communication, supervisors are the ones responsible for encouraging their subordinates' commitment.

Carrie`re & Bourque (2009) argue that the relationship between communication satisfaction and organizational commitment is a more recent and less understood relationship. Despite the importance attributed to organization commitment, little is known about the relationship between these two constructs. Thus, the current study is an attempt to contribute to further understanding of the relationship between these important organizational variables. It studies the relationship between communication

satisfaction and organizational commitment in multicultural organizations. The study tests the moderating effects of national culture on this relationship. This is, in fact, a remaining gap in the existing literature which this study is trying to fill.

## **2.5 National Culture**

Sha (1995) claims that culture is a complicated concept which researchers in many fields such as: anthropology, sociology, business management, and communication have tried to define. Most of these scholars define culture as "learned behaviors as well as beliefs, attitudes, values, and ideals that are characteristics of a particular society" (Ember & Ember, 1998, p. 148). According to Leung et al. (2005), culture has been defined as values, beliefs, norms, and behavioral patterns of group, and the term group refers to people in a society for national culture; staff of an organization for organizational culture; and specific profession for professional culture.

Hofstede (1984) has defined culture as "the collective programming of the mind that distinguishes the members of one category of people from those of another." There are different levels of culture that people unavoidably carry within themselves (Hofstede, 1997). According to Trompenaars (1993), there are three different levels of culture. These levels are as follows: (1) national culture and regional society; (2) corporate or organizational culture; and (3) professional culture and ethical orientation. Hofstede (1997) has mentioned six levels of culture that people carry. These are: (1) a national level according to one's country; (2) a regional and/or ethnic and /or religious and/or linguistics affiliation level; (3) a gender level; (4) a generation level which separates grandparents from parents from children; (5) a social class level that associated with educational opportunities and with a person's occupation or profession; (6)

organizational or corporate level. The researcher has adopted Hofstede's definition and employed his dimensions of culture since they are very much applicable to national cultures (Hofstede, 1988). The word "culture", for Hofstede (1984), is usually reserved for societies which are equivalent to "nations".

### **2.5.1 Models of National Culture**

The national culture theories that have gained wide reputation over the last few decades concentrated mostly on the study of cultural values (Jackson, 1995). These include those of Hall (1959), Hofstede (1980, 2001), Trompenaars (1993), and more recently House and his GLOBE associates (2004). Morden (1999) has identified three categories of national culture models. These models are: single dimension, multiple dimension, and historic-social models.

#### **2.5.1.1 Single Dimension Models**

The models of national cultures described in this section are based upon a single dimension or variable. According to Morden (1999), there are three models described under this heading and illustrated below.

##### **2.5.1.1.1 High and Low Context Cultures**

Hall (1960, 1976) distinguishes cultures in terms of low and high-context styles that explain the differences in communication process in different nations. Context is defined in terms of how individuals and their society seek knowledge and information (Morden, 1999). High-context communication styles focus on the information in the context of communication which surrounds the message whereas low-context

communication styles rely on the words and written message. In high context cultures, much of the meaning in communication is conveyed indirectly through the context surrounding a message while direct and frank communication in which message itself conveys its meaning is the main characteristic of the low context cultures (Hall, 1976).

According to Morden (1999), people from high context cultures obtain information from personal information networks. Before such people make any decision they have to discuss the matter with friends, business acquaintance, and relatives. They will also ask many questions and listen to gossip. People from low context cultures seek information about decisions from a research base. They put more emphasis on the use of reading, reports, databases, internet, and information sources more than on listening to views of colleagues or relatives.

#### **2.5.1.1.2 Monochronic and Polychronic Cultures**

This model distinguishes between monochronic and polychronic cultures (Lewis, 1992). Monochronic cultures act in a focused manner, concentrating on one thing at a time within a set time span. To people from monochronic cultures, time is a scarce resource which has its opportunity cost (Morden, 1999). On the other hand, polychronic cultures are flexible and unconstrained by concerns with time. People from polychronic cultures are able to do many things at the same time. They are opportunistic and they do not work to set time (Ball et al., 2007). It has been argued that the mixing of monochronic and polychronic cultures will lead to culture clashes and disagreement (Morden, 1995).

### **2.5.1.1.3 High Trust - Low Trust**

This single dimension model distinguishes between low- and high-trust societies (Fukuyama, 1995). According to Fukuyama (1995), High-trust societies organise the workplace on a more flexible group-oriented basis, responsibility is delegated to lower levels of the organization. On the other hand, low-trust societies are bound by bureaucratic rules, they tend to fence in and isolate workers. They are familistic; they have strong family bonds but have little trust in others. In the low-trust cultures workers usually find their work places more satisfying if they are treated like adults who can be trusted to contribute to their community rather than like small cogs in a large industrial machine designed by someone else (Ball et al., 2007).

The main criticism of the single dimension models of national culture is that they focus only on one dimension. Fan (2000) states that national culture is complicated and it is too simplistic to assume that nationalities may be classified using only one dimension. This shortcoming leads to contradictions between the findings of each model as the differences between cultures are not clear which may indicate that people from many different countries appear to be culturally alike (Ball et al., 2007).

### **2.5.1.2 Multiple Dimension Models**

The national culture models described in this section are based on multiple dimensions. Four models are described and illustrated below.

#### **2.5.1.2.1 Hofstede's Model**

Hofstede (1980, 2001) advanced the most widely used of cultural differences in the organizations literature (Nardon & Steers, 2009). His model of national culture has been derived from a study of employees from various countries based on the assumption that different cultures can be distinguished based on differences in what they value (Nardon & Steers, 2009). Initially, Hofstede asserted that cultures could be distinguished along four dimensions i.e. power distance, uncertainty avoidance, individualism-collectivism, and masculinity-femininity. But later, he added a fifth dimension i.e. long term vs. short term (Nardon & Steers, 2009).

#### **2.5.1.2.2 Trompenaars and Hampden-Turner Analysis**

This model identifies seven dimensions of national culture which are used for understanding diversity in business (Trompenaars, 1993; Trompenaars & Hampden-Turner, 1997). The first five of these dimensions are about relationships with others and are known as value orientations and they have been described as abstract while the other two focus on time management and society's relationship with nature (Trompenaars, 1993). The value orientations dimensions are universalism vs. particularism (rules versus relationships); individualism versus collectivism (individual versus the group); specific versus diffuse (the range of involvement); neutral versus the emotional (range of emotions expressed) and achievement versus ascription (how status is accorded) (Ball et al., 2007). The remaining two dimensions are sequential-synchronic (orientation in time) and internal-external control (attitude to the environment) (Trompenaars & Woolliams, 2003).



Responses by different nationalities to questions related to seven dimensions showed significant differences between national cultures and from the results of these responses, suggestion on dealing with cultural diversity is given (Ball et al., 2007). Hofstede (1996) has criticized Trompenaars & Hampden-Turner claiming that their theory of is not supported by their database. As a result of factor analysis at the country level, Hofstede (1996) said that only two dimensions could be identified and these dimensions were correlated with Hofstede's individualism dimension.

#### **2.5.1.2.3 Lessem & Neubauer's Analysis**

Lessem & Neubauer model (1994) based on analysing European management systems (Morden, 1999). They categorized the impact of national culture under the following four interrelated criteria.

- Pragmatism which is a dominant influence in the conceptualizing of management principles and practice.
- Rationalism which is defined as a theory that regards reason then sense as the foundation of certainty in knowledge.
- Idealism/Wholism that is defined as something made up of parts in combination; a complex unity or system. Wholism is a conception of something in its highest perfection; a theory which asserts that mind is of central importance in reality, affirming that the ideal element in reality is predominant (Morden, 1999).
- Humanism that is described as pertaining to the social life or collective relations of mankind (Morden, 1999).

This model is specific to the European management system. The national culture dimensions of this model are used to compare between the European countries. The tension between pragmatic and idealism/wholism and also between rationalism and humanism characterises European approaches to the theory and practice of management (Morden, 1999).

#### **2.5.1.2.4 House's et al. Model (the GLOBE)**

The GLOBE study (House et al., 2004) is one of the comprehensive efforts among many attempts to measure cultures of the world (Taras, 2010). House and his international team of researchers have conducted a research project that focused primarily on understanding the influence of cultural differences on leadership process. Their investigation was called the Global Leadership Organizational Behavior (GLOBE) (Nardon & Steers, 2009). House along with his team identified nine cultural dimensions. Many of these dimensions have been identified previously by Hofstede (Leung, 2005). The GLOBE nine dimensions of national culture are as follows:

- Power Distance: degree to which people expect power to be distributed equally.
- Uncertainty Avoidance: Extent to which people rely on norms, rules, and procedures to reduce the unpredictability of future events.
- Humane Orientation: Extent to which people reward fairness, altruism, and generosity.
- Institutional Collectivism: Extent to which society encourages collective distribution of resources and collective action.

- In-Group Collectivism: Extent to which individuals express pride, loyalty, and cohesiveness in their organizations and families.
- Assertiveness: degree to which people are assertive, confrontational, and aggressive in relationships with others.
- Gender Egalitarianism: degree to which gender differences are minimized.
- Future Orientation: Extent to which people engage in future-oriented behaviors such as planning, investing, and delayed gratification.
- Performance Orientation: degree to which high performance is encouraged and rewarded (House et al., 2004).

The GLOBE researcher collected data from middle managers in 62 countries and then compared the results (Nardon & Steers, 2009). The publication of the GLOBE study has witnessed criticism of scholars such as Hofstede (Kim & Gray, 2009). Hofstede (2006) has claimed that the GLOBE survey is just an expansion and replication of his five dimensions. He added that the GLOBE survey was a better reflection of researchers' minds than of the respondents' (Hofstede, 2006). Realo et al. (2008) agrees with Hofstede (2006) that many of the GLOBE items may convey hidden meanings not intended or understood by their designers. Kim & Gray (2009) supported this claim and say that there is a heavy reliance on Hofstede's framework while the GLOBE framework is among those dimensional frameworks which are less applied since been developed.

Whilst the GLOBE tried to address some of Hofstede's limitations by employing more sophisticated statistical analyses and methods, they still entail limitations inherent in dimensional approaches to the study of national culture (Smith, 2006; Kim & Gray, 2009). Leung et al. (2005) confirmed that despite the use of different items to identify

cultural dimensions, House et al.'s results are consistent with previous findings, and most of the cultural dimensions identified are correlated empirically and related conceptually with Hofstede's dimensions, suggesting that the Hofstede dimensions are quite robust.

### **2.5.1.3 Historical-Social Models**

The national culture models described in this part are based on historical and social dimensions or variables (Morden, 1999). There are two models described under this heading. The first one is the Euromanagement study which is based on a major study that aimed to find out whether there are any common characteristics between Europeans. Bloom et al. (1994) conducted this study on chief executives and senior management from thirty five companies in fourteen European countries. Bloom et al. (1994) suggest basic characteristics of European management identified as, the capacity to manage international diversity, an orientation towards people, social responsibility, internal negotiation, a degree of informality.

The second model is South East Asian management model. According to Chen (1995), there are certain key historical-social influences on the development of management practices in South East Asia which are mainly Chinese. These influences are Taoism which is a wholistic philosophy that emphasises the inter-relationship and interaction of everything in the world, Confucianism which is known as a moral and religious system in China, the role of the mandarin which means the role of the responsible for a higher authority for the quality and effectiveness of its performance, personal relationship on the basis of the continuing exchange of favors, and face which stands for the a person's dignity, self-respect, status, and prestige (Morden, 1999).

### 2.5.2 Hofstede's Model of NC

Although there are many different models of national culture, most of the researchers who study culture have tended to rely almost solely on Hofstede's model (Myers & Tan, 2002). According to Myers & Tan (2002), this is not surprising as Hofstede's typology of culture has been one of the most popular in many different fields. A review of the Social Science Citation Index (SSCI) resulted in 1036 quotations from Hofstede's work in journals during the period 1980 to September 1993 (Sondergaard, 1994). Clearly, Hofstede's work had a significant influence on management studies in general (Myers & Tan, 2002). According to De Mooij & Hofstede (2010), the reason for the widespread adoption of Hofstede's Model of national culture lies in the large number of countries measured and the simplicity of his dimensions.

Hofstede's model is the only one that has been used in a substantive number of independent studies allowing for a high-quality meta-analysis (Taras et al. 2010). In a comparison of different national culture models including House's et al. (2004) Global Leadership and Organizational Behavior Effectiveness' (GLOBE) model for the purpose of measuring cultural distance, Magnusson et al. (2008) has found that the more recent cultural frameworks provide only limited advancements compared with Hofstede's original work.

It is important to note that, though widely used, Hofstede's work has received substantial criticism. According to Sivakumar & Nakata (2001), Hofstede presents an overly simplistic dimensional conceptualization of culture, the original sample came from a single multinational corporation (IBM), and his work ignores the existence of substantial within-country cultural heterogeneity. They added that culture changes over

time rather than being static as suggested by the dimensions. Notwithstanding these points of criticism, Hofstede's work has had a major influence (Dickson et al. 2003). Taras et al. (2009) and Barron (2010) conclude that Hofstede's cultural dimensions in particular continue to be widely used, especially for convenience, popularity, and lack of available alternatives

Geert Hofstede is a central figure in the development of literature on cultural variation and the dimension-based approach to assessing and classifying cultures (Dickson et al. 2003). Hofstede (1988) believed that people who are doing the job for the same organization and who have many things in common such as education and career, except for the fact that they are from different nations, would provide the basis for cross-cultural comparisons. Based on that conviction, he conducted a survey of employees of a multicultural company, IBM, in 50 different countries and through this extensive survey he identified four dimensions which distinguished cultures at a national level. These four dimensions are: power distance, uncertainty avoidance, collectivism versus individualism and femininity versus masculinity. He later added a fifth dimension, long term versus short term orientation.

#### **2.5.2.1 National Culture Dimensions (Hofstede, 1980; 2001)**

Based on a statistical analysis of 116,000 questionnaires completed by employees who have worked in IBM worldwide between 1967 and 1973, Hofstede's (1980) work provides a rigorous framework of dimensions for differentiating national culture (Mearns and Yule, 2009). Hofstede's (1980, 2001) dimensions are undoubtedly the most widely recognized cultural dimensions (Dickson et al. 2003). Hofstede originally found four culture dimensions (power distance, individualism–collectivism; masculinity–

femininity; and uncertainty avoidance) and in later work, a fifth dimension (long term vs. short term orientation) was added (Hofstede, 1980; Hofstede, 2001). The researcher will focus primarily on these dimensions developed by Hofstede as these dimensions, according to Dickson et al. (2003), have been studied most extensively.

#### **2.5.2.1.1 Power Distance**

Hofstede (1997) has defined power distance as "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally" (p.28). For Hofstede (1997), the word "Institutions" refers to the basic elements of society like the family, school, and the community and the word "organizations" refers to the places where people work. It focuses on the appropriateness of social status differences. In the societies that have high power distance, members accept that power is not for everyone. Some people have more power than others. In high power distance subordinates and supervisors consider their status as unequal. Subordinates in high power distance are expected to be told what to do; there is less dialogue and negotiation between boss and subordinates (Hofstede, 1997). Employees from high power distance cultures accept a particular social order and believe that recognized authorities should not be challenged.

In contrary, employees from low power distance cultures believe in social equality. Lower power distance cultures view subordinates and supervisors as closer and more interchangeable in their roles. Today's subordinate can be tomorrow's boss (Hofstede, 1997). Hofstede (1997) posits that in the low power distance cultures superiors should be accessible to subordinates and the ideal boss is a resourceful democrat. Before a decision, that affect their work, is made, subordinates expect to be

consulted. There is also less differences in salaries and status in low power distance cultures (Marcus & Gould, 2000). Hence, professors and tutors are perceived as equals.

Thus, people from high power distance cultures regard power as a main factor in society, whereas people from low power distance cultures deem that power should be used when it is lawful and appropriate (Gudykunst et al., 2005). People within cultures develop ways of interacting with different people according to the status differential that exists between the individual and the person with whom he is interacting (Robinson, 1998).

#### **2.5.2.1.2 Uncertainty Avoidance**

The uncertainty avoidance dimension has been defined by Hofstede (1997) as “the extent to which the member of the culture feels threatened by ambiguous or unknown situations” (Hofstede, 1997, p. 113). Hofstede (1984) has described uncertainty avoidance as how an individual feels either uncomfortable or comfortable in unstructured situations. By the term "Unstructured situations" he means novel, unknown, surprising, or different from usual. This refers to how comfortable people feel towards vagueness. Employees from low uncertainty avoidance cultures feel more comfortable with ambiguity than those who are from high uncertainty avoidance cultures. It has been further characterized by Hofstede (1997) in terms of curiosity and danger. To people from low uncertainty avoidance cultures different and new behavior or opinion leads to curiosity, while it leads to danger to people from high uncertainty avoidance cultures. High uncertainty avoidance cultures tend to avoid unknown situations and feel threatened in such situations. They avoid ambiguous situations and expect relationships



to help make events clearly interpretable. Individuals of high uncertainty avoidance seem active, emotional and even aggressive (Hofstede, 1997).

Cultures of low uncertainty avoidance are less threatened by unknown situations and individuals of this type of cultures tend to be less expressive and less openly anxious. There is no aggression or strong emotions are shown in their behaviors and they seem easy-going and even relaxed (Hofstede, 2001). According to Robinson (1998) differences in the uncertainty avoidance level can cause unexpected problems in intercultural communication.

#### **2.5.2.1.3 Individualism vs. Collectivism**

"Individualism pertains to societies in which the ties between individuals are loose: every one is expected to look after himself or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty" (Hofstede, 1997, p. 51). Hofstede (2001) has farther explained that individualism and collectivism refer to the role of an individual versus the role of the group in a society.

According to Hofstede (1997), highly individualistic cultures believe that the individual is the most important unit whereas highly collectivistic cultures believe that the group is more important. In individualistic cultures, individual is autonomy and has his own goals away from the group interests. His decisions are based on what is good for him rather than the group. In collectivistic cultures, individual is extremely loyal to the group and decisions always based on what is good for the group. In relation to communication, people from individualistic cultures communicate in direct way, and

they convey the message directly. On the contrary, those who are from collectivistic cultures are likely to communicate in an indirect manner (Gudykunst & Lee, 2002). Hence, variations in individualism dimension cause similarities and differences in communication to be identified across cultures (Robinson, 1998).

#### **2.5.2.1.4 Masculinity vs. Femininity**

Masculinity pertains to societies in which the gender roles are clearly distinct; femininity pertains to societies in which the gender roles overlap (Hofstede, 1997). In masculinity cultures men are supposed to be assertive, tough, and focused on material success while women are supposed to be modest, tender, and concerned with the quality of life. On the other hand, in femininity cultures in which social gender overlap, both men and women are supposed to be modest, tender, and concerned with quality of life (Hofstede, 2001). This dimension refers to the role of gender in culture. It indicates the degree of "masculine" values such as: achievement, ambition, acquisition of material goods or "feminine" values like: quality of life and service of others in organization or a society (Hofstede, 2001).

#### **2.5.2.1.5 Long Term vs. Short Term Orientation**

Long-term orientation stands for the fostering of virtues oriented towards future rewards, in particular perseverance and thrift, and short-term orientation stands for the fostering of virtues related to the past and the present in particular respect for tradition and fulfilling social obligations (Hofstede, 2001). This definition indicates that

thriftiness and perseverance are values related to long term orientation, while respect for tradition and fulfilling social obligations are the values associated with short term orientation.

Hofstede's (2001) fifth dimension i.e. long versus short-term orientation is based on the Confucianism philosophy (Rhee, 2002). Hofstede and Bond (1988) identified several key principles of Confucian teaching on which this dimension is relying. The first principle is that mutual relationships are ordered by status (ruler-subject, father-son, older brother - younger brother, husband-wife, and older friend – younger friend. This unequal relationship between people is necessary for the stability of the society (Hofstede & Bond, 1988). The second principle is a person is not primarily an individual, but is one member of a family and concerned with saving face and keeping harmony with social members. The third principle is that virtuous behavior towards others is an essential rule. The fourth one is that thrift and perseverance are valuable for the future. One should work hard, not spending more than necessary, being patient, and preserving (Hofstede and Bond, 1988).

In a long-term oriented culture, children should learn thrift and conserve their resources. People of long-term cultures learn that a stable society requires unequal relations and the family is the prototype of all social organizations; therefore, older people have more authority than younger people and men have more power than women. Virtuous behavior in work means trying to acquire skills and education, working hard, and being patient, and persevering (Hofstede, 2001).

Vatrapu (2002) has found that Hofstede's cultural model of dimensions is very appropriate for empirical research as scores of national culture can be computed

"unambiguously". Thus, the researcher has adopted Hofstede model to fulfill the research objectives.

## **2.6 Communication Satisfaction and National Culture**

Culture plays a significant part in communication as people are differentiated on the basis of cultures. It is an important factor which affects the way we interact with each other (Nazir, et al., 2009). It is also the factor that makes interactions difficult, resulting in misunderstandings. People interact with each other using cultural properties which existed historically in the geographical group they belong to (Kluckhohn and Kelly, 1945). The relationship between communication and culture has been first introduced by Edward T. Hall as the term of intercultural communication in his 1959 book, *Silent Language*. Hall's (1959) statement that culture is communication and communication is culture established the reciprocal relationship between these two constructs. It shows that culture and communication reflect each other. This relationship implies that people from different cultures communicate differently. They apply different styles of interacting and favored strategies of communication (Kim, 1993).

Many researchers as Edward Hall (1976), Geert Hofstede (1980), Gudykunst and Kim (1984) and Samovar and Porter (1985), defined intercultural communication on the basis of a similarity between culture and nation (Jensen, 1996). Hall (1976) distinguishes cultures in terms of low and high-context styles that explain the differences in communication process in different nations. High-context communication styles focus on the information in the context of communication which surrounds the message whereas low-context communication styles rely on the words and written message.

Giri (2006) declared that culture provides its members with knowledge that guide them to behave appropriately in different situations and interpret other's behavior in such situations and that is how communication and culture reciprocally influence each other. The term intercultural communication reflects communication between different individuals from different cultures through interacting and sharing of information. According to Gudykunst (1997), some researchers who studied cultural variability in communication stated that individuals are socialized in a culture by the way they communicate and this way can change the culture they share over time. The study of communication has been included in the concept of culture with an emphasis on the value of effective interaction between members of different cultures (Hall, 1976). Many difficulties in intercultural communication come from the lack of understanding of how to communicate with people in other countries (Hall, 1959).

Communication behaviors considered appropriate in one culture can be unacceptable to people from another culture. In order to reduce this misinterpretation of communication behaviors, people should obtain knowledge about the communication styles of persons from other cultures (Tran & Skitmore, 2002) as a result they can reach high communication satisfaction. Thus, it is important to examine those cultural dimensions that have a significant influence on communication satisfaction.

Although national culture is an essential variable in multicultural organizations, studies which incorporate cultural dimensions of nations are mostly lacking (Arrindell, et al., 1997; Meeuwesen, et al., 2009). In recent years there has been recognition of a relationship between communication and national culture (Morley, et al. 1997; Chow, et al., 1998; Nes, et al., 2007). The issue of how culture influences communication is

becoming increasingly important as researchers take a greater look at communication as a “facilitating mechanism” in inter-cultural relations (Nes, et al., 2007).

Meeuwesen et al. (2009) investigated how cross-national differences in medical communication can be understood from the first four cultural dimensions, i.e. power distance, uncertainty avoidance, individualism/collectivism and masculinity/femininity, together with national wealth. It has been found that there are national differences in communication styles among the participating countries. It is critical to understand the extent to which the national culture influences the communication satisfaction among academic staff in the Yemeni universities. The above mentioned models of CS, i.e. Downs and Hazen (1977) multidimensional communication model, and of National Culture, i.e. Hofstede's cultural dimensions, contribute to the explanation of the research variables and create a theoretical foundation to this study.

## **2.7 National Culture as a Moderating Variable**

In general terms, a moderator is a variable that affects the direction and/or strength of the relation between an independent and a dependent variable (Baron & Kenny, 1986). The literature suggests that national culture moderate the relationship between many organizational variable. However, the moderating role of national culture between communication satisfaction and organizational commitment has not been examined in the existing literature. Many studies in the extant literature investigated the moderating effects of national culture on trust- and performance-long term orientation relationships (Cannon et al. 2010), the organizational readiness-electronic business adoption relationship (Kollmann et al. 2009), and bonding-commitment relationship (Dash et al. 2009), perceived interdependence-relationship quality relationship (Dash et

al. 2006), and on entrepreneurial orientation-strategic alliance portfolio extensiveness relationship (Marino et al. 2002). In all of these studies, national culture has been proved to be a considerable moderator variable with a significant moderating role in the linkage of many organizational variables.

Cannon et al. (2010) investigated the relationship of the buyer and supplier in international markets. He tested the moderating effects of national culture, measured by individualism/collectivism, on the linkage between trust and performance on one hand and long-term orientation of buyer-supplier relationship on the other hand. The sampling frame of the study consisted of purchasing professionals in industrial manufacturing firms in the United States, Canada and Mexico. The findings of the study show that national culture affects the trust- and performance-long term orientation relationships.

National culture has been found to significantly moderate the relationship between organizational readiness and the adoption of electronic business (Kollmann et al. 2009). The study includes responses from 10 different industry sectors located in 29 different countries. Kollmann et al. (2009) included four of Hofstede's national culture dimensions i.e. power distance, masculinity, uncertainty avoidance, and individualism. Three of these dimensions were found to exert a significant influence on the relationship between organizational readiness and e-business adoption. Individualism did not have any moderating role on the mentioned relation. The study recommended that decision makers should consider these cultural effects prior to starting any new initiatives.

Dash et al. (2009) examined the moderating effects of individualism on the relationship between bonding and commitment between banks and their corporate clients. The data of his study collected through a survey completed by corporate customers from 156 Indian companies and 126 Canadian companies. Dash et al. (2009)

found significant moderating effects of individualism on both social and structural bonding and commitment. The findings prove that bank relationships are dependent upon specific cultural contexts in which buyer and seller interact.

In another cross-cultural study, Dash et al. (2006) investigated the moderating effect of power distance on perceived interdependence and relationship quality in a bank-corporate client relationship. The respondents of the study were banks customers in India and Canada. The results of the study indicate significant moderating effect of power distance on the linkage between the interdependence and relationship quality.

Marino et al. (2002) scrutinized the influence that national culture has on the relationship between entrepreneurial orientation and strategic alliance formation. Data used in the study were collected from owners and general managers of independent firms in Finland, Greece, Indonesia, Mexico, Netherlands, and Sweden. A significant moderating role of national culture was found in this study. the findings show that uncertainty avoidance strengthened the relationship between entrepreneurial orientation whereas individualism and masculinity weakened this relationship.

Based on the above discussion, it is reasonable to view national culture as a moderator that affects the relationships of many organizational variables. However, there is no study in the existing literature that tries to investigate the moderating effects of national culture on the relationship between communication satisfaction and any of the organizational outcomes. Studies in recent years have recognized the relationship between communication and national culture (Morley, et al. 1997; Chow, et al. 1998; Nes, et al. 2007; Meeuwesen et al. 2009). There has been also recognition of a relationship between communication satisfaction and many organizational outcomes (Varona, 1996; 2002). Yet, there is no evidence in the current literature about the



national culture moderating influence on the relationship between communication satisfaction and any organizational variable. Finding these effects is going to be one of the main contributions of the current study.

## **2.8 Previous Studies Related to the Current Research Variables**

Carrière & Bourque (2009) have stated that very few studies analysed the relationship between communication satisfaction and organizational commitment. Therefore, this relationship is still less understood and needs more research. Moreover, research in the effects of national culture on this relationship is non-existent. Below is a review of these previous studies which are related to the current study variables.

Carrière & Bourque (2009) studied the relationship between internal communication practices, communication satisfaction, job satisfaction, and organizational commitment in a land ambulance service. They studied also the mediating role of communication satisfaction on this relationship. Data were collected from 91 paramedics. They found that implementing effective and efficient communication practices can enhance both job satisfaction and organizational commitment which results in reducing frustration with the organization. This study is the latest study published in the literature of communication satisfaction and organizational commitment relationship. The sample of the study which belongs to a single culture was mentioned as one of the limitations found in the study. Hence, the researchers recommended that additional research is needed to examine whether the findings of the study can be generalized across cultural and racial boundaries. They also suggested that the study can be conducted with a larger sample size.

Tsai, et al. (2009) examined the relationship of communication satisfaction job performance and turnover intention among 467 employees working in service industries in Taiwan. The researchers aimed to determine the relationship between communication satisfaction and job performance and also the relationship between communication satisfaction and turnover intention. They examined also the differences between the correlation of the communication satisfaction/job performance and that of communication satisfaction/turnover intention. Findings showed that overall communication satisfaction had a negative and significant impact on the turnover intention and a significant positive effect on job performance. The results have not shown any significant relationship between job performance and turnover intention.

Meeuwesen et al. (2009) investigated how cross-national differences in medical communication can be understood from four of Hofstede's cultural dimensions together with national wealth. A total number of 307 general practitioners and 5820 patients from 10 European countries (Belgium, Estonia, Germany, Great Britain, the Netherlands, Poland, Romania, Spain, Sweden and Switzerland) participated in the study. The study was cross-sectional and based on a secondary data. The findings of the study show that these countries differ considerably from each other in terms of the four cultural dimensions i.e. power distance, uncertainty avoidance, individualism/collectivism and masculinity/femininity. These cultural dimensions together with countries' wealth contribute significantly to the understanding of differences in European countries' styles of medical communication. The results of the study has also demonstrated that the larger power distance of a nation, the less room there is for unexpected information exchange and the shorter the consultations are. Roles also are clearly fixed and described. In countries of high masculinity there is less communication in the medical interaction. The

higher the level of uncertainty avoidance, the less attention is given to rapport building, e.g. less eye contact. In wealthy countries, more attention is given to communication.

In a recent study, Van Vuuren (2007) examined the direct and indirect relationship between supervisor communication and employee's affective commitment. Data were collected from a Dutch provider of telecommunication services. A total number of 456 respondents participated in the survey of the study. The main objective of the study is to explore the relationship between supervisor communication satisfaction and affective organizational commitment. The study also investigated the mediating roles of organizational efficacy and perceived person-organization fit on that relationship. Van Vuuren (2007) found a significant direct effect of communication satisfaction on organizational commitment. He found also that there were partial mediating effects of both organizational efficacy and perceived person-organization fit on the relationship between communication satisfaction and affective commitment.

Nes et al. (2007) carried out an exploratory study in which he examined the impact of national culture differences on behavior variables in exporter-foreign middleman relations and communication. The study had two research objectives. The first is to explore the impact of national cultural differences on behavior variables in exporter-foreign middleman relations. The second objective is to examine the influence of communication on the study's dependent variables i.e. trust, commitment, and performance, in the same manner. The data was collected from 161 groups of third year student of business who interviewed an export company as part of an international marketing course. Out of the 161 interviews only 120 of them were used for the data analysis of the study. The findings of the study show that the differences in national culture impact the relations in a negative way through decreased trust and

communication. The results also indicate that communication is strongly related to both trust and commitment. The study demonstrates that in international working relations, commitment to the foreign middleman has a strong positive effect on financial performance. The study suggested that more studies are needed to establish a better understanding of the conditions under which applying national cultural indexes such as Hofstede's indexes on individual companies and groups of companies and also to explore the impact of culture on trust and as well as on relationship variables

Gulnar (2007) investigated the relationship between communication satisfaction and job satisfaction among research assistants. He conducted his study in Selcuk University in Turkey on a sample of 600 research assistants from 17 faculties. He aims to define the highest and lowest experienced levels of communication satisfaction and job satisfaction factors. He aims also to find the communication satisfaction and job satisfaction factors that are considered as most important by his subjects, and he tried to determine the nature and the extent of the relationship between communication satisfaction and job satisfaction. His findings showed that the highest scoring communication satisfaction dimensions were in sequential order, horizontal communication, media quality, and organizational integration and the lowest scoring dimensions were communication climate, personal feedback, and organizational perspective. His findings also showed that there is a positive and meaningful relationship between communication satisfaction and job satisfaction.

Nakra (2006) examined the relationship between communication satisfaction and organizational identification. She explored the influence of the communication satisfaction of employees on the level of their organizational identification in an Indian context. The sample of this study consists of 67 working executives from Bangalore,

working in 55 different organizations. The researcher aim in this study is to understand the effectiveness of organizational communication from the perspectives of the employee. She aims also to empirically examine the relationship between the employees' satisfaction with organization's communication and their identification with their company. The results of this study showed that there is a significant positive relationship between the communication satisfaction dimensions and organizational identification. The dimensions that are the most noteworthy predictors of organizational identification are satisfaction with personal feedback and communication climate. The results of this study, as claimed by Nakra (2006), suggest that it is important for any organization to take concrete measures for enhancing the level of communication satisfaction of their employees since communication satisfaction showed a significant positive relationship with organizational identification.

Ahmad (2006) carried out a communication satisfaction audit for the academic staff in the Malaysian public Universities using Downs & Hazen's communication satisfaction questionnaire. A total number of 252 academic staff from two public universities in Malaysia participated in the study. His main aim is to provide an assessment of communication practices in Malaysian public universities. The result showed some variations in the communication satisfaction levels among the academic staff of these universities. The study findings also show that the varying satisfaction level of communication practices among the academic staff proves that Malaysian public universities need to improve their communication practices. Ahmad (2006) has recommended that a communication satisfaction audit should be conducted every five or seven years in these universities to monitor existing communication activities and in order to provide information needed to develop specific communication programs.

Meintjes & Steyn (2006) provided a critical evaluation of Downs and Hazen's (1977) communication satisfaction questionnaire by applying it in measuring employees' communication satisfaction at a private higher education institution in South Africa. Meintjes & Steyn (2006) used Pincus' (1986) model of categorizing communication satisfaction. Three communication satisfaction dimensions which consist of the eight constructs were measured in the study. The sample size of the study was 239 full-time employees of private higher educational institution including all the academic staff. Results concluded that employees' communication satisfaction was significantly higher with their relationship with supervisor, which belong to relational dimensions, than the other dimensions. Satisfaction with media quality also was found significantly higher than the satisfaction with many other dimensions. The results indicated also that there were no differences between managers and subordinates for the three communication satisfaction dimensions. The study recommended that top management needs to understand the excellent management communication and demand it from all supervisors as it is necessary for employees' productivity and also important for reducing employee turnover and absenteeism (Meintjes & Steyn, 2006). The study also recommended that more studies are needed to measure communication satisfaction in multicultural environment using this instrument.

Mustaffa (2004) examined the relationship between communication satisfaction and organizational commitment. The main purpose of the study is to discuss the relationships between satisfaction with elements of communication that exist within an organization and the organizational commitment to that organization. A total number of 317 respondents participated in the study. The findings of the study indicated that communication satisfaction dimensions are positively and significantly related to

organizational commitment. Mustaffa (2004) recommended that future research can be done in the context of comparing employees' level of satisfaction with communication in various sectors taking into account their local culture.

Hsu (2002) conducted a research among 195 respondents from several hotels and restaurants in Midwestern state. He aimed to investigate the relationship between employee communication satisfaction and their organizational commitment at hospitality industry. The results of this study show that there is a positive relationship between both the constructs in the hospitality industry. Results also prove that communication plays an important role in employee satisfaction and organizational commitment. The study has further suggested that more research is needed to develop some theoretical understanding on the relationship between these organizational variables. Hsu (2002) has claimed that the study has also reinforces the need for more awareness of communication satisfaction to decrease employee turnover.

Varona (2002) investigated employees' and supervisors' conceptualizations of organizational commitment and communication satisfaction. He employed his study in three Guatemalan organizations. Based on level of commitment and satisfaction the study also examined differences in participants' view of management strategies. This research's sample constituted of 77 participants (44 employees and 33 supervisors) from three different organizations (a school, a hospital, and a food factory). The participants answered a self-administered survey that included open-ended and close-ended questions. According to the results of this study, employees and supervisors were similar in their conceptualizations of organizational commitment and communication satisfaction. The results also show that both communication satisfaction and organizational commitment have been conceptualized as multidimensional constructs. It

has been recommended in this study that more research is needed to investigate national and cultural differences on both the constructs.

Gray & Laidlaw (2002) used an empirical case study to examine the relationship between flexible work arrangement (whether employees work on a full-time or part-time basis) and communication satisfaction. The data of the study were collected from employees in a major Australian retail organization. The sample of this study was 127 employees half of them are employed on a part-time basis at stores which are open 24 hours per day, seven days per week. The survey included the communication satisfaction questionnaire. The study aims also to examine the part-time employees' attitudes toward communication at work relative to full-time employees. The results of this study indicated that the levels of communication satisfaction among part-time and full-time employees in the company investigated were low. The results also showed that there were significant differences between full-time and part-time employees on four communication dimensions. The part-time employees were less satisfied with the information they received than full-time employees. The part-time employees were less satisfied with the organizational perspective, communication climate, supervisory communication and media quality. Gray & Laidlaw (2002) raised concerns that the high levels of dissatisfaction may lead to a lack of employee job satisfaction and weak performance

Taylor (1997) investigated the relationship between communication satisfaction and church membership satisfaction and involvement among the members of Southern Baptist churches. There were two hundred and nine church members participated in the study. To measure communication satisfaction Taylor (1997) used Pincus' (1986) model. The findings of this study showed that there was a strong relationship between



communication satisfaction and membership satisfaction. The study indicated that the relational dimensions of communication satisfaction were more positively related to membership satisfaction compared to the informational/relational and the informational dimensions. Taylor concluded that environment of open, supportive, active, and free-flowing communication forms the basis of satisfied membership.

Varona (1996) has examined the relationship between organizational communication satisfaction and organizational commitment in three Guatemalan organizations. His results showed that there is a positive relationship between employees' communication satisfaction and their organizational commitment. Three hundred and seven employees from three different organizations in Guatemala (a school, a hospital, and a food factory) comprised the sample. Findings indicated that school teachers were more satisfied with the communication practices and more committed to their organization than were the employees of the other two organizations. The results show also that supervisors were more satisfied with the communication practices than subordinates and employees with more tenure were significantly more committed to their organization. Varona (1996) has recommended in this study that there is a need for further multinational research to see whether this study's findings hold with other samples in different countries and cultures other than Latin America and also to test the internal reliability of the research instrument used in this study in different culture. Another limitation in Varona (1996) is that his research addressed OC as unidimensional construct while recent studies confirmed that OC is a multidimensional construct consisting of three dimensions, affective, continuance, and normative (Allen and Meyer, 1990).

Clampitt & Downs (1993) have conducted a study in two different organizations. The sample of the study consisted of 175 male and female employees. All the employees were high school graduates and only ten of the employees had college degrees. The purpose of the mentioned study was to explore the relationship between communication and productivity. The study aims to determine employee perceptions of the impact of the communication satisfaction dimensions on productivity. It aims also to understand how the type of organization may moderate the link between communication and productivity. The findings of this study showed that communication was perceived to have an impact on productivity. The degree of impact and the reasons for impact varied. Further, the results showed that the type of organization was seen to moderate the relationship between communication and productivity.

Putti et al. (1990) explored the association between communication relationship satisfaction and organizational commitment. Data were collected from 122 white-collar employees working in an engineering company through a questionnaire. The objective of the study was investigating the relationship between communication relationship satisfaction and organizational commitment. The findings of the study revealed a significant positive relationship between the variables of the study. Top management communication relationship showed a stronger correlation with organizational commitment than the correlation between supervisor communication relationship and organizational commitment.

Pincus (1986) investigated the relationship between perceived satisfaction with organizational communication and job satisfaction and job performance. The sample of this study consisted of 327 professional hospital nurses at a large, urban, teaching hospital on the East Coast of the United States. The results showed that the

communication satisfaction-job satisfaction link was stronger. It showed also that supervisory communication, communication climate, and personal feedback were most strongly related to both job satisfaction and performance. The findings also suggested that employee job performance also may be substantially affected by employee perceptions of supervisor communication.

## **2.9 Theoretical Framework**

It is critical to understand the extent to which the communication satisfaction among academic staff in the Yemeni universities moderated by culture may influence their organizational commitment. The above mentioned models of OC, i.e. Meyer and Allen's multidimensional commitment model, and of national culture, i.e. Hofstede's cultural dimensions, contribute to the explanation of the research variables and create a theoretical foundation to this study.

Reviews of literature discussed earlier failed to find a comprehensive model that links communication satisfaction, national culture, and organizational commitment. As also discussed previously, the majority of prior studies have either investigated the relationship between communication satisfaction and organizational commitment or the effects of national culture on communication satisfaction. However, few studies are known about the moderating effects of cultural dimensions on the relationship between communication satisfaction and organizational commitment.

Furthermore, most studies relating to the study variables were conducted in developed countries. Very little has been researched about these variables, especially communication satisfaction and cultural dimensions, in developing countries. To the researcher's knowledge, this kind of study is particularly almost non-existent in Yemen.

Therefore, this study represents a first attempt to explore the effects of Hofstede's cultural dimensions on the communication satisfaction-organizational commitment relationship, in the specific context of Yemeni universities.

As it has been discussed earlier, the framework for this study was developed around three models. These models are: Pincus's (1986) and Downs & Hazen's (1977) multidimensional model of communication satisfaction, Meyer and Allen's (1991) multidimensional model of organizational commitment, and Hofstede's (1980; 2001) cultural dimensions model. These models which were discussed in details in the previous parts of the thesis make the theoretical foundation for this research.

Many studies in communication satisfaction have generally adopted the multidimensional model as the theoretical underpinning. In the recent decades, research efforts have suggested that communication satisfaction is multidimensional (Downs & Adrian, 2004). Downs and Hazen (1977) investigated the multidimensionality nature of the communication satisfaction construct. They developed a questionnaire and administered it to 225 employees from many kinds of organizations, including a military unit, a hospital, professional organizations, businesses, and universities. The results were factor-analyzed, and a new questionnaire was refined and administered to four different organizations. Factor analysis led to the identification of eight stable dimensions of communication satisfaction. Downs and Hazen (1977) concluded that the various dimensions of communication satisfaction can provide a barometer of the concept of communication satisfaction.

Pincus (1986) has revised Downs & Hazen's (1977) model by adding the ninth dimension i.e. top management communication and then he differentiated between three dimensions of communication satisfaction. He simply clusters the nine dimensions into

three dimensions of communication satisfaction. These three dimensions are the relational dimension, the informational/relational dimension, and the informational dimension. Hecht (1978) reviewed various instruments used to assess communication satisfaction. Generally, Hecht (1978) was quite critical of most approaches used to measure communication satisfaction, but his remarks on the Communication Satisfaction Questionnaire were positive. On the basis of the above, Downs and Hazen (1977) concluded that the concept of communication satisfaction can be a useful tool in studying organizational communication.

Thus, the CS model provides a uniquely theoretical and empirically sound method of gathering information about organizational communication. And people have continued to investigate the CS through dissertations and theses making it a thoroughly studied instrument with great credibility (Downs & Adrian, 2004). Many researchers commonly pay attention to how communication processes can be linked to organizational results such as commitment to the organization, job satisfaction among employees, productivity, the effectiveness of implementing a change, and financial stability (Downs & Adrian, 2004). Employees who are more satisfied with communication practices are more likely to commit to the organization and they also identify more with their organizations (Potvin, 1991; Varona, 1996; Mustafa, 2004). According to (Postmes et al., 2001), communication creates the conditions for commitment; therefore, it should be studied as one of its antecedents. There are many empirical evidences that support this assumption. One of the most important findings of Mathieu and Zajac's (1990) OC meta-analysis was the strong impact of communication. In this meta-analysis, communication was the strongest of all antecedents reported. The

strength of this effect in itself provides a reason to explore the communication–commitment relationship in more depth (Postmes et al. (2001).

In the past three decades, the construct of commitment has commanded an impressive amount of scholarly attention in both sales management and organizational behavior literatures (O'Reilly & Chatman, 1986; Mathieu & Zajac, 1990; Suliman & Isles, 2000). A review of literature (Porter et al., 1974; Reichers, 1985; Allen & Meyer, 1990; Suliman & Isles, 2000) showed that there are at least four main models to conceptualize and define OC. First, the attitudinal model defines OC as an attitude or an orientation toward the organization that links the identity of the person to the organization (Porter et al. 1974). Three components comprise this orientation. They are: identification with the goals and values of the organization and the acceptance of these goals and values, high involvement in its work activities, and a strong desire to maintain membership in the organization (Porter et al. 1974).

Second, the behavioral model views OC as an outcome of inducement or contribution transactions between the organization and member. This model which depended on side-bet theory of Becker's (1960) gives an emphasis on the view that employees' loyalty to their organizations is due to their investments (e.g. time, friendships, and pension) in these organizations (Suliman & Isles, 2000). Third, the normative model defines OC as the totality of internalized normative pressures to act in a way which meets organizational goals and interests (Weiner, 1982). This model shows that congruency between employee goals and values and organizational aims make the employee feel obligated to the organization (Suliman & Isles, 2000).

The forth model for defining OC is what is known as the Multidimensional model. Many researchers have investigated this new conceptualization of OC (Suliman

& Isles, 2000). Meyer and Allen (1991) identified three general themes in their conceptualizations of OC: affective attachment, perceived costs, and obligation. These themes are reflected in a three-component model to capture the different forms of underlying mind-sets that reflect attachment to an organization. This multidimensional model consists of three dimensions: affective commitment which refers to the employee's emotional attachment to, identification with, and involvement in, the organization, continuance commitment that refers to commitment based on the costs that the employee associates with leaving the organization, and finally the normative commitment dimension which refers to the employee's feelings of obligation to remain with the organization (Meyer and Allen (1991). This conceptualization of Meyer & Allen (1991) has become a widely accepted theoretical framework for several research studies (Allen & Meyer, 1996).

Since the 1990s, organizational commitment has been recognized as a multidimensional construct with antecedents, correlates, and consequences that vary across dimensions (Allen & Meyer, 1990; Mathieu & Zajac, 1990; Meyer & Allen, 1991; 1997). Allen and Meyer (1990) suggest that the three dimensions of OC develop somewhat independently as a function of different experiences or antecedents of commitment. In general, antecedents of affective are those work experiences that satisfy employees' needs to feel comfortable in their relationship with the organization and to feel competent in the work-role (Allen and Meyer, 1990).

Allen & Meyer (1990) show also that antecedents of continuance commitment concern recognition by the employee investments in the organization and perceived employment alternatives. Antecedents of normative commitment are phrased in terms of an individual's general sense of obligation: those individuals who value loyalty in

general tend to exhibit greater loyalty to the work organization (Allen and Meyer, 1990). Although CS relate positively to OC (Varona, 1996; Mustafa, 2004), the relationship of three forms of commitment to antecedents is different for each dimension of commitment (Meyer & Allen, 1991; 1997). Besides, a multiple commitments perspective strongly suggested that the commitment experienced by any individual may differ markedly from that experienced by others (Reichers 1985). Thus, Meyer and Allen (1991) suggested that researchers could better understand an employee's relationship with an organization by analyzing all three components simultaneously.

Reichers (1985) suggested that, in addition to a commitment to the organization, individuals can also develop commitments to other entities such as work groups or supervisors and to groups external to the organization such as a union or an occupation. In a test of her multiple constituency framework, Reichers (1985) suggested that the understanding of organizational commitment could be enhanced by recognizing that employees can become committed to multiple organizational members and to multiple sets of goals. Research has demonstrated that employees' relationship with the organization is improved when supervisors communicate in a timely and accurate way (Mathieu and Zajac, 1990; Putti et al., 1990). Mathieu and Zajac (1990) have suggested that a supervisor who provides more accurate and timely types of communication enhances the work environment and thereby is likely to increase employees' commitment to the organization. Hence, interactions between the supervisors and employees are the base of effective communication and have the power to strengthen or weaken their commitment to the organization (Mathieu and Zajac, 1990).

Meyer and Allen's (1991) framework was chosen as the theoretical lens through which to study OC in this research, as this model has not only generated the most



empirical research pertaining to OC but has also been subject to the greatest scrutiny (Meyer & Allen, 1997). Porter's et al. (1974) Organizational Commitment Questionnaire dominated the OC research from the early 1970s to the mid-1980s (Cohen, 2003). However, of late, this model has come under some criticism (Cohen, 2003). Meyer and Allen (1997) advise that the three dimensions of OC should not be seen as mutually exclusive, but as components that can variously coexist. Three scales were constructed to evaluate the model: the Affective (ACS), Continuance (CCS), and Normative (NCS) Commitment Scales (Allen & Meyer, 1990; Meyer & Allen, 1991). There is empirical research suggests that Meyer and Allen's (1991) scales are superior to all the other models investigating OC including Porter et al.'s (1974) OCQ scale (Blau et al. 1993).

Hofstede's (1980; 2001) model of cultural differences between nations is the third model on which the theoretical framework of this research is based. Hofstede's (1980; 2001) research on cultural dimensions provides a theoretical foundation for exploring the moderating impact of cultural differences on the communication satisfaction-organizational commitment relationship. Myers & Tan (2002) state that most of the researchers who study culture have tended to rely almost solely on Hofstede's (1980; 2001) model. Hofstede's typology of culture has been one of the most popular in many different fields (Myers & Tan, 2002). A review of the Social Science Citation Index (SSCI) resulted in 1036 quotations from Hofstede's work in journals during the period 1980 to September 1993 (Sondergaard, 1994). Clearly, Hofstede's work had a significant influence on management studies in general (Myers & Tan, 2002). According to De Mooij & Hofstede (2010), the reason for the widespread adoption of Hofstede's (1980; 2001) model of national culture lies in the large number of countries measured and the simplicity of his dimensions.

Hofstede (1980) defines national culture as the collective mental programming of the people in a national context. Hofstede (1988) believed that people who are doing the job for the same organization and who have many things in common such as education and career, except for the fact that they are from different nations, would provide the basis for cross-cultural comparisons. Based on that conviction, he conducted a survey of employees of a multicultural company, IBM, in 50 different countries. Through this extensive survey, Hofstede (1980) developed a quantitative classification scheme for measuring differences and similarities between national cultures. Hofstede (1980) identified four dimensions which distinguished cultures at a national level. These four dimensions are: power distance, uncertainty avoidance, collectivism versus individualism and femininity versus masculinity. He later added a fifth dimension, long term versus short term orientation. Each dimension provides a numerical score, generally between 0 and 100.

Hofstede's (1980) findings have been confirmed through many duplication studies and have been extensively used as a paradigm in articles of topics of intercultural relations (Sondergaard, 1994). This framework of Hofstede (1980) is still applied in many recent studies that use culture to explain the differences in international management behavior (Pagell et al. 2005). Hofstede (1980) confirms that cultural differences between countries have pervasive effects on organisational life and moderate the impact of management theories and models. Thus, Hofstede model of national culture has proved to be a useful instrument for understanding employee and consumer behaviour differences across cultures (Mooij & Hofstede, 2010).

### 2.9.1 Research Model

A model illustrating the relationship between communication satisfaction dimensions, cultural dimensions and organizational commitment dimensions are presented in the diagram below (see figure no. 1). The figure presents the model to be tested in this study. Communication satisfaction construct, operationalized by Downs & Hazen in 1977 which includes eight dimensions, in addition to top management communication of Pincus (1986) and Downs (1990), is the independent variable of this study. These dimensions are organizational perspective, personal feedback, organizational integration, supervisory communication, communication climate, horizontal communication, media quality, subordinate communication, and top management communication. They have been grouped by Pincus (1986) into three groups of dimensions i.e. relational dimensions, informational/relational dimensions, and informational dimensions.

The dependent variables are the organizational commitment dimensions developed by Meyer & Allen, (1991) which are; affective commitment, continuance commitment, normative commitment. The cultural dimensions are included in this study as moderator variables which moderate the relationship between the independent and dependent variable. Hofstede's cultural dimensions have been adopted in this study. The Hofstede framework gives an outstanding vehicle to explore the differences that might be present in the ways that internal communication influences the people in the organization (Downs et al. 1996). To fulfill the research objectives all the five Cultural dimensions have been used. These dimensions are: power distance, uncertainty

avoidance, individualism vs. collectivism, masculinity vs. femininity, and long term vs. short term orientation.

As such, the dimensions of communication satisfaction are hypothesized to have a significant relationship with the organizational commitment of the Yemeni and non-Yemeni academic staff in universities in Yemen.

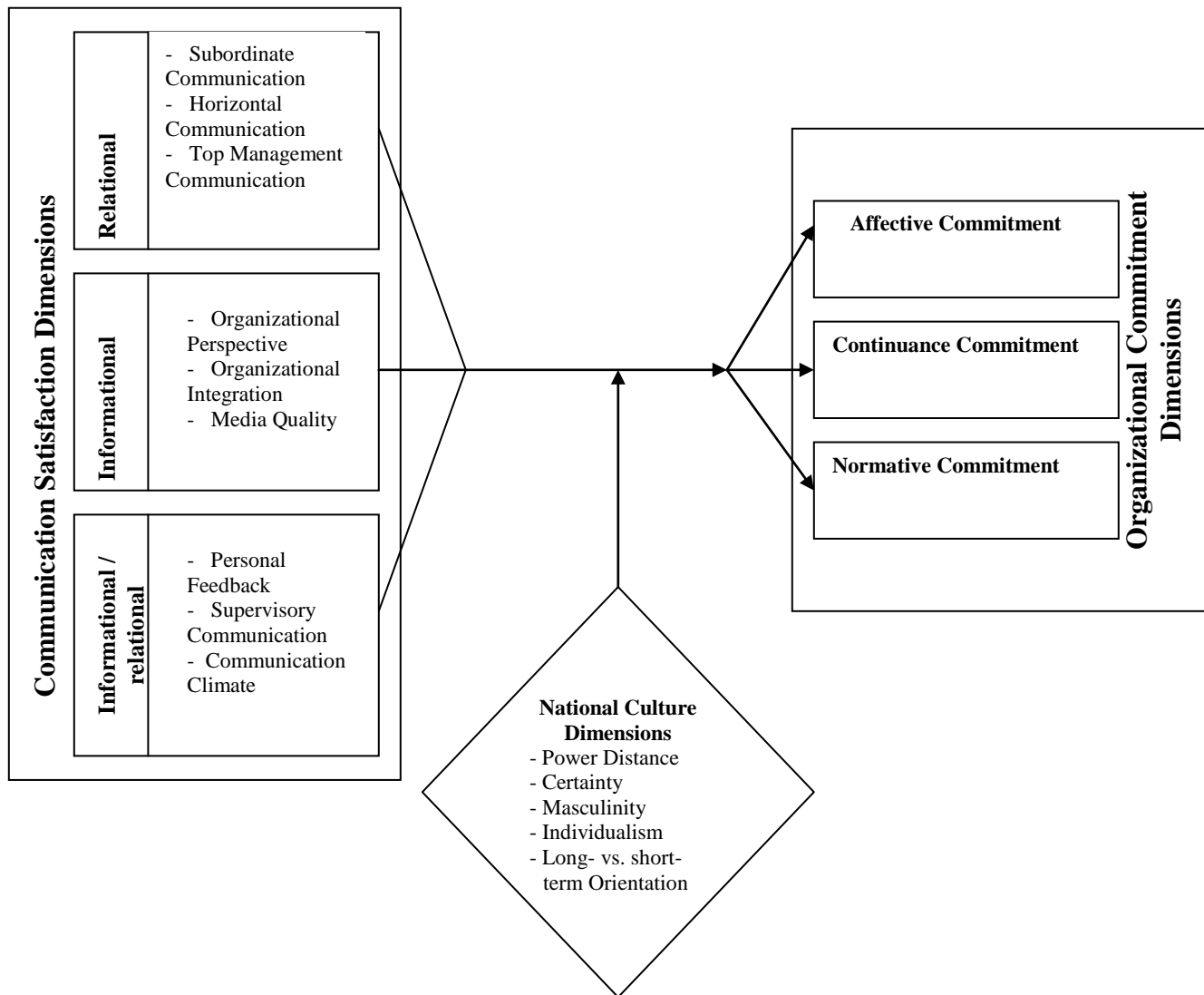


Figure 3.1 *Research Model*

### **2.9.2 Hypotheses Statement**

Depending on the literature review and the theoretical foundation discussed in this chapter, hypotheses that are to be tested in this study have been formulated. Differences in communication satisfaction level of the academic staff are hypothesized to exist. Each dimension of communication satisfaction is hypothesized to have a significant positive relation with organizational commitment dimensions. With the expectations of the hypotheses that concern the moderating effects, each national culture dimension is predicted to have a significant moderating effect on the one dimension-to-one dimension relationship of communication satisfaction and organizational commitment. Based on previous studies reviewed as well as taking the perspective of the theoretical aspects, the following hypotheses are advanced for this study. A discussion of the research propositions is also presented in the following section.

#### **2.9.2.1 Differences in CS Level**

Culture is an important factor which affects the way we interact with each other (Nazir, et al., 2009). Kluckhohn and Kelly (1945) have shown that people interact with each other using cultural properties which existed historically in the geographical group they belong to. Kim (1993) found that people from different cultures apply different styles of interacting and favored strategies of communication. Hall (1976) indicated that the study of communication has been included in the concept of culture with an emphasis on the value of effective interaction between members of different cultures. Many difficulties in intercultural communication come from the lack of understanding of how to communicate with people in other countries (Hall, 1959). Communication

behaviors considered appropriate in one culture can be unacceptable to people from another culture. In order to reduce this misinterpretation of communication behaviors, people should obtain knowledge about the communication styles of persons from other cultures (Tran & Skitmore, 2002) as a result they can reach high communication satisfaction.

Communication satisfaction has been studied in a number of countries such as United States, Mexico, Guatemala, Australia and Malaysia (Pincus, 1986; Potvin, 1991; Varona, 1996; Mustafa, 2004). Some of these studies included an analysis of the differences in the CS level between respondents in accordance with some variables. Varona (1996) has examined the differences in CS levels between superiors and subordinates in Guatemalan organizations. Ahmad (2006) carried out a communication satisfaction audit for the academic staff in the Malaysian public universities using Downs & Hazen's communication satisfaction questionnaire. Ahmad (2006) showed some variations in the communication satisfaction levels among the academic staff according to their job positions in these universities.

Although national culture is an essential variable in multicultural organizations, studies which incorporate cultural dimensions of nations are mostly lacking (Arrindell, et al., 1997; Meeuwesen, et al., 2009). In recent years, there has been recognition of a relationship between communication and national culture (Morley, et al. 1997; Chow, et al., 1998; Nes, et al., 2007). The issue of how culture influences communication is becoming increasingly important as researchers take a greater look at communication as a “facilitating mechanism” in intercultural relations (Nes, et al., 2007).

A study, conducted by Meeuwesen et al. (2009), has investigated how cross-national differences in medical communication can be understood from the cultural

dimensions and they found that there are national differences in communication styles among the participating countries. Hofstede (1980; 2001) indicated that most of the countries in the world have to some extent different cultural values. Downs et al. (1996) showed that differences in national culture cause differences might be present in the ways that internal communication influences the people in the organization. Therefore, it is expected that staff's CS level differs in accordance with their nationalities.

H1: There are significant differences in the level of CS between Yemeni and non-Yemeni academic staff.

#### **2.9.2.2 Main Effect**

Communication creates the conditions for commitment; therefore, it should be studied as one of its antecedents (Postmes et al. 2001). Mathieu and Zajac's (1990) provide an empirical evidence to support this assumption. One of the most important findings of Mathieu and Zajac's (1990) OC meta-analysis was the strong impact of communication. Indeed, communication was the strongest of all antecedents reported. However, unfortunately only four studies were included in their analysis. The strength of this effect in itself provides a reason to explore the communication–commitment relation in more depth (Postmes et al. (2001). According to Taylor (1997), communication satisfaction leads to organizational satisfaction; and organizational satisfaction leads to increased organizational involvement. Organizational commitment has been one of the widely researched areas in relation to several organizational outcomes (Warsi et al. 2009). However, studies related to relationship between organizational communication and organizational commitment given less emphasis (Mustaffa, 2004).



There are few studies that have examined the linkage between these two variables (Putti et al. 1990; Potvin, 1991; varona, 1996; Mustaffa, 2004; Carrie`re & Bourque, 2009). Putti et al. (1990) showed that top management and supervisor relationships showed the strongest relationship with organizational commitment. Potvin (1991) also indicated a positive relationship between CS and OC. The strongest relations appeared between organizational commitment and both supervisory communication and communication climate. Varona (1996) found a moderate positive relationship between both the variables. Subordinate Communication, Organizational Integration, Communication Climate, and supervisory communication had the highest correlation with organizational commitment in all the three organizations studied.

Another study by Mustaffa (2004) indicated that communication climate, horizontal communication, and communication climate were the highest correlated dimensions with organizational commitment. Carrie`re & Bourque (2009) pointed out that implementing effective and efficient communication practices that succeed in generating communication satisfaction amongst employees can enhance both job satisfaction and organizational commitment. The previous review of research on communication satisfaction and organizational commitment indicates that a relationship exist among the two variables. Therefore, it is expected that staff with more CS level are likely more committed to their universities.

Pincus (1986) has revised Downs & Hazen (1977) model of CS and differentiated between three dimensions of communication satisfaction. He simply clusters the CS dimensions into three groups of dimensions after adding the ninth dimension i.e. top management communication. The first group is the relational dimensions which include three dimensions, subordinate communication, horizontal communication, and

communication with top management. These dimensions focus on satisfaction with communication relationships with other organizational members. The second group of dimensions clustered by Pincus (1986) is the informational dimensions which focus on the satisfaction with the content and flow of information throughout the organization. These dimensions are media quality, organizational perspective, and organizational integration. The last group is the informational/relational dimensions. These dimensions focus on both relational dimensions and the informational communication and it includes supervisor communication, personal feedback, and communication climate.

Pincus (1986), in his study on the relationship between CS and both job satisfaction and job performance, found that relational dimensions of CS were more strongly associated with job satisfaction than the informational dimensions. This reveals that the relational communication satisfaction dimensions have stronger effects on many organizational variables than informational and informational/relational dimensions. Taylor (1997) also supported this notion. She found that relational dimensions are the best contributors to the communication satisfaction-membership satisfaction relationship. Thus, the hypotheses of this section focused on the expected differing relationships between the CS dimensions and OC dimensions. They concern the strength of the relationships among the relational dimensions and the various dimensions of OC.

As explained earlier, the hypothesized relationship between CS dimensions and OC is emanated from the results of studies by Putti et al. (1990), Potvin (1991), varona (1996), Mustaffa (2004), and Carrie`re & Bourque (2009). Among the three organizational commitment dimensions suggested by Meyer and Allen (1991), affective commitment dimension is the most relevant to various work aspects (Allen & Meyer, 1996). Meyer and Allen (1991) suggest that affective commitment develops as the result

of experiences that satisfy employee's need to feel physically and psychologically comfortable in the organization. Research shows that employees' relationship with the organization is improved when supervisors communicate in a timely and accurate fashion (Mathieu and Zajac, 1990; Van Vuuren et al., 2007). Basically, interactions between the supervisors and employees are the base of effective communication and have the power to strengthen or weaken their commitment to the organization (Mathieu and Zajac, 1990).

As mentioned earlier, CS is suggested to be a multidimensional variable (Downs & Hazen, 1977; Pincus, 1986). Pincus (1986) clustered the CS dimensions into three dimensions. These three dimensions are the relational dimension, the informational/relational dimension, and the informational dimension. OC is also proved to be a multidimensional variable (Meyer & Allen, 1990). Meyer and Allen (1990) identified three different dimensions of organizational commitment. These dimensions are affective commitment, continuance commitment, and normative commitment. Therefore, the hypotheses of this section which are concerned with the main effect of the independent variable on the dependent variable are divided into three groups of hypotheses relating each of the CS dimensions to OC dimensions, as follows.

#### **2.9.2.2.1 CS Dimensions and Affective Commitment**

The following three hypotheses are concerned with relationship between communication satisfaction dimensions and affective commitment.

H2a1: There is a significant positive relationship between relational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities.

H2a2: There is a significant positive relationship between informational/relational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities.

H2a3: There is a significant positive relationship between informational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities.

#### **2.9.2.2.2 CS Dimensions and Continuance Commitment**

The following three hypotheses are concerned with relationship between communication satisfaction dimensions and continuance commitment.

H2b1: There is a significant positive relationship between relational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities.

H2b2: There is a significant positive relationship between informational/relational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities.

H2b3: There is a significant positive relationship between informational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities.

#### **2.9.2.2.3 CS Dimensions and Normative Commitment**

The following three hypotheses are concerned with relationship between communication satisfaction dimensions and normative commitment.

H2c1: There is a significant positive relationship between relational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities.

H2c2: There is a significant positive relationship between informational/relational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities.

H2c3: There is a significant positive relationship between informational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities.

#### **2.9.2.3 Interacting Effect**

There is some evidence that national differences in work-related attitudes could be predicted from national differences in cultural values (Schwartz, 1999). National culture has been identified as a major environmental characteristic that underlies differences in individual behavior and in how individuals perceive situations and interact

with others (Webster & White, 2010). Steenkamp (2001) finds that culture can be examined at the national level because there are forces at the national level pushing to a meaningful degree of within-country commonality. Among various conceptualizations of cultural orientations, Hofstede's (1980; 2001) five cultural dimensions remain the most widely-accepted perspective (Myers & Tan, 2002). These dimensions include power distance, uncertainty avoidance, individualism vs. collectivism, masculinity vs. femininity and long-term vs. short term orientation.

According to Al-Nashmi & Zin (2011), communication satisfaction is significantly related to national culture. Staff's level of satisfaction with communication practices in multicultural organizations has been found to differ in accordance to their national culture. Al-Nashmi & Zin (2011) generally assume that when employees' CS is affected by national culture, the organizational outcome is also affected. In addition, National culture is significantly proved to influence organizational commitment (Fischer & Mansell, 2009). Research also has proved a significant positive relationship between CS and OC (Putti et al. 1990; Potvin, 1991; varona, 1996; Mustaffa, 2004; Carrie`re & Bourque, 2009). Since cultural dimensions affect both CS (Al-Nashmi & Zin, 2011) and OC (Fischer & Mansell, 2009), so the relationship between CS and OC can be subject to national culture influences. In this research, Hofstede's (1980, 2001) framework of national culture is adopted to capture the moderating effects of cultural dimensions on the communication satisfaction-organizational commitment relationship.

The national cultural dimension of power distance refers to the extent to which inequality and power differentials are accepted within an organization or a society (Hofstede, 1997). In low power distance national cultures, individuals prefer minimal inequality between roles, but in high power distance national cultures, each individual

has a set place in the society's hierarchy, and this place determines his or her rights and duties toward the people positioned at higher and lower levels (Hofstede, 1997). Therefore, in high-power distance subordinates and supervisors consider their status as unequal. People within cultures develop ways of interacting with different people according to the status differential that exists between the individual and the person with whom he is interacting (Robinson, 1998). Power distance has been proven to be one of the most influencing dimensions that affect individuals' CS level (Al-Nashmi & Zin, 2011).

Power distance is one the cultural dimensions that are especially interesting, since it is theoretically related to attachment to, and acceptance of, groups and group hierarchies, which is the basis of commitment (Fischer & Mansell, 2009). This dimension specifies appropriate relationships between individuals across different hierarchical ranks, which is related to the reasons why people might feel attached to an organization (Fischer & Mansell, 2009). Therefore, power distance is considered in relation to the three different forms of commitment. In high power distance societies there is greater emphasis on obedience and loyalty (Hofstede, 2001). As a result, commitment and loyalty to authorities will be higher in more power-distant cultures, leading to generalized greater commitment to organizations in cultures characterized by greater power distance (Fischer & Mansell, 2009).

In the context of CS and OC, leader-subordinate relationships could explain how power distance could play a role as a moderating factor between these variables as commitment to workgroup, according to Abu Bakar et al. (2010), is related to higher level of supervisory communication. The quality of communication and information that subordinates received from their immediate supervisor is very important in determining

levels of commitment (Abu Bakar et al., 2010). Further, Begley et al. (2002) indicated that high power distance prohibits employees from building close relationships with superiors and thus will limit favor and obligation. Without this relationship, employees will feel insecure in their relationship and thus will place more attention on how their employers value their contribution.

Societies with a low power distance score tend to be more consultative and democratic in the sense that people relate to each other as equals regardless of their authoritarian position (Hofstede, 1980). The distribution of power tends to be more symmetric and greater recognition is made of frequent information exchange between superiors and subordinates. Subordinates tend to be relatively comfortable when questioning the decisions of superiors and they generally exhibit a tendency to demand the right to participate in meetings or other official dealings (Wentrup, 2010) and these are indicators of high CS level that reinforce OC. Subordinates would not tolerate poor quality of communication practices due to power advantage which would negatively affect their organizational commitment. It is possible that superiors' regular communication activities with subordinates in low power distance results in positive interaction experience that strengthen their OC. On the other hand, subordinates from high power distance societies are often not expected to actively participate in communication activities and if they nevertheless do, such unusual behavior may be frowned upon by other members of the group (Wentrup, 2010). Farh et al. (2007) noted that employees who are high in power distance display high intention to maintain greater social distance and this will minimize the communication practices among them. Thus, staff from high power distance culture will be less satisfied with communication practices and that weaken OC. Therefore, in high power distance culture, it is expected



that CS will greatly affect employee's response towards OC. Hence, it is proposed that power distance moderate the CS-OC relationship.

Uncertainty avoidance is described as how an individual feels either uncomfortable or comfortable in unstructured situations which are unknown, surprising, or different from usual (Hofstede, 1984). High uncertainty avoidance cultures tend to avoid unknown situations and feel threatened in such situations. They avoid ambiguous situations and expect relationships to help make events clearly interpretable. Individuals of high uncertainty avoidance seem active, emotional and even aggressive (Hofstede, 1997). Cultures of low uncertainty avoidance are less threatened by unknown situations and individuals of this type of cultures are more willing to take risks, and they feel more comfortable in a state of uncertainty (Hofstede, 2001).

Robinson (1998) has revealed that differences in the uncertainty avoidance level can cause unexpected problems in intercultural communication. Uncertainty avoidance is seen to play an important role (negative influence) in the multicultural staff satisfaction with communication practices (Al-Nashmi & Zin, 2011). Al-Nashmi & Zin (2011) have indicated that when uncertainty avoidance is high, the satisfaction level with communication practices is low. This dimension of national culture is synonymous with a high need for clarity and a great deal of information in order to build work relationships (Furnham & Ribchester, 1995) and reach high level of CS (Al-Nashmi & Zin, 2011).

Staff with high uncertainty avoidance value the importance of their relationships with people from the same culture of theirs as these relationships have lower perceived risk and information costs (Al-Nashmi & Zin, 2011). According to Wentrup (2010), people from cultural backgrounds with higher levels of uncertainty avoidance are said to

be more likely to act rather emotionally. In this context, it is to be expected that staff with high levels of uncertainty avoidance are relatively averse to risk and thus prefer familiar communication relationships to be highly satisfied with communication (Al-Nashmi & Zin, 2011), since such relationships suggest lower perceived risk.

According to Hofstede (1984), uncertainty avoidance indicates the extent to which people feel threatened by uncertain and ambiguous situations and seek to avoid them. Chew and Putti (1995) has pointed out that since individuals of high uncertainty avoidance seek greater career stability, formal rules, and avoid risk, they have fewer intentions of leaving their organizations. Chew and Putti (1995) showed that high uncertainty avoidance individuals avoid risk because of their fear of taking responsibility and fear of failure. These dynamics are likely to result in an attachment based on maintaining the security of an individual's present position coupled with a healthy fear of failure for risking employment elsewhere (Clugston et al., 2000).

Uncertainty avoidance may be an important cultural moderator of the association between communication satisfaction and organizational commitment due to its powerful norms related to ambiguity. Individuals in countries of low uncertainty avoidance are less likely than those in high uncertainty avoidance cultures to fear the unknown (Hofstede, 1984), so they may be less committed to their organizations when dissatisfied with communication practices. Individuals in cultures of high uncertainty avoidance, however, should show more commitment level when dissatisfied with communication practices in their universities because of an aversion to the uncertainty or unfamiliarity associated with starting employment elsewhere. Thus, the expectation is that among those with higher levels of uncertainty avoidance, CS will have a stronger relationship to OC.

Variations in individualism dimension cause similarities and differences in communication to be identified across cultures (Robinson, 1998). This dimension refers to how people associate themselves with others (Hofstede, 2001). According to Hofstede (1997), highly individualistic cultures believe that the individual is the most important unit whereas highly collectivistic cultures believe that the group is more important. Individualism is characterized by attitude of independence from ingroups, autonomy, and having goals away from the group interests. Collectivism is further characterized by extreme loyalty to the group, duty, personalized relationships, and taking decisions in favor of the groups (Triandis, 2004).

According to Michailova and Hutchings (2006), people of collectivistic culture tend to be tightly integrated into groups and networks that protect them and, in turn, gain a strong sense of belonging and dependence. Williams et al. (1998) indicated that people from collectivist societies place greater importance on interaction and group-oriented relationships compared to those from individualist societies. In view of that Palich et al. (1995) maintain that a collectivist's commitment is due to collegial ties rather than the job itself. The in-group attachment for the collectivist appears to be translated into workgroup attachment at work. Evidence has shown that employees from collectivistic culture display less intention to challenge a decision or question the authority in public because they value the workplace harmony and will fight to maintain the integrity of the in-group (Martinez & Dorfman, 1998).

Individualism is one of the most significant cultural moderators due to its pervasive influence in guiding individuals' actions (Kim et al., 1994). Whether individuals act for their own benefit or the benefit of the group has the potential to affect their organizational commitment (Palich et al., 1995). Individualists are more likely to

take actions that benefit themselves rather than the group, and thus their conclusion about whether to be committed to their organizations or not should depend on an evaluation of the personal costs and benefits of quitting. Such an individualistic mentality puts the well-being of the individual before the well-being of the group and could lead individuals to be uncommitted to their organizations if they are dissatisfied with the communication practices. In comparison, collectivists should be less likely to be uncommitted to their organizations when dissatisfying with communication practices because of their higher moral or affective attachment to the organization, and because of the perceived effects of their behavior on the well-being of their workgroup. Therefore, individuals from collectivistic cultures who tend to develop more interaction with the group (Williams et al., 1998) which results in high communication satisfaction (Al-Nashmi & Zin, 2011) are assumed to be more committed to their organizations. Satisfaction with communication practices which is found higher among collectivists (Al-Nashmi & Zin, 2011) will have a progressively stronger relationship with organizational commitment as national individualism diminishes. Thus, it can be proposed here that high individualism weaken the relationship between CS and OC.

Masculinity vs. femininity cultural dimension refers to the role of gender in culture (Hofstede, 2001). It measures the degree to which social gender roles are differentiated. Hofstede (1997) has indicated that masculinity is relevant to societies in which the gender roles are clearly distinct whereas femininity pertains to societies in which the gender roles overlap. Hofstede (1980) called nations scoring high on this dimension as “masculine” and those scoring low were called “feminine.” According to Hofstede (2001), the dominant values in a masculine society are assertiveness, achievement, ambition, the acquisition of money and material things, and not caring for

others. The feminine values are concern for people and the quality of life, empathy, interdependence, and service of others in organization or a society. As social gender roles overlap in feminine societies, both men and women are supposed to be modest, tender, and concerned with the quality of life.

Empirical studies conclude that masculinity has a significant influence on work-related behavior and attitudes (Gianakos, 2002). O'Reilly & Chatman (1986) have showed that the masculine interest in acquiring money and material things reflects an exchange of behaviors for extrinsic rewards. In the same way, Randall (1993) indicated that masculine values promote organizational commitment better than feminine cultural values do. In their study about superior-subordinate communication and working relationships in Malaysian organizations, Abu Bakar and his associates (2007) have revealed that for male, relationship communication (positive and negative relationship communication) and job-relevant communication determine their work relationship with their superior, while for female employees only positive relationship communication and job-relevant communication were important. Since, the level of masculinity in an organization influence the relationship between relationship communication and work relationship, it can be suggested here that it also affect the relationship between CS and OC. Staff from high masculinity culture are more satisfied with communication practices than those from low masculinity and therefore they are highly committed. High communication satisfaction that is generally found among masculine individuals (Al-Nashmi & Zin, 2011) will have a progressively stronger influence on organizational commitment as national masculinity increases. Thus, in high masculine organizations, the relationship between CS and OC will be strengthened due to the fact that employees will try to minimize any loss and promote high commitment.

Long-term vs. short-term orientation is the fifth cultural dimension of Hofstede (2001). This dimension is related to the Confucian philosophy. Long-term orientation stands for the fostering of virtues oriented towards future rewards, in particular perseverance, ordering relationships by status and thrift while short-term orientation stands for the fostering of virtues related to the past and the present in particular respect for tradition, focus on personal stability and steadiness and fulfilling social obligations (Hofstede, 2001). In short, long-term orientation is future-oriented and dynamic, whereas short-term orientation is static, since it is oriented towards the present and the past.

People with long-term orientations value traditions of the past and planning for the long-term future when deciding how they should act and behave. Conversely, people with short-term orientation are motivated by the short-term gratification of needs (Hofstede and Hofstede, 2005). This preference is evidenced in a propensity for established norms of behavior, and stable communication practices (Bearden et al., 2006) which leads to high communication satisfaction. According to Hofstede (2001), having a long-term orientation is reflected in the holding of Confucian values such as perseverance. Individuals with such values thus prefer stable and long-lasting employment because to them this holds both economic and affiliation benefits for the future (Hofstede, 2001). Accordingly, they are highly committed to their organizations.

According to Hofstede (2001), long term oriented cultures tend to value savings and investments, while short-term oriented cultures may be more entrepreneurial and focus on immediate gains. Moreover, Hofstede and Bond (1988) showed that long-term orientation employees believed in and defined virtuous work-related behaviors as affective to acquire skills, working hard, and being patient. In the work related aspects,

individuals in long-term oriented cultures tend to concern more about long-term benefits, both financially and psychologically and valued long-term commitment towards organizations and career. They tend to make an investment in lifelong personal networks. In the contrast, individuals from short-term oriented cultures tend to pursue instant benefits and satisfaction (Hofstede & Bond, 1988). Thus, it is expected that there is a closer match between CS and OC in long-term orientation cultures more than in cultures with short-term orientation.

Depending on the previous discussion, the research propositions are presented as follows. The following fifteen hypotheses are concerned with the moderating effects of the national culture dimensions on the relationship between communication satisfaction dimensions and organizational commitment ones. It should be noted here that the role of the national culture as moderators of the communication satisfaction-organizational commitment relationship has been very scarcely explored. Hence, in the present study the possible interacting effect of national culture dimensions with communication satisfaction dimensions should be considered as exploratory. According to Sekaran (2006), non-directional hypothesis should be formulated if relationships have never been previously explored and there is no basis for indicating the direction. Thus the following non-directional hypotheses are advanced in this research.

H3a1: Power distance moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.

H3a2: Uncertainty avoidance moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.

H3a3: Masculinity moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.

H3a4: Individualism moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.

H3a5: Long- vs. short-term orientation moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.

H3b1: Power distance moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.

H3b2: Uncertainty avoidance moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.

H3b3: Masculinity moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.



H3b4: Individualism moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.

H3b5: Long- vs. short-term orientation moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.

H3c1: Power distance moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.

H3c2: Uncertainty avoidance moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.

H3c3: Masculinity moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.

H3c4: Individualism moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.

H3c5: Long- vs. short-term orientation moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.

## **2.10 Summary**

This chapter has extensively reviewed literature and the theoretical aspects related to the study variables i.e. communication satisfaction, organizational commitment, national culture. The comprehensive reviews of study variables developed an understanding of the relationship that exists between these variables. The chapter highlighted research related to the problem being investigated. The reviews also reveal several issues that can be addressed by researchers, which are issued to develop the theoretical framework of this study. The research model of the study was discussed in the context of existing literature based on which the research hypotheses were developed.

### 3

## METHODOLOGY

### 3.1 Introduction

This chapter focuses on the research methodology used in executing this study. This includes research design, data collection, research instruments, population, sample, sampling technique and data analysis. Results of a pilot study are also discussed in this chapter.

### 3.2 Research Design

According to Mouton (1996), research design refers to the overall plan adopted in the study which provides the guidelines to answer the research questions. The present study has used cross-sectional research design where quantitative strategies have been used for data collection and data gathering in order to test the study hypotheses.

The purpose of this study is to determine the relationship between communication satisfaction and organizational commitment of the multicultural faculty in universities in Yemen. It also aims to determine the moderating effects of national culture on this relationship. The study includes communication satisfaction as the independent variable and organizational commitment as the dependent variable while national culture is the moderator variable in this study. In order to collect the data, questionnaires have been delivered to the respondents. The study quantitative data has been subject to statistical analysis.

### **3.3 Study Variables**

#### **3.3.1 Independent Variable**

As it has been noted in chapter two, the independent variable of this study is communication satisfaction. As exposed by Pincus (1986), communication satisfaction is the total of an individual's satisfaction with information flow and relationship variables. This variable was operationalized by Downs and Hazen (1977; 1990) using a one-to-seven point Likert scale that ranges between 1= “very dissatisfied” and 7= “very satisfied” questionnaire. According to Ahmad (2006), the construct of communication satisfaction has been developed by Downs & Hazen (1977) from a series of factor analytic studies of perception of different forms of communication they both come up with an instrument called Communication Satisfaction Questionnaire (CSQ).

Each of the eight constructs, forming the communication satisfaction questionnaire: organizational perspective, personal feedback, organizational integration, supervisory communication, communication climate, horizontal communication, media quality, and subordinate communication includes items describing specific aspect of communication satisfaction. The ninth construct which is top management has been added by Pincus (1986) and then by Downs (1990). Five items have been added to the CSQ to describe this dimension (Downs, 1990). Thus, the independent variable of this study is defined as the extent to which the academic staff in the universities in Yemen are satisfied with the communication satisfaction dimensions stated above. Sample items of the CSQ include extent to which I receive in time the information needed to do my job, extent to which my work group is compatible, and extent to which our meetings are well organized. The responses to these items are measured on a scale from 1 = "very

dissatisfied" to 7 = "very satisfied." The researcher uses the CSQ as one of the data collection tool in this study.

### **3.3.2 Dependent Variable**

The dependent variable in this study is organizational commitment. The three component model of commitment operationalized by Allen and Meyer (1990) and Meyer and Allen (1991) is employed in this study. As mentioned in chapter 2, these three components are: affective commitment, continuance commitment, normative commitment. Affective commitment has been characterized as a psychological attachment to the organization, and continuance commitment has been defined as a need to stay working with the organization as one has built up many investments and it would be very costly to leave them. Normative commitment has been described as the employee's belief that he or she is obligated to stay with the organization because of personal loyalty (Allen and Meyer, 1990).

Allen and Meyer (1990) have developed an instrument to measure these three components of OC, i.e. three scales: Affective Commitment Scale, Continuance Commitment Scale, and Normative Commitment Scale. Sample items of all the three components of OC are: I really feel as if my organization's problems are my own, I do not feel any obligation to remain with the organization, and I believe that I have too few options for volunteering with other organizations in my community to consider leaving the organization. The responses to these items are measured on a scale ranged from "1 = strongly disagree" to "7 = strongly agree". These scales are used by the researcher to collect the data related to the academic staff OC.

### **3.3.3 Moderating Variable**

National Culture is the moderating variable in this study. According to Hofstede et al. (1990) and Pothukuchi et al. (2002), national culture should be operationalized in terms of values. In the present study, national culture has been operationalized using Hofstede's cultural model (1980; 2001) which consists of five dimensions noted in chapter two. These dimensions that define national culture are: power distance, uncertainty avoidance, individualism, masculinity, and long- vs. short-term orientation. Each dimension is treated as part of the moderating variable which is national culture.

Hofstede (2001) has defined these five dimensions as: the extent to which the less powerful members of an organization within a country expect and accept that power is distributed unequally, the extent to which the members of a culture feel threatened by uncertain situations and try to avoid such situations, and the extent to which the dominant values of society are "masculine". Through set of many items of Hofstede's Values Survey Module (VSM94) the researcher is going to measure the differences and similarities in the national cultures of the academic staff (i.e. Yemeni and Non-Yemeni) in the Yemeni universities. And then find out the role which national culture can play in moderating the relationship between the independent and dependent variables. (VSM94) which is adopted by the researcher in this study is a five point scale questionnaire.

### **3.4 Research Instruments**

There are three instruments which the researcher uses in order to measure the three variables of the present study. These instruments are: a modified version of Downs and Hazen's (1977) Communication Satisfaction Questionnaire (CSQ) in order to

measure the academic staff CS. Allen and Meyer's (1990) three scales of measuring OC, i.e. Affective Commitment Scale (ACS), Continuance Commitment Scale (CCS), and Normative Commitment Scale (NCS), have been adopted to get the data needed about the dependent variable. And finally the researcher has used Hofstede's (1994) Values Survey Module (VSM94) as a measurement tool for the academic staff national cultures varying.

According to Downs & Adrian (2004), the CSQ, which was developed by Downs and Hazen (1977), has been the basis of several doctoral dissertations and master's theses and has been employed in many organizations. The CSQ is a seven-point Likert type scale ranging from 1 = very dissatisfied to 7 = very satisfied. It includes 45 items which refer to nine different dimensions, original eight plus top management communication which has been added by Pincus (1986) and by Downs (1990), related to communication satisfaction in organizations. These dimensions which have been identified by Downs and Hazen (1977) are: organizational perspective (items related: 3, 9, 10, 13, 14), personal feedback (items related: 4, 5, 6, 11, 15), organizational integration (items related: 1, 2, 7, 8, 12), supervisory communication (items related: 17, 19, 22, 26, 31), communication climate (items related: 16, 18, 20, 23, 24), horizontal communication (items related: 25, 27, 28, 29, 34), media quality (items related: 21, 30, 32, 33, 35), top management communication (items related: 36, 37, 38, 39, 40), and subordinate communication (items related: 41, 42, 43, 44, 45).

According to Greenbaum et al. (1988), the CSQ has obtains a reliability of 0.94. In the literature related to the CSQ and through factor analyses, majority of the discussions have focused on the appropriateness of the number of dimensions in the instrument (Zwijze-Koning & Jong, 2007). Nakra (2006) claims that although the CSQ

has been developed many years ago, it is still the dominant instrument to measure CS in both applied and basic research (see appendix, A).

Allen and Meyer's (1990) three scales of measuring OC, i.e. Affective Commitment Scale (ACS), Continuance Commitment Scale (CCS), and Normative Commitment Scale (NCS) are the second instrument that has been used in this study (see appendix, A). These scales are seven-point Likert scales ranging from 1 = Strongly Disagree to 7 = Strongly Agree. Each subscale consists of eight items to provide a measurement for one OC dimension. According to Allen and Meyer (1990), the reliability for each scale has been as follows: ACS, .87; CCS, .75; NCS, .79. These reliability percentages of these scales are high and that makes all the three scales reliable to use them for any academic study.

As it has been mentioned above, the researcher uses Hofstede's Value Survey Module (VSM94) as a measurement tool for national culture dimensions among the academic staff in the universities in Yemen. Hofstede (1994) claimed that his experience has shown the answers to all the (VSM94) questions vary substantially between nationalities. The measure also is sensitive enough to differentiate between different national groups on all cultural dimensions (Mearns & Yule, 2009). This claim, in fact, serves the research objectives.

The (VSM94) is a 20 items questionnaire that has been designed to assess the five separate dimensions of national culture defined previously. Hofstede (1994) has distributed the 20 items of the (VSM94) equally across the five national culture dimensions. Four items each are used to assess every dimension. As the researcher has chosen the five dimensions of national culture to be the components of the moderating variable, he adopted the 20 items of the (VSM94) which are closely related to the



dimensions determined i.e. power distance: items no. 3, 6, 14, 17; uncertainty avoidance: items no. 13, 16, 18, 19; masculinity: items no. 5, 7, 15, 20; individualism: items no. 1, 2, 4, 8; long- vs. short-term orientation: 9, 10, 11, 12 ). All the items of the (VSM94) that has been used for this study use a five-point Likert scale (see appendix, A).

All the previous mentioned instruments are formatted in English language. There is no need for translating any of these questionnaires into other languages as all the academic staff in the Yemeni universities can speak English well. Thus, the researcher has adopted the English version of all the three questionnaires in this study.

### **3.5 Pilot Study**

The researcher has conducted a pilot test in order to determine the clarity and reliability of the questionnaires used in the study, and to test the internal reliability of the measures. The three questionnaires have been distributed to 20 Yemeni PhD students, doing their PhD in University Sains Malaysia. These researchers were teaching staff in several universities in Yemen before coming to Malaysia to do their PhD sponsored by these universities. The three questionnaires were clear comprehensible to all of them. Test of internal reliability (Cronbach's alpha) of each questionnaire were conducted using Statistical Package of Social Sciences (SPSS), version 11.0. All the three measures showed adequate levels of internal reliability. The CSQ obtains a reliability of .89. The OC scales reliability obtained are as follows: ACS, .73; CCS, .70; NCS, .71, and the VSM94 got an internal reliability of .71.

### 3.6 Population

The population of this study includes full-time academic staff (local and foreign) in the Yemeni universities in the northern provinces of Yemen i.e. Ibb, Dhamar, and Sana'a. The academic staff at these universities consists of professors, associate professors, lecturers, teachers, and tutors. Some of these staff are holding supervisory positions such as coordinators, heads of departments in faculties, deputy deans, and deans. The population location selected for the study is justified by several reasons. First, the use of three sets of questionnaires as data collection tools requires the researcher to visit every university for the purpose of explaining the method of data collection. Hence, the total number of universities located in the northern provinces of Yemen i.e. Ibb, Dhamar, and Sana'a, is considered reasonable and manageable in terms of cost and time.

Secondly, the use of the mailing box for the collecting the data makes the process of the data collection very complicated since this process takes long time and some of the academic staff don't have a personal mailing box. Finally, the number of the academic staff in the Northern provinces universities represents almost 40% of the total number of the academic staff in all universities in Yemen. These justifications have supported the appropriateness of the present study to focus on the northern region. It shows that the academic staffs in these universities in the northern region are representative of the entire academic staff in all Yemeni universities. Based on the latest edition of the Statistical Yearbook produced by The Yemeni Central Statistical Organization (2006), the total number of the academic staff (local and foreign) is in the following table together with the universities they belong to which are located in the three northern regions.

Table 3.1

*Total number of the academic staff in the universities in the northern region*

Province	University	No. of academic staff		Total	Percentage
		Yemeni	Non-Yemeni		
Sana'a	Sana'a University	1510	229	1739	62.5 %
Sana'a	University of Science and Technology	253	116	369	13.2 %
Dhamar	Dhamar University	343	105	448	16.1 %
Ibb	Ibb university	147	81	228	8.2 %
Total		2272	512	2784	100 %

Source: *The Yemeni Central Statistical Organization. (2006). Statistical Yearbook. Ministry of Planning and International Cooperation. Sana'a. Yemen.*

### 3.7 Sample Size

As mentioned in the table 3.1, the population of the study is the academic staff of four universities in the northern part of Yemen. These universities are: Sana'a University, University of Science and Technology, Dhamar University, and Ibb University. According to the Yemeni Central Statistical Organization (2006), the total number of the academic staff in these universities is 2784; around 62 % of them are working in Sana'a University which is the first founded university in Yemen with an age of 37 years old.

Roscoe (1975), as cited in Sekaran (2006), proposes some rules for determining sample size. These rules are:

1. Sample size larger than 30 and less than 500 are appropriate for most research.

2. Where samples are to be broken into sub-samples (males/females/junior/senior, etc.), a minimum sample size of 30 for each category is necessary.
3. In multivariate research (including multiple regression analysis), the sample size should be several times (perfectly 10 times or more) as large as the number of variables in the study.

These rules have been taken into consideration by the researcher while determining the sample size of the quantitative phase of the research. According to Cohen (1988) a sample size of 360 can be appropriately representative for a population of 5,500. Krejcie & Morgan (1970) greatly simplified size decision by providing a table that ensures a good decision model. In their sampling table, Krejcie & Morgan (1970) determine a sample size of 338 subjects for a population of 2800. And as the population of this study is 2784 which is a very close number to 2800, the researcher determines the sample size to be 338 which can be appropriately representative.

Depending on the percentage of the number of the academic staff in each university among the whole population, the sample size which is 338 subjects has been distributed. Hence, 62 % of the sample size will be chosen from Sana'a University, 13 % from University of Science and Technology, 16 % from Dhamar University, and 8 % of the subjects will be chosen from Ibb University using the stratified random method of sampling. The subjects came from five different nationalities, Egyptian, Iraqi, Indian, Malaysian, and Yemeni. The researcher has divided the sample of this study into subgroups as per their nationality using the stratified random sampling method so each

nation represents one stratum. Then, simple random sampling is applied for each nationality.

Miller (2007) argues that for any researcher to achieve a sufficiently large sample of subgroups, to permit conclusions, he sometimes deliberately sample one or more subgroups at rates greater than their proportion in the target population. Hence, the researcher increases the rate of the non-Yemeni subgroups to be greater than the actual rates mentioned in table 3.1. And to follow Roscoe's (1975) rules, the researcher determines the non-Yemenis subgroups to be composed of at least 30 subjects each. The sample size of every stratum is also consistent with Hofstede's (1994) recommendation. Hofstede (1994) suggests that the minimum number of respondents per country or region to be used in comparisons is 20, thus, the sample size of each national group is enough for comparison in the study.

### **3.8 Data Collection**

The data for the present study has been collected from both local and foreign academic staff working in four Yemeni universities, i.e. Sana'a University, University of Science and Technology, Dhamar University, and Ibb University. The researcher has visited these universities and he, himself, has distributed the three types of questionnaires for every academic staff chosen as a subject for the study. The set of questionnaires has been enclosed with a cover letter explaining the objectives of the study and instructions of filling in these questionnaires. Further, the cover letter stressed that the individuals' responses would be treated as confidential since collecting data about individuals' commitment to their organizations is a sensitive issue for employees.

As universities are academic organizations that are concerned with academic research, the researcher receives high co-operation from all the subjects without even sending any letter to their universities to ask for their permission or help. The survey questionnaire was distributed January, 2009 by the researcher. It took 4 months to get the questionnaire back. These questionnaires have been collected by the researcher and many of his colleagues and friends working in these universities. Frequent telephone calls have been made personally to the researchers' close friends working in these universities asking them to help follow up and collect the questionnaires. Thus, the response rate of the study is quite high.

### **3.9 Data Analysis**

The assessment of the research data was conducted by analyzing quantitative information obtained from questionnaires completed by academic staff from different nations working in Yemeni universities. The questionnaires survey was designed to assess the relationship between CS and OC of the academic staff in universities. Further, the assessment was designed to evaluate whether any moderating effects of the NC occurred on this relationship.

The Statistical Package of Social Sciences (SPSS) is used for the analysis of the quantitative data of this research. The researcher conducted several statistical procedures. Cronbach Alphas is computed to verify the internal reliability of the instruments used in this study since the reliability of these instruments has been determined in several studies conducted in western countries. The researcher intends to re-examine the questionnaires reliability in non-western countries which might result in different way. As it has been mentioned earlier, all the variables of this study are

multidimensional constructs. Descriptive statistics are calculated to show the mean scores of the communication satisfaction and the organizational commitment levels.

In order to test the differences in the communication satisfaction level between the staff from different nations, ANOVA tests were used. ANOVA was conducted to see whether there were any significant differences in the communication satisfaction level between the academic staff in accordance to their nationalities.

Pearson correlation was used to see any association between the independent variables which were communication satisfaction dimensions and the dependent variables which were organizational dimensions. The association enables the reader to identify whether there is any relationship between the variables. It showed also the strength and direction of the relationship. Then, a multiple regression test was also used to test the relationship between the independent and dependent variables. It has also identified the predictive ability of the dimensions of communication satisfaction towards the organizational commitment dimensions.

Hierarchical multiple regression analyses were computed to determine the moderating effects of national culture on the relationship between communication satisfaction and organizational commitment. This section presents whether the national culture dimensions moderate the relationships between communication satisfaction and organizational commitment. It exposes the hypotheses testing concerning the interaction between national culture dimensions and communication satisfaction in predicting organizational commitment. To test the extent to which each of the national culture dimensions moderate the relationship between CS and OC, several hierarchical multiple regression analyses were carried out.

Following Zedeck (1971), the basic regression equations included the interaction of the predictors. Zedeck (1971) provided the following three regression equations for testing the effects of the moderator variable on the relationship between the independent and dependent variable.

1.  $Y = a + bX$
2.  $Y = a + b_1X + b_2Z$
3.  $Y = a + b_1X + b_2Z + b_3XZ$

In the above equations Y stands for the dependent variable whereas X is the independent variable, and Z the moderator variable. The moderator variable effect is tested by adding the product of the moderator and independent variable to the regression equation. If the dependent variable is symbolized as Y, the moderator as Z, and the independent variable as X, Y is regressed on X, Z, and XZ. The effects of the moderator are indicated by the significant effect of XZ (Baron and Kenny, 1986). So if the interaction term (independent variable x moderator) explains a statistically significant amount of variance in the dependent variable, a moderator effect is present (Bennett, 2000). Comparing the  $R^2$  change (i.e. squared multiple correlation coefficients) and the change in the F value for equation 2 and equation 3 are also important for deciding the moderator effects (Aguinis, 1995).

Before conducting the hierarchical multiple regression analyses, the data were prepared and computed for the interaction process. The first step in formulating the regression equations involves centering the independent and moderator variables. According to Frazier et al. (2003), many statisticians recommend that these variables should be centered (i.e., put into deviation units by subtracting the mean score of the variable from each person's actual score on that variable in order to produce revised



sample means of zero). The purpose of the centering process is to reduce problems associated with multicollinearity (i.e., high correlations) among variables in the regression equation since independent and moderator variables generally are highly correlated with the interaction terms created from them (Frazier et al., 2003).

The second step in preparing data for the regression equation is to create the interaction term by multiplying the independent variable and the moderator (using the centered variables). So a new variable is created ( $X*Z$ ), and then a hierarchical multiple regression analysis is done forcing variables  $X$  and  $Z$  into the equation predicting  $Y$  (equation 2), followed by another step at which variable  $X*Z$  is entered (equation 3). The significance of the  $F$  value indicates the presence of an  $X*Z$  interaction which proves the presence of the moderator effects.

As discussed in chapter 2, there is evidence to suggest that the relationship between communication satisfaction and organizational commitment may be moderated by national culture dimensions. Although intuitively appealing, to date, no study has assessed the possible moderating role of these cultural dimensions in the CS-OC relationship. As such, the findings of this study are preliminary and regarded as exploratory. In the current study, several such moderating effects were found.

### **3.10 Summary**

This chapter describes the research methodology used for this study. It includes data collection strategies and methods of data analysis to answer the research questions. It also explains the process of checking the reliability of the study instruments based on pilot study. Population and sampling method are presented in this chapter. The next chapter will explain the results and the discussion of the study.

## 4

### RESULTS AND DATA ANALYSIS

#### 4.1 Introduction

This study aims to examine the relationship between communication satisfaction and organizational commitment of members of the multicultural faculty in universities in Yemen. This chapter presents the research findings based on the data collected from respondents. It is designed to address the findings and the discussion of these findings. It contains reliability analysis, factor analysis, descriptive statistics, one way ANOVA, correlations, multiple regressions, hierarchical multiple regressions analysis which were used to test the study hypotheses. In this chapter, the quantitative results of the study are reported. It discloses all the statistical analyses used to interpret the results and the discussion of these results. The data were analyzed using SPSS version 11.0.

#### 4.2 Response Rate

The sample of this study consisted of 362 multicultural academic staff drawn from 4 universities in Yemen. The participants are from five different countries i.e. Egypt, Iraq, India, Malaysia, and Yemen. Owing to considerations of statistical power, the response of at least 332 academic staff was needed. Therefore, 600 questionnaires were distributed to local and foreign academic staff in the four universities as per the proportion of the staff in each university i.e. Sana'a University 300 questionnaires,

University of Science and Technology 100 questionnaires, Dhamar University 100 questionnaires, and Ibb University 100 questionnaires. A total of 391 (65.1%) questionnaires were returned. Table 4.1 shows the number of the questionnaires distributed and the response rate in each university.

Table 4.1

*Number of questionnaires distributed and the response rate*

University	Questionnaires distributed		Questionnaires returned		Response rate
	Yemenis	Non-Yemenis	Yemenis	Non-Yemenis	
Sana'a University	240	60	117	54	57%
	300		171		
University of Science & Technology	68	32	55	32	87%
	100		87		
Dhamar University	76	24	49	22	71%
	100		71		
Ibb University	65	35	31	31	62%
	100		62		
Total	449	151	252	139	65.1%
	600		391		

In table 4.1, we obviously notice that the highest response rate obtained is that among the respondents of University of Science and Technology. This is justified by the fact that the researcher is actually working as an academic staff in this university; hence, it has been easy for him to follow up the respondents, who are in fact his colleagues, and collect most of the questionnaires distributed. Twenty nine cases were excluded due to several missing data per case. The resulting 362 cases then constituted the sample for this study. Thus, the effective response rate was 60.3% which is considered adequate.

According to Sekaran (2006), the response rate of 30% is acceptable for survey. The total number of usable questionnaires for analysis, i.e. 362, is greater than what is suggested by Krejcie and Morgan (1970) which is 338 for a population of 2800. The collected sample for each university was higher than required and the total usable questionnaires were higher than the sample assigned and discussed in chapter three.

### **4.3 Description of the Study Sample**

In this part the researcher provides background information of the participants of the study. The respondents' characteristics include nationality, academic title, academic position, and gender.

#### **4.3.1 Nationality of the Respondents**

With reference to nationality composition, table 4.2 shows the distribution of the respondents. The sample of this study consisted of 362 academic staff 230 of them are local staff and 132 are foreign staff. The subjects came from five different nationalities, Egyptian, Iraqi, Indian, Malaysian, and Yemeni. The researcher has divided the sample of this study into subgroups as per their nationality using the stratified random sampling method so each nation represents one stratum. As it is noticed here, the proportion of the Yemeni staff is 63.6 % which is larger than the ones of the other staff from other nations and that is because the proportion of the Yemeni staff in the population is larger than those of the others.

Table 4.2

*Nationality of respondents (N: 362)*

<b>Nationality</b>	<b>Frequency</b>	<b>Percentage</b>
Yemeni	230	63.6
Iraqi	35	9.7
Indian	33	9.1
Egyptian	32	8.8
Malaysian	32	8.8
<b>Total</b>	<b>362</b>	<b>100.0</b>

#### **4.3.2 The Academic Title of the Respondents**

As shown in Table 4.3, the respondents are steamed from five academic titles: professors, associate professors, assistant professors, teachers, and tutors.

Table 4.3

*Academic title of respondents (N: 362)*

<b>Academic Title</b>	<b>Nationality</b>	<b>Frequency</b>	<b>Total</b>	<b>Percentage</b>
Professors	Yemeni	9	22	6.1
	Iraqi	0		
	Indian	8		
	Egyptian	5		
	Malaysian	0		
Associate professors	Yemeni	19	44	12.1
	Iraqi	5		
	Indian	13		
	Egyptian	6		
	Malaysian	1		
Assistant professors	Yemeni	76	126	34.9
	Iraqi	20		
	Indian	8		
	Egyptian	21		
	Malaysian	1		
Teachers	Yemeni	93	137	37.8
	Iraqi	10		
	Indian	4		
	Egyptian	0		
	Malaysian	30		
Tutors	Yemeni	33	33	9.1
	Iraqi	0		
	Indian	0		
	Egyptian	0		
	Malaysian	0		
Total		362	362	100.0

### **4.3.3 The Academic Position of the Respondents**

Besides the respondents work as lecturers, some of them work in administrative positions like dean, deputy dean, head of department, coordinator positions. Table 4.4 illustrates the administrative positions of the academic staff in this study. As it is noticed in this table, some of the academic staff has got administrative responsibilities besides their teaching assignments. But the largest group of the academic staff (75.1%) has got only teaching responsibilities.

Table 4.4

*Academic position of respondents (N: 362)*

<b>Academic Position</b>	<b>Nationality</b>	<b>Frequency</b>	<b>Total</b>	<b>Percentage</b>
Dean	Yemeni	5	6	1.7
	Iraqi	0		
	Indian	0		
	Egyptian	1		
	Malaysian	0		
Deputy Dean	Yemeni	6	7	1.9
	Iraqi	0		
	Indian	0		
	Egyptian	1		
	Malaysian	0		
Head of Dept.	Yemeni	17	32	9.4
	Iraqi	1		
	Indian	6		
	Egyptian	4		
	Malaysian	4		
Coordinator	Yemeni	32	43	11.9
	Iraqi	1		
	Indian	0		
	Egyptian	1		
	Malaysian	9		
Teaching staff	Yemeni	170	274	75.1
	Iraqi	33		
	Indian	27		
	Egyptian	25		
	Malaysian	19		
Total		362	362	100.0



#### 4.3.4 Gender of the Respondents

The sample was made up of 229 (63.3%) males and 133 (36.7%) females. This sample mirrors the MHESR (2007) reports, where the majority of the academic staff in the Yemeni universities are males (70%) in comparison to females (30 %).

Table 4.5

*Gender of respondents (N: 362)*

Gender	Nationality	Frequency	total	Percentage
Male	Yemeni	132	228	63.3
	Iraqi	21		
	Indian	24		
	Egyptian	28		
	Malaysian	23		
Female	Yemeni	98	133	36.7
	Iraqi	14		
	Indian	9		
	Egyptian	4		
	Malaysian	9		
Total		362	362	100.0

#### 4.3.5 Test of Normality

The degree to which the sample is representative of the population is addressed in this section. Kolmogorov-Smirnov Z test (KS Test) and skewness and kurtosis inspection have been conducted. Further analysis of the data distribution was conducted by reviewing histograms, stem-and-leaf plots, and Q-Q plots. Screening for normality has been conducted by calculating the Kolmogorov-Smirnov Z test (KS Test) statistic to

the sample data and to show that the data was not significantly different from a normal distribution at  $p < 0.05$  level of significance. As indicated in Table 4.6, all the study variables had Asymp. Sig. (2 tailed) value of  $p > 0.05$  and therefore, can be assumed to be normally distributed. These results with non-significant values show normal distribution (Pallant, 2001).

Table 4.6

One-sample Kolmogorov-Smirnov Test of Normality (N: 362)

	<b>Statistic</b>	<b>Sig.</b>
Affective Commitment	.734	.655
Continuance Commitment	.855	.139
Normative Commitment	.985	.190
Power Distance	.741	.228
Individualism	.884	.074
Masculinity	.890	.406
Uncertainty Avoidance	.971	.302
Long term orientation	.904	.110
Relational dimensions of CS	1.123	.160
Informational/relational dimensions of CS	.819	.163
Informational dimensions of CS	.926	.243

\*\*  $p < 0.01$  \*  $p < 0.05$

As a further evaluation of adhering to data being normally distributed, each variable was also inspected with regard to skewness and kurtosis. A descriptive analysis of variables was employed to estimate kurtosis and skewness. Skewness refers to the symmetry of a distribution and whether cases or scores within the distribution are piled up on one side of the mean or not. In a normal distribution there is perfect symmetry and

the mean of the distribution is located in the center. When a variable does not have a mean that is in the center of the normal curve, the distribution is skewed (Tabachnick & Fidell, 2001). A positively skewed distribution describes one where there are too many cases on the left side of the mean and the right tail of the distribution is too long. A negatively skewed distribution indicates that there are too many cases on the right of the mean and the left tail is too long. Kurtosis refers to the peakedness of a distribution and whether a particular variable reveals a distribution curve that looks too peaked with short, thick tails, or too flat with long thin tails at either end. The curve for a normal distribution always has skewness and kurtosis values equal to 0. Therefore, the farther away these values are from zero, the greater the asymmetry and, in essence, the greater indication that the data are not normally distributed. George and Mallery (2006) have suggested a threshold of  $\pm 1$  in the skewness and kurtosis values as indicative of normal distribution of the data. Both skewness and kurtosis have an associated standard error. According to Field (2005), a comparison can be made regarding the level of skewness in data to the normal distribution by converting the skewness values to z scores. If skewness values divided by their standard error is equal to or greater than  $\pm 1.96$  ( $p < .05$ ), the distribution of those scaled scores are markedly different than the normal distribution (Hair et al., 1998; Field (2005). For observed skewness, kurtosis, and skewness over skewness standard error values refer to Table 4.7.

**Table 4.7***Skewness and Kurtosis Values for All variables of the Study*

Variable	Skewness			Kurtosis	
	Statistic	Std. Error	Skewness/ SE Skewness	Statistic	Std. Error
Affective Commitment	-.200	.128	-1.56	.367	.256
Continuance Commitment	.017	.128	.132	-.420	.256
Normative Commitment	.077	.128	.601	.077	.256
Power Distance	-.235	.128	-1.83	.494	.256
Individualism	.242	.128	1.89	.247	.256
Masculinity	.229	.128	1.78	.201	.256
Uncertainty Avoidance	.087	.128	.679	-.392	.256
Long term orientation	.192	.128	1.50	-.484	.256
Relational dimensions of CS	-.250	.128	-1.95	.149	.256
Informational/relational dimensions of CS	-.222	.128	-1.73	-.103	.256
Informational dimensions of CS	-.203	.128	-1.58	-.325	.256

As indicated in Table (4.7), Skewness for the variable ranged from -.250 to .017; and Kurtosis ranged from -.484 to .494. Because these scores were well within the threshold of  $\pm 1$ , all of the variables have “excellent” symmetric and peak characteristics (George & Mallery, 2006). None of the study variables had skewness/skewness SE equal to or greater than  $\pm 1.96$ . Clearly, based on these values which fell into the acceptable threshold, the assumption of a normal distribution has been met.

A visual examination of the data using histogram has been also conducted. The histogram is a visual check that compares the observed data values with a distribution approximating the normal distribution (Hair et al., 1998). Histograms with the normal curve were plotted for each variable in the study. The histogram plots show that the data of all the study variables appear in the normal range. The data distribution approximated

to normal curve which assert the normality assumption. See Appendix B1 for the histogram plots.

The second approach to graphically presenting the data of the study is to form a stem-and leaf plot. A stem-and-leaf diagram is a data plot that uses the first part of the actual digits that make up the data values as the stem and the second part of the actual digits that make up the data value as the leaf to organize and graphically represent the quantitative data (Ramsey & Schafer, 2002). A stem-and-leaf plot is similar to a histogram. It is like a histogram turned on its side; however, a stem-and-leaf plot provides a table as well as a picture of the data and shows more details than a histogram (Ramsey & Schafer, 2002). The stem-and-leaf plots for all the study variables are also displayed in Appendix B1. The distribution of the values is approximately symmetric in all the eleven stem-and-leaf graphs which represent the data of each variable of the study. These depictions indicate that the data obtained for all the study variables are normally distributed.

Q-Q plotting is the third graphical examination of the normal distribution of the data. It is a very useful graphical tool to analyze the tail behavior of the data distribution (Field, 2005). The normal Q-Q chart plots the values which the researcher would expect to get if the distribution were normal against the values actually seen in the data set. The expected values represent a straight diagonal line, whereas the observed values, which are the dots on the chart, should fall exactly along the straight line (Field, 2005). If the distribution is normal, the line representing the actual data distribution closely follows the diagonal one (Hair et al., 1998). Any deviation of the dots from the line indicates a deviation from normality (Field, 2005). The Q-Q plot of each variable in the current study indicates that the data is strongly aligned along the reference line; hence it can be

concluded that the data is roughly normally distributed (see Appendix B1). There is only very slight deviation from the normality line in the relational dimension of CS data; however, this deviation is still in the accepted threshold of normality (see Appendix B1).

Overall, the Kolmogorov-Smirnov Z test (KS Test), skewness and kurtosis inspection, histograms, stem-and-leaf plots, and Q-Q plots provided evidence that the data of the current study is normally distributed.

## **4.4 Goodness Of Measures**

### **4.4.1 Construct Validity**

Factor analysis has been performed with all the items tapping the independent, dependent, and moderating variables included in this study. Established statistical tools such as factor analysis help determine the construct adequacy of a measuring device (Cooper & Schindler, 2001). Factor analysis was conducted with data collected from 362 subjects. Separate factor analysis was performed for each one of the study measures. There were three constructs whose validity and reliability were tested. Those constructs were communication satisfaction, organizational commitment, and national culture. The following section report and discuss the construct validity for the study variables.

#### **4.4.1.1 Factor Analysis for CS**

Forty five items were used to measure the nine dimensions of CS. A principal component factor analysis using varimax rotation was then conducted on all the 45 items. These analyses resulted in nine-factor solution with 3 to 6 items loading on each dimension. The results are outlined in Table 4.7. See Appendix B2 for the complete analysis.





34. Extent to which the attitudes toward communication at the university is basically healthy.							.67		
35. Extent to which our meetings are well organized.							.65		
36. Extent to which written directives and reports are clear and concise.							.63		
37. Extent to which the amount of communication at the university is about right.							.57		
<b>Factor 8 – Organizational Integration</b>									
38. Information about departmental goals.								.71	
39. Personnel news.								.69	
40. Information about the requirements of my job.								.69	
41. Information about employee benefits.								.68	
42. Information about my progress in my job.								.67	
<b>Factor 9 - Organizational Perspective</b>									
43. Information about university goals.									.64
44. Information about government regulations affecting the university.									.57
45. Info. about achievements of the university.									.48
Eigenvalue	13.50	3.90	2.87	2.17	1.90	1.56	1.40	1.32	1.16
Percentage of Variance Explained = 66.24%	30.00	8.86	6.38	4.82	4.22	3.47	3.12	2.94	2.57
Kaiser-Meyer-Olkin (KMO) = .85 Bartlett's Test of Sphericity Approx. Chi-Square = 2270.62; df = 990; Sig. = .000									

As indicated in Table 4.8, the Kaiser-Meyer-Olkin measures of sampling adequacy (KMO) was .85, with a significant Bartlett's Test of Sphericity (Sig. = .000). This indicates that the data are suitable for factor analysis. According to Hair et al. (1998), Bartlett's test of Sphericity had to be significant and the Kaiser-Meyer-Olkin (KMO) Measure of sampling adequacy had to be more than 0.50 in order to be acceptable. The variance is explained by 66.24% with extracted factors eigenvalue of more than 1.

According to Hair et al. (1998), the principle component analysis (PCA) is concerned with determining the number of factor to account for the maximum amount of the variance in the data. Hair et al. (1998) state that the PCA with an Eigenvalue of greater than 1.0 is considered significant and can be used to determine the factors to be extract. In this study, the results of the test revealed that there are nine factors of CS with an Eigenvalue of more than 1. The scree plot in Figure 4.1 shows that the plot slopes steeply downward from one factor to nine factors before slowly becomes an approximately horizontal line.

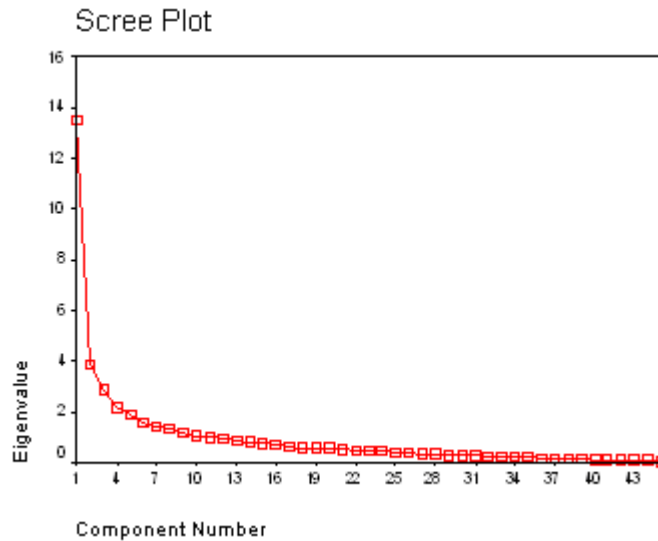


Figure 4.1 *Scree plot of CS*

In the present study, factor loading in rotated matrix component is not less than .40, which is considered to meet the minimal level (Hair et al., 1998). The result in Table 4.8 shows that all of the CS items exhibit large factor loading. Hair et al. (1998) provide a guideline to interpret the factor loading that, factor loadings with value  $\geq .50$  or greater are considered very significant; loading of  $\geq .40$  are considered more important; loading of  $\geq .30$  are considered significant. In this study, all items have a factor loading of more than .40, suggesting that the items correlate very significantly to the factor itself with factor loadings ranging from .44 to .82.

In this connection, Hair et al. (1998) stated that it is not uncommon to consider a solution that accounts for 60 percent of the total variance as satisfactory. The first factor consisted of 5 items and explained 30.00 percent of the variance in CS. The second factor also consisted of 5 items and accounted for an additional 8.68 percent of the variance. The third and the fourth factors consisted of 6 items each with an addition of 6.38 percent and 4.82 of the variance respectively. Each of the fifth, sixth, seventh, and eighth factors consisted of 5 items with an addition of 4.22, 3.47, 3.12, and 2.94 percents

of the variance. The last factor consisted of 3 items and accounted for an additional 2.57 percent of the variance in CS.

The CS construct by Downs and Hazen (1977) has been suggested to consist of eight factors measuring communication climate, supervisory communication, organizational integration, media quality, horizontal communication, organizational perspective, personal feedback, and subordinate Communication. Pincus (1986) added the ninth dimension i.e. top management communication and he also added five items to the 40 items of Downs and Hazen's (1977) communication satisfaction questionnaire (CSQ) for measuring this dimension.

In the present study, principle component analysis using varimax rotation found general support for this model with minor exceptions. The factor analysis of the CS construct, as illustrated in Table 4.8, shows that 6 items loaded on the third factor and also 6 items on the forth factor. It shows also that only 3 items loaded on the ninth factor and 5 items loaded on each of the other 6 factors. In the present study, the nine factors was labeled according to Downs and Hazen's (1977) and Pincus's (1986) labels. Clampitt and Downs (1993) feel that the most theoretical contribution of the CSQ is the suggestion that communication satisfaction is a multidimensional construct as opposed to a unidimensional one. The current study has provided further evidence that CS construct is a multidimensional one and it is also best fitting to be conducted in non-western settings. The underlying theoretical structure of the CS model was supported.

#### **4.4.1.2 Factor Analysis for OC**

Factor analysis has been also run for OC construct. The result for the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy showed loading of .66 with a

significant Bartlett's Test of Sphericity (Sig. = .000) which made it eligible to use factor analysis. The result of the rotated component produced three components. The results are shown under Table 4.9. See also appendix B3 for the detailed analysis.

Table 4.9

*Summary of factor analysis for OC items*

ITEMS	Component		
	1	2	3
<b>Factor 1 – Affective Commitment</b>			
1. This university has a great deal of personal meaning for me.	.84		
2. I do not feel a strong sense of belonging to my university.	.84		
3. I do not feel like a "part of the family" at my university.	.73		
4. I really feel as if this university's problems are my own.	.58		
5. One of the major reasons I continue to work for this university is that believe that loyalty is important and therefore feel a sense of moral obligation to remain.	.56		
6. I would be very happy to spend the rest of my career with this university.	.52		
7. I enjoy discussing my university with people outside of it.	.51		
8. I think I could easily become as attached to another university as I am to this one.	.48		
9. I do not feel "emotionally attached" to this university.	.47		
<b>Factor 2 – Normative Commitment</b>			
10. I think that people these days move from university to university too often.		.73	
11. Jumping from university to university / organization does not seem at all unethical to me.		.71	
12. I was taught to believe in the value of remaining loyal to one university		.71	
13. Things were better in the days when people stayed with one university for most of their careers.		.66	
14. I do not believe that a person must always be loyal to his or her university.		.66	
15. If I got another offer for a better job elsewhere I would not feel it was right to leave my university.		.50	
16. I do not think that wanting to be a "university man" or "university woman" is sensible anymore.		.41	
<b>Factor 3 – Continuance Commitment</b>			
17. It wouldn't be too costly for me to leave my university now.			.82
18. It would be very hard for me to leave my university right now, even if I wanted to.			.81
19. Too much in my life would be disrupted if I decided I wanted to leave my university now.			.79
20. One of the few serious consequences of leaving this university would be the scarcity of available alternatives.			.78
21. One of the major reasons I continue to work for this university is that leaving would require considerable personal sacrifice--another university may not match the overall benefits have here.			.76
22. Right now, staying with my university is a matter of necessity as much as desire.			.68
23. I feel I have too few options to consider leaving this university.			.60
24. I am not afraid of what might happen if I quit my job without having another one line up.			.42
Eigenvalue	8.52	3.83	2.28
Percentage of Variance Explained = 61.34%	38.01	13.81	9.51
Kaiser-Meyer-Olkin (KMO) = .66			
Bartlett's Test of Sphericity Approx. Chi-Square = 3832.62; df = 276; Sig. = .000			

To assess the underlying structure of OC measure, the 24 items were submitted to principal component method and varimax rotation. Factor analysis on these items revealed three interpretable factors with eigenvalues greater than 1. These three factors are shown in the Scree plot in Figure 4.2.

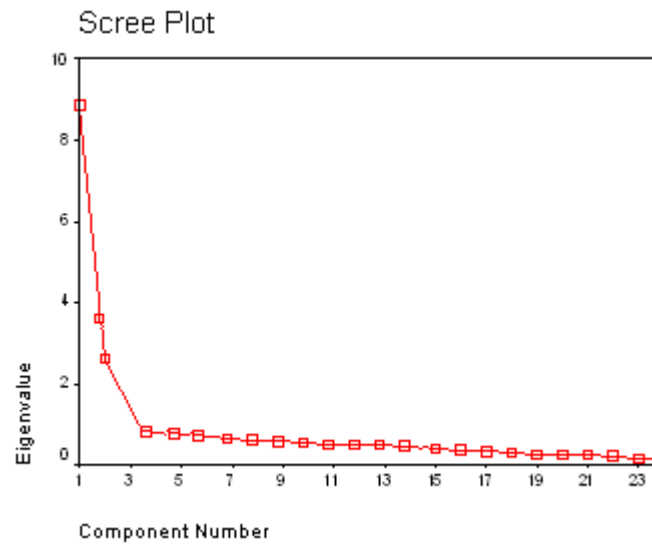


Figure 4.2 *Scree plot of OC*

Together, these dimensions described 61.34% of the data variance, with dimension 1 describing 38.01% of the variance. The first factor consisted of nine items. This factor was labelled affective commitment following Meyer and Allen's (1991) naming. Seven normative commitment items loaded on factor 2 and eight continuance commitment items loaded on factor 3.

According to Meyer and Allen (1991), OC is a multidimensional construct consisted of three distinguishable dimensions, affective, continuance, and normative commitment. Results of factor analysis in this study have generally supported this hypothesis with relatively minor modifications in the number of items loaded on the first factor affective commitment to have 9 items. In general, it is convincing that Meyer and Allen's (1991) organizational commitment model appears multidimensional also in non-western countries such as Yemen. The results obtained from factor analysis provide assurance that the dimensions of OC construct are meaningful in a theoretical sense.

#### 4.4.1.3 Factor Analysis for National Culture

The third factor analysis in this study has been done on the items representing national culture dimensions (Table 4.9). As the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for national culture was high (0.70) with a significant Bartlett's Test of Sphericity (Sig. = .000), further use of factor analysis was expected. The rotated component produced five useful components. Thus, five components were used to represent national culture. Since Hofstede's (1994) values survey module (VSM94) was used in this study, the components were labeled according to Hofstede's (1984; 1994; 2001) dimensions, femininity versus masculinity, collectivism versus individualism, long term versus short term orientation, uncertainty avoidance, and power distance. The results of the test of national culture revealed that there are five factors with an Eigenvalue of more than 1. The scree plot in Figure 4.3 indicates that it is appropriate to extract five factors for this variable.

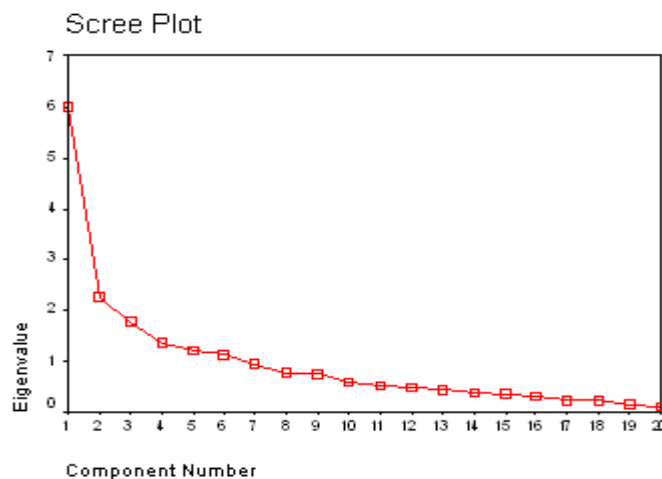


Figure 4.3 *Scree plot of National Culture*

The variance is explained by 61.34%. Refer to Table 4.10 and Appendix B4 for the complete analysis.

Table 4.10

*Summary of factor analysis for national culture items*

ITEMS	Component				
	1	2	3	4	5
<b>Factor 1 – MAS</b>					
1. have an opportunity for advancement to higher level jobs	.78				
2. have a good working relationship with your direct superior	.78				
3. How frequently, in your experience, are subordinates afraid to express disagreement with their superiors	.77				
4. work with people who cooperate well with one another	.76				
5. When people have failed in life it is often their own fault	.71				
<b>Factor 2 – IDV</b>					
6. have good physical working conditions (good ventilation and lighting, adequate work space, etc.)		.73			
7. have an element of variety and adventure in the job		.72			
8. have sufficient time for your personal or family life		.72			
9. have security of employment		.70			
<b>Factor 3 – LTO</b>					
10. How important is Personal steadiness and stability			.82		
11. How important is Respect for tradition			.72		
12. How important is Persistence (perseverance)			.71		
13. How important is Thrift			.69		
<b>Factor 4 – UAI</b>					
14. have a good working relationship with your direct superior				.77	
15. A company's or organization's rules should not be broken - not even when the employee thinks it is in the company's best interest				.73	
16. Competition between employees usually does more harm than good				.69	
17. One can be a good manager without having precise answers to most questions that subordinates may raise about their work				.67	
<b>Factor 5 – PDI</b>					
18. be consulted by your direct superior in his/her decisions					.74
19. How frequently, in your experience, are subordinates afraid to express disagreement with their superiors?					.73
20. An organization structure in which certain subordinates have two bosses should be avoided at all costs					.71
Eigenvalue	6.00	2.25	1.78	1.35	1.20
Percentage of Variance Explained = 62.98%	30.02	11.28	8.90	6.75	6.00
Kaiser-Meyer-Olkin (KMO) = .70					
Bartlett's Test of Sphericity Approx. Chi-Square = 3440.97; df = 190; Sig. = .000					

Overall, the results suggest that all the scales used in the study measure the proposed constructs distinctively and appropriately. All the measures of the three variables were found to be multidimensional.

#### 4.4.2 Reliability Analysis

Reliability is the consistency with which the research instrument measures the concepts (Miller, 2007). The internal consistency method using Cronbach alpha is applied in this

study to gauge the reliability of the study questionnaires. Cronbach alpha for the three questionnaires were re-examined based on the responses of the main study. The Cronbach alpha coefficient for each variable is presented in Table 4.11. According to Sekaran (2006), internal consistency of the scales can be measured through these coefficients. The Cronbach alphas range from .70 to .88. According to Hair (1998), Cronbach alpha of .60 is generally considered acceptable. Therefore, the reliability scores of the study variable are above the acceptable level of alpha (see appendix C).

Table 4.11

*Reliability Analysis of the study variables*

<b>No of items</b>	<b>Variables</b>	<b>Cronbach's Alpha</b>
5	Organizational perspective	.80
5	Personal feedback	.83
5	Organizational integration	.72
5	Supervisory communication	.80
5	Communication climate	.86
5	Horizontal communication	.74
5	Media quality	.79
5	Top management communication	.88
5	Subordinate communication	.83
8	Affective Commitment	.81
8	Continuance Commitment	.74
8	Normative Commitment	.70
4	Power Distance	.77
4	Uncertainty Avoidance	.70
4	Masculinity	.79
4	Individualism	.72
4	long- vs. short-term Orientation	.82



## **4.5 Descriptive Analysis**

All the descriptive analyses of the study variables including means, standard deviations are shown in the next section below.

### **4.5.1 Means and Standard Deviation of Dependent and Independent Variables**

Descriptive analysis examines general statistical description of variables in the study. Means and standard deviations were calculated for the dependent and independent variables. The result is shown in Table 4.12.

Table 4.12

*Means and standard deviation (N: 362)*

		N	Mean	Standard Deviation
Variable				
Relational CS Dimensions	Subordinate Communication	88*	4.42	0.99
	Horizontal Communication	362	4.16	0.96
	Top Management Communication	362	3.51	1.25
Informational/Relational CS Dimensions	Personal Feedback Communication	362	3.52	1.08
	Climate	362	3.49	1.08
	Supervisor Communication	362	4.12	1.07
Informational CS Dimensions	Media Quality	362	3.89	1.10
	Organizational Integration	362	3.87	1.13
	Organizational Perspective	362	3.18	1.13
Overall Communication Satisfaction (excluding Subordinate Communication* )		362	3.72	0.85
Organizational Commitment	Affective Commitment	362	4.18	0.63
	Continuance Commitment	362	4.17	0.82
	Normative Commitment	362	4.08	0.70
Overall Organizational Commitment		362	4.15	0.57

\* The items that make up this dimension were answered only by supervisor.

All CS variables have been tapped on a seven-point likert-type scale, ranging from 1 (very dissatisfied) to 7 (very satisfied). The OC variables have been measured on a seven-point scale as well. It ranges from 1 (strongly disagree) to 7 (strongly agree). Nine items of the OC 24 items have been reversed since they were negatively worded in

the questionnaire to help prevent response bias. Examples of these items are I don not feel like a part of the family at my university and I do not believe that a person must always be loyal to his or her university. In table 4.12, it can be seen that the mean of the overall CS is low. The mean of 3.72 which is placed between “somewhat dissatisfied” and “indifferent” with standard deviation of 0.85 for overall CS indicate that CS among the majority of academic staff in universities in Yemen is not high. These results are consistent with Ahmad (2006) and also with Meintjes & Steyn (2006) that demonstrated that overall communication satisfaction level among academic staff in universities is not high.

The results show that the respondents have been most satisfied with the relational dimensions of communication satisfaction though the differences were not great compared to the other dimensions, informational/relational and informational dimensions. Among the CS dimensions, subordinate communication (mean= 4.42), horizontal communication (mean= 4.16), and supervisor communication (mean= 4.12) were the most satisfied CS dimensions. On the other hand the least satisfied CS dimensions were organizational perspective (mean= 3.18), communication climate (mean= 3.49), top management communication (mean= 3.51). These statistics are similar to those of Varona (1996) and Gray and Laidlaw (2002) in which subordinate communication and supervisor communication score the highest means and top management communication and organizational perspective get the lowest mean scores.

The overall OC is also not high. Respondents report low mean level of OC (mean= 4.15). The mean is slightly above the midpoint value. Results obtained by Malik et al., (2010) for a Pakistani sample, academic staff working in universities, were similar

to the findings of the current study. It has reported mean scores of 3.45 for overall organizational commitment. In the current study, the mean levels of the three OC dimensions were almost the same; affective commitment (mean= 4.18), continuance commitment (mean= 4.17), normative commitment (mean= 4.08). The standard deviation for OC dimensions (ranged from 0.63 to 0.82) is rather small, indicating that most of respondents are close to the mean on the three variables. This clearly shows that the majority of academic staff are not highly committed to their universities and they might leave at any time.

#### 4.5.2 Level of Communication Satisfaction of Respondents

The overall communication satisfaction level of the respondents was analyzed according to their nationalities. The respondents' satisfaction with communication practices was divided into three groups (low, moderate, and high) based on actual scores. Table 4.13 shows the distribution of the respondent in terms of their communication satisfaction level with regard to their nationalities.

Table 4.13

*Distribution of respondents by CS (N: 362)*

	N	Overall Communication Satisfaction		
		Low (%)	Moderate (%)	High (%)
Yemeni	230	41.3	27.4	31.3
Iraqi	35	34.3	25.7	40.0
Indian	33	21.2	18.2	60.6
Egyptian	32	6.3	90.6	3.1
Malaysian	32	21.9	40.6	37.5
All respondents	362	34.0	33.1	32.9

As it is shown in table 4.13, the majority of the respondents in this study are not highly satisfied with communication practices. The results show that the level of communication satisfaction of the academic staff in universities in Yemen ranges from low to moderate level. Only 32.9% of the respondents are with high satisfaction which means that the overall communication satisfaction among the academic staff in universities in Yemen is low. These results confirm similar findings of previous studies that high percentage of academic staff in universities is with low communication satisfaction level (Ahmad, 2006; Meintjes & Steyn, 2006). The findings reveal a serious problem in the communication practices in these universities which leads to various other academic and administrative problems that may affect the development of the staff and the universities growth as well. It can be clearly understood from the descriptive results shown in table 4.13 that the low level of staff's organizational commitment is closely related to the problems in their communication satisfaction level. The table above also shows that 41.3% of Yemeni respondents are lowly satisfied with communication practices in their universities, and the satisfaction level of 27.4% of them is moderate. Only 31.3% of Yemeni respondents are highly satisfied.

The Iraqi academic staff are found close to their colleagues from Yemen in term of level of communication satisfaction. 40.0% of them are highly satisfied, 25.7% are moderately satisfied and 34.3% are with low satisfaction level. As for Egyptians and Malaysians, the satisfaction level of majority of them is moderate. The highest level of communication satisfaction among the respondents is that of the Indians. The majority of the Indian academic staff (60.6%) are highly satisfied. This can be justified by the fact that most of the Indians participated in the study had longer tenure, and also due to their

seniority; most of them are more experienced than the others since they are all assistant professors , associate professors , and professors .

Table 4.14

*Distribution of respondents by CS dimensions (N: 362)*

Nationality		Yemenis	Iraqis	Indians	Egyptians	Malaysians
Level of CS						
Subordinate Communication	Low (%)	40.7	00.0	00.0	88.9	<b>25.0</b>
	Moderate (%)	35.6	100	50.0	11.1	<b>33.3</b>
	High (%)	23.7	00.0	50.0	00.0	<b>41.7</b>
Horizontal Communication	Low (%)	41.7	45.7	18.2	71.9	<b>9.4</b>
	Moderate (%)	28.7	17.1	33.3	28.1	<b>65.6</b>
	High (%)	29.6	37.2	48.5	00.0	<b>25.0</b>
Top Management Communication	Low (%)	43.5	40.0	3.0	31.3	<b>40.6</b>
	Moderate (%)	24.3	34.3	60.6	68.8	<b>12.5</b>
	High (%)	32.2	25.7	36.4	00.0	<b>46.9</b>
Personal Feedback	Low (%)	45.2	17.1	21.2	43.8	<b>9.4</b>
	Moderate (%)	35.7	48.6	21.2	53.1	<b>34.4</b>
	High (%)	19.1	34.3	57.6	3.1	<b>56.3</b>
Communication Climate	Low (%)	40.9	37.1	42.4	18.8	<b>21.9</b>
	Moderate (%)	25.2	8.6	42.4	71.9	<b>40.6</b>
	High (%)	33.9	54.3	15.2	9.4	<b>37.5</b>
Supervisor Communication	Low (%)	34.3	17.1	18.2	81.3	<b>40.6</b>
	Moderate (%)	36.1	34.3	21.2	18.7	<b>53.1</b>
	High (%)	29.6	48.6	60.6	00.0	<b>6.3</b>
Media Quality	Low (%)	44.3	40.0	39.4	6.3	<b>40.6</b>
	Moderate (%)	30.4	5.7	45.5	71.9	<b>37.5</b>
	High (%)	25.3	54.3	15.1	21.8	<b>21.9</b>
Organizational Integration	Low (%)	50.0	20.0	21.2	00.0	<b>18.8</b>
	Moderate (%)	31.7	25.7	45.5	59.4	<b>43.8</b>
	High (%)	18.3	54.3	33.3	40.6	<b>37.4</b>
Organizational Perspective	Low (%)	46.5	20.0	18.2	00.0	<b>31.2</b>
	Moderate (%)	33.1	31.4	54.5	31.2	<b>43.8</b>
	<b>High (%)</b>	<b>20.4</b>	<b>48.6</b>	<b>27.3</b>	<b>68.8</b>	<b>25.0</b>

Table 4.14 shows the level of communication satisfaction of all the respondents according to the nine dimensions and their nationalities. The results show some similarities among the academic staff of different nationalities in terms of their satisfaction with communication practices in their universities. Level of satisfaction with media quality of the Yemenis and Malaysians is quite similar. And the reason behind that is that many of the departments' heads in these universities where the respondents work are Yemenis and Malaysians. It is striking to note that the majority of respondents from the three Arab national groups report low satisfaction level with horizontal communication – Yemenis (41.7%), Iraqis (45.7%) and Egyptians (71.9%) which means that the Arabs find difficulties in communicating with non-Arabs.

Most of Indians (57.6%) and Malaysians (56.3%) are highly satisfied with personal feedback dimension whereas the satisfaction of Yemenis and Egyptians with personal feedback is very low. For supervisor communication dimension, Iraqis and Indians are the most highly satisfied among the five nationalities. Thus, the researcher found that there are some similarities between Yemenis and non-Yemenis in terms of their levels of satisfaction with communication practices in Yemenis universities. Yet, these similarities are few and restricted to only some dimensions of CS.

#### **4.6 Differences in CS Level between Yemeni and Non-Yemeni Staff**

One of the central questions of this study is what the differences in communication satisfaction level between academic staff according to their nationality are. So the second hypothesis to be tested in this study is that there are significant differences in the level of CS between Yemeni and non-Yemeni academic staff. One-way ANOVA was conducted in order to test this hypothesis and to measure the

differences in communication satisfaction level among the respondents according to nationality. The results show several variations in the satisfaction level of the respondents in accordance with their nationality. The results also have uncovered aspects of communication that vary considerably from nation to another. Table 4.15 shows that all the communication satisfaction dimensions differed significantly according to the nationality of the academic staff except communication climate and subordinates communication.

There are significant differences between Yemenis and non-Yemenis in organizational perspective ( $F= 9.929$ ,  $p= .000$ ), personal feedback ( $F= 12.678$ ,  $p= .000$ ), organizational integration ( $F= 13.727$ ,  $p= .000$ ), supervisor communication ( $F= 9.318$ ,  $p= .000$ ), horizontal communication ( $F= 6.401$ ,  $p= .000$ ), Media quality ( $F= 7.441$ ,  $p= .000$ ), and in top management communication ( $F= 3.853$ ,  $p= .004$ ). Academic staff from different countries differs from each others in their satisfaction with communication practices therefore the first hypothesis of this study is supported. The results do not show any significant differences between the respondents from different nationalities in terms of communication climate ( $F= 1.998$ ,  $p= .094$ ), and in subordinates communication ( $F= 1.274$ ,  $p= .287$ ).



Table 4.15

*Differences in communication satisfaction level between the respondent in accordance with nationality*

		<b>Sum of squares</b>	<b>df</b>	<b>Mean square</b>	<b>F</b>	<b>Sig.</b>
Organizational perspective	Between Groups	1166.396	4	291.599	9.929	.000
	Within Groups	10484.013	357	29.367		
	Total	11650.409	361			
Personal feedback	Between Groups	1313.490	4	328.372	12.678	.000
	Within Groups	9246.590	357	25.901		
	Total	10560.080	361			
Organizational integration	Between Groups	1546.041	4	386.510	13.727	.000
	Within Groups	10052.094	357	28.157		
	Total	11598.135	361			
Supervisory communication	Between Groups	979.769	4	244.942	9.318	.000
	Within Groups	9384.311	357	26.287		
	Total	10364.080	361			
Communication climate	Between Groups	233.572	4	58.393	1.998	.094
	Within Groups	10434.594	357	29.229		
	Total	10668.166	361			
Horizontal communication	Between Groups	563.801	4	140.950	6.401	.000
	Within Groups	7860.884	357	22.019		
	Total	8424.685	361			
Media quality	Between Groups	823.098	4	205.774	7.441	.000
	Within Groups	9871.900	357	27.652		
	Total	10694.997	361			
Top management communication	Between Groups	586.786	4	146.697	3.853	.004
	Within Groups	13592.495	357	38.074		
	Total	14179.282	361			
Subordinate communication	Between Groups	124.992	4	31.248	1.274	.287
	Within Groups	2035.872	83	24.529		
	Total	2160.864	87			

As it can be seen in table 4.15, there is no significant difference between respondents in terms of their subordinate communication and that can be justified by the

fact that the items which make up this dimension were answered only by supervisor and most of these supervisors are Yemenis and they belong to the same culture.

Although the results have indicated highly significant differences between the academic staff in accordance with their nationalities, it is important to know where the difference occurred. To investigate the location of these differences, the researcher has used Post hoc test which is part of the ANOVA output which is provided by SPSS. Post Hoc analysis using Scheffe option was used for this study. The post hoc tests revealed significant differences between Yemenis and all other academic staff from the different four countries in their organizational perspective and organizational integration at the 0.05 level of significance.

Scheffe tests also show significant differences between Yemenis, Indians, Iraqis, and Egyptians in terms of their satisfaction level with organizational perspective ( $p = <.05$ ). The post hoc test also reveals high significant differences between Yemenis, Malaysians and Indians in satisfaction with personal feedback at the 0.01 level of significance ( $p = <.01$ ). No significant differences were found between Yemenis and the other Arab citizens, Egyptians and Iraqis in term of personal feedback. The mean differences are in favor of the Indian and Malaysian academic staff and that is because many of the Indians and Malaysians are senior academic staff and their supervisors and the universities top managements give them more personal feedback. In terms of the satisfaction level with organizational integration, high significant differences at the 0.01 level of significance were found between Yemenis and all the academic staff from the other different nations (see appendix D).

Yemenis and Indians are significantly different in their horizontal communication and top management communication at the 0.05 level of significance and that is due to

the difference in their religion. The other Arab respondents together with the Malaysians are Muslims and they belong to the same religion of the Yemenis; therefore, they do not report any differences with the Yemenis in terms of their level of communication satisfaction with horizontal communication and their coworker communication relationship is a bit better than that with the Indians.

The findings show that when the national culture differs among the staff, their satisfaction with communication practices in their universities will be affected. Meeuwesen et al, (2009) claim that the cultural differences between countries create some impediments. This argument appears to be right in the findings of this study. When there is diversity in the individual's cultures, communication satisfaction levels of these individuals will also vary. Therefore, the universities' managements should adopt some cultural gathering and activities among the staff from different cultures as for their communication satisfaction to be elevated. This result confirms similar findings that show that some academic staff are more satisfied with the amount and quality of communication in their universities than others are (Ahmad, 2006).

#### **4.7 Relationship Between CS And OC**

The third research question is formed to determine the relationship between communication satisfaction and organizational commitment dimensions of the Yemeni and non-Yemeni academic staff. In order to test this relationship, Pearson Product Moment Correlation and Linear Multiple Regression have been used. A series of three steps designed to investigate this relationship. The first step used Pearson Product Moment Correlation analysis to test the correlation between all nine dimensions of CS and the three dimensions of OC. The second step also used Pearson Product Moment

Correlation analysis to test the correlation between the three categories of the grouped dimensions of CS, i.e. relational, informational/relational, and informational dimensions and the three dimensions of OC, i.e. affective commitment, continuance commitment, and normative commitment. Another step used Multiple Regression analysis in order to examine the combined contribution of communication satisfaction dimensions in explaining the respondents' commitment.

Correlation between all communication satisfaction and organizational commitment showed bivariate relationship among all the dimensions. As can be seen from table 4.16, all the nine dimensions of CS are significantly correlated with the three dimensions of OC. Most importantly, each of the CS dimensions is significantly correlated with the three dimensions of OC in the direction predicted by the study hypothesis. The strength of the relationship ranges from  $r = 0.15$  to  $r = 0.47$ . The highest positive correlations are shown between communication climate ( $r = 0.38$ ), media quality ( $r = 0.44$ ), top management communication ( $r = 0.47$ ), and subordinate communication ( $r = 0.47$ ) on one hand and affective commitment on the other. The smallest correlation noted in the results of this study is that between organizational integration and continuance commitment ( $r = 0.15$ ).

The correlation also between organizational integration ( $r = 0.16$ ) and supervisory communication ( $r = 0.17$ ) on one hand and normative commitment on the other are among the smallest. Putti et al. (1990) proved that there was a significant positive relationship between communication relationship satisfaction and organizational commitment. He further confirmed that the correlation between top management communication relationship and organizational commitment was stronger than the relationship between supervisor communication relationship and organizational

commitment. These findings are consistent with the current study findings. This implies that top management communication activities including policies and promoting a shared value system are more important to enhance organizational commitment (Putti et al., 1990).

Table 4.16  
*Relationship between CS & OC (N: 362)*

	1	2	3	4	5	6	7	8	9	10	11	12
1 Affective Commitment	-											
2 Continuance Commitment	.48**	-										
3 Normative Commitment	.47**	.43**	-									
4 Organizational perspective	.37**	.26**	.20**	-								
5 Personal Feedback	.23**	.21**	.21**	.63**	-							
6 Organizational Integration	.23**	.15**	.16**	.64**	.72**	-						
7 Supervisory Communication	.27**	.20**	.17**	.36**	.52**	.39**	-					
8 Communication Climate	.38**	.30**	.27**	.54**	.53**	.45**	.66**	-				
9 Horizontal Communication	.27**	.23**	.22**	.34**	.48**	.36**	.73**	.68**	-			
10 Media Quality	.44**	.36**	.30**	.52**	.53**	.47**	.61**	.70**	.67**	-		
11 Top Management	.47**	.26**	.24**	.41**	.44**	.31**	.58**	.64**	.56**	.62**	-	
12 Subordinate Communication	.47**	.26**	.37**	.34**	.67**	.53**	.76**	.57**	.69**	.57**	.65**	-

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

Table 4.16

As it has been shown in table 4.16 the relationship between CS dimensions and affective commitment is much stronger than it was between CS dimensions and continuance or normative commitment. So these results show that the higher the staff's communication satisfaction is the more they are emotionally attached to their universities. It suggests that CS is more related to the involvement of the individual's in their organization than just staying for profits or feeling of obligation to work for their organizations. In order for the universities management to strengthen the academic staff OC, they have to work for improving the way and the quality of the communication practices among the staff so they can reach high communication satisfaction. The low level of communication satisfaction causes some weaknesses in the staff's OC. These findings are consistent with previous studies (Varona, 1996; Mustaffa, 2004; Carriere & Bourque, 2009) and lend credibility to the notion that CS has a positive relationship with OC and does play an influential role in generating commitment. Tsai et al. (2009) stated that communication satisfaction has an indirect negative impact on turnover intention through organizational commitment. This means that when communication satisfaction is low, organizational commitment is going to be weak, consequently, the turnover intention becomes high. This claim should alert the universities management to work on elevating the staff's communication satisfaction level as it affects other organizational outcomes through organizational commitment.

As mentioned previously, the hypotheses of this study are concerned with establishing a relationship between CS and OC. For the purpose of testing these hypotheses, the researcher has been enthused to conduct the second step of investigating

this relationship, too. The results are grouped under the three categories of dimensions of CS: relational (excluding subordinate communication dimension since the items that make up this dimension were answered only by supervisor), informational/relational, and informational dimensions of CS. Pearson Product Moment Correlation analysis is conducted to test the correlation between these three groups of dimensions of CS and the three dimensions of OC. As it is clear in table 4.16, the correlation between the independent variables and dependent ones is highly significant. It is also clear here that these relationships are relatively moderate. The size of the value of Pearson correlation ( $r$ ) can range from -1.00 to 1.00. The value mentioned here indicates the strength of the relationship between the variables so a correlation of 0 indicates no relationship at all, a value of 1.00 shows a perfect positive correlation, and a value of -1.00 shows a perfect negative correlation (Pallant, 2001). Cohen (1988) suggests that  $r$  value from  $\pm .10$  to  $\pm .29$  indicates a small/weak correlation, and the  $r$  value from  $\pm .30$  to  $\pm .49$  show a medium/moderate correlation, whereas the  $r$  value from  $\pm .50$  to  $\pm 1.00$  indicates a large/strong correlation.

As it has been declared earlier the correlations between CS dimensions and OC dimensions are moderate. The highest correlation value is  $r = .44$  with a high significance value of  $p = .000$  is between affective commitment and relational communication satisfaction. The results reported the third dimension of relational CS i.e. subordinate communication, separately since the items of this dimension answered only by supervisor. The Pearson's correlation matrix also indicates that the relationship between affective commitment and subordinate communication is also among the highest ( $r = .47$ ,  $p = .000$ ). This result shows that the correlation between all the three dimensions of relational CS (subordinate communication, horizontal communication,



and top management communication) and affective commitment is the strongest in this study. According to Gray & Laidlaw (2004), when employee needs are fulfilled through satisfying communication, employees are more likely to build effective work relationships which leads to organizational effectiveness. However, the informational/relational dimensions were not markedly stronger than the informational dimensions relationships with affective commitment. The staff's satisfaction with informational/relational and informational dimensions of communication practices is very important for enhancing their organizational commitment. Putti et al. (1990) pointed out that organizational member satisfaction with amount of information available to them may enhance their commitment. Satisfaction with information sharing may encourage a sense of belongingness and identification with the values and objectives of the organization. The current study findings are consistent with Putti et al's. (1990).

It is believed that the quality of the relationship between superiors and subordinates has an impact on communication and successively will affect commitment (Abu Bakar, et al., 2009). The mutual respect between subordinate and his/her supervisor determine a mutual emotional bond they share with the organization and the employee who has a strong attachment with their supervisor would be more committed (Hopper, 2009). It has been also stated by Sias (2005) that the coworker who has a good relationship tend to communicate more accurately about work related content and show high levels of emotional support which leads to employee's satisfaction with their communication and in-turn it leads to commitment. According to Vuuren et al. (2007), supervisor communication is positively related to organizational commitment. All these actually go well with the current study findings. Thus, staff satisfaction with relational

dimensions of CS is directed by the positive relationship between the staff themselves and between the staff and their supervisors and that make them emotionally attached to their organizations and which means that they have reached a high affective commitment. It is also worth mentioning here that the correlations between affective commitment and informational/relational ( $r = .35$ ,  $p = .000$ ); and informational dimensions ( $r = .42$ ,  $p = .000$ ) are also stronger than the correlations between the other two dimensions of OC i.e. continuance and normative commitment and CS dimensions.

By disclosing the above results, three of the study hypotheses documented earlier in chapter two (H2a1, H2a2, and H2a3) were tested. From the findings above, it is clear that there is a significant positive relationship between relational dimensions of CS and the affective organizational commitment of the respondents with a very high level of significance ( $p = .000$ ). So, there is a significant positive relationship between relational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities. Thus, H2a1 was supported. H2a2 and H2a3 were also supported by the results above. H2a2 predicted that there is a significant positive relationship between informational/relational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities. And H2a3 predicted that there is a significant positive relationship between informational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities. Guided by the results of the study, the researcher concludes that there is a significant and positive relationship between Informational/relational dimensions of CS and affective commitment and also the relationship between informational dimensions of CS and affective commitment is also significant and positive. Accordingly, the two mentioned hypotheses were also supported.

The correlation analysis suggests also a significance positive relationship between continuance commitment and each of the CS dimensions: relational dimensions ( $r = .28$ ,  $p = .000$ ), informational/relational dimensions ( $r = .28$ ,  $p = .000$ ); and informational dimensions ( $r = .31$ ,  $p = .000$ ). There is also a significant positive relationship between continuance commitment and subordinate communication ( $r = .26$ ,  $p = .000$ ) i.e. a relational CS dimension which was entered into the correlation matrix separate from the other two relational CS dimensions as only supervisors responded to items comprising it.

The results show that CS is significantly related to continuance commitment therefore when the staff are satisfied with communication practices in universities their continuance commitment will be high. The staff do not want to leave their universities when they think that leaving would require considerable personal sacrifice. Another university may not match the overall benefits they have and one of these benefits is communication satisfaction as confirmed by this study finding. Thus, hypotheses H2b1, there is a significant positive relationship between relational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities; H2b2, there is a significant positive relationship between informational/relational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities, and H2b3, there is a significant positive relationship between informational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities, were supported.

The correlation matrix presented in table 4.17 shows that normative commitment and CS dimensions are significantly and positively correlated and this supports the other

three hypotheses (H2c1, H2c2, and H2c3) formed earlier. As predicted in hypotheses; H2c1 there is a significant positive relationship between relational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities ( $r = .26$ ,  $p = .000$ ). According to Van Vuuren (2009), satisfactory relationship among employees themselves and also with the managers in organizations leads to communication satisfaction and that strengthen organizational commitment. This is basically consistent with the current study findings that prove that strong relational communication satisfaction is very important for strengthening organizational commitment.

Findings show that there is a significant positive relationship between informational/relational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities ( $r = .26$ ,  $p = .000$ ), and they also show that there is a significant positive relationship between informational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities ( $r = .27$ ,  $p = .000$ ). The correlation between subordinate communication and normative commitment ( $r = .24$ ,  $p = .000$ ) is also supporting hypothesis H2c1 as subordinate communication is one of the relational CS dimensions. These findings suggest that the staff's satisfaction with communication practices make them feel obliged to sustain membership in their universities. In consequence, the above mentioned hypotheses (H2c1, H2c2, and H2c3) which are concerned with the relationships between normative organizational commitment and CS dimensions were supported. These findings also support previous ones revealed by Hargie, et al. (2002) that poor communication satisfaction leads to weak employee commitment, greater absenteeism, and reduced productivity.

Table 4.17

*Relationship between CS (relational, informational/relational, and informational dimensions) & OC*

	1	2	3	4	5	6	7	8	9
1 Affective Commitment	-								
2 Continuance Commitment	.48**	-							
3 Normative Commitment	.47**	.43**	-						
4 Organizational Commitment	.78**	.82**	.78**	-					
5 Relational CS (Excluding Subordinate Communication)	.44**	.28**	.26**	.40**	-				
6 Informational/Relational CS	.35**	.28**	.26**	.37**	.78**	-			
7 Informational CS	.42**	.31**	.27**	.41**	.61**	.78**	-		
8 Subordinate Communication	.47**	.26**	.37**	.34**	.73**	.74**	.58**	-	
9 CS (Excluding Subordinate Communication)	.44**	.32**	.29**	.43**	.85**	.95**	.90**	.74**	-

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

According to Sekaran (2006), the correlation coefficient ( $r$ ) indicates the strength of relationship between two variables but it does not show how much of the variance in the dependent variable will be explained when several independent variables are theorized to simultaneously influence it. Adopting that and for the purpose of validating the above results which tested the relationship between CS dimensions and OC ones, the researcher has carried out Multiple Regression analysis. Multiple Regression analysis has examined the combined contribution of communication satisfaction dimensions in explaining the respondents' organizational commitment.

As it is shown in table 4.18, staff' affective commitment was regressed on a linear combination of the eight predictor variables. Subordinate communication dimension has been excluded from the multiple regression tests for the same reason mentioned above in the correlation analysis.

Table 4.18

*Evaluating the relationship between affective commitment and CS dimensions excluding subordinate communication*

	Dependent Variable – Affective Commitment		
	$\beta$	t	Sig.
Organizational perspective	.19**	2.94	.00
Personal feedback	-.14*	-1.96	.05
Organizational integration	.02	.34	.73
Supervisory communication	-.05	-.70	.47
Communication climate	.03	.39	.69
Horizontal communication	-.07	-1.023	.30
Media quality	.25**	3.54	.00
Top management communication	.34**	5.40	.00
R <sup>2</sup>	.29		
F	18.78**		

\*  $p < .05$     \*\*  $p < .001$

Results indicate that a combination of CS dimensions significantly explained about 29% of the variance in affective commitment ( $R^2 = .29$ ,  $F = 18.78$ ,  $p = .000$ ). The multiple regression analyses confirmed that staff's affective commitment was significantly related to CS. Organizational perspective; personal feedback; media quality; and top management communication are the communication satisfaction dimensions that very much predict the affective commitment.

Multiple regression analysis was also conducted to determine the significance of CS dimensions in predicting continuance commitment. CS dimensions as the set of predictors in this regression equation explained 15% of the variance in continuance commitment ( $R^2 = .15$ ,  $F = 8.01$ ,  $p = .000$ ). Media quality is the only dimension which significantly predicts continuance commitment. The regression for continuance commitment is presented in Table 4.19.

Table 4.19

*Evaluating the relationship between continuance commitment and CS dimensions excluding subordinate communication*

<b>Dependent Variable – Continuance Commitment</b>			
	<b><math>\beta</math></b>	<b>t</b>	<b>Sig.</b>
Organizational perspective	.12	1.73	.08
Personal feedback	.04	.60	.54
Organizational integration	-.12	-1.57	.11
Supervisory communication	-.07	-.92	.35
Communication climate	.08	1.00	.31
Horizontal communication	-.01	-.21	.83
Media quality	.30**	3.84	.00
Top management communication	.03	.44	.66
$R^2$	.15		
F	8.01**		

\*  $p < .05$     \*\*  $p < .001$

The CS dimensions were also regressed to determine their significance in predicting normative commitment (see Table 4.20). CS dimensions were all significant predictors of normative commitment. The set of CS variables explained 11% of the variance in normative commitment ( $R^2 = .11$ ,  $F = 5.53$ ,  $p = .000$ ). Again media quality is the only communication satisfaction that predicts normative commitment.

Table 4.20

*Evaluating the relationship between normative commitment and CS dimensions excluding subordinate communication*

	Dependent Variable – Normative Commitment		
	$\beta$	t	Sig.
Organizational perspective	.01	.18	.85
Personal feedback	.06	.81	.41
Organizational integration	-.02	-.28	.77
Supervisory communication	-.12	-1.55	.12
Communication climate	.11	1.30	.19
Horizontal communication	.03	.46	.64
Media quality	.20**	2.52	.01
Top management communication	.06	.91	.36
$R^2$	.11		
F	5.53**		

\*  $p < .05$     \*\*  $p < .001$

The multiple regression analysis outcomes confirmed the above findings of this study and proved that there are significant positive relationship between CS and OC. These results also support the previously mentioned hypotheses which predicted the relationship between these two constructs. Moreover, the independent variable impacted on the three dimensions of OC in the direction hypothesized. Thus, staff are more likely to be highly committed to their universities when exhibit higher levels of satisfaction



with the communication practices in these universities. These findings show a significant positive relationship between communication satisfaction dimensions and the organizational commitment dimensions of the academic staff in universities in Yemen.

These results also support the findings of Varona (1996) and that of Mustaffa (2004) who found that there is a significant positive relationship between OC and CS. Our findings stressed the need to monitor communication satisfaction and to evolve between communication practices so that staff's organizational commitment is maintained at high level.

Pincus (1986) found that there was a stronger relationship between relational dimensions of communication satisfaction and job satisfaction than the informational dimensions-job satisfaction relationship. This is consistent with the findings of this study which show that there is a stronger relational communication satisfaction-affective commitment relationship than the informational communication satisfaction-affective commitment relationship. This reveals that the relational communication satisfaction dimensions have stronger effects on many organizational variables than informational dimensions. Taylor (1997) also supported this notion. She found that relational dimensions are the best contributors to the communication satisfaction-membership satisfaction relationship.

#### **4.8 The Moderating Effects of National Culture on the Relationship between CS and OC**

This section presents whether the national culture dimensions moderate the relationships between communication satisfaction and organizational commitment. It exposes the hypotheses testing concerning the interaction between national culture

dimensions and communication satisfaction in predicting organizational commitment. To test the extent to which each of the national culture dimensions moderate the relationship between CS and OC, several hierarchical multiple regression analyses were carried out. As it has been mentioned in chapter three, Zedeck's (1971) basic regression equations including the interaction of the predictors was followed.

According to Baron and Kenny (1986), the effects of the moderator are indicated by the significant effect of the interaction between the independent variable and the moderator. So if the interaction term (independent variable x moderator) explains a statistically significant amount of variance in the dependent variable, a moderator effect is present (Bennett, 2000). Comparing the  $R^2$  change (i.e. squared multiple correlation coefficients) and the change in the F value for equation 2 and equation 3 are also important for deciding the moderator effects (Aguinis, 1995).

As mentioned in chapter three, researcher has carried out several steps for the hierarchical multiple regression analyses. The first step in formulating the regression equations involves centering the independent and moderator variables (i.e., put into deviation units by subtracting the mean score of the variable from each person's actual score on that variable in order to produce revised sample means of zero) as recommended by Frazier et al. (2004), many statisticians. The purpose of the centering process is to reduce problems associated with multicollinearity (i.e., high correlations) among variables in the regression equation since independent and moderator variables generally are highly correlated with the interaction terms created from them (Frazier et al., 2004).

Creating the interaction term was the second step which the researcher has conducted in order to prepare data for the regression equation. So a new variable is

created ( $X*Z$ ), and then a hierarchical multiple regression analysis is done forcing variables  $X$  and  $Z$  into the equation predicting  $Y$  (equation 2), followed by another step at which variable  $X*Z$  is entered (equation 3). The significance of the  $F$  value indicates the presence of an  $X*Z$  interaction which proves the presence of the moderator effects. All the steps used in this analysis were in accordance to the suggestion by Zedeck's (1971), Baron and Kenny (1986), Aguinis (1995), and Frazier et al. (2004).

As discussed in chapter 2, there is an evidence to suggest that the relationship between CS and OC may be moderated by NC dimensions. Although intuitively appealing, to date, no study has assessed the possible moderating role of these cultural dimensions in the CS-OC relationship. As such, the findings of this study are preliminary and regarded as exploratory. In the current study, several such moderating effects were found.

#### **4.8.1 The Interacting Effect of National Culture Dimensions with CS on Affective Commitment**

As mentioned earlier, the researcher has conducted several hierarchical multiple regression analyses in order to investigate the moderating effects of the national culture dimensions on the relationship between CS and OC dimensions starting with affective commitment dimension. The CS was entered first into the regression followed by each of the moderators and then the interaction terms to test the hypotheses that proposed the moderating effects of the cultural dimensions on CS-OC relationship. Table 4.21 shows the results of the hierarchical multiple regression which has been conducted to test the study hypotheses.

Table 4.21

*The moderating effect of cultural dimensions on the relationship between CS and affective commitment*

<b>Dependent Variable</b>	<b>Step1: Independent Variables</b>	<b>Step2: Moderating Variables</b>	<b>Step2: Two-Ways Interactions</b>
Affective Commitment	Communication Satisfaction ( $\beta = .44^{**}, t = 9.38$ )	PDI ( $\beta = .10^*, t = 2.25$ )	CS x PDI ( $\beta = -.14^{**}, t = -3.14$ )
		UAI ( $\beta = -.12^{**}, t = -2.63$ )	CS x UAI ( $\beta = -.12^{**}, t = -2.72$ )
		MAS ( $\beta = .17^{**}, t = 3.63$ )	CS x MAS ( $\beta = -.12^{**}, t = -2.61$ )
		IDV ( $\beta = .24^{**}, t = 5.28$ )	CS x IDV ( $\beta = -.10^*, t = -2.19$ )
		LTO ( $\beta = .28^{**}, t = 5.22$ )	CS x LTO ( $\beta = -.10^*, t = -2.28$ )
	$F = 87.98^{**}$	$F = 47.02^{**}$	$F = 35.42^{**}$
	$R^2 = .19$	$R^2 = .20$	$R^2 = .22$
	$R^2 \text{ Change} = .00^*$	$R^2 \text{ Change} = .01^*$	$R^2 \text{ Change} = .02^{**}$
	Standard Error = .007	Standard Error = .113	Standard Error = .003
	Degree of freedom (1, 360)	Degree of freedom (2, 359)	Degree of freedom (3, 358)

\*  $p < .05$     \*\*  $p < .001$

#### 4.8.1.1 The Interacting Effect of Power Distance with CS on Affective Commitment

Hypothesis 3a1 predicted that power distance moderates the relationship between CS and affective commitment. Table 4.21 shows the results of the hierarchical multiple regression which has been conducted to test this hypothesis. The standardized regression coefficient (beta) for each antecedent variable is shown in the respective steps. CS entered at step 1 accounted for 19% of the variance in affective commitment. The moderator variable i.e. power distance, entered at step 2 accounted for 1% of the variance in affective commitment. Power distance had a significant main effect on

affective commitment ( $\beta = .10$ ,  $t = 2.25$ ,  $p = <.05$ ). The entry of the interaction term at step 3 (power distance x CS) increased  $R^2$  by about 2%. This interaction term was highly significant ( $\beta = -.14$ ,  $t = -3.14$ ,  $p = <.01$ ).

The beta coefficient value of the relationship between power distance-communication satisfaction interaction and the dependent variable is negative ( $\beta = -.14$ ,  $p = <.01$ ) while it has been positive and high in the first step ( $\beta = .44$ ,  $p = <.01$ ). This means that power distance weakens the relationship between communication satisfaction and affective commitment. Therefore, the differences in the staff's power distance levels affect the relationship between their communication satisfaction and their affective commitment.

Figure 4.4 shows that when communication satisfaction is low, affective commitment is the highest for academic staff who belong to low power distance cultures. The graph indicates that there is stronger relationship between communication satisfaction and affective commitment in high power distance communities. Hence, Hypothesis 3a1 receives strong support. Therefore, power distance moderates the relationship between CS and affective commitment. Power distance dimension of national culture has been previously proved to be a significant moderator variable in many research studies (Kollmann et al. 2009; Dash et al. 2006). The current study has also confirmed that power distance dimension can work as a significant moderator variable.

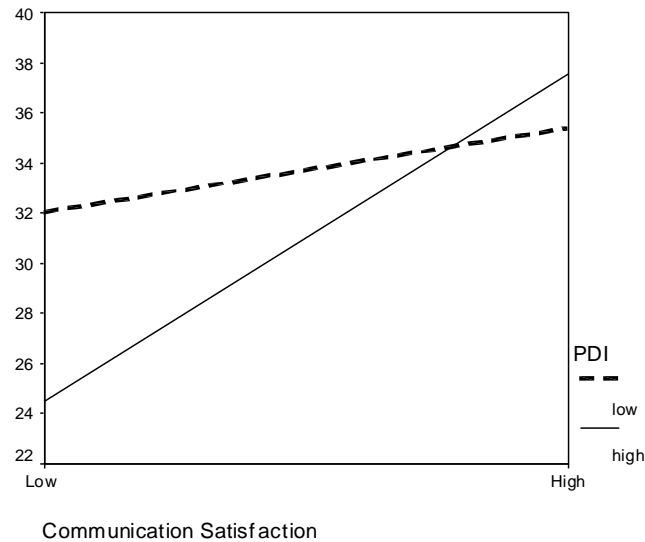


Figure 4.4 *The moderating effect of power distance on the relationship between CS and affective commitment*

#### 4.8.1.2 The Interacting Effect of Uncertainty Avoidance with CS on Affective Commitment

The results shown in Table 4.21 reveal that uncertainty avoidance moderates the relationship between the dependent and independent variables of this study. The regression coefficient for the interaction term is  $-.12$  ( $-2.72$ ,  $p = <.01$ ). The  $R^2$  change associated with the interaction term is  $.02$ . In other words, the interaction between uncertainty avoidance and CS explained an additional 2% of the variance in affective commitment scores over and above the 1% explained by the first order effects of uncertainty avoidance and CS alone. The comparison of the beta coefficient value of step 1 and step 3 in table 4.21 indicates that uncertainty avoidance dimension of national culture influences the linkage of communication satisfaction and affective commitment. The interaction between uncertainty avoidance and communication satisfaction has

affected the strength of this relationship. This interaction is depicted in Figure 4.5. Figure 4.2 reveals the nature of the interaction between communication satisfaction and uncertainty avoidance and the effect of that interaction on the communication satisfaction-affective commitment relationship. Communication satisfaction was most strongly related to affective commitment among individuals with high uncertainty avoidance.

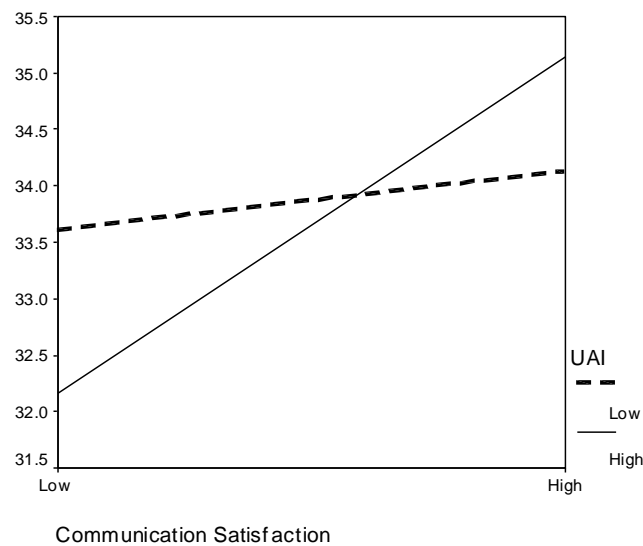


Figure 4.5 *The moderating effect of uncertainty avoidance on the relationship between CS and affective commitment*

The recalculation of national culture index supports Hofstede's Index (1980; 2001) and shows that the scores of uncertainty avoidance of the participants of the current study was not equivalent. Therefore, the communication satisfaction-affective commitment relationship has been affected by this national culture dimension. These findings expose that uncertainty avoidance moderates the relationship between CS and affective commitment. Thus, hypothesis 3a2 was supported. This findings support

previous ones (Kollmann et al. 2009) in the sense that uncertainty avoidance can be a significant moderator variable.

#### **4.8.1.3 The Interacting Effect of Masculinity with CS on Affective Commitment**

The hierarchical multiple regression analysis conducted in this study also exposed a significant moderating effect of masculinity on the relationship between CS and affective commitment. Table 4.21 shows the results of that analysis. The interaction effect between masculinity and CS was highly significant ( $\beta = -.12$ ,  $t = -2.61$ ,  $p = <.001$ ) and at the same level like the interaction between uncertainty avoidance and CS ( $\beta = -.12$ ,  $p = <.01$ ). This dimension also has changed the strength of the communication satisfaction- affective commitment relationship.

The interaction between communication satisfaction and masculinity is indicated in Figure 4.6. A strong relationship occurs between communication satisfaction and affective commitment among staff from high masculinity culture, but the relationship between these variables appear to be very weak among staff from low masculinity culture. Therefore, hypothesis 3a3 was strongly supported. Masculinity dimension of national culture has been evidenced to be a significant moderator variable in two different studies by Marino et al. (2002) and by Kollmann et al. (2009). The current study has added further evidence that support this notion.



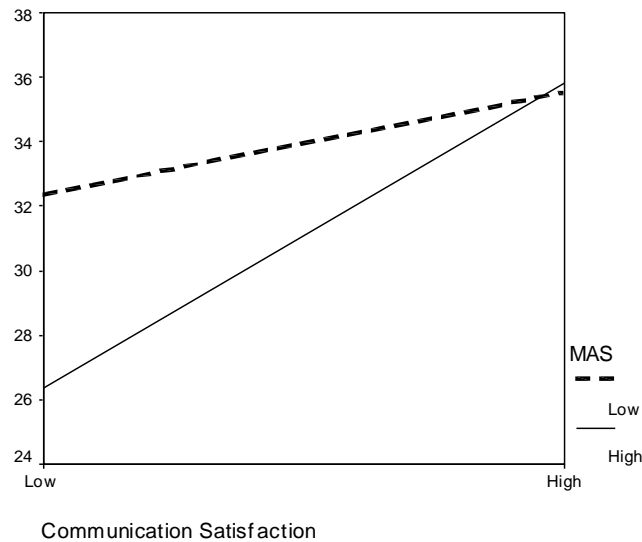


Figure 4.6 *The moderating effect of masculinity on the relationship between CS and affective commitment*

#### 4.8.1.4 The Interacting Effect of Individualism with CS on Affective Commitment

Hypothesis 3a4 predicted that individualism moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities. To test this hypothesis the researcher again conducted hierarchical regression. The results of this test show also a significant moderating effect of the staff individualism on the relationship between CS and affective commitment (See table 4.21).

The differences in the level of collectivism between the staff influence the dependent-independent variables linkage. The interaction term had a beta of  $-.10$  ( $t = -2.19$ ,  $p = <.05$ ). The beta coefficient which has outcome from the regression equation here indicates that in the prediction of affective commitment, the interaction between individualism and communication satisfaction make a significant change in the beta

coefficient of step 1. The depicted graph in Figure 4.7 suggested an increase in the staff affective commitment level with the increase in their communication satisfaction level among individuals from more collectivistic cultures. Thus, hypothesis 3a4 was supported. Cannon et al. (2010) and Marino et al. (2002) have asserted that individualism dimension of national culture can work as a moderator variable. This declaration is consistent with the findings of the current study.

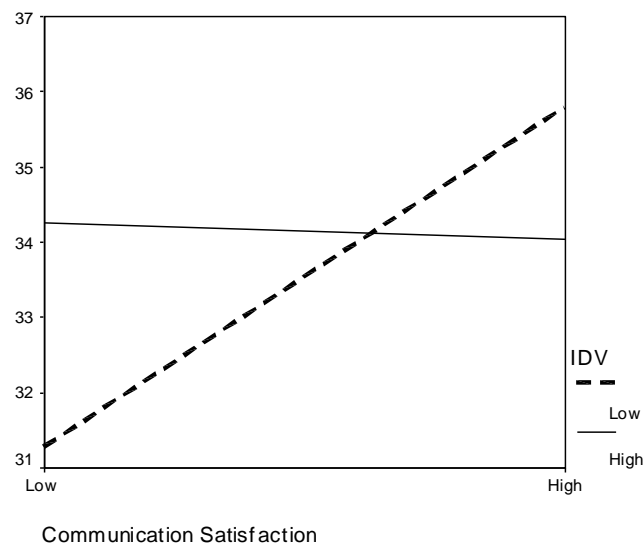


Figure 4.7 *The moderating effect of individualism on the relationship between CS and affective commitment*

#### 4.8.1.5 The Interacting Effect of Long- vs. Short-term Orientation with CS on Affective Commitment

Hypothesis 3a5 which posited that there is a moderating affects of long- vs. short-term orientation on the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities is

also supported by the findings of this study. Table 4.21 shows the result of this interaction term which had a beta of  $-.10$  ( $t = -2.28$ ,  $p = <.05$ ). The results suggested that like all other national culture dimensions the differences in the staff's long- vs. short-term orientation level proves significant moderating effects on the relationship between communication satisfaction and affective commitment. Since long- vs. short-term orientation showed a significant interaction, a graph was plotted as shown in Figure 4.8. The graph reveals a strong positive relationship between communication satisfaction and affective commitment among individuals from short-term orientation cultures, while the relationship between these two variables becomes very weak and negative among those from long-term orientation cultures.

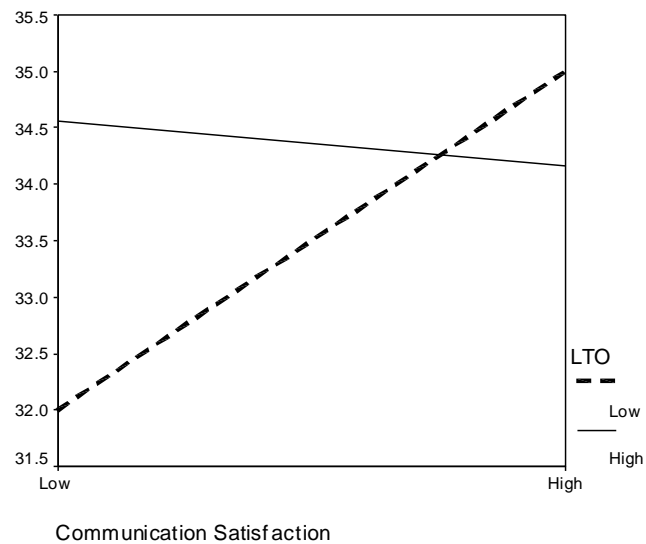


Figure 4.8 *The moderating effect of long-term orientation on the relationship between CS and affective commitment*

#### **4.8.2 The Interacting Effect of National Culture Dimensions with CS on Continuance Commitment**

Several hierarchical multiple regression analyses again were carried out in order to investigate the moderating effects of the national culture dimensions on the relationship between CS and continuance commitment. The interaction term was checked for the purpose of testing the second division of the forth hypothesis of the study. Findings revealed that there are four out five interactions were significant. These interaction terms are discussed in the following sections. Table 4.22 shows the results of the hierarchical multiple regression which has been conducted to assess these moderating effects.

Table 4.22

*The moderating effects of cultural dimensions on the relationship between CS and continuance commitment*

Dependent Variable	Step1: Independent Variables	Step2: Moderating Variables	Step2: Two-Ways Interactions
Continuance Commitment	Communication Satisfaction ( $\beta = .32^{**}$ , $t = 6.50$ )	PDI ( $\beta = .20^{**}$ , $t = 4.24$ )	CS x PDI ( $\beta = -.10^*$ , $t = -1.95$ )
		UAI ( $\beta = .23^{**}$ , $t = 4.71$ )	CS x UAI ( $\beta = .21^{**}$ , $t = 4.51$ )
		MAS ( $\beta = .11^*$ , $t = 2.33$ )	CS x MAS ( $\beta = -.004$ , $t = -.07$ )
		IDV ( $\beta = .10^*$ , $t = 2.03$ )	CS x IDV ( $\beta = .14^*$ , $t = 2.83$ )
		LTO ( $\beta = .19^{**}$ , $t = 3.89$ )	CS x LTO ( $\beta = .15^{**}$ , $t = 3.10$ )
	$F = 42.35^{**}$	$F = 33.55^{**}$	$F = 30.36^{**}$
	$R^2 = .10$	$R^2 = .15$	$R^2 = .20$
	$R^2$ Change = .00*	$R^2$ Change = .05**	$R^2$ Change = .05**
	Standard Error = .010	Standard Error = .138	Standard Error = .005
	Degree of freedom (1, 360)	Degree of freedom (2, 359)	Degree of freedom (3, 358)

\*  $p < .05$  \*\*  $p < .001$

#### 4.8.2.1 The Interacting Effect of Power Distance with CS on Continuance

##### Commitment

The proposition that power distance interacts with the relationship between CS and continuance commitment is supported by the study findings. Table 4.22 shows that the differences between the academic staff in their power distance value makes CS-Continuance commitment relationship varies accordingly and proves that this national culture dimension moderates these variables' relationship. The interaction effect is -.10

(-1.95,  $p = <.05$ ) with an  $R^2$  change of .01. So the interaction between power distance and CS explained an additional 1% of the variance in continuance commitment. Therefore, hypothesis 3b1 is supported.

The beta coefficient value of the interaction term in step 3 is much different than the one in step 1. It shows a change in the strength of the relationship. That means that power distance dimension of national culture weaken the communication satisfaction-continuance commitment association. Based on the graph shown below, it can be seen that communication satisfaction is more important determinant of continuance commitment for individuals from high power distance culture than for those from low power distance culture (see Figure 4.9). Hence, power distance dimension can be a significant moderator as proved earlier in section 4.2.8.1.1 and as asserted by Kollmann et al. (2009) and Dash et al. (2006).

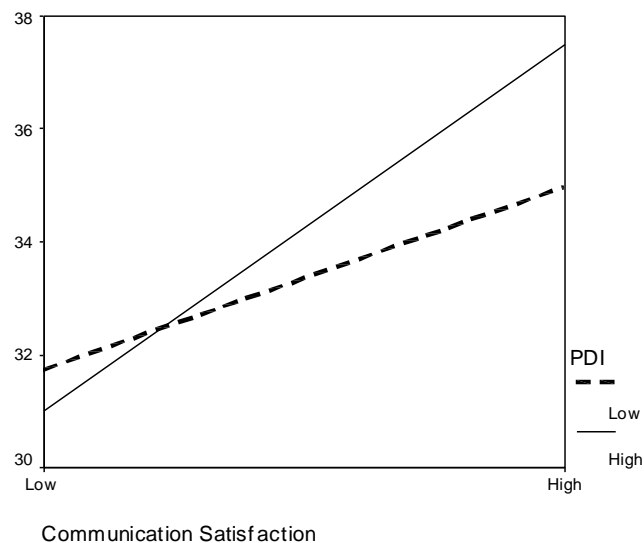


Figure 4.9 *The moderating effect of power distance on the relationship between CS and continuance commitment*

#### **4.8.2.2 The Interacting Effect of Uncertainty Avoidance with CS on Continuance**

##### **Commitment**

As shown in Table 4.22, the differences in uncertainty avoidance among the academic staff moderate the relationship between CS and continuance commitment and these findings also supported hypothesis 3b2. The interaction effect between uncertainty avoidance and CS was highly significant ( $\beta = .21$ ,  $t = 4.51$ ,  $p = <.001$ ) and it explained an additional of 4% of the variance in continuance commitment. This indicates that as uncertainty avoidance moderates the relationship between CS and affective commitment, it plays the same moderating role in the CS-continuance commitment relationship.

As explained earlier, the relationship between communication satisfaction and affective commitment was stronger for individuals from high uncertainty avoidance culture. The same pattern of relationship is observed between communication satisfaction and continuance (see Figure 5.10), that is, the communication satisfaction-continuance commitment relationship is stronger for staff who belong to high uncertainty avoidance culture.

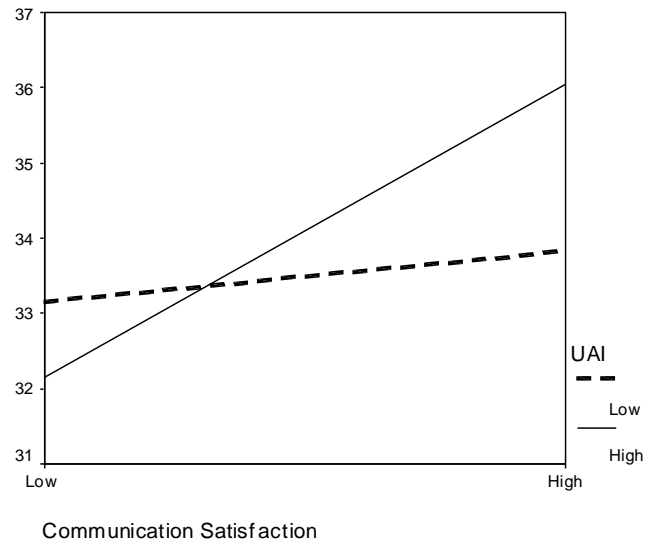


Figure 4.10 *The moderating effect of uncertainty avoidance on the relationship between CS and continuance commitment*

#### 4.8.2.3 The Interacting Effect of Masculinity with CS on Continuance Commitment

The interaction term between masculinity and CS on predicting continuance commitment was found not significant ( $\beta = -.004$ ,  $t = -.07$ ,  $p = >.05$ ). This result exposes that there is not any moderating effects of masculinity on the relationship between CS and continuance commitment. Whether the academic staff are more or less masculine, does not matter in the context of CS-continuance commitment relationship. Thus, hypothesis 3b3 was not supported.



#### **4.8.2.4 The Interacting Effect of Individualism with CS on Continuance**

##### **Commitment**

The individualism moderating effects on the CS-continuance commitment relationship was found significant ( $\beta = .14$ ,  $t = 2.83$ ,  $p = <.05$ ). The interaction between individualism and CS explained an additional 1.9% of the variance in continuance commitment. The F change statistics of the interaction term was also found significant ( $F = 8.007$ ,  $p = >.05$ ).

Figure 4.11 reveals the nature of the interaction between communication satisfaction and individualism and its effects on continuance commitment. The communication satisfaction-continuance commitment relationship appears to be stronger when individualism culture is low. This shows that collectivistic culture increases the strength of the relationship of these two variables. Accordingly, hypothesis 3b4 was supported and the proposition that individualism moderates the relationship between CS and continuance commitment was approved. This result essentially gives additional evidence that individualism dimension can work as a significant moderator.

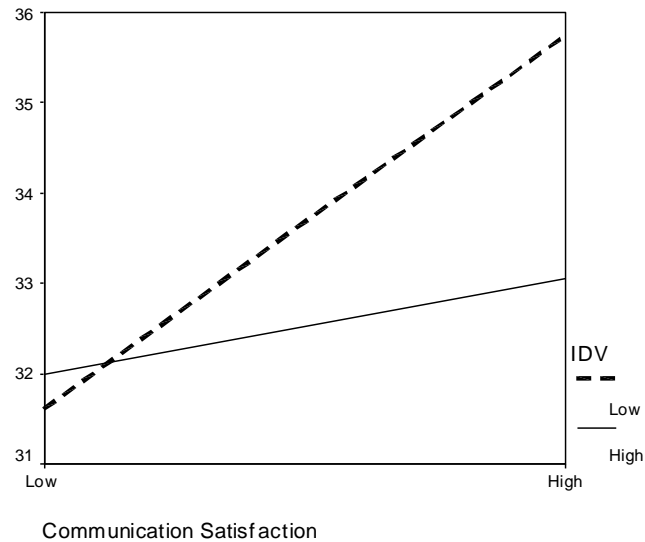


Figure 4.11 *The moderating effect of individualism on the relationship between CS and continuance commitment*

#### 4.8.2.5 The Interacting Effect of Long- vs. Short-term Orientation with CS on Continuance Commitment

Hypothesis 3b5 predicted that the national culture dimension long- vs. short-term orientation moderates the relationship between CS and continuance commitment. As shown in Table 4.22, CS with long- vs. short-term orientation entered in the second step explained 14% of the variance in continuance commitment showing increased explained variance by approximately 4%. The interaction between both the variable entered in step 3 showed that there was an increase in explained variance by a significant 2%, so this interaction term was responsible for this incremental change ( $\beta = .15$ ,  $t = 3.10$ ,  $p < .05$ ).

The significant interaction between communication satisfaction and long- vs. short-term orientation is depicted in Figure 4.12. It is shown that communication

satisfaction was most strongly related to continuance commitment among individuals from long-term orientation culture. Among short-term oriented staff, communication satisfaction was very weakly related to continuance commitment. This finding provides evidence that long- vs. short-term orientation moderates the relationship between the independent and dependent variables. Hence, hypothesis 3b5 was supported.

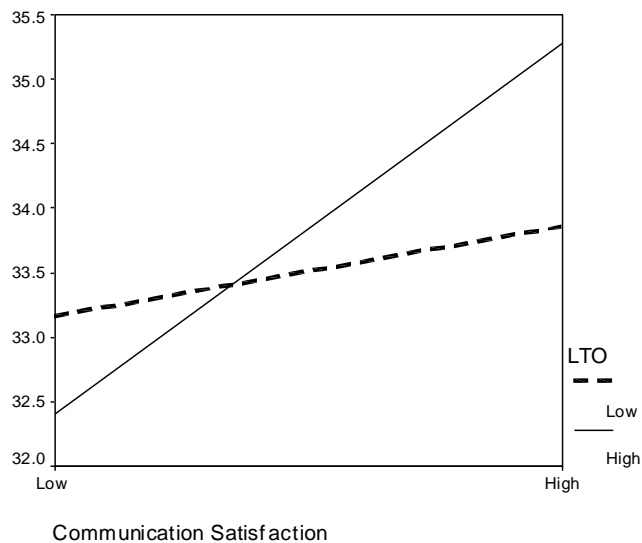


Figure 4.12 *The moderating effect of long- vs. short-term orientation on the relationship between CS and continuance commitment*

### 4.8.3 The Interacting Effect of National Culture Dimensions with CS on Normative Commitment

This section presents the hypotheses testing concerning the interaction between national culture dimensions and CS in predicting normative commitment. To test the moderating effects of the five national culture dimensions on the relationship between CS and normative commitment, five hierarchical regression analyses were carried out.

The findings yielded from these analyses are shown in the following part. Table 4.23 shows the results of the hierarchical multiple regression which has been conducted to test the hypotheses of the study.

Table 4.23

*The moderating effects of cultural dimensions on the relationship between CS and normative commitment*

<b>Dependent Variable</b>	<b>Step1: Independent Variables</b>	<b>Step2: Moderating Variables</b>	<b>Step2: Two-Ways Interactions</b>
Normative Commitment	Communication Satisfaction ( $\beta = .29^{**}, t = 5.84$ )	PDI ( $\beta = .13^*, t = 2.65$ )	CS x PDI ( $\beta = -.16^*, t = -3.18$ )
		UAI ( $\beta = .06, t = 1.32$ )	CS x UAI ( $\beta = -.04, t = -.81$ )
		MAS ( $\beta = .15^*, t = 2.98$ )	CS x MAS ( $\beta = -.17^{**}, t = -3.37$ )
		IDV ( $\beta = .12^*, t = 2.42$ )	CS x IDV ( $\beta = -.19^{**}, t = -3.69$ )
		LTO ( $\beta = .22^{**}, t = 4.56$ )	CS x LTO ( $\beta = -.16^{**}, t = -3.31$ )
	$F = 34.13^{**}$	$F = 20.87^{**}$	$F = 17.65^{**}$
	$R^2 = .08$	$R^2 = .10$	$R^2 = .12$
	$R^2 \text{ Change} = .00^{**}$	$R^2 \text{ Change} = .02^{**}$	$R^2 \text{ Change} = .02^{**}$
	Standard Error = .008	Standard Error = .101	Standard Error = .004
	Degree of freedom (1, 360)	Degree of freedom (2, 359)	Degree of freedom (3, 358)

\*  $p < .05$     \*\*  $p < .001$

#### 4.8.3.1 The Interacting Effect of Power Distance with CS on Normative

##### Commitment

Findings show that the relationship between CS and normative commitment was moderated by staff's power distance (see table, 4.23). The interaction term between the independent and the moderator variable was evidently significant ( $\beta = -.16, t = -3.18, p = < .05$ ) and it explained an additional 2% of the variance in normative commitment. The F

change statistics of this interaction term was significant ( $F = 10.15$ ,  $p = >.05$ ). Figure 4.13 indicates the significant interaction between communication satisfaction and power distance and the effects of this interaction on normative commitment. It shows that communication satisfaction was most strongly related to normative commitment among staff who belong to high power distance culture. The relationship between these two variables is found weaker among those staff from low power distance culture.

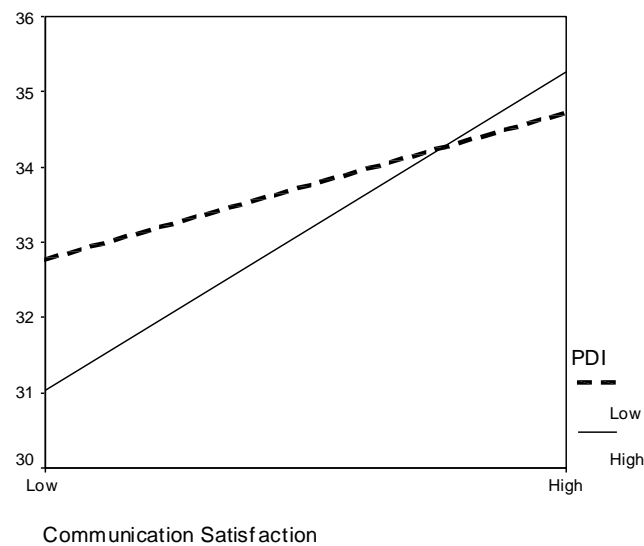


Figure 4.13 *The moderating effect of power distance on the relationship between CS and normative commitment*

These findings and previous ones suggest that power distance dimension can be confirmed as a moderator that affects the relationship between communication satisfaction and the three organizational commitment dimensions. These findings efficiently supported hypothesis 3c1.

#### **4.8.3.2 The Interacting Effect of Uncertainty Avoidance with CS on Normative Commitment**

Uncertainty avoidance did not demonstrate any moderation effect on the relationship between CS and normative commitment. Table 4.23 shows that uncertainty avoidance does not moderate the dependent-independent variables relationship as the interaction term is not significant at all ( $\beta = -.04$ ,  $t = -.81$ ,  $p = >.05$ ). Thus, hypothesis 3c2 was not supported.

#### **4.8.3.3 The interacting effect of masculinity with CS on normative commitment**

Hypothesis 3c3 forecasted that masculinity moderates the relationship between CS and normative commitment. The findings of this study show a strong support to this proposition. The interaction between CS and masculinity, shown in Table 4.23, was highly significant in predicting normative commitment ( $\beta = -.17$ ,  $t = -3.37$ ,  $p = <.001$ ). The beta coefficient value of the interaction term suggests a change in the strength of the relationship of the variables which suggests that masculinity weaken the relationship between communication satisfaction and normative commitment. The graphical depiction of the interaction shown in Figure 4.14 is quite similar to Figure 4.6 in which high masculinity culture increase the relationship between communication satisfaction and affective commitment. High masculinity culture also increases the communication satisfaction-normative commitment relationship while low masculinity decrease the strength of the relationship between these two variables.

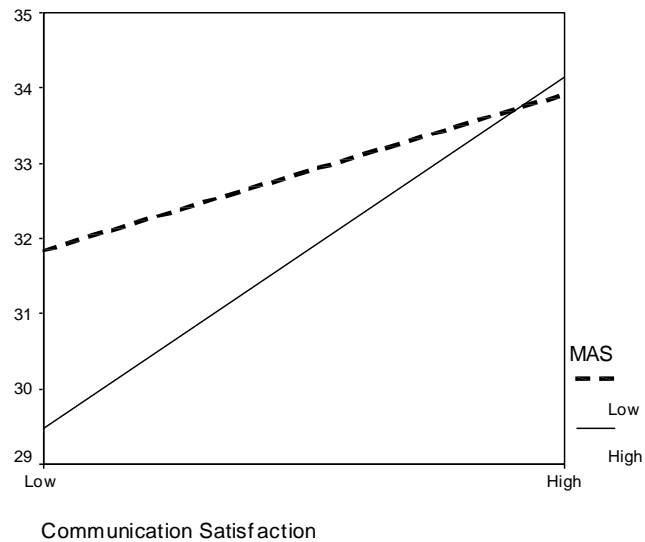


Figure 4.14 *The moderating effect of masculinity on the relationship between CS and normative commitment*

#### 4.8.3.4 The Interacting Effect of Individualism with CS on Normative Commitment

Table 4.23 shows that the interaction between CS and individualism in predicting normative commitment was apparently significant ( $\beta = -.19$ ,  $t = -3.69$ ,  $p = <.001$ ). This makes the researcher confidently say that individualism moderates the relationship between CS and normative commitment. As shown in Figure 4.15, the graph indicates that with low individualistic culture, there is stronger relationship between communication satisfaction and normative commitment, but it is weaker when individualistic culture is high. Accordingly, hypothesis 3c4 was supported.

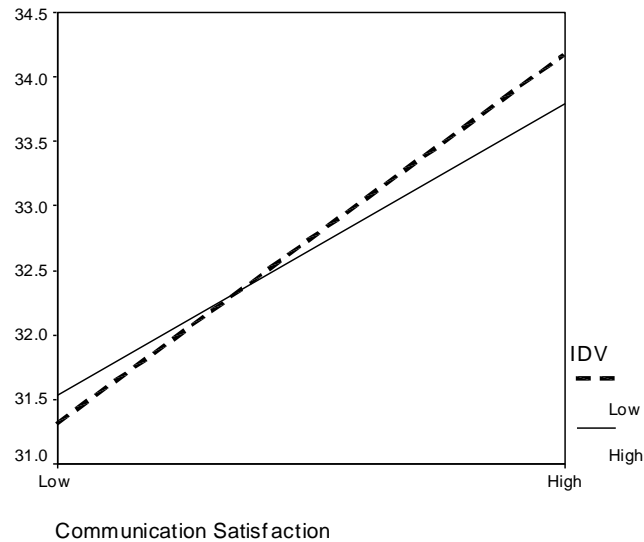


Figure 4.15 *The moderating effect of individualism on the relationship between CS and normative commitment*

#### 4.8.3.5 The Interacting Effect of Long- Vs. Short-Term Orientation with CS on Normative Commitment

The hierarchical multiple regression analysis exposed in Table 4.23 is also revealing the moderating role of national culture dimensions on the CS-OC relationship. This analysis proved that long- vs. short-term orientation moderates the relationship between CS and normative commitment. The independent-moderator variables' interaction term was extremely significant in predicting normative commitment ( $\beta = -.16$ ,  $t = -3.31$ ,  $p = <.001$ ). A plotted graph on the relationship between communication satisfaction and normative commitment shows a high positive relationship for individuals who belong to short-term oriented culture (see Figure 4.16). In other words, low practice of long-term orientation and an increase in communication satisfaction



would benefit staff in increasing their normative commitment. Thus, hypothesis 3c5 was supported.

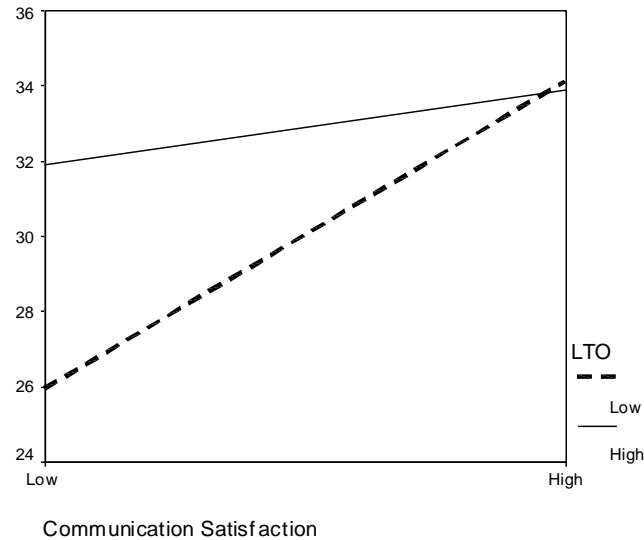


Figure 4.16 *The moderating effect of long- vs. short-term orientation on the relationship between CS and normative commitment*

#### 4.8.4 New Findings Beyond The Scope Of The Current Study (Hofstede's VSM

##### Index Calculation For National Culture)

The results of the study show some interesting findings which are beyond the scope of this study. These worth mentioning findings are about Hofstede's VSM index calculation for national culture. Unlike prior studies in which researchers have depended on Hofstede's cultural dimensions index (Taylor, 2005; Nes, 2007), this study calculated the scores of the actual participants on the cultural dimensions of national culture. As it

is clear that sample in this study is academic staff working in universities which is different from those of the original study of Hofstede, employees in IBM Company. This process helped the researcher attain a good understanding of the context of participants before carrying out an analysis of the moderating role of national culture on the relationship between CS and OC.

Hofstede (1980) developed a methodology for analyzing the VSM questionnaire results. This analysis was based on formulas that combined answers from the questions that correlated to one dimension. This methodology of Hofstede was applied in this study for calculating national culture dimensions' indexes. As it was explained earlier in chapter three, each national culture dimension has four questions. The mean scores of each dimension's four questions were calculated in accordance with Hofstede's index formulas (See appendix J).

The results show that there are some differences in academic staff's power distance. Using Hofstede's formula, the researcher found that Malaysian staff scores the highest in power distance (81.95) whereas Egyptian staff's power distance scores were the least (49.8). In comparison with Hofstede's index of NC values scores, the sequencing of the countries here according to their power distance scores are still the same i.e. Malaysian comes first then Arab countries, except Egypt, and India comes at the end although the scores in this study is less than the scores in Hofstede's. Among the study sample, the Egyptians values of power distance are the lowest. And this is what makes this study useful and valuable since it proves that some of the Arabs from different countries are different from each other in term of their NC values (See appendix J).

According to Hofstede (2001) index normally has a value between 0 and 100, but values below 0 and above 100 are technically possible. The results come from Hofstede's formula show that the Malaysians' uncertainty avoidance is very low whereas the Yemenis' uncertainty avoidance is the highest (See appendix J). The Iraqis' score of masculinity values is the highest among the five nationalities (78.4) whereas Malaysians' is the lowest (37.1). The findings also show some differences between the participants in their individualism values. Malaysian staff were found to be more collectivistic than the Indians or the Arabs (See appendix J).

A t-test analysis revealed significant differences in national culture scores between some Arab countries. There is an interesting result found in this study. Arab people from different Arab countries differ significantly in terms of their NC values. There are significant differences between Yemenis and Egyptians in terms of IDV ( $t = -8.375$ ,  $p = .000$ ), MAS ( $t = -4.168$ ,  $p = .000$ ), UAI ( $t = 5.356$ ,  $p = .000$ ), and LTO ( $t = -8.664$ ,  $p = .000$ ) which indicates that different Arab people from different Arab countries are not the same in terms of their NC values. The T-test analysis also shows that there is no significant difference between Yemenis and Egyptians in terms of PDI ( $t = -1.937$ ,  $p > 0.05$ ). The results also show significant differences between Iraqis and Egyptians in terms of their NC dimensions scores, PDI ( $t = -2.562$ ,  $p < 0.05$ ), IDV ( $t = -3.764$ ,  $p < 0.01$ ), MAS ( $t = -3.130$ ,  $p < 0.01$ ), UAI ( $t = 3.826$ ,  $p = .000$ ), and LTO ( $t = -5.605$ ,  $p = .000$ ).

There are no significant differences between Yemenis and Iraqis in terms of their NC values and that implies that Yemenis and Iraqis are similar in their NC values and belong to the same culture since they live in the same area of the Arab Gulf. Given the fact that some Arab countries relatively shares different cultural norms, Hofstede should

have divided the Arab region into different territories according to the cultural proximity (Yemen, Iraq, and all the Arab Gulf countries as one territory; Syria, Lebanon, Jordan, and Palestine as an other one; Egypt as a separate territory; Arab West as a territory; and Sudan, Djibouti, and Somalia as a separate territory).

#### 4.9 Summary of Hypotheses Testing

Generally, the findings and discussions of the study have been presented in the previous sections of this chapter. To provide a brief summary of the study findings, the results of hypotheses testing are presented in table 4.24 below.

Table 4.24

*Summary of hypotheses testing*

<b>Hypothesis</b>	<b>Statement</b>	<b>Supported/ Rejected</b>
<b>1</b>	There are significant differences in the level of CS between Yemeni and non-Yemeni academic staff.	<b>Supported</b>
<b>2a1</b>	There is a significant positive relationship between relational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>2a2</b>	There is a significant positive relationship between informational/relational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>2a3</b>	There is a significant positive relationship between informational dimensions of CS and the affective organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>2b1</b>	There is a significant positive relationship between relational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>

<b>2b2</b>	There is a significant positive relationship between informational/relational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>2b3</b>	There is a significant positive relationship between informational dimensions of CS and the continuance organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>2c1</b>	There is a significant positive relationship between relational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>2c2</b>	There is a significant positive relationship between informational/relational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>2c3</b>	There is a significant positive relationship between informational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3a1</b>	Power distance moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3a2</b>	Uncertainty avoidance moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3a3</b>	Masculinity moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3a4</b>	Individualism moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3a5</b>	Long- vs. short-term orientation moderates the relationship between communication satisfaction and the affective commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3b1</b>	Power distance moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3b2</b>	Uncertainty avoidance moderates the relationship between communication satisfaction and the	<b>Supported</b>

	continuance commitment dimensions of the academic staff in the Yemeni universities.	
<b>3b3</b>	Masculinity moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.	<b>Rejected</b>
<b>3b4</b>	Individualism moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3b5</b>	Long- vs. short-term orientation moderates the relationship between communication satisfaction and the continuance commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3c1</b>	Power distance moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3c2</b>	Uncertainty avoidance moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.	<b>Rejected</b>
<b>3c3</b>	Masculinity moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3c4</b>	Individualism moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>
<b>3c5</b>	Long- vs. short-term orientation moderates the relationship between communication satisfaction and the normative commitment dimensions of the academic staff in the Yemeni universities.	<b>Supported</b>

#### 4.10 Summary

As a summary, the chapter mentions the findings of this study and it presents the discussion of these findings. The quantitative part of the study has fulfilled the hypothesized objectives. Reliability was conducted for all the study variables to test the consistency of the measures and the results show that this assumption was met. After

descriptive test was done, one way ANOVA was conducted in order to examine the differences in the communication satisfaction level between the academic staff from the five different nationalities. Before this, the similarities in the communication satisfaction level between the staff were shown in the descriptive statistics. Correlation and regression tests were carried out in order to investigate the relationship between communication satisfaction and organizational commitment dimensions and the results of these tests showed positive significant relationship between these variables. Several hierarchical multiple regression tests were conducted to scrutinize the moderating effects of the national culture dimensions on the dependent-independent relationship and concluded that national culture is a substantial moderator variable on this relationship. These findings were discussed in this chapter and they were consistent with previous studies.

## 5

**DISCUSSION, CONCLUSION AND RECOMMENDATION****5.1 Introduction**

This chapter first presents recapitulation of the study where objectives of this study are revisited. Then a section on discussion of the findings is covered under section 5.3. Section 5.4 includes the theoretical and practical implications of the findings followed by the limitations of the study are discussed. Finally, the chapter concludes with suggestions for future research.

**5.2 Overview of the Study**

The main goal of this study was to examine how communication satisfaction of multicultural academic staff is related to organizational commitment in universities in Yemen. Past communication research has emphasized the importance of employees' CS for creating a more optimal workplace. For employees to stay in their organizations and to perform their job well, their efficiency in communication should be developed. In this study, the researcher set forth to describe the relationship between CS and OC of multicultural teams in multinational Yemeni universities. This purpose leads to four research objectives. These objectives were: a) determine the differences in CS levels between Yemeni & non-Yemeni academic staff. b) determine the relationship between dimensions of communication satisfaction and organizational commitment dimensions of the Yemeni and non-Yemeni academic staff. c) determine the national culture dimensions which moderate the relationship between CS and OC.



The subjects for this study are 362 faculty members of four Yemeni universities. A response rate of 60.3% was obtained. Quantitative method was used for the data collection. Questionnaires were handed over to the academic staff working in Yemeni universities in order to collect the quantitative data. The questionnaire included three valid reliable instruments: Communication Satisfaction Questionnaire, Organizational Commitment Scales, and Value Survey Module 94. SPSS software was used for the analysis of the quantitative data. A number of statistical tests including mean comparisons, ANOVA, correlation, multiple regression, and hierarchical multiple regression were used to test the study hypotheses. The study yielded a number of findings about the relationship between CS and OC and about the moderating role of NC on that relationship. The key findings of this study are elicited below.

### **5.3 Discussion**

The findings of the study are presented as a consequence of answering the research questions. The study first examines the differences in CS level between Yemeni and Non-Yemeni staff. It examines also the direct relationship between CS and OC dimensions and interaction effect of cultural dimensions on the relationship between these variables. The following sections discuss the answers to each question.

#### **5.3.1 Differences in CS Level between Yemeni & Non-Yemeni Academic Staff**

##### **(H1)**

One of the central questions of this study is whether there are significant differences in the mean score of level of communication satisfaction between academic staff according to their nationality. This study analyzes the level of communication

satisfaction of the academic staff according to Downs and Hazen's (1977; 1990) dimensions. The results show that the level communication satisfaction of the academic staff in universities in Yemen ranges from low to moderate level. The overall communication satisfaction level of the respondents was analyzed according to their nationalities. The respondents satisfaction with communication practices was divided into three groups (low, moderate, and high) based on actual scores.

The descriptive statistics show that the majority of the respondents in this study are not highly satisfied with communication practices. The results show that the level of communication satisfaction of the academic staff in universities in Yemen ranges from low to moderate level. Only 32.9% of the respondents are with high satisfaction which means that the overall communication satisfaction among the academic staff in universities in Yemen is low. These results confirm similar findings of previous studies that high percentage of academic staff in universities is with low communication satisfaction level (Ahmad, 2006; Meintjes & Steyn, 2006). The findings reveal a serious problem in the communication practices in these universities which leads to various other academic and administrative problems that may affect the development of the staff and the universities growth as well. The highest level of communication satisfaction among the respondents is that of the Indians. The majority of the Indian academic staff (60.6%) are highly satisfied. This can be justified by the fact that most of the Indians participated in the study had longer tenure and also due to their seniority. Most of them are more experienced than the others since the majority of them are assistant professors, associate professors, or professors. The results show that Indians and Iraqis had the highest composite scores in four dimensions of communication satisfaction: organizational perspective, relation with supervisor, horizontal communication, and

relations with subordinates whereas the Yemeni academic staff were the least satisfied staff in the communication practices in universities in Yemen.

The results also have uncovered aspects of communication that vary considerably from nation to another. It shows variations in the satisfaction level of the respondents in accordance with their nationality. One way ANOVA results show that all the communication satisfaction dimensions differed significantly according to the nationality of the academic staff except communication climate and relations with subordinates. The findings show that when the national culture differs among the staff, their satisfaction with communication practices in their universities will be affected. Meeuwesen et al., (2009) claim that the cultural differences between countries create some impediments. This argument appears to be right in the findings of this study. When there is diversity in the individual's cultures, communication satisfaction levels of these individuals will also vary. The absence of significant differences between respondents in terms of their subordinate communication can be justified by the fact that the items which make up this dimension were answered only by supervisor and most of these supervisors are Yemenis and they belong to the same culture.

Hall (1976) emphasized on the concept of culture in the study of communication with a stress on the value of effective interaction between members of different cultures. The current study findings revealed differences in communication satisfaction between staff from different cultures which uncovered the reason behind Hall's (1976) worries. Many difficulties in intercultural communication come from the lack of understanding of how to communicate with people in other countries (Hall, 1959). Therefore, the universities' managements should adopt some cultural gathering and activities among the staff from different cultures as for their communication satisfaction to be elevated.

Post Hoc analysis using Scheffe option revealed significant differences between Yemenis and all other academic staff from the different four countries in their organizational perspective and organizational integration at the 0.05 level of significance. Scheffe tests also show significant differences between Yemenis, Malaysians and Indians in personal feedback at the 0.01 level of significance. Significant differences are also found between Yemenis, Indians and Egyptians at the 0.05 level of significance. Yemenis and Indians are significantly different in their horizontal communication at the 0.05 level of significance. These results confirm similar findings which show that some academic staff are more satisfied with the amount and quality of communication in their universities than others are (Ahmad, 2006). The findings of the current study are also consistent with Nazir's, et al. (2009), Kluckhohn and Kelly's (1945), and Hall's (1976) who indicated that culture is an important factor which affects the way we interact with each other. Kim (1993) found that people from different cultures apply different styles of interacting and favored strategies of communication. This finding by Kim (1993) is also in line with the current study findings.

### **5.3.2 Relationship between CS and OC (H2a1, H2a2, H2a3, H2b1, H2b2, H2b3, H2c1, H2c2, H2c3)**

The second research question is about the relationship between dimensions of communication satisfaction and organizational commitment dimensions of the Yemeni and non-Yemeni academic staff. Pearson Product Moment Correlation and Linear Multiple Regression were used to test these relationships. The results found that the overall CS and OC were significantly and positively related. Clearly, this finding is

congruent with previous research (Putti et al., 1990; Varona, 1996; Mustaffa, 2004; Carrie`re & Bourque, 2009). The study findings are also in line with Mathieu and Zajac's (1990) who reported a positive significant correlation between communication and organizational commitment. All the CS dimensions were significantly correlated with the OC dimensions. Affective commitment showed the highest positive correlation with the CS dimensions. Five dimensions – organizational perspective, communication climate, media quality, top management communication, and subordinate communication - of the CS dimensions had significant moderate positive correlation with affective commitment.

The results showed moderate correlation only between two CS dimensions – media quality and communication climate - and continuance commitment and also between media quality and normative commitment. The correlations between CS dimensions and both continuance commitment and normative commitment were quite small; however these relationships were highly significant. The researcher also estimated the correlation between the three grouped categories of CS dimensions: relational, informational/relational, and informational dimensions of CS in one hand and the OC dimensions in another. The results demonstrated significant moderate correlation between the three CS dimensions and OC ones. The highest significant correlation was between relational dimension of CS and affective commitment and also between informational CS dimension and affective commitment.

Pincus (1986) found that there was a stronger relationship between relational dimensions of communication satisfaction and job satisfaction than the informational dimensions-job satisfaction relationship. This is consistent with the findings of this study which show that there is a stronger relational communication satisfaction-affective

commitment relationship than the informational communication satisfaction-affective commitment relationship. This reveals that the relational communication satisfaction dimensions have stronger effects on many organizational variables than informational dimensions. Taylor (1997) also supported this notion. She found that relational dimensions are the best contributors to the communication satisfaction-membership satisfaction relationship. Van Vuuren (2009) indicated that satisfactory relationship among employees themselves and also with the managers in organizations leads to communication satisfaction and that strengthen organizational commitment. This is basically consistent with the current study findings that prove that strong relational communication satisfaction is very important for strengthening organizational commitment.

Putti et al. (1990) proved that there was a significant positive relationship between communication relationship satisfaction and organizational commitment. He further confirmed that the correlation between top management communication relationship and organizational commitment was stronger than the relationship between supervisor communication relationship and organizational commitment. These findings are consistent with the current study findings. This implies that top management communication activities including policies and promoting a shared value system are more important to enhance organizational commitment (Putti et al., 1990).

As it has been shown in table 4.15 the relationship between CS dimensions and affective commitment is much stronger than it was between CS dimensions and continuance or normative commitment. So these results show that the higher the staff's communication satisfaction is the more they are emotionally attached to their universities. It suggests that CS is more related to the involvement of the individual's in

their organization than just staying for profits or feeling of obligation to work for their organizations. In order for the universities management to strengthen the academic staff OC, they have to work for improving the way and the quality of the communication practices among the staff so they can reach high communication satisfaction. The low level of communication satisfaction causes some weaknesses in the staff's OC. These findings are consistent with previous studies (Varona, 1996; Mustaffa, 2004; Carriere & Bourque, 2009) and lend credibility to the notion that CS has a positive relationship with OC and does play an influential role in generating commitment. Tsai et al. (2009) stated that communication satisfaction has an indirect negative impact on turnover intention through organizational commitment. This means that when communication satisfaction is low, organizational commitment is going to be weak; consequently, the turnover intention becomes high. This claim should alert the universities management to work on elevating the staff's communication satisfaction level as it affects other organizational outcomes through organizational commitment.

However the informational/relational dimensions were not markedly stronger than the informational dimensions relationships with organizational commitment dimensions, the staff's satisfaction with informational/relational dimensions of communication practices is very important for enhancing their organizational commitment. Putti et al. (1990) pointed out that organizational member satisfaction with amount of information available to them may enhance their commitment. Satisfaction with information sharing may encourage a sense of belongingness and identification with the values and objectives of the organization. The current study findings are consistent with Putti et al's. (1990).

Gray & Laidlaw (2004) suggested that when employee needs are fulfilled through satisfying communication, employees are more likely to build effective work relationships which leads to organizational effectiveness. It is believed that the quality of the relationship between superiors and subordinates has an impact on communication and successively will affect commitment (Abu Bakar, et al., 2009). The mutual respect between subordinate and his/her supervisor determine a mutual emotional bond they share with the organization and the employee who has a strong attachment with their supervisor would be more committed (Hopper, 2009).

It has been also stated by Sias (2005) that the coworker who has a good relationship tend to communicate more accurately about work related content and show high levels of emotional support which leads to employee's satisfaction with their communication and in-turn it leads to commitment. According to Vuuren et al. (2007), supervisor communication is positively related to organizational commitment. All these actually go well with the current study findings. Thus, staff satisfaction with relational dimensions of CS is directed by the positive relationship between the staff themselves and between the staff and their supervisors and that make them emotionally attached to their organizations and which means that they have reached a high affective commitment. It is also worth mentioning here that the correlations between affective commitment and informational/relational and informational dimensions are also stronger than the correlations between the other two dimensions of OC i.e. continuance and normative commitment and CS dimensions.

The multiple regression analysis outcomes confirmed the above findings of this study and proved that there are significant positive relationships between CS and OC dimensions. The analyses indicated that staff's affective commitment was significantly



related to CS. Organizational perspective; personal feedback; media quality; and top management communication are the communication satisfaction dimensions that very much predict the affective commitment. Multiple regression analysis was also conducted to determine the significance of CS dimensions in predicting continuance and normative commitment. Media quality is the only dimension which significantly predicts both continuance and normative commitment. These results are consistent with the findings of Mustaffa (2004). Mustaffa (2004) showed that media quality and supervisory communication are the strongest predictors of OC. Varona's (1996) findings also confirm the results obtained in this study. Among all the communication satisfaction dimensions, media quality is the strongest predictor of organizational commitment and then organizational integration and supervisory communication come afterward.

The findings of the current study show that there is a significant positive relationship between informational/relational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities, and they also show that there is a significant positive relationship between informational dimensions of CS and the normative organizational commitment of the academic staff in the Yemeni universities. These findings suggest that the staff's satisfaction with communication practices make them feel obliged to sustain membership in their universities. These findings also support previous ones revealed by Hargie, et al. (2002) that poor communication satisfaction leads to weak employee commitment, greater absenteeism, and reduced productivity. Our findings stressed the need to monitor communication satisfaction and to evolve between communication practices so that staff's organizational commitment is maintained at high level.

### 5.3.3 Interacting Effects (H3a1 to H3c5)

As mentioned earlier, this study set out to answer a number of research questions described in chapter 1. The last question of this study asked about whether national culture dimensions moderate the relationships between CS and OC. This question was answered by conducting several hierarchical multiple regression analyses in order to investigate the interacting effects of the national culture dimensions with CS on OC dimensions. The CS was entered first into the regression followed by each of the moderators and then the interaction terms. In the current study, several moderating effects were found.

While previous studies by Varona (1996) Mustaffa (2004) and Carrie`re & Bourque (2009) found that CS has a relationship with OC, the results of the present study go beyond this important finding by providing several moderated relationships between CS dimensions and OC ones. The findings indicated in Table 4.20 show that cultural dimensions moderate the relationship between CS and affective commitment. According to the study findings, it was obvious that power distance, uncertainty avoidance, individualism, masculinity, and long- vs. short-term orientation dimensions significantly moderate the relationship between CS and affective commitment. As indicated in Table 4.20, all the five interaction terms were significant. The graphical depiction of the interactions revealed that the relationships between communication satisfaction and the three dimensions of organizational commitment i.e. affective commitment, continuance commitment, normative commitment, is significant and stronger for individuals with high power distance, low masculinity, low individualism

(collectivistic culture), high uncertainty avoidance, and high long-term oriented cultural values.

As explained above, power distance cultural dimension moderates the relationship between CS and organizational commitment dimensions. This finding is consistent with the notion that power distance is theoretically related to attachment to groups and group hierarchies (Fischer & Mansell, 2009). Fischer & Mansell (2009) indicated that power distance specifies appropriate relationships between individuals across different hierarchical ranks and that creates the reason why people might feel attached to an organization. This is also consistent with the current study's findings which show that the interaction between CS and power distance influence affective commitment, continuance commitment, and normative commitment. The result of the study support previous suggestions by Al-Nashmi & Zin (2011) where power distance affects communication satisfaction and that affects commitment.

The findings of the current study indicated that the interaction between CS and uncertainty avoidance significantly influences both affective and continuance commitment. High uncertainty avoidance strengthens the relationship between CS and affective commitment. High uncertainty avoidance also increases the relationship between CS and continuance commitment. These findings go well with Chew and Putti's (1995) ones which showed that individuals of high uncertainty avoidance seek greater career stability as a result they have longer job tenure and fewer intentions of leaving their organizations and that is positively related to organizational commitment (Mathieu & Zajac, 1990).

The results of this study showed that individualism significantly moderates the communication satisfaction-affective commitment relationship. It has moderating effects

on the relationship between CS and continuance commitment and also between CS and normative commitment. The graph in Figures 4.3, 4.8, and 4.12 indicated that the relationship between CS and organizational commitment dimensions is stronger for individuals from collectivistic culture. This finding confirms previous one by Michailova and Hutchings (2006), Williams et al. (1998), and Palich et al. (1995) who indicated that people from collectivist societies place greater importance on interaction and group-oriented relationships which appears to be translated into workgroup attachment at work.

This study has demonstrated that the level of masculinity in an organization influence the relationship between relationship communication and work relationship. This is similar to Randall's (1993) and O'Reilly & Chatman's (1986) findings which suggested that masculine values promote organizational commitment better than feminine cultural values do. In high masculinity culture, the linkage between communication satisfaction and affective commitment appear to be stronger than in cultures where masculinity is low. High masculinity culture also was found to strengthen the relationship between CS and normative commitment.

Hofstede (2001) indicated that long term oriented cultures tend to value savings and investments, while short-term oriented cultures may be more entrepreneurial and focus on immediate gains. In the work related aspects, individuals in long-term oriented cultures tend to concern more about long-term benefits, both financially and psychologically and valued long-term commitment towards organizations and career (Hofstede & Bond, 1988). They tend to make an investment in lifelong personal networks. In the contrast, individuals from short-term oriented cultures tend to pursue instant benefits and satisfaction (Hofstede & Bond, 1988). These suggestions are in line with the current study findings which showed that long-term oriented culture strengthens

the relationship between communication satisfaction and organizational commitment dimensions. The interaction between communication satisfaction and long-term orientation significantly affects all three dimensions of organizational commitment i.e. affective, continuance, and normative commitment.

According to the study findings, it was obvious that power distance, individualism, and long- vs. short-term orientation dimensions significantly moderate the relationship between CS and all the three OC dimensions. Uncertainty avoidance moderate significantly the relationship between CS and affective commitment and also it moderates the CS-continuance commitment relationship but it does not show any moderating effects on the CS-normative commitment relationship. Masculinity dimension demonstrates a significant moderating effect on the relationship between CS and affective commitment and also on the relationship between CS and normative commitment but the relationship between CS and continuance commitment was not affected by this national culture dimension. Markedly, the researcher can say that NC dimensions moderate the relationship between CS and OC.

In this study the researcher has attempted to increase understanding of the importance of national culture in employees' relationships in the higher education sector. The current study is perhaps the first of its own kind in organizational communication that measures cultural values and empirically verifies the moderating role of national culture in communication satisfaction-organizational commitment relationship. Previous studies by Cannon et al. (2010), Kollmann et al. (2009), Dash et al. (2009), Dash et al. (2006), and Marino et al. (2002) found that national culture can effectively work as a considerable moderator variable with a significant moderating role

in the association of many organizational variables. However, there are very few studies in the existing literature that examines the moderating role of national culture on the relationship between communication satisfaction and organizational commitment. The results of this study has supported these studies asserting that national culture can be a significant moderator variable.

## **5.4 Implications**

A number of theoretical and practical implications have emerged from the present study. These implications will be discussed below based on the outcome of the study.

### **5.4.1 Theoretical Implications**

Findings of this study have extended beyond findings from other previous studies and thus, have contributed new information to the body of knowledge in intercultural communication research and multicultural team development.

First, the study contributes to the growing literature on the relationship between CS and OC by revealing the moderating role of the national culture which affects that relationship. In previous studies by Varona (1996), Mustaffa (2004) and Carrie`re & Bourque (2009), it has been exposed that CS has a relationship with OC, yet, the present study go beyond this important finding by providing several moderated relationships between CS dimensions and OC ones. According to the study findings, it was obvious that power distance, individualism, and long- vs. short-term orientation dimensions significantly moderate the relationship between CS and all the three OC dimensions. Hence, the present study adds to the organizational communication body of knowledge

by presenting the effects of national culture dimensions on the relationship between CS and OC.

The second contribution is that this study revealed that national culture has an effect on communication satisfaction. Many previous studies, which the researcher has mentioned in the literature review, have studied communication satisfaction in relation to many organizational variables; however, no attempt has been made to examine the impact of national culture on communication satisfaction and the communication satisfaction in multicultural organizations. This study has covered this gap by investigating that effect. The study has also uncovered aspects of communication that vary considerably from nation to another.

The third contribution is that it provides additional empirical evidence that the concept of communication satisfaction is multidimensional in nature. The researcher used the nine dimensions of CS i.e. subordinate communication, horizontal communication, top management communication, organizational perspective, organizational integration, media quality, personal feedback, supervisory communication, communication climate which have been grouped by Pincus (1986) in to three dimensions. Each of these dimensions affects organizational commitment differently.

Fourth, this study demonstrated that the relationship between CS and OC and the theoretical justification behind it appear to hold even when applied in non-Western situation. Since many of the previous studies on relationship between CS and OC were conducted in western society (Varona, 1996; Carrie`re & Bourque, 2009), the findings of this study confirm that in a non-western context the employees' CS influences their OC.

The present study helps to bridge the gap in CS-OC relationship literature in the non-western context.

Fifth, CS has been investigated and audited for decades throughout the non-educational organizations, yet it is a recent concept in the education industry, especially universities. Recently, only two studies have investigated the concept of CS in the context of education (Ahmad, 2006; Meintjes & Steyn, 2006). However, these studies perform a CS audit in a single cultural context where the respondents come from one nation. On the other hand, this study has carried out a CS audit in a multicultural educational context.

The Sixth contribution of this study is its replication of Hofstede's (1994) Value Survey Module (VSM) in Yemen. The results show some interesting findings beyond the scope of this study. This study added some new findings to Hofstede's (1994) cultural index. As it has been mentioned previously, Hofstede dealt with the Arab countries as a region and did not measure the cultural differences for the countries separately. Leat and El-Kot (2007) stated that Hofstede generalized his results in some cases, such as all Arab countries, depending on his samples that represented only few countries. Hofstede (1980) presented findings relating to Arab societies in general. Using Hofstede's Value Survey Module (1994), new findings for the five national culture dimensions have been added to literature. The study has divided the Arab region into different territories according to the cultural proximity (Yemen, Iraq, and all the Arab Gulf countries as one territory; Syria, Lebanon, Jordan, and Palestine as another one; Egypt as a separate territory; Arab West as a territory; and Sudan, Djibouti, and Somalia as a separate territory).



The seventh contribution of this study is that the three-component model of OC has been taken as a popular concept in western society but the applicability in non-western context has not been tried. So this study contributes to the knowledge by providing result of the use of this model in nonwestern context. The results of the study provide evidence that the OC is indeed a multidimensional construct and is generalizable to non-western organizational context.

#### **5.4.2 Policy Implications**

The study findings are significant for many reasons. It has several implications for universities to improve their multicultural faculty's level of communication satisfaction which led to improvement in their organizational commitment. The recognition that culture has a significant moderating role on the communication satisfaction-organizational commitment relationship has important practical implications for universities' managements as well as for Higher Education officials. These implications can be summarized as follows:

The findings of this study provide a valuable knowledge to universities and organizations which have multinational staff working in them and guide these universities to understand the significance and the importance of communication satisfaction for their staff to perform well and help the management of these universities to develop strategies for elevating their staff's communication satisfaction level in order to provide a healthy academic environment and to reach a high-quality outcome.

This study raises the universities' management awareness about the communication problems created by the diversity in the staff's national culture and provide a clear explanation about the effects of national culture dimensions on

communication satisfaction factor which can help them reduce these differences in culture and develop the staff's relationships and their communication skills. Universities management should also plan several programs that improve the academic staff commitment.

The study demonstrated that academic staff need to build good relationships among themselves in order to exchange experience and discuss academic issues and developments; they also have to participate in research. All these activities require effective communication to be achieved. When intercultural communication is effective, there are increased possibilities of engaging in richer and more rewarding relationships resulting in more beneficial outcomes (Fisher-Yoshida, 2005). Therefore, the management of universities should arrange cultural day's activities and informal gathering in which staff can show their cultural norms. The academic staff should also be encouraged to share their expertise with their peers.

In order for the universities management to achieve cultural proximity among the staff, they should arrange an orientation week for the academic staff at the beginning of every semester in which the staff can be exposed to each others' culture and in which they can learn about the cultures of their partners. They can also learn in such activity about the university goals and policies. Gizir and Simsek (2005) listed many factors that can enhance communication process in an academic context such as co-teaching, co-advising, seminars, symposiums, collaborative studies, and social activities.

The study findings proposed that universities management should also arrange academic staff exchange programs with overseas universities as for their local staff to be exposed to different cultures and also gain experience in this respect. They should also

arrange symposiums, seminars and social activities as these activities create chances for the academic staff to be brought together and enhance their communication practices. These implications would help the multicultural faculty in universities to improve their satisfaction with communication practices and that is , according to Ahmad (2006), essential to build knowledgeable, supportive and productive work force.

### **5.5 Limitations and Future Research Directions**

As in any research, several limitations in this study are notable. Firstly, this research focuses on respondents from five different countries working in Yemeni universities but none of these respondents is from western countries. All the academic staff participated in this study are from the Middle East and Asia. The researcher could not include western subjects in the study as the number of the western staff working in Yemen, unlike in the Arab Gulf countries, is very small. Future research could be conducted in one of the Arab Gulf countries such as: Saudi Arabia or Emirates in which the number of the western academic staff is very big so as to include the western countries national culture in this kind of research. Hence the national culture differences between western and eastern countries may emerge so clearly. The study also could be expanded and replicated to other forms of organization and industries that will help in the validation process. The number of nationalities included in this study is also small comparing to those included in Hofstede's study. As with Hofstede's (1984; 2001) cultural values data were collected from participants from 50 different countries whereas the sample of the current study includes academic staff from only five different countries.

Secondly, the combination of the three questionnaires formed very long questionnaire. This long questionnaire was used in the study in order to measure the variables also generated another limitation. It takes long time, around 4 months, for the researcher to collect them back. Furthermore, it made the researcher exclude several sets of the questionnaires returned as they were incomplete. Some of the staff could not finish it. Further research might reduce the questionnaire items and use some qualitative instruments such as focus group discussions, open ended questions and the interview. Researchers may also need to conduct longitudinal studies in this area which can track changes over time (Cooper & Schindler, 2001).

Third, other potentially important variables, especially job satisfaction and organizational performance, which could be affected by the level of the communication satisfaction and the quality of the communication practices among the academic staff were not controlled in this model. Further research could examine the effects of communication satisfaction on these variables and also scrutinize whether these organizational variables can be predicted by the level of CS in multicultural communities. Research of this nature could further our understanding on the relationship between CS and a broader range of organizational variables.

## **5.6 Conclusion**

As stated in the first chapter, three objectives have been established for this study and three research questions were set to be answered. As discussed in chapter four, these objectives have been achieved and the four research questions have been answered. In sum, this study found that there were some differences between the Yemeni academic staff and the non-Yemeni academic staff with regard to CS. The findings showed also

that all of the CS dimensions and the OC dimensions were significantly and positively related. Finally, this study found that all the five national culture dimensions moderated the relationship between CS and OC and they interacted with all the CS dimensions in predicting OC. This study presented reasonable theoretical underpinning for relating CS, OC, and national culture and thus provides a clearer theoretical framework for future research addressing such linkage.

In today's workplace, the issues of communication satisfaction, organizational commitment and national culture are definitely of great importance in organizations' development as described in this study. It has been proved in this study that the individuals' national culture has a significant effect on the relationship between communication satisfaction and organizational commitment. It is essential for multicultural team members to have an understanding of their partners' cultural differences in order to achieve high level of communication satisfaction which helps them elevating their organizational commitment.

As it has been explained earlier, this study results in better understanding the relationship between communication satisfaction dimensions and organizational commitment dimensions moderated by national culture dimensions. Hence, it helps in determining some implications for improving the academic staff relationship as well as productivity. It provides a valuable insight into the stability of universities and the development and performance of the staff. It may assist the multicultural academic staff to be able to help, improve working relationships, and understanding of intercultural communication which help them to reach a communication satisfaction, and result in elevating their performance and productivity.

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## **Appendix A – the Study Questionnaire**

### **QUESTIONNAIRE**

#### **Communication satisfaction and organizational commitment among the multicultural faculty in universities in Yemen**

Dear respondent,

I am a doctoral student in the communication program at University Utara Malaysia. I am in process of conducting a research study on the effects of communication satisfaction on organizational commitment in the multicultural faculty in universities in Yemen. As a graduate student and potential researcher in this field, I am requesting you to participate in this research study examining this most relevant topic. Your input is critical in assisting me with this study. The questionnaire will be used for research which is a requirement of my PhD course. It may not take more than 25 minutes to fill in the questionnaire as all of questions just require you to tick appropriate answer. These questions pertain to your experiences in your current job and university. Your answer will be kept strictly confidential and will only be used for research purposes. Your name will not be mentioned any where on the document so kindly give an impartial opinion to make research successful.

Your cooperation is highly appreciated.

Thanks once again for your time and cooperation.

Murad Mohammed Abdullah Al-Neshmi  
E-mail: [m.alnashmy@ust.edu.ye](mailto:m.alnashmy@ust.edu.ye)  
Tel. No. 00967 736824946

**Demographic Data:**

1. My gender is: (a) ----Male (b) ---- Female
2. My nationality: (a) ----Yemeni (b) ---- Malaysian (c) ---- Indian (d) ---- Iraqi  
(e) ---- Egyptian (g) ---- Other (specify)
3. My academic title: (a) ---- Tutor (b) ---- Teacher (c) ---- Assistant Professor  
(d) ---- Associate Professor (e) ---- Professor
3. My position: (a) ---- coordinator (b) ---- Head of Dept. (c) ---- Deputy Dean  
(d) ---- Dean

***A. Listed below are several kinds of information often associated with a person's job. Please indicate how satisfied you are with the amount and/or quality of each kind of information by circling the appropriate number at the right.***

1 = Very dissatisfied    2 = Dissatisfied    3 = Somewhat dissatisfied    4 = Indifferent  
5 = Somewhat satisfied    6 = Satisfied    7 = Very satisfied

No.	Item	Very dissatisfied	Dissatisfied	Somewhat dissatisfied	Indifferent	Somewhat satisfied	Satisfied	Very satisfied
1	Information about my progress in my job.	1	2	3	4	5	6	7
2	Personnel news.	1	2	3	4	5	6	7
3	Information about university goals.	1	2	3	4	5	6	7
4	Information about how my job compares with others.	1	2	3	4	5	6	7
5	Information about how I am being judged.	1	2	3	4	5	6	7
6	Recognition of my efforts.	1	2	3	4	5	6	7
7	Information about departmental goals.	1	2	3	4	5	6	7
8	Information about the requirements of my job.	1	2	3	4	5	6	7
9	Information about government regulations affecting the university.	1	2	3	4	5	6	7

10	Information about changes in the university.	1	2	3	4	5	6	7
11	Reports on how problems in my job are being handled.	1	2	3	4	5	6	7
12	Information about employee benefits.	1	2	3	4	5	6	7
13	Information about profits.	1	2	3	4	5	6	7
14	Info. about achievements of the university.	1	2	3	4	5	6	7
<b><i>B. Please indicate how satisfied you are with the following by circling the appropriate number at the right.</i></b>								
15	Extent to which my supervisors understand the problems faced by staff.	1	2	3	4	5	6	7
16	Extent to which the university's communication motivates me to meet its goals.	1	2	3	4	5	6	7
17	Extent to which my supervisor pays attention to me.	1	2	3	4	5	6	7
18	Extent to which university employees have great ability as communicators.	1	2	3	4	5	6	7
19	Extent to which my supervisor offers guidance for solving job-related problems.	1	2	3	4	5	6	7
20	Extent to which communication in the university makes me identify with it or feel a vital part of it.	1	2	3	4	5	6	7
21	Extent to which the university communications are interesting and helpful.	1	2	3	4	5	6	7
22	Extent to which my supervisor trusts me.	1	2	3	4	5	6	7
23	Extent to which I receive in time the information needed to do my job.	1	2	3	4	5	6	7
24	Extent to which conflicts are handled appropriately through proper communication channels.	1	2	3	4	5	6	7
25	Extent to which the grapevine is active in the university.	1	2	3	4	5	6	7

26	Extent to which my supervisor is open to ideas.	1	2	3	4	5	6	7
27	Extent to which communication with other employees at my level is accurate and free flowing.	1	2	3	4	5	6	7
28	Extent to which communication practices are adaptable to emergencies.	1	2	3	4	5	6	7
29	Extent to which my work group is compatible.	1	2	3	4	5	6	7
30	Extent to which our meetings are well organized.	1	2	3	4	5	6	7
31	8. Extent to which the amount of supervision given me is about right.	1	2	3	4	5	6	7
32	Extent to which written directives and reports are clear and concise.	1	2	3	4	5	6	7
33	Extent to which the attitudes toward communication at the university is basically healthy.	1	2	3	4	5	6	7
34	Extent to which informal communication is active and accurate.		2	3	4	5	6	7
35	Extent to which the amount of communication at the university is about right.	1	2	3	4	5	6	7
36	Extent to which top management communicates openly and honestly with organization members	1	2	3	4	5	6	7
37	Extent to which top management cares about organization members	1	2	3	4	5	6	7
38	Extent to which top management listens to members and welcomes their ideas	1	2	3	4	5	6	7
39	Extent to which top management communicates in a timely way to keep members informed	1	2	3	4	5	6	7
40	Extent to which top management is believable in its communication with members	1	2	3	4	5	6	7
<b><i>C. For the next five questions, indicate your satisfaction with the following only if you are responsible for staff as a Dean / Deputy Dean / Head of dept. or supervisor.</i></b>								
41	Extent to which my staff are responsive to downward-directive communication.	1	2	3	4	5	6	7

42	Extent to which my staff anticipate my needs for information.	1	2	3	4	5	6	7
43	Extent to which I can avoid having communication overload.	1	2	3	4	5	6	7
44	Extent to which my staff are receptive to evaluations, suggestions and criticisms.	1	2	3	4	5	6	7
45	Extent to which my staff feel responsible for initiating accurate upward communication.	1	2	3	4	5	6	7

***D. Please describe your personal views of the following statements as objectively as you can, by choosing a number from the rating scale that best reflects your views.***

***The Rating Scale:*** 1-- Strongly Disagree 2— Disagree 3-- Slightly Disagree  
4-- Neither Agree or Disagree 5-- Slightly Agree 6— Agree 7-- Strongly Agree

No.	Item	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly agree	Agree	Strongly agree
46	I would be very happy to spend the rest of my career with this university.	1	2	3	4	5	6	7
47	I enjoy discussing my university with people outside of it.	1	2	3	4	5	6	7
48	I really feel as if this university's problems are my own.	1	2	3	4	5	6	7
49	I think I could easily become as attached to another university as I am to this one.	1	2	3	4	5	6	7
50	I do not feel like a "part of the family" at my university.	1	2	3	4	5	6	7
51	I do not feel "emotionally attached" to this university.	1	2	3	4	5	6	7
52	This university has a great deal of personal meaning for me.	1	2	3	4	5	6	7
53	I do not feel a strong sense of belonging to my university.	1	2	3	4	5	6	7
54	I am not afraid of what might happen if I quit my job without having another one line up.	1	2	3	4	5	6	7

55	It would be very hard for me to leave my university right now, even if I wanted to.	1	2	3	4	5	6	7
56	Too much in my life would be disrupted if I decided I wanted to leave my university now.	1	2	3	4	5	6	7
57	It wouldn't be too costly for me to leave my university now.	1	2	3	4	5	6	7
58	Right now, staying with my university is a matter of necessity as much as desire.	1	2	3	4	5	6	7
59	I feel I have too few options to consider leaving this university.	1	2	3	4	5	6	7
60	One of the few serious consequences of leaving this university would be the scarcity of available alternatives.	1	2	3	4	5	6	7
61	One of the major reasons I continue to work for this university is that leaving would require considerable personal sacrifice--another university may not match the overall benefits have here.	1	2	3	4	5	6	7
62	I think that people these days move from university to university too often.	1	2	3	4	5	6	7
63	I do not believe that a person must always be loyal to his or her university.	1	2	3	4	5	6	7
64	Jumping from university to university / organization does not seem at all unethical to me.	1	2	3	4	5	6	7
65	One of the major reasons I continue to work for this university is that believe that loyalty is important and therefore feel a sense of moral obligation to remain.	1	2	3	4	5	6	
66	If I got another offer for a better job elsewhere I would not feel it was right to leave my university.	1	2	3	4	5	6	7
67	I was taught to believe in the value of remaining loyal to one university	1	2	3	4	5	6	7
68	Things were better in the days when people stayed with one university for most of their careers.	1	2	3	4	5	6	7

69	I do not think that wanting to be a "university man" or "university woman" is sensible anymore.	1	2	3	4	5	6	7
----	---	---	---	---	---	---	---	---

**E. Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to ... (please circle one answer in each line across):**

1 = of utmost importance      2 = very important      3 = of moderate importance  
4 = of little importance      5 = of very little or no importance

No	Item (please circle one answer in each line across)	Scale
70	have sufficient time for your personal or family life	1   2   3   4   5
71	have good physical working conditions (good ventilation and lighting, adequate work space, etc.)	1   2   3   4   5
72	have a good working relation- ship with your direct superior	1   2   3   4   5
73	have security of employment	1   2   3   4   5
74	work with people who cooperate well with one another	1   2   3   4   5
75	be consulted by your direct superior in his/her decisions	1   2   3   4   5
76	have an opportunity for advancement to higher level jobs	1   2   3   4   5
77	have an element of variety and adventure in the job	1   2   3   4   5

**F. In your private life, how important is each of the following to you? (please circle one answer in each line across):**

78	Personal steadiness and stability	1   2   3   4   5
79	Thrift	1   2   3   4   5
80	Persistence (perseverance)	1   2   3   4   5
81	Respect for tradition	1   2   3   4   5
No	Item	Scale
82	How often do you feel nervous or tense at work?	1.never 2.seldom 3.sometimes 4.usually 5.always

83	How frequently, in your experience, are subordinates afraid to express disagreement with their superiors?	1. very seldom 2. seldom 3. sometimes 4. frequently 5. very frequently
<p><b><i>G. To what extent do you agree or disagree with each of the following statements? (please circle one answer in each line across):</i></b></p> <p>1 = strongly agree   2 = agree   3 = undecided   4 = disagree   5 = strongly disagree</p>		
<b>No</b>	<b>Item</b>	<b>Scale</b>
84	Most people can be trusted	1   2   3   4   5
85	One can be a good manager without having precise answers to most questions that subordinates may raise about their work	1   2   3   4   5
86	An organization structure in which certain subordinates have two bosses should be avoided at all costs	1   2   3   4   5
87	Competition between employees usually does more harm than good	1   2   3   4   5
88	A company's or organization's rules should not be broken -not even when the employee thinks it is in the company's best interest	1   2   3   4   5
89	When people have failed in life it is often their own fault	1   2   3   4   5



## Appendix B1 –

### One-sample Kolmogorov-Smirnov Test of Normality

One-Sample Kolmogorov-Smirnov Test												
		AFFECTOMT	CONTCOMT	NORMCOMT	PDI	IDV	MAS	UAI	LTO	RELATION	INFORELA	INFORMAT
N		362	362	362	362	362	362	362	362	88	362	362
Normal Parameters <sup>ab</sup>	Mean	33.9432	34.1250	33.9318	10.3182	9.3977	10.7159	11.8864	10.0682	61.8636	57.5227	57.4545
	Std. Deviation	5.51562	6.75994	5.46209	2.57996	3.14602	3.05109	1.89028	3.40991	14.06813	15.22474	13.40433
Most Extreme Differences	Absolute	.078	.123	.116	.111	.137	.095	.104	.128	.120	.119	.109
	Positive	.061	.107	.116	.111	.133	.079	.101	.102	.078	.056	.055
	Negative	-.078	-.123	-.103	-.099	-.137	-.095	-.104	-.128	-.120	-.119	-.109
Kolmogorov-Smirnov Z		.734	.855	.985	.741	.884	.890	.971	.904	1.123	.819	.926
Asymp. Sig. (2-tailed)		.655	.139	.190	.228	.074	.406	.302	.110	.160	.163	.243

a. Test distribution is Normal.

b. Calculated from data.

### Skewness and Kurtosis

Descriptives				Statistic	Std. Error
AFFECTOMT	Mean			33.5193	.26735
	95% Confidence Interval for Mean	Lower Bound		32.9936	
		Upper Bound		34.0451	
	5% Trimmed Mean			33.5952	
	Median			34.0000	
	Variance			25.874	
	Std. Deviation			5.08661	
	Minimum			19.00	
	Maximum			46.00	
	Range			27.00	
	Interquartile Range			6.0000	
	Skewness			-.200	.128
	Kurtosis			.367	.256
CONTCOMT	Mean			33.4254	.34789
	95% Confidence Interval for Mean	Lower Bound		32.7413	
		Upper Bound		34.1096	
	5% Trimmed Mean			33.4656	
	Median			34.0000	
	Variance			43.813	
	Std. Deviation			6.61914	
	Minimum			18.00	
	Maximum			47.00	
	Range			29.00	
	Interquartile Range			9.0000	
	Skewness			.017	.128
	Kurtosis			-.420	.256
NORMCOMT	Mean			32.7155	.29543
	95% Confidence Interval for Mean	Lower Bound		32.1345	
		Upper Bound		33.2964	
	5% Trimmed Mean			32.6596	
	Median			33.0000	
	Variance			31.595	
	Std. Deviation			5.62092	
	Minimum			21.00	
	Maximum			47.00	
	Range			26.00	
	Interquartile Range			7.0000	
	Skewness			.077	.128
	Kurtosis			.077	.256

## Descriptives

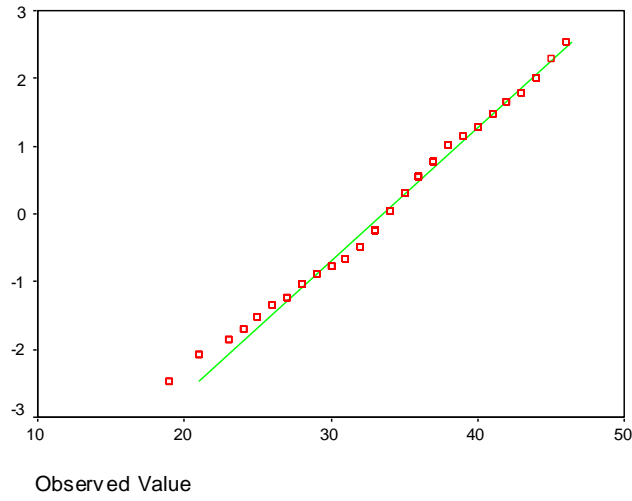
			Statistic	Std. Error
PDI	Mean		10.0967	.11208
	95% Confidence Interval for Mean	Lower Bound	9.8763	
		Upper Bound	10.3171	
	5% Trimmed Mean		10.1228	
	Median		10.0000	
	Variance		4.547	
	Std. Deviation		2.13247	
	Minimum		4.00	
	Maximum		16.00	
	Range		12.00	
	Interquartile Range		2.0000	
	Skewness		-.235	
	Kurtosis		.494	
IDV	Mean		9.6381	.14191
	95% Confidence Interval for Mean	Lower Bound	9.3591	
		Upper Bound	9.9172	
	5% Trimmed Mean		9.5706	
	Median		10.0000	
	Variance		7.290	
	Std. Deviation		2.69995	
	Minimum		4.00	
	Maximum		18.00	
	Range		14.00	
	Interquartile Range		3.0000	
	Skewness		.242	
	Kurtosis		.247	
MAS	Mean		10.3591	.13813
	95% Confidence Interval for Mean	Lower Bound	10.0875	
		Upper Bound	10.6308	
	5% Trimmed Mean		10.3158	
	Median		10.0000	
	Variance		6.907	
	Std. Deviation		2.62806	
	Minimum		4.00	
	Maximum		18.00	
	Range		14.00	
	Interquartile Range		3.0000	
	Skewness		.229	
	Kurtosis		.201	
UAI	Mean		12.3011	.11017
	95% Confidence Interval for Mean	Lower Bound	12.0844	
		Upper Bound	12.5178	
	5% Trimmed Mean		12.2913	
	Median		12.0000	
	Variance		4.394	
	Std. Deviation		2.09615	
	Minimum		8.00	
	Maximum		18.00	
	Range		10.00	
	Interquartile Range		3.0000	
	Skewness		.087	
	Kurtosis		-.392	
LTO	Mean		9.2293	.16020
	95% Confidence Interval for Mean	Lower Bound	8.9142	
		Upper Bound	9.5443	
	5% Trimmed Mean		9.1866	
	Median		9.0000	
	Variance		9.291	
	Std. Deviation		3.04808	
	Minimum		4.00	
	Maximum		16.00	
	Range		12.00	
	Interquartile Range		5.0000	
	Skewness		.192	
	Kurtosis		-.484	

## Descriptives

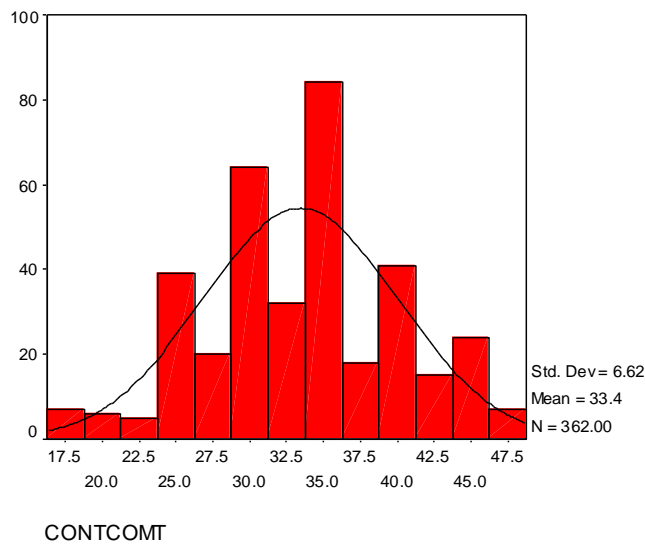
			Statistic	Std. Error
RELATION	Mean		58.0682	.68911
	95% Confidence Interval for Mean	Lower Bound	54.9096	
		Upper Bound	61.2267	
	5% Trimmed Mean		58.5404	
	Median		61.5000	
	Variance		222.225	
	Std. Deviation		14.90722	
	Minimum		22.00	
	Maximum		88.00	
	Range		66.00	
	Interquartile Range		17.0000	
	Skew ness		-.250	.129
	Kurtosis		.149	.256
INFORELA	Mean		55.6906	.72060
	95% Confidence Interval for Mean	Lower Bound	54.2735	
		Upper Bound	57.1077	
	5% Trimmed Mean		55.9527	
	Median		56.0000	
	Variance		187.976	
	Std. Deviation		13.71044	
	Minimum		21.00	
	Maximum		91.00	
	Range		70.00	
	Interquartile Range		17.0000	
	Skew ness		-.222	.128
	Kurtosis		-.103	.256
INFORMAT	Mean		54.7983	.74042
	95% Confidence Interval for Mean	Lower Bound	53.3423	
		Upper Bound	56.2544	
	5% Trimmed Mean		54.9365	
	Median		56.0000	
	Variance		198.455	
	Std. Deviation		14.08741	
	Minimum		21.00	
	Maximum		88.00	
	Range		67.00	
	Interquartile Range		18.0000	
	Skew ness		-.203	.128
	Kurtosis		-.325	.256



Normal Q-Q Plot of AFFECTOMT

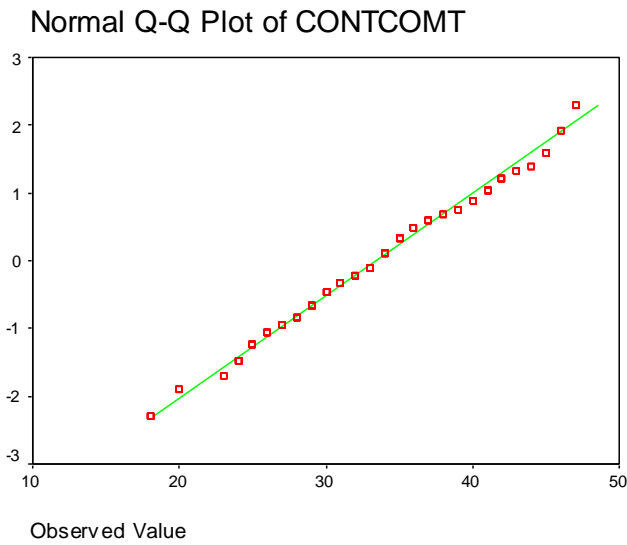


Continuance Commitment

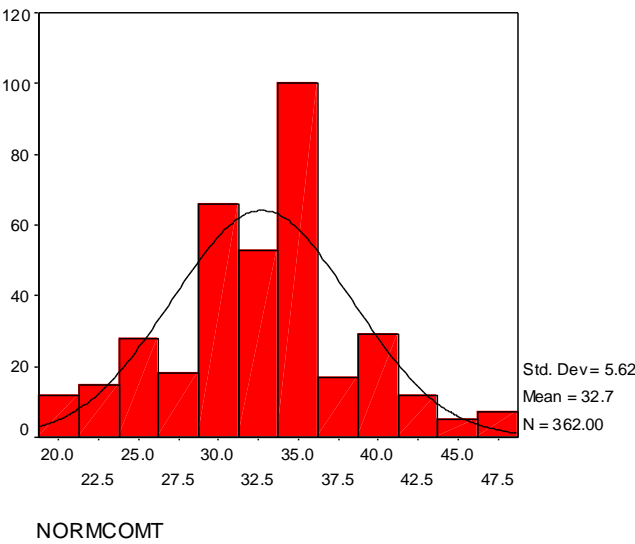


CONTCOMT Stem-and-Leaf Plot

Frequency	Stem &	Leaf
.00	1 .	
7.00	1 .	888
6.00	2 .	000
5.00	2 .	33
29.00	2 .	4444444455555555
19.00	2 .	666667777
40.00	2 .	8888899999999999999
35.00	3 .	00000000001111111
32.00	3 .	222222223333333
67.00	3 .	4444444444444444444455555555555
29.00	3 .	66666666777777
16.00	3 .	88899999
31.00	4 .	000000001111111
15.00	4 .	2222233
19.00	4 .	445555555
12.00	4 .	66777
Stem width:	10.00	
Each leaf:	2 case(s)	



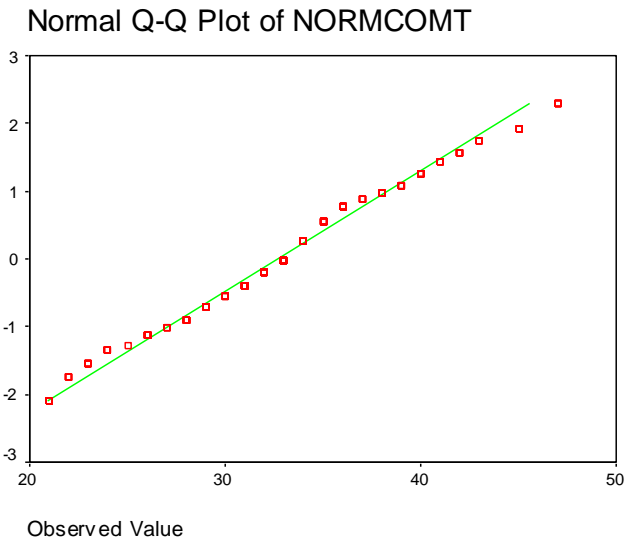
Normative Commitment



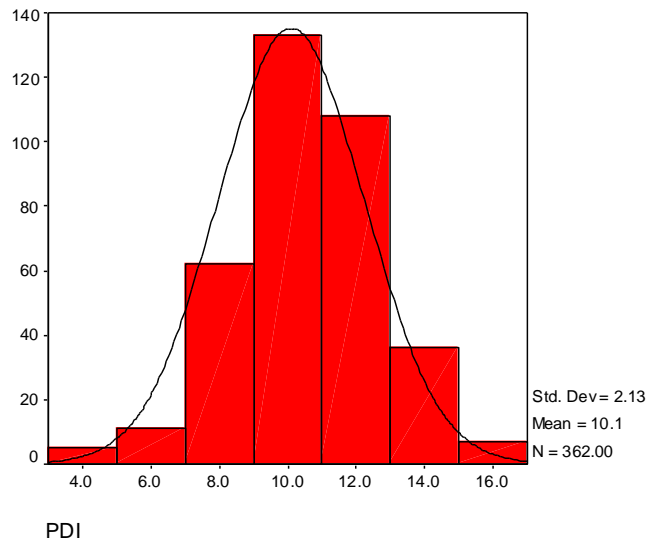
NORMCOMT Stem-and-Leaf Plot

Frequency	Stem &	Leaf
12.00	2 .	111111
15.00	2 .	2233333
10.00	2 .	4444&
21.00	2 .	6666666667
40.00	2 .	88888889999999999999
41.00	3 .	00000011111111111111
53.00	3 .	22222222222233333333333333
79.00	3 .	4444444444444444444444444444555555555555555
26.00	3 .	6666666666677
19.00	3 .	888888999
22.00	4 .	0000000011
12.00	4 .	22233
5.00	4 .	55
7.00	Extremes	(>=47)
Stem width: 10.00		
Each leaf: 2 case(s)		

& denotes fractional leaves.



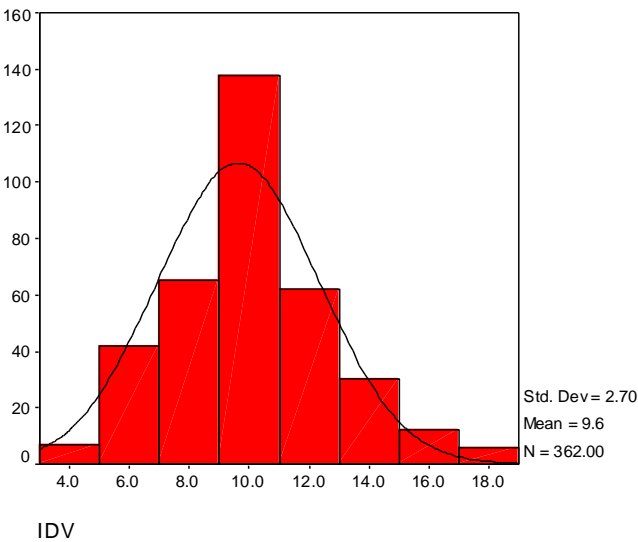
PDI



PDI Stem-and-Leaf Plot



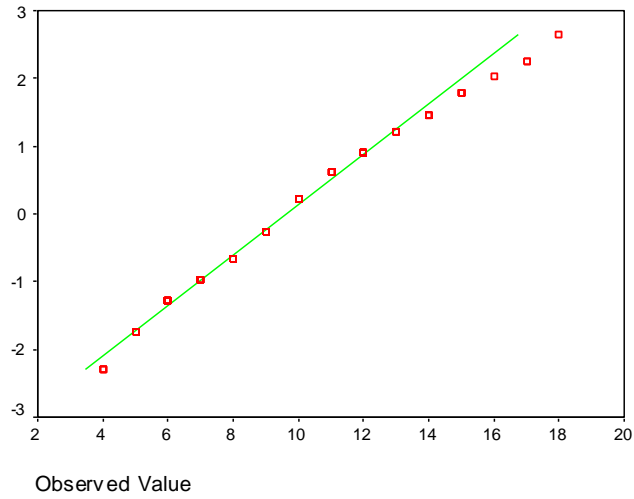




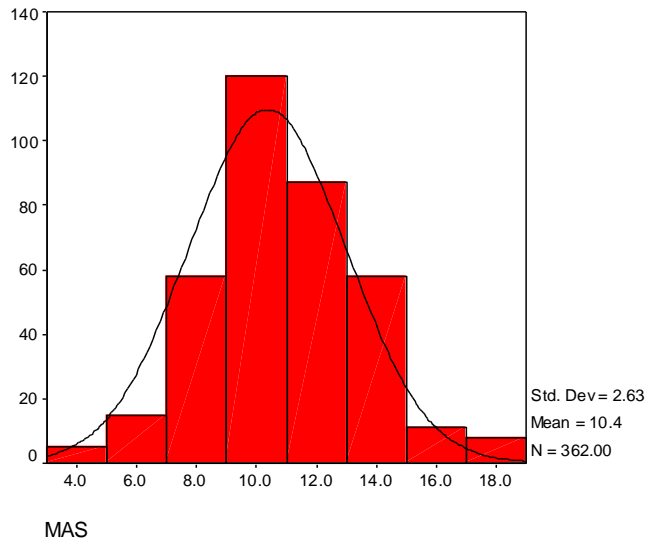
IDV Stem-and-Leaf Plot

Frequency	Stem &	Leaf
7.00	4 .	000
15.00	5 .	0000000
27.00	6 .	00000000000000
23.00	7 .	000000000000
42.00	8 .	00000000000000000000
60.00	9 .	00000000000000000000000000000000
78.00	10 .	00000000000000000000000000000000000000
28.00	11 .	0000000000000000
34.00	12 .	000000000000000000
15.00	13 .	0000000
15.00	14 .	0000000
10.00	15 .	00000
8.00	Extremes	(>=16.0)
Stem width: 1.00		
Each leaf: 2 case(s)		

Normal Q-Q Plot of IDV



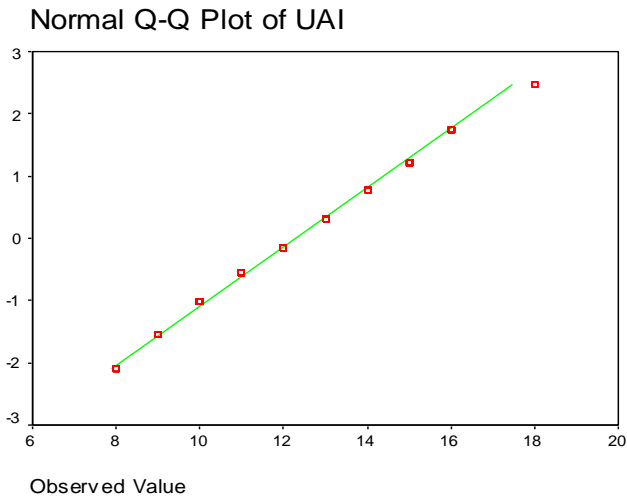
MAS



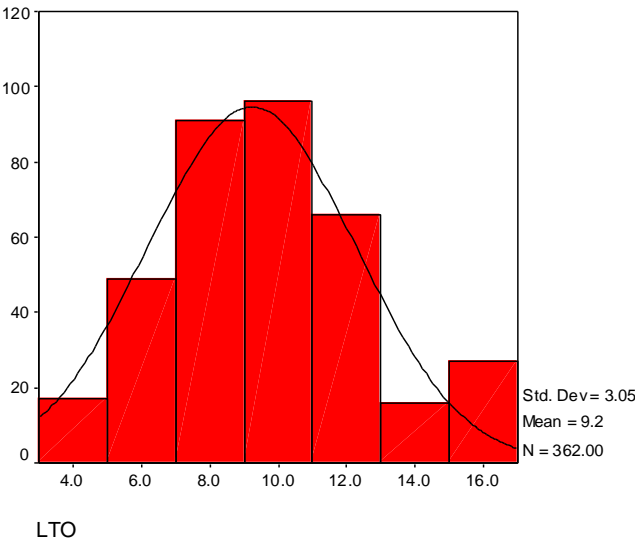
MAS Stem-and-Leaf Plot







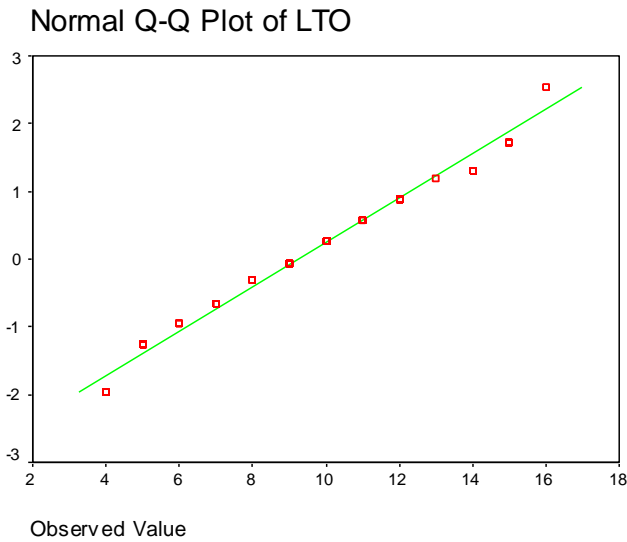
LTO



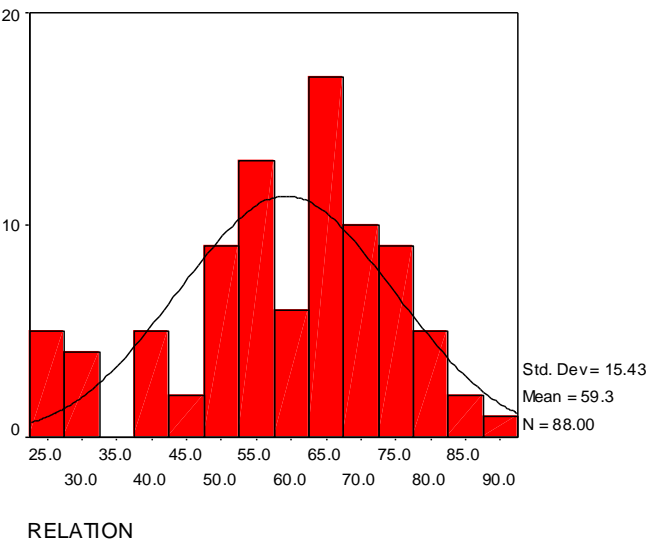
LTO Stem-and-Leaf Plot

Frequency	Stem &	Leaf
17.00	4 .	00000000
41.00	5 .	00000000000000000000
8.00	6 .	0000
49.00	7 .	0000000000000000000000
42.00	8 .	00000000000000000000
26.00	9 .	000000000000
70.00	10 .	00000000000000000000000000000000
15.00	11 .	0000000
51.00	12 .	000000000000000000000000
2.00	13 .	0
14.00	14 .	0000000
24.00	15 .	000000000000
3.00	16 .	0

Stem width: 1.00  
Each leaf: 2 case(s)



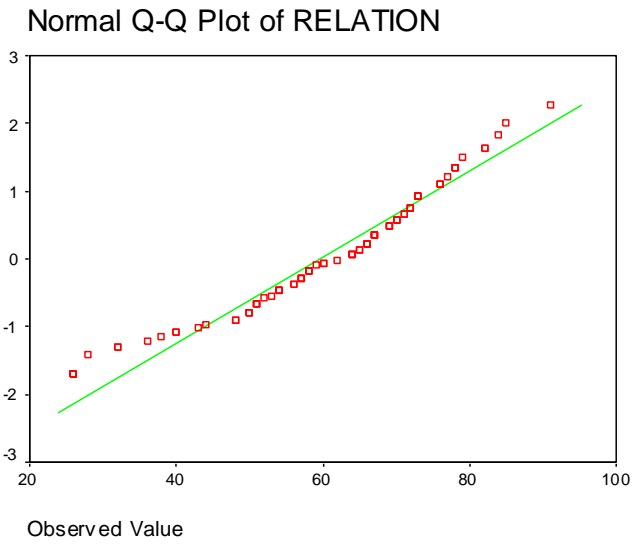
Relational CS



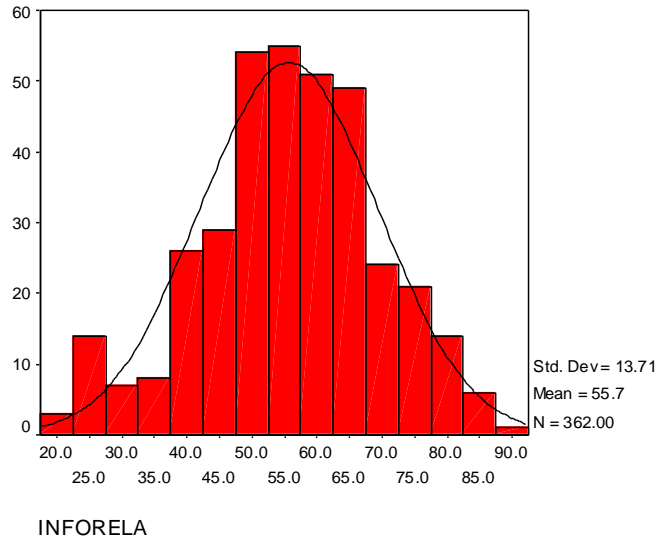
RELATION Stem-and-Leaf Plot

Frequency	Stem & Leaf
.00	2 .
7.00	2 . 56668
2.00	3 . 22
2.00	3 .
4.00	4 . 0034
2.00	4 . 88
13.00	5 . 0001111234444
11.00	5 . 66777788889
7.00	6 . 0024444
14.00	6 . 55666677777999
13.00	7 . 0001122233333
8.00	7 . 66678889
3.00	8 . 224
1.00	8 . 5
1.00	9 . 1
Stem width: 10.00	
Each leaf: 1 case(s)	





Informational/Relational CS

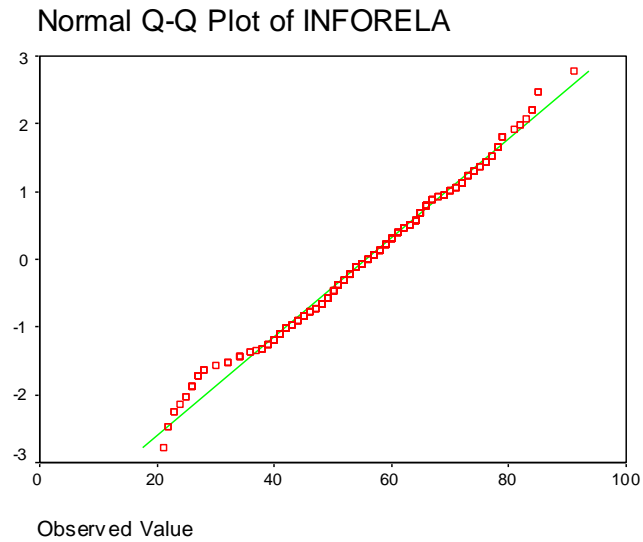


INFORELA Stem-and-Leaf Plot

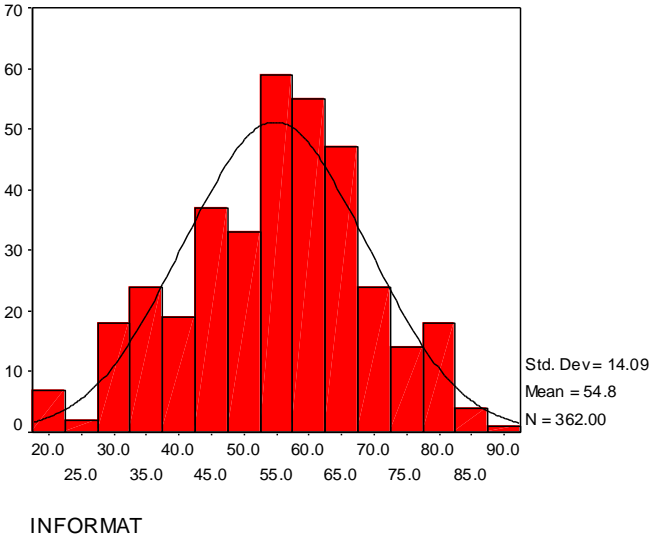
Frequency	Stem	&	Leaf
3.00	Extremes		(= $\leq 22$ )
3.00	2	.	3&
14.00	2	.	566778
9.00	3	.	244&
10.00	3	.	6899&
29.00	4	.	0001112223344
41.00	4	.	5555666778888999999
59.00	5	.	0000001111122223333333334444
50.00	5	.	555556666777778888899999
48.00	6	.	0000000111122333344444
37.00	6	.	55555566666677899
27.00	7	.	001122223344
22.00	7	.	566788899
7.00	8	.	24&
2.00	8	.	5
1.00	Extremes		(= $\geq 91$ )

Stem width: 10.00  
Each leaf: 2 case(s)

& denotes fractional leaves.



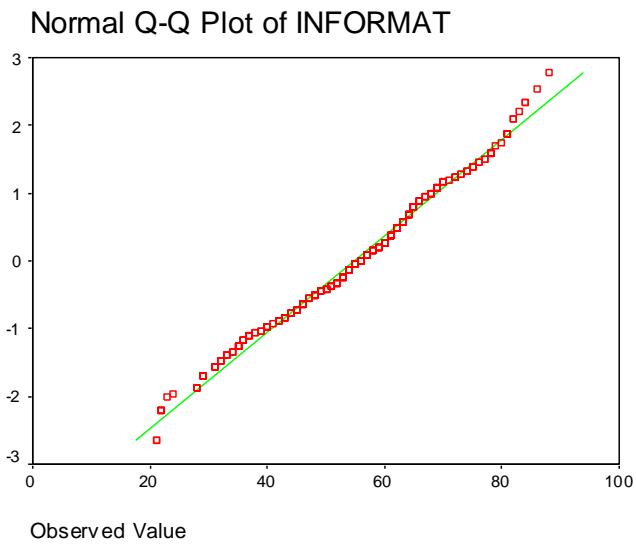
Informational Commitment



INFORMAT Stem-and-Leaf Plot

Frequency	Stem &	Leaf
9.00	2 .	122&
10.00	2 .	8999
15.00	3 .	1122334
21.00	3 .	5555667789
26.00	4 .	000022233344&
40.00	4 .	5556666666677888899
49.00	5 .	001122222333333344444444
43.00	5 .	55556667777778888999
64.00	6 .	0000001111111122222233333344444
39.00	6 .	555555566678899999
14.00	7 .	002234&
17.00	7 .	5567888&
13.00	8 .	11124&
2.00	8 .	&
Stem width: 10.00		
Each leaf: 2 case(s)		

& denotes fractional leaves.



## Appendix B2 - Factor Analysis of CS

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.852
Bartlett's Test of Sphericity	Approx. Chi-Square	2270.625
	df	990
	Sig.	.000

## Com m unalities

	Initial	Extraction
ORGINTG1	1.000	.720
ORGINTG2	1.000	.527
ORGPERS1	1.000	.663
PERSFED1	1.000	.611
PERSFED2	1.000	.575
PERSFED3	1.000	.483
ORGINTG3	1.000	.692
ORGINTG4	1.000	.681
ORGPERS2	1.000	.651
ORGPERS3	1.000	.630
PERSFED4	1.000	.605
ORGINTG5	1.000	.576
ORGPERS4	1.000	.526
ORGPERS5	1.000	.687
PERSFED5	1.000	.594
COMCLIM1	1.000	.659
SUPRVIS1	1.000	.612
COMCLIM2	1.000	.607
SUPRVIS2	1.000	.680
COMCLIM3	1.000	.711
MEDIAQU1	1.000	.667
SUPRVIS3	1.000	.581
COMCLIM4	1.000	.674
COMCLIM5	1.000	.768
HORIZCM1	1.000	.609
SUPRVIS4	1.000	.740
HORIZCM2	1.000	.727
HORIZCM3	1.000	.624
HORIZCM4	1.000	.671
MEDIAQU2	1.000	.696
SUPRVIS5	1.000	.668
MEDIAQU3	1.000	.701
MEDIAQU4	1.000	.675
HORIZCM5	1.000	.720
MEDIAQU5	1.000	.795
RELATSB1	1.000	.614
RELATSB2	1.000	.780
RELATSB3	1.000	.721
RELATSB4	1.000	.777
RELATSB5	1.000	.777
TOPMANG1	1.000	.561
TOPMANG2	1.000	.573
TOPMANG3	1.000	.711
TOPMANG4	1.000	.727
TOPMANG5	1.000	.761

Extraction Method: Principal Component Analysis.

## Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.501	30.003	30.003	13.501	30.003	30.003	4.735	10.522	10.522
2	3.906	8.681	38.684	3.906	8.681	38.684	4.715	10.477	20.999
3	2.873	6.384	45.068	2.873	6.384	45.068	4.283	9.518	30.517
4	2.172	4.827	49.894	2.172	4.827	49.894	3.990	8.867	39.384
5	1.901	4.224	54.118	1.901	4.224	54.118	3.460	7.690	47.074
6	1.564	3.475	57.593	1.564	3.475	57.593	2.788	6.196	53.270
7	1.406	3.124	60.717	1.406	3.124	60.717	2.245	4.989	58.258
8	1.325	2.945	63.662	1.325	2.945	63.662	1.975	4.388	62.647
9	1.160	2.579	66.241	1.160	2.579	66.241	1.617	3.594	66.241
10	.990	2.359	68.600						
11	.984	2.187	70.787						
12	.948	2.107	72.894						
13	.884	1.965	74.859						
14	.841	1.869	76.728						
15	.745	1.655	78.383						
16	.703	1.562	79.945						
17	.629	1.399	81.344						
18	.614	1.364	82.708						
19	.575	1.277	83.986						
20	.562	1.249	85.235						
21	.521	1.158	86.393						
22	.495	1.100	87.492						
23	.476	1.058	88.550						
24	.443	.985	89.535						
25	.430	.955	90.490						
26	.401	.892	91.382						
27	.370	.822	92.204						
28	.330	.733	92.937						
29	.318	.706	93.644						
30	.283	.629	94.272						
31	.270	.601	94.873						
32	.261	.579	95.452						
33	.256	.570	96.022						
34	.223	.496	96.518						
35	.208	.463	96.981						
36	.192	.426	97.406						
37	.172	.383	97.789						
38	.160	.356	98.145						
39	.156	.346	98.491						
40	.141	.313	98.804						
41	.131	.292	99.096						
42	.115	.255	99.351						
43	.109	.243	99.595						
44	.107	.221	99.816						
45	.104	.184	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix<sup>a</sup>

	Component								
	1	2	3	4	5	6	7	8	9
COMCLUM4	.707	.109		.165		.271		.193	
COMCLUM2	.697		-.167		.199		.360	.155	-.134
COMCLUM5	.665	.357	.339	.175				-.215	
COMCLUM1	.570	.280	.122	.103	.127	.232	.234		.226
COMCLUM3	.555	.215	.354	.102			.317		
SUPRVIS3		.552	-.111		.291	.101		.265	
SUPRVIS4	.274	.541			.132	.482	-.113	.363	
SUPRVIS1	.212	.532		.263	.149		.293	-.126	.187
SUPRVIS2		.524	.395			.143			.425
SUPRVIS5		.446	-.166	.264	.153	.211	.281		.250
RELATSB5	.138		.806	.101		.182			
HORIZCM3	.134	.242	.790	.101	.123	.173	.165		
RELATSB2	.281		.778		.192		.117		-.183
RELATSB4	.304		.759		.129			.204	
RELATSB1			.614			.103	.233		.173
RELATSB3		.192	.609		.138	.154			.151
HORIZCM1		.120		.714	.130		.368		
HORIZCM5		.115	.104	.662		.172			
HORIZCM2		.144	.294	.643				.278	
HORIZCM4				.602		.324		.152	-.122
ORGPERS3		.249		.595					
ORGPERS5			.107	.590		.120			.177
PERSFED5	.131		.305		.822	.198			.112
PERSFED2	.433			.119	.682				-.163
PERSFED1		.199			.667	.122		.345	-.109
PERSFED4			.361		.555			.353	
PERSFED3	.128	.176		.148	.461			.318	.160
TOPMANG1	.127		.375		.159	.822	.364		.306
TOPMANG4			.105			.802			.130
TOPMANG5			.124			.790			.191
TOPMANG3				.146		.777		-.123	
TOPMANG2	.223	.183				.671			
MEDIAQU1	.132	.218	-.109	.130			.722		-.157
MEDIAQU4		.127	.189			.121	.677		.225
MEDIAQU2	.242	.186	.233	.339	.109		.655		
MEDIAQU3	.378	.152	.308	.261			.635		
MEDIAQU5	.166	.378	.231				.574		
ORGINTEG3	.369	.347					.283	.710	-.371
ORGINTEG2	.271	.266		.134				.695	
ORGINTEG4	.234		.367				.132	.692	
ORGINTEG5	.383	.392			.144	.382		.682	
ORGINTEG1	.255	.132	.232	.116			.212	.671	
ORGPERS1	.146		.119	.334	.185	.109			.641
ORGPERS2			.156	.398	.156	.173	.226	.203	.575
ORGPERS4		.146	.244	.371	.143		.101	.286	.485

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.  
 a. Rotation converged in 10 iterations.



### Appendix B3 - Factor Analysis of OC

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.668
Bartlett's Test of Sphericity	Approx. Chi-Square	3832.626
	df	276
	Sig.	.000

#### Communalities

	Initial	Extraction
AFFECT1	1.000	.368
AFFECT2	1.000	.389
AFFECT3	1.000	.486
AFFECT4	1.000	.469
AFFECT5	1.000	.575
AFFECT6	1.000	.266
AFFECT7	1.000	.463
AFFECT8	1.000	.759
CONTIN1	1.000	.125
CONTIN2	1.000	.355
CONTIN3	1.000	.376
CONTIN4	1.000	.280
CONTIN5	1.000	.361
CONTIN6	1.000	.371
CONTIN7	1.000	.701
CONTIN8	1.000	.650
NORMA TV 1	1.000	.254
NORMA TV 2	1.000	.482
NORMA TV 3	1.000	.517
NORMA TV 4	1.000	.440
NORMA TV 5	1.000	.313
NORMA TV 6	1.000	.731
NORMA TV 7	1.000	.759
NORMA TV 8	1.000	.152

Extraction Method: Principal Component Analysis.

## Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.524	38.016	38.016	8.524	38.016	38.016	4.301	17.920	17.920
2	3.834	13.810	51.826	3.834	13.810	51.826	3.227	13.444	31.364
3	2.284	9.516	61.343	2.284	9.516	61.343	3.115	12.979	61.343
4	.968	6.907	51.250						
5	.959	6.497	57.747						
6	.947	5.403	63.150						
7	.908	4.741	67.891						
8	.893	4.514	72.405						
9	.888	3.702	76.107						
10	.777	3.237	79.344						
11	.682	2.841	82.185						
12	.617	2.569	84.754						
13	.561	2.338	87.092						
14	.545	2.271	89.363						
15	.478	1.993	91.355						
16	.390	1.623	92.979						
17	.346	1.442	94.420						
18	.322	1.341	95.762						
19	.289	1.204	96.966						
20	.237	.987	97.953						
21	.223	.930	98.884						
22	.148	.617	99.500						
23	.120	.500	100.000						
24	.117	.486	100.000						

Extraction Method: Principal Component Analysis.

**Rotated Component Matrix**

	Component		
	1	2	3
AFFECT7	.845	.142	-.158
AFFECT8	.845	.142	-.158
AFFECT5	.736		.170
AFFECT3	.588	-.359	.103
NORMA TV 4	.568	-.208	.272
AFFECT1	.524	-.183	.245
AFFECT2	.517	-.275	.214
AFFECT4	.483		.350
AFFECT6	.475	-.345	
NORMA TV 1		.732	.223
NORMA TV 3		.718	
NORMA TV 6	-.329	.712	.341
NORMA TV 7		.666	-.113
NORMA TV 2		.661	.210
NORMA TV 5	.196	.501	.155
NORMA TV 8	.370	.413	.262
CONTIN4		-.344	.827
CONTIN2	.289	-.304	.815
CONTIN3	-.258	.267	.792
CONTIN7		.120	.787
CONTIN8	.246		.765
CONTIN5			.681
CONTIN6			.609
CONTIN1	.171	.215	.421

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

## Appendix B4 - Factor Analysis of National Culture

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.709
Bartlett's Test of Sphericity	Approx. Chi-Square	3440.976
	df	190
	Sig.	.000

### Com m unalities

	Initial	Extraction
IDV1	1.000	.688
IDV2	1.000	.656
PD11	1.000	.661
IDV3	1.000	.694
MAS1	1.000	.756
PD12	1.000	.543
MAS2	1.000	.724
IDV4	1.000	.483
LTO1	1.000	.665
LTO2	1.000	.482
LTO3	1.000	.623
LTO4	1.000	.736
UAI1	1.000	.790
PD13	1.000	.599
MAS3	1.000	.585
UAI2	1.000	.692
PD14	1.000	.372
UAI3	1.000	.543
UAI4	1.000	.650
MAS4	1.000	.655

Extraction Method: Principal Component Analysis.

## Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.006	30.029	30.029	6.006	30.029	30.029	4.116	20.578	20.578
2	2.257	11.286	41.315	2.257	11.286	41.315	3.302	16.508	37.086
3	1.781	8.905	50.220	1.781	8.905	50.220	1.799	8.994	46.080
4	1.351	6.757	56.977	1.351	6.757	56.977	1.738	8.689	54.769
5	1.201	6.005	62.981	1.201	6.005	62.981	1.642	8.212	62.981
6	.950	5.602	68.583						
7	.942	4.711	73.294						
8	.782	3.911	77.205						
9	.755	3.775	80.979						
10	.593	2.964	83.943						
11	.508	2.539	86.483						
12	.490	2.451	88.933						
13	.426	2.128	91.061						
14	.382	1.911	92.972						
15	.364	1.818	94.790						
16	.310	1.549	96.339						
17	.241	1.206	97.545						
18	.238	1.191	98.737						
19	.145	.725	99.462						
20	.108	.538	100.000						

Extraction Method: Principal Component Analysis.

**Rotated Component Matrix<sup>a</sup>**

	Component				
	1	2	3	4	5
MAS2	.789	.273	.109	.117	
PD11	.780	.200			
MAS3	.774	.262	-.124		-.101
MAS1	.765	.308	-.149		.230
MAS4	.715		-.152		
IDV2	.321	.731	-.139		.357
IDV4	.316	.724	-.216		-.205
IDV1	.216	.728		-.140	
IDV3	.163	.704	-.214	.313	-.202
LT03	.298	.287	.826	-.118	
LT02		.274	.726		
LT04	.226		.711	.210	
LT01	.491	.212	.697	-.104	.380
UA11			-.262	.777	-.168
UA4	-.139	-.230		.739	
UA3	.166			.699	.168
UA2	-.303		-.318	.673	-.215
PD2			.382		.747
PDB		.162		.272	.731
PD4		-.207			.710

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

## Appendix C – Results of the Reliability Analysis

### Communication Satisfaction Dimensions

#### Organizational Perspective

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0                                      N of Items =    5

Alpha =      .8042

#### Personal Feedback

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0                                      N of Items =    5

Alpha =      .8308

#### Organizational Integration

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0                                      N of Items =    5

Alpha =      .7234

### Supervisory Communication

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    5

Alpha =      .8027

### Communication Climate

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    5

Alpha =      .8659

### Horizontal Communication

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    5

Alpha =      .7413



**Media Quality**

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    5

Alpha =      .7965

**Top Management Communication**

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    5

Alpha =      .8844

**Subordinate Communication**

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      88.0

N of Items =    5

Alpha =      .8370

## Organizational Commitment Dimensions

### Affective Commitment

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0                      N of Items =    8

Alpha =      .8184

### Continuance Commitment

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0                      N of Items =    8

Alpha =      .7464

### Normative Commitment

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0                      N of Items =    8

Alpha =      .7041

## National Culture Dimensions

### Power Distance

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    4

Alpha =      .7731

### Uncertainty Avoidance

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    4

Alpha =      .7082

### Masculinity

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    4

Alpha =      .7955

### Individualism

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    4

Alpha =        .7288

### **Long- vs. Short-term Orientation**

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

—

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases =      362.0

N of Items =    4

Alpha =        .8271

## Appendix D – ANOVA Test

### Oneway

#### ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
ORGPERSP	Between Groups	1166.396	4	291.599	9.929	.000
	Within Groups	10484.013	357	29.367		
	Total	11650.409	361			
PERSFDBK	Between Groups	1313.490	4	328.372	12.678	.000
	Within Groups	9246.590	357	25.901		
	Total	10560.080	361			
ORGINTEG	Between Groups	1546.041	4	386.510	13.727	.000
	Within Groups	10052.094	357	28.157		
	Total	11598.135	361			
SUPRVCOM	Between Groups	979.769	4	244.942	9.318	.000
	Within Groups	9384.311	357	26.287		
	Total	10364.080	361			
COMCLIMT	Between Groups	233.572	4	58.393	1.998	.094
	Within Groups	10434.594	357	29.229		
	Total	10668.166	361			
HORIZCOM	Between Groups	563.801	4	140.950	6.401	.000
	Within Groups	7860.884	357	22.019		
	Total	8424.685	361			
MEDIQULT	Between Groups	823.098	4	205.774	7.441	.000
	Within Groups	9871.900	357	27.652		
	Total	10694.997	361			
TOPMGCOM	Between Groups	586.786	4	146.697	3.853	.004
	Within Groups	13592.495	357	38.074		
	Total	14179.282	361			
SUBORCOM	Between Groups	124.992	4	31.248	1.274	.287
	Within Groups	2035.872	83	24.529		
	Total	2160.864	87			

## Post Hoc Tests

### Multiple Comparisons

Scheffe

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	(I) NATION	(J) NATION				Lower Bound	Upper Bound
ORGPERS	Yemeni	Malaysian	-2.1378	1.02245	.360	-5.3037	1.0282
		Indian	-3.2959*	1.00876	.032	-6.4195	-.1724
		Iraqi	-3.9565*	.98323	.003	-7.0010	-.9120
		Egyptian	-4.7315*	1.02245	.000	-7.8975	-1.5656
	Malaysian	Yemeni	2.1378	1.02245	.360	-1.0282	5.3037
		Indian	-1.1581	1.34448	.946	-5.3212	3.0049
		Iraqi	-1.8188	1.32543	.757	-5.9228	2.2853
		Egyptian	-2.5938	1.35478	.454	-6.7887	1.6012
	Indian	Yemeni	3.2959*	1.00876	.032	.1724	6.4195
		Malaysian	1.1581	1.34448	.946	-3.0049	5.3212
		Iraqi	-.6606	1.31490	.993	-4.7321	3.4109
		Egyptian	-1.4356	1.34448	.888	-5.5987	2.7275
	Iraqi	Yemeni	3.9565*	.98323	.003	.9120	7.0010
		Malaysian	1.8188	1.32543	.757	-2.2853	5.9228
		Indian	.6606	1.31490	.993	-3.4109	4.7321
		Egyptian	-.7750	1.32543	.987	-4.8791	3.3291
	Egyptian	Yemeni	4.7315*	1.02245	.000	1.5656	7.8975
		Malaysian	2.5938	1.35478	.454	-1.6012	6.7887
		Indian	1.4356	1.34448	.888	-2.7275	5.5987
		Iraqi	.7750	1.32543	.987	-3.3291	4.8791
PERSFDBK	Yemeni	Malaysian	-5.2595*	.96021	.000	-8.2327	-2.2863
		Indian	-4.1752*	.94736	.001	-7.1086	-1.2418
		Iraqi	-2.8211	.92338	.055	-5.6803	.0381
		Egyptian	.3342	.96021	.998	-2.6390	3.3075
	Malaysian	Yemeni	5.2595*	.96021	.000	2.2863	8.2327
		Indian	1.0843	1.26265	.946	-2.8254	4.9940
		Iraqi	2.4384	1.24476	.430	-1.4159	6.2927
		Egyptian	5.5938*	1.27232	.001	1.6541	9.5334
	Indian	Yemeni	4.1752*	.94736	.001	1.2418	7.1086
		Malaysian	-1.0843	1.26265	.946	-4.9940	2.8254
		Iraqi	1.3541	1.23487	.877	-2.4696	5.1778
		Egyptian	4.5095*	1.26265	.014	.5998	8.4191
	Iraqi	Yemeni	2.8211	.92338	.055	-.0381	5.6803
		Malaysian	-2.4384	1.24476	.430	-6.2927	1.4159
		Indian	-1.3541	1.23487	.877	-5.1778	2.4696
		Egyptian	3.1554	1.24476	.172	-.6989	7.0097
	Egyptian	Yemeni	-.3342	.96021	.998	-3.3075	2.6390
		Malaysian	-5.5938*	1.27232	.001	-9.5334	-1.6541
		Indian	-4.5095*	1.26265	.014	-8.4191	-.5998
		Iraqi	-3.1554	1.24476	.172	-7.0097	.6989
ORGINTEG	Yemeni	Malaysian	-3.8745*	1.00117	.005	-6.9745	-.7744
		Indian	-3.9748*	.98776	.003	-7.0334	-.9163
		Iraqi	-4.2727*	.96276	.001	-7.2538	-1.2916

		Egyptian	-4.9370*	1.00117	.000	-8.0370	-1.8369
	Malaysian	Yemeni	3.8745*	1.00117	.005	.7744	6.9745
		Indian	-.1004	1.31649	1.000	-4.1768	3.9760
		Iraqi	-.3982	1.29784	.999	-4.4169	3.6205
		Egyptian	-1.0625	1.32658	.958	-5.1702	3.0452
	Indian	Yemeni	3.9748*	.98776	.003	.9163	7.0334
		Malaysian	.1004	1.31649	1.000	-3.9760	4.1768
		Iraqi	-.2978	1.28753	1.000	-4.2846	3.6889
		Egyptian	-.9621	1.31649	.970	-5.0385	3.1143
	Iraqi	Yemeni	4.2727*	.96276	.001	1.2916	7.2538
		Malaysian	.3982	1.29784	.999	-3.6205	4.4169
		Indian	.2978	1.28753	1.000	-3.6889	4.2846
		Egyptian	-.6643	1.29784	.992	-4.6830	3.3544
	Egyptian	Yemeni	4.9370*	1.00117	.000	1.8369	8.0370
		Malaysian	1.0625	1.32658	.958	-3.0452	5.1702
		Indian	.9621	1.31649	.970	-3.1143	5.0385
		Iraqi	.6643	1.29784	.992	-3.3544	4.6830
SUPRVCOM	Yemeni	Malaysian	1.2231	.96734	.809	-1.7722	4.2184
		Indian	-3.2532*	.95439	.022	-6.2084	-.2980
		Iraqi	-2.3528	.93023	.174	-5.2332	.5276
		Egyptian	3.5043*	.96734	.012	.5091	6.4996
	Malaysian	Yemeni	-1.2231	.96734	.809	-4.2184	1.7722
		Indian	-4.4763*	1.27201	.016	-8.4150	-.5376
		Iraqi	-3.5759	1.25399	.089	-7.4588	.3070
		Egyptian	2.2813	1.28176	.531	-1.6876	6.2501
	Indian	Yemeni	3.2532*	.95439	.022	.2980	6.2084
		Malaysian	4.4763*	1.27201	.016	.5376	8.4150
		Iraqi	.9004	1.24403	.971	-2.9516	4.7525
		Egyptian	6.7576*	1.27201	.000	2.8189	10.6963
	Iraqi	Yemeni	2.3528	.93023	.174	-.5276	5.2332
		Malaysian	3.5759	1.25399	.089	-.3070	7.4588
		Indian	-.9004	1.24403	.971	-4.7525	2.9516
		Egyptian	5.8571*	1.25399	.000	1.9743	9.7400
	Egyptian	Yemeni	-3.5043*	.96734	.012	-6.4996	-.5091
		Malaysian	-2.2813	1.28176	.531	-6.2501	1.6876
		Indian	-6.7576*	1.27201	.000	-10.6963	-2.8189
		Iraqi	-5.8571*	1.25399	.000	-9.7400	-1.9743
COMCLIMT	Yemeni	Malaysian	-1.4217	1.02004	.746	-4.5802	1.7367
		Indian	-.0126	1.00638	1.000	-3.1288	3.1035
		Iraqi	-2.5217	.98091	.161	-5.5590	.5156
		Egyptian	-.2342	1.02004	1.000	-3.3927	2.9242
	Malaysian	Yemeni	1.4217	1.02004	.746	-1.7367	4.5802
		Indian	1.4091	1.34131	.893	-2.7442	5.5623
		Iraqi	-1.1000	1.32231	.952	-5.1944	2.9944
		Egyptian	1.1875	1.35159	.942	-2.9976	5.3726
	Indian	Yemeni	.0126	1.00638	1.000	-3.1035	3.1288
		Malaysian	-1.4091	1.34131	.893	-5.5623	2.7442
		Iraqi	-2.5091	1.31180	.455	-6.5710	1.5528
		Egyptian	-.2216	1.34131	1.000	-4.3748	3.9317
	Iraqi	Yemeni	2.5217	.98091	.161	-.5156	5.5590
		Malaysian	1.1000	1.32231	.952	-2.9944	5.1944
		Indian	2.5091	1.31180	.455	-1.5528	6.5710
		Egyptian	2.2875	1.32231	.560	-1.8069	6.3819
	Egyptian	Yemeni	.2342	1.02004	1.000	-2.9242	3.3927

		Malaysian	-1.1875	1.35159	.942	-5.3726	2.9976
		Indian	.2216	1.34131	1.000	-3.9317	4.3748
		Iraqi	-2.2875	1.32231	.560	-6.3819	1.8069
HORIZCOM	Yemeni	Malaysian	-1.0226	.88535	.855	-3.7640	1.7188
		Indian	-2.9762*	.87349	.022	-5.6808	-.2715
		Iraqi	-1.6627	.85139	.433	-4.2990	.9735
		Egyptian	2.3524	.88535	.135	-.3890	5.0938
	Malaysian	Yemeni	1.0226	.88535	.855	-1.7188	3.7640
		Indian	-1.9536	1.16420	.590	-5.5584	1.6512
		Iraqi	-.6402	1.14770	.989	-4.1940	2.9136
		Egyptian	3.3750	1.17312	.084	-.2575	7.0075
	Indian	Yemeni	2.9762*	.87349	.022	.2715	5.6808
		Malaysian	1.9536	1.16420	.590	-1.6512	5.5584
		Iraqi	1.3134	1.13858	.856	-2.2121	4.8390
		Egyptian	5.3286*	1.16420	.000	1.7238	8.9334
	Iraqi	Yemeni	1.6627	.85139	.433	-.9735	4.2990
		Malaysian	.6402	1.14770	.989	-2.9136	4.1940
		Indian	-1.3134	1.13858	.856	-4.8390	2.2121
		Egyptian	4.0152*	1.14770	.017	.4614	7.5690
	Egyptian	Yemeni	-2.3524	.88535	.135	-5.0938	.3890
		Malaysian	-3.3750	1.17312	.084	-7.0075	.2575
		Indian	-5.3286*	1.16420	.000	-8.9334	-1.7238
		Iraqi	-4.0152*	1.14770	.017	-7.5690	-.4614
MEDIQULT	Yemeni	Malaysian	-2.8266	.99215	.090	-5.8987	.2455
		Indian	-2.9270	.97887	.065	-5.9580	.1040
		Iraqi	-3.2248*	.95409	.024	-6.1791	-.2706
		Egyptian	-3.4829*	.99215	.016	-6.5550	-.4108
	Malaysian	Yemeni	2.8266	.99215	.090	-.2455	5.8987
		Indian	-.1004	1.30464	1.000	-4.1401	3.9393
		Iraqi	-.3982	1.28616	.999	-4.3807	3.5843
		Egyptian	-.6563	1.31464	.993	-4.7269	3.4144
	Indian	Yemeni	2.9270	.97887	.065	-.1040	5.9580
		Malaysian	.1004	1.30464	1.000	-3.9393	4.1401
		Iraqi	-.2978	1.27594	1.000	-4.2487	3.6530
		Egyptian	-.5559	1.30464	.996	-4.5956	3.4838
	Iraqi	Yemeni	3.2248*	.95409	.024	.2706	6.1791
		Malaysian	.3982	1.28616	.999	-3.5843	4.3807
		Indian	.2978	1.27594	1.000	-3.6530	4.2487
		Egyptian	-.2580	1.28616	1.000	-4.2405	3.7245
	Egyptian	Yemeni	3.4829*	.99215	.016	.4108	6.5550
		Malaysian	.6563	1.31464	.993	-3.4144	4.7269
		Indian	.5559	1.30464	.996	-3.4838	4.5956
		Iraqi	.2580	1.28616	1.000	-3.7245	4.2405
TOPMGCOM	Yemeni	Malaysian	-.3687	1.16420	.999	-3.9736	3.2361
		Indian	-4.2636*	1.14861	.009	-7.8202	-.7071
		Iraqi	-1.0714	1.11954	.922	-4.5380	2.3951
		Egyptian	.7563	1.16420	.981	-2.8486	4.3611
	Malaysian	Yemeni	.3687	1.16420	.999	-3.2361	3.9736
		Indian	-3.8949	1.53088	.169	-8.6351	.8453
		Iraqi	-.7027	1.50919	.995	-5.3758	3.9704
		Egyptian	1.1250	1.54261	.970	-3.6516	5.9016
	Indian	Yemeni	4.2636*	1.14861	.009	.7071	7.8202
		Malaysian	3.8949	1.53088	.169	-.8453	8.6351
		Iraqi	3.1922	1.49720	.339	-1.4437	7.8282



		Egyptian	5.0199*	1.53088	.031	.2797	9.7601
	Iraqi	Yemeni	1.0714	1.11954	.922	-2.3951	4.5380
		Malaysian	.7027	1.50919	.995	-3.9704	5.3758
		Indian	-3.1922	1.49720	.339	-7.8282	1.4437
		Egyptian	1.8277	1.50919	.832	-2.8454	6.5008
	Egyptian	Yemeni	-.7563	1.16420	.981	-4.3611	2.8486
		Malaysian	-1.1250	1.54261	.970	-5.9016	3.6516
		Indian	-5.0199*	1.53088	.031	-9.7601	-.2797
		Iraqi	-1.8277	1.50919	.832	-6.5008	2.8454
SUBORCOM	Yemeni	Malaysian	-.3503	1.56837	1.000	-5.2917	4.5911
		Indian	-3.3503	2.12222	.647	-10.0367	3.3361
		Iraqi	-3.0169	3.56090	.948	-14.2361	8.2022
		Egyptian	2.0942	1.77233	.844	-3.4898	7.6782
	Malaysian	Yemeni	.3503	1.56837	1.000	-4.5911	5.2917
		Indian	-3.0000	2.47632	.832	-10.8020	4.8020
		Iraqi	-2.6667	3.78264	.973	-14.5845	9.2511
		Egyptian	2.4444	2.18391	.868	-4.4363	9.3252
	Indian	Yemeni	3.3503	2.12222	.647	-3.3361	10.0367
		Malaysian	3.0000	2.47632	.832	-4.8020	10.8020
		Iraqi	.3333	4.04381	1.000	-12.4073	13.0740
		Egyptian	5.4444	2.61027	.368	-2.7796	13.6685
	Iraqi	Yemeni	3.0169	3.56090	.948	-8.2022	14.2361
		Malaysian	2.6667	3.78264	.973	-9.2511	14.5845
		Indian	-.3333	4.04381	1.000	-13.0740	12.4073
		Egyptian	5.1111	3.87165	.782	-7.0871	17.3094
	Egyptian	Yemeni	-2.0942	1.77233	.844	-7.6782	3.4898
		Malaysian	-2.4444	2.18391	.868	-9.3252	4.4363
		Indian	-5.4444	2.61027	.368	-13.6685	2.7796
		Iraqi	-5.1111	3.87165	.782	-17.3094	7.0871

\* The mean difference is significant at the .05 level.

## Appendix E – Correlation Test between CS Dimensions and OC Dimensions

Correlations

	AFFECTOMT	CONTCOMT	NORMCOMT	ORGPERSP	PERSFDBK	ORGINTEG	SUPRVCOM	COMCLMT	HORIZCOM	MEDIQULT	TOPMGCOM	SUBOCOM
AFFECTOMT	1	.486**	.475**	.370**	.239**	.239**	.276**	.398**	.279**	.448**	.476**	.478**
Pearson Correlation		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
CONTCOMT	.486**	1	.433**	.269**	.219**	.154**	.200**	.301**	.234**	.366**	.262**	.262**
Pearson Correlation		.000	.000	.000	.000	.003	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
NORMCOMT	.475**	.433**	1	.207**	.213**	.188**	.173**	.277**	.229**	.309**	.245**	.375**
Pearson Correlation		.000	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
ORGPERSP	.370**	.269**	.207**	1	.632**	.643**	.366**	.548**	.341**	.528**	.414**	.341**
Pearson Correlation		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
PERSFDBK	.239**	.219**	.173**	.632**	1	.723**	.521**	.537**	.485**	.534**	.441**	.675**
Pearson Correlation		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
ORGINTEG	.239**	.154**	.168**	.643**	.723**	1	.397**	.453**	.363**	.470**	.312**	.534**
Pearson Correlation		.003	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
SUPRVCOM	.276**	.200**	.173**	.366**	.521**	.397**	1	.665**	.731**	.612**	.581**	.766**
Pearson Correlation		.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
COMCLMT	.388**	.301**	.277**	.548**	.537**	.453**	.665**	1	.682**	.702**	.647**	.570**
Pearson Correlation		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
HORIZCOM	.279**	.234**	.229**	.341**	.485**	.363**	.731**	.682**	1	.671**	.564**	.691**
Pearson Correlation		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
MEDIQULT	.448**	.366**	.309**	.528**	.534**	.470**	.612**	.702**	.671**	1	.625**	.574**
Pearson Correlation		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
TOPMGCOM	.476**	.262**	.245**	.414**	.441**	.312**	.581**	.647**	.564**	.625**	1	.657**
Pearson Correlation		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362
SUBOCOM	.478**	.262**	.375**	.341**	.675**	.534**	.766**	.570**	.691**	.574**	.657**	1
Pearson Correlation		.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000
Sig. (2-tailed)		.362	.362	.362	.362	.362	.362	.362	.362	.362	.362	.362
N		362	362	362	362	362	362	362	362	362	362	362

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Appendix F – Multiple Regression Test of the relationship between CS and OC dimensions

**Model Summary<sup>a</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.546 <sup>a</sup>	.299	.283	4.30788

a. Predictors: (Constant), TOPMGCOM, ORGINTEG, HORIZCOM, ORGPERSP, SUPRVCOM, MEDIQULT, PERSFDBK, COMCLIMT

b. Dependent Variable: AFFECTOMT

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2789.453	8	348.682	18.789	.000 <sup>a</sup>
	Residual	6550.911	353	18.558		
	Total	9340.365	361			

a. Predictors: (Constant), TOPMGCOM, ORGINTEG, HORIZCOM, ORGPERSP, SUPRVCOM, MEDIQULT, PERSFDBK, COMCLIMT

b. Dependent Variable: AFFECTOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	25.350	1.120		22.641	.000
	ORGPERSP	.175	.060	.196	2.940	.003
	PERSFDBK	-.135	.069	-.144	-1.966	.050
	ORGINTEG	2.120E-02	.062	.024	.340	.734
	SUPRVCOM	-4.84E-02	.068	-.051	-.708	.479
	COMCLIMT	2.828E-02	.072	.030	.393	.694
	HORIZCOM	-8.06E-02	.079	-.077	-1.023	.307
	MEDIQULT	.238	.067	.258	3.542	.000
	TOPMGCOM	.278	.051	.343	5.409	.000

a. Dependent Variable: AFFECTOMT

**Model Summary<sup>a</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.392 <sup>a</sup>	.154	.135	6.15791

a. Predictors: (Constant), TOPMGCOM, ORGINTEG, HORIZCOM, ORGPERSP, SUPRVCOM, MEDIQULT, PERSFDBK, COMCLIMT

b. Dependent Variable: CONTCOMT

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2430.772	8	303.846	8.013	.000 <sup>a</sup>
	Residual	13385.715	353	37.920		
	Total	15816.486	361			

a. Predictors: (Constant), TOPMGCOM, ORGINTEG, HORIZCOM, ORGPERSP, SUPRVCOM, MEDIQULT, PERSFDBK, COMCLIMT

b. Dependent Variable: CONTCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	25.522	1.600		15.947	.000
	ORGPERSP	.148	.085	.127	1.734	.084
	PERSFDBK	5.969E-02	.098	.049	.607	.544
	ORGINTEG	-.141	.089	-.121	-1.579	.115
	SUPRVCOM	-9.03E-02	.098	-.073	-.925	.356
	COMCLIMT	.103	.103	.085	1.006	.315
	HORIZCOM	-2.40E-02	.113	-.018	-.214	.831
	MEDIQULT	.370	.096	.307	3.846	.000
	TOPMGCOM	3.241E-02	.074	.031	.441	.660

a. Dependent Variable: CONTCOMT

**Model Summary<sup>a</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.334 <sup>a</sup>	.111	.091	5.35819

a. Predictors: (Constant), TOPMGCOM, ORGINTEG, HORIZCOM, ORGPERSP, SUPRVCOM, MEDIQULT, PERSFDBK, COMCLIMT

b. Dependent Variable: NORMCOMT

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1270.996	8	158.875	5.534	.000 <sup>a</sup>
	Residual	10134.697	353	28.710		
	Total	11405.693	361			

a. Predictors: (Constant), TOPMGCOM, ORGINTEG, HORIZCOM, ORGPERSP, SUPRVCOM, MEDIQULT, PERSFDBK, COMCLIMT

b. Dependent Variable: NORMCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	26.290	1.393		18.878	.000
	ORGPERSP	1.372E-02	.074	.014	.185	.853
	PERSFDBK	6.948E-02	.086	.067	.812	.418
	ORGINTEG	-2.19E-02	.078	-.022	-.282	.778
	SUPRVCOM	-.132	.085	-.126	-1.555	.121
	COMCLIMT	.117	.089	.113	1.304	.193
	HORIZCOM	4.585E-02	.098	.039	.468	.640
	MEDIQULT	.211	.084	.207	2.523	.012
	TOPMGCOM	5.835E-02	.064	.065	.912	.362

a. Dependent Variable: NORMCOMT

## Appendix G – Hierarchical Multiple Regression Test of the Interacting Effect of National Culture Dimensions with CS on Affective Commitment

**Model Summary<sup>g</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.443 <sup>a</sup>	.196	.194	4.56614	.196	87.986	1	360	.000
2	.456 <sup>b</sup>	.208	.203	4.54060	.011	5.062	1	359	.025
3	.478 <sup>c</sup>	.229	.222	4.48537	.021	9.895	1	358	.002

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, PDI

c. Predictors: (Constant), CMSNOSUB, PDI, COM\_XPDI

d. Dependent Variable: AFFECTOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1834.487	1	1834.487	87.986	.000 <sup>a</sup>
	Residual	7505.877	360	20.850		
	Total	9340.365	361			
2	Regression	1938.854	2	969.427	47.021	.000 <sup>b</sup>
	Residual	7401.511	359	20.617		
	Total	9340.365	361			
3	Regression	2137.917	3	712.639	35.422	.000 <sup>c</sup>
	Residual	7202.447	358	20.119		
	Total	9340.365	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, PDI

c. Predictors: (Constant), CMSNOSUB, PDI, COM\_XPDI

d. Dependent Variable: AFFECTOMT

**Coefficients<sup>g</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	23.689	1.075		22.035	.000		
	CMSNOSUB	6.603E-02	.007	.443	9.380	.000	1.000	1.000
2	(Constant)	21.371	1.485		14.392	.000		
	CMSNOSUB	6.442E-02	.007	.432	9.154	.000	.990	1.011
	PDI	.253	.113	.106	2.250	.025	.990	1.011
3	(Constant)	21.143	1.469		14.397	.000		
	CMSNOSUB	6.182E-02	.007	.415	8.832	.000	.976	1.025
	PDI	.321	.113	.135	2.831	.005	.954	1.048
	COM_XPDI	-9.07E-03	.003	-.149	-3.146	.002	.955	1.047

a. Dependent Variable: AFFECTOMT

**Model Summary<sup>a</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.443 <sup>a</sup>	.196	.194	4.56614	.196	87.986	1	360	.000
2	.460 <sup>b</sup>	.212	.207	4.52898	.015	6.932	1	359	.009
3	.477 <sup>c</sup>	.228	.221	4.48906	.016	7.414	1	358	.007

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, UAI

c. Predictors: (Constant), CMSNOSUB, UAI, COM\_XUAI

d. Dependent Variable: AFECTOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1834.487	1	1834.487	87.986	.000 <sup>a</sup>
	Residual	7505.877	360	20.850		
	Total	9340.365	361			
2	Regression	1976.671	2	988.336	48.184	.000 <sup>b</sup>
	Residual	7363.693	359	20.512		
	Total	9340.365	361			
3	Regression	2126.083	3	708.694	35.168	.000 <sup>c</sup>
	Residual	7214.282	358	20.152		
	Total	9340.365	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, UAI

c. Predictors: (Constant), CMSNOSUB, UAI, COM\_XUAI

d. Dependent Variable: AFECTOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	23.689	1.075		22.035	.000		
	CMSNOSUB	6.603E-02	.007	.443	9.380	.000	1.000	1.000
2	(Constant)	27.879	1.915		14.555	.000		
	CMSNOSUB	6.297E-02	.007	.423	8.896	.000	.973	1.028
	UAI	-.304	.115	-.125	-2.633	.009	.973	1.028
3	(Constant)	27.559	1.902		14.488	.000		
	CMSNOSUB	6.585E-02	.007	.442	9.281	.000	.951	1.051
	UAI	-.301	.114	-.124	-2.632	.009	.973	1.028
	COM_XUAI	-3.78E-03	.001	-.128	-2.723	.007	.978	1.023

a. Dependent Variable: AFECTOMT

**Model Summary<sup>a</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.443 <sup>a</sup>	.196	.194	4.56614	.196	87.986	1	360	.000
2	.474 <sup>b</sup>	.225	.221	4.49066	.029	13.204	1	359	.000
3	.489 <sup>c</sup>	.239	.233	4.45465	.015	6.827	1	358	.009

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, MAS

c. Predictors: (Constant), CMSNOSUB, MAS, COM\_XMAS

d. Dependent Variable: AFECTOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1834.487	1	1834.487	87.986	.000 <sup>a</sup>
	Residual	7505.877	360	20.850		
	Total	9340.365	361			
2	Regression	2100.765	2	1050.382	52.087	.000 <sup>b</sup>
	Residual	7239.600	359	20.166		
	Total	9340.365	361			
3	Regression	2236.248	3	745.416	37.564	.000 <sup>c</sup>
	Residual	7104.117	358	19.844		
	Total	9340.365	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, MAS

c. Predictors: (Constant), CMSNOSUB, MAS, COM\_XMAS

d. Dependent Variable: AFECTOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	23.689	1.075		22.035	.000		
	CMSNOSUB	6.603E-02	.007	.443	9.380	.000	1.000	1.000
2	(Constant)	20.624	1.353		15.249	.000		
	CMSNOSUB	6.379E-02	.007	.428	9.177	.000	.992	1.008
	MAS	.328	.090	.170	3.634	.000	.992	1.008
3	(Constant)	20.614	1.342		15.364	.000		
	CMSNOSUB	5.982E-02	.007	.401	8.473	.000	.946	1.057
	MAS	.392	.093	.202	4.220	.000	.924	1.082
	COM_XMAS	-7.20E-03	.003	-.127	-2.613	.009	.899	1.113

a. Dependent Variable: AFECTOMT



**Model Summary<sup>d</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.443 <sup>a</sup>	.196	.194	4.56614	.196	87.986	1	360	.000
2	.504 <sup>b</sup>	.254	.250	4.40417	.058	27.966	1	359	.000
3	.514 <sup>c</sup>	.264	.258	4.38084	.010	4.835	1	358	.029

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, IDV

c. Predictors: (Constant), CMSNOSUB, IDV, COM\_XIDV

d. Dependent Variable: AFFECTOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1834.487	1	1834.487	87.986	.000 <sup>a</sup>
	Residual	7505.877	360	20.850		
	Total	9340.365	361			
2	Regression	2376.931	2	1188.466	61.271	.000 <sup>b</sup>
	Residual	6963.433	359	19.397		
	Total	9340.365	361			
3	Regression	2469.729	3	823.243	42.896	.000 <sup>c</sup>
	Residual	6870.636	358	19.192		
	Total	9340.365	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, IDV

c. Predictors: (Constant), CMSNOSUB, IDV, COM\_XIDV

d. Dependent Variable: AFFECTOMT

**Coefficients<sup>d</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	23.689	1.075		22.035	.000		
	CMSNOSUB	6.603E-02	.007	.443	9.380	.000	1.000	1.000
2	(Constant)	20.834	1.169		17.820	.000		
	CMSNOSUB	5.994E-02	.007	.402	8.704	.000	.972	1.029
	IDV	.429	.081	.244	5.288	.000	.972	1.029
3	(Constant)	21.536	1.206		17.857	.000		
	CMSNOSUB	5.531E-02	.007	.371	7.717	.000	.888	1.126
	IDV	.438	.081	.250	5.423	.000	.969	1.032
	COM_XIDV	-5.66E-03	.003	-.104	-2.199	.029	.914	1.095

a. Dependent Variable: AFFECTOMT

**Model Summary<sup>d</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.443 <sup>a</sup>	.196	.194	4.56614	.196	87.986	1	360	.000
2	.524 <sup>b</sup>	.275	.271	4.34410	.078	38.742	1	359	.000
3	.534 <sup>c</sup>	.285	.279	4.31869	.010	5.237	1	358	.023

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, LTO

c. Predictors: (Constant), CMSNOSUB, LTO, COM\_XLTO

d. Dependent Variable: AFFECTOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1834.487	1	1834.487	87.986	.000 <sup>a</sup>
	Residual	7505.877	360	20.850		
	Total	9340.365	361			
2	Regression	2565.603	2	1282.802	67.977	.000 <sup>b</sup>
	Residual	6774.762	359	18.871		
	Total	9340.365	361			
3	Regression	2663.272	3	887.757	47.598	.000 <sup>c</sup>
	Residual	6677.092	358	18.651		
	Total	9340.365	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, LTO

c. Predictors: (Constant), CMSNOSUB, LTO, COM\_XLTO

d. Dependent Variable: AFFECTOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	23.689	1.075		22.035	.000		
	CMSNOSUB	6.603E-02	.007	.443	9.380	.000	1.000	1.000
2	(Constant)	20.362	1.154		17.643	.000		
	CMSNOSUB	5.903E-02	.007	.396	8.693	.000	.973	1.028
	LTO	.473	.076	.284	6.224	.000	.973	1.028
3	(Constant)	21.006	1.181		17.780	.000		
	CMSNOSUB	5.349E-02	.007	.359	7.457	.000	.862	1.161
	LTO	.504	.077	.302	6.566	.000	.943	1.061
	COM_XLTO	-6.05E-03	.003	-.109	-2.288	.023	.874	1.144

a. Dependent Variable: AFFECTOMT

## Appendix H – Hierarchical Multiple Regression Test of the Interacting Effect of National Culture Dimensions with CS on Continuance Commitment

**Model Summary<sup>d</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.324 <sup>a</sup>	.105	.103	6.26977	.105	42.353	1	360	.000
2	.385 <sup>b</sup>	.148	.143	6.12685	.043	17.991	1	359	.000
3	.396 <sup>c</sup>	.157	.150	6.10297	.009	3.815	1	358	.052

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, PDI

c. Predictors: (Constant), CMSNOSUB, PDI, COM\_XPDI

d. Dependent Variable: CONTCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1664.885	1	1664.885	42.353	.000 <sup>a</sup>
	Residual	14151.601	360	39.310		
	Total	15816.486	361			
2	Regression	2340.226	2	1170.113	31.171	.000 <sup>b</sup>
	Residual	13476.260	359	37.538		
	Total	15816.486	361			
3	Regression	2482.337	3	827.446	22.216	.000 <sup>c</sup>
	Residual	13334.150	358	37.246		
	Total	15816.486	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, PDI

c. Predictors: (Constant), CMSNOSUB, PDI, COM\_XPDI

d. Dependent Variable: CONTCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	24.061	1.476		16.299	.000		
	CMSNOSUB	6.290E-02	.010	.324	6.508	.000	1.000	1.000
2	(Constant)	18.163	2.004		9.065	.000		
	CMSNOSUB	5.879E-02	.009	.303	6.192	.000	.990	1.011
	PDI	.645	.152	.208	4.242	.000	.990	1.011
3	(Constant)	18.226	1.996		9.131	.000		
	CMSNOSUB	5.423E-02	.010	.280	5.566	.000	.933	1.072
	PDI	.714	.156	.230	4.592	.000	.938	1.066
	COM_XPDI	-7.98E-03	.004	-.100	-1.953	.052	.905	1.105

a. Dependent Variable: CONTCOMT

**Model Summary<sup>a</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.324 <sup>a</sup>	.105	.103	6.26977	.105	42.353	1	360	.000
2	.397 <sup>b</sup>	.158	.153	6.09244	.052	22.262	1	359	.000
3	.450 <sup>c</sup>	.203	.196	5.93447	.045	20.368	1	358	.000

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, UAI

c. Predictors: (Constant), CMSNOSUB, UAI, COM\_XUAI

d. Dependent Variable: CONTCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1664.885	1	1664.885	42.353	.000 <sup>a</sup>
	Residual	14151.601	360	39.310		
	Total	15816.486	361			
2	Regression	2491.184	2	1245.592	33.558	.000 <sup>b</sup>
	Residual	13325.303	359	37.118		
	Total	15816.486	361			
3	Regression	3208.486	3	1069.495	30.368	.000 <sup>c</sup>
	Residual	12608.001	358	35.218		
	Total	15816.486	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, UAI

c. Predictors: (Constant), CMSNOSUB, UAI, COM\_XUAI

d. Dependent Variable: CONTCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	24.061	1.476		16.299	.000		
	CMSNOSUB	6.290E-02	.010	.324	6.508	.000	1.000	1.000
2	(Constant)	15.645	2.289		6.835	.000		
	CMSNOSUB	6.978E-02	.010	.360	7.342	.000	.976	1.024
	UAI	.651	.138	.231	4.718	.000	.976	1.024
3	(Constant)	16.604	2.240		7.414	.000		
	CMSNOSUB	6.764E-02	.009	.349	7.296	.000	.974	1.027
	UAI	.620	.135	.220	4.606	.000	.974	1.027
	COM_XUAI	2.443E-02	.005	.213	4.513	.000	.995	1.005

a. Dependent Variable: CONTCOMT

**Model Summary<sup>d</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.324 <sup>a</sup>	.105	.103	6.26977	.105	42.353	1	360	.000
2	.344 <sup>b</sup>	.119	.114	6.23134	.013	5.454	1	359	.020
3	.344 <sup>c</sup>	.119	.111	6.23999	.000	.005	1	358	.944

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, MAS

c. Predictors: (Constant), CMSNOSUB, MAS, COM\_XMAS

d. Dependent Variable: CONTCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1664.885	1	1664.885	42.353	.000 <sup>a</sup>
	Residual	14151.601	360	39.310		
	Total	15816.486	361			
2	Regression	1876.666	2	938.333	24.165	.000 <sup>b</sup>
	Residual	13939.820	359	38.830		
	Total	15816.486	361			
3	Regression	1876.857	3	625.619	16.067	.000 <sup>c</sup>
	Residual	13939.629	358	38.938		
	Total	15816.486	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, MAS

c. Predictors: (Constant), CMSNOSUB, MAS, COM\_XMAS

d. Dependent Variable: CONTCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	24.061	1.476		16.299	.000		
	CMSNOSUB	6.290E-02	.010	.324	6.508	.000	1.000	1.000
2	(Constant)	21.328	1.877		11.364	.000		
	CMSNOSUB	6.090E-02	.010	.314	6.315	.000	.992	1.008
	MAS	.293	.125	.116	2.335	.020	.992	1.008
3	(Constant)	21.327	1.879		11.348	.000		
	CMSNOSUB	6.076E-02	.010	.313	6.143	.000	.946	1.057
	MAS	.295	.130	.117	2.269	.024	.924	1.082
	COM_XMAS	-2.70E-04	.004	-.004	-.070	.944	.899	1.113

a. Dependent Variable: CONTCOMT

**Model Summary<sup>g</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.324 <sup>a</sup>	.105	.103	6.26977	.105	42.353	1	360	.000
2	.340 <sup>b</sup>	.115	.111	6.24257	.010	4.144	1	359	.043
3	.367 <sup>c</sup>	.135	.128	6.18252	.019	8.007	1	358	.005

- a. Predictors: (Constant), CMSNOSUB  
b. Predictors: (Constant), CMSNOSUB, IDV  
c. Predictors: (Constant), CMSNOSUB, IDV, COM\_XIDV  
d. Dependent Variable: CONTCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1664.885	1	1664.885	42.353	.000 <sup>a</sup>
	Residual	14151.601	360	39.310		
	Total	15816.486	361			
2	Regression	1826.376	2	913.188	23.433	.000 <sup>b</sup>
	Residual	13990.110	359	38.970		
	Total	15816.486	361			
3	Regression	2132.442	3	710.814	18.596	.000 <sup>c</sup>
	Residual	13684.045	358	38.224		
	Total	15816.486	361			

- a. Predictors: (Constant), CMSNOSUB  
b. Predictors: (Constant), CMSNOSUB, IDV  
c. Predictors: (Constant), CMSNOSUB, IDV, COM\_XIDV  
d. Dependent Variable: CONTCOMT

**Coefficients<sup>g</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	24.061	1.476		16.299	.000		
	CMSNOSUB	6.290E-02	.010	.324	6.508	.000	1.000	1.000
2	(Constant)	22.120	1.752		12.625	.000		
	CMSNOSUB	5.885E-02	.010	.304	5.987	.000	.959	1.043
	IDV	.271	.133	.103	2.036	.043	.959	1.043
3	(Constant)	21.048	1.776		11.851	.000		
	CMSNOSUB	6.490E-02	.010	.335	6.512	.000	.915	1.093
	IDV	.271	.132	.103	2.057	.040	.959	1.043
	COM_XIDV	1.019E-02	.004	.143	2.830	.005	.952	1.051

- a. Dependent Variable: CONTCOMT

**Model Summary<sup>g</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.324 <sup>a</sup>	.105	.103	6.26977	.105	42.353	1	360	.000
2	.376 <sup>b</sup>	.142	.137	6.14962	.036	15.205	1	359	.000
3	.405 <sup>c</sup>	.164	.157	6.07717	.022	9.611	1	358	.002

- a. Predictors: (Constant), CMSNOSUB  
b. Predictors: (Constant), CMSNOSUB, LTO  
c. Predictors: (Constant), CMSNOSUB, LTO, COM\_XLTO  
d. Dependent Variable: CONTCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1664.885	1	1664.885	42.353	.000 <sup>a</sup>
	Residual	14151.601	360	39.310		
	Total	15816.486	361			
2	Regression	2239.889	2	1119.945	29.614	.000 <sup>b</sup>
	Residual	13576.597	359	37.818		
	Total	15816.486	361			
3	Regression	2594.838	3	864.946	23.420	.000 <sup>c</sup>
	Residual	13221.648	358	36.932		
	Total	15816.486	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, LTO

c. Predictors: (Constant), CMSNOSUB, LTO, COM\_XLTO

d. Dependent Variable: CONTCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	24.061	1.476		16.299	.000		
	CMSNOSUB	6.290E-02	.010	.324	6.508	.000	1.000	1.000
2	(Constant)	21.110	1.634		12.921	.000		
	CMSNOSUB	5.670E-02	.010	.292	5.898	.000	.973	1.028
	LTO	.420	.108	.193	3.899	.000	.973	1.028
3	(Constant)	20.241	1.639		12.352	.000		
	CMSNOSUB	6.337E-02	.010	.327	6.506	.000	.925	1.081
	LTO	.394	.107	.181	3.687	.000	.966	1.035
	COM_XLTO	1.186E-02	.004	.154	3.100	.002	.950	1.053

a. Dependent Variable: CONTCOMT

## Appendix I – Hierarchical Multiple Regression Test of the Interacting Effect of National Culture Dimensions with CS on Normative Commitment

**Model Summary<sup>g</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.294 <sup>a</sup>	.087	.084	5.37946	.087	34.134	1	360	.000
2	.323 <sup>b</sup>	.104	.099	5.33483	.018	7.048	1	359	.008
3	.359 <sup>c</sup>	.129	.122	5.26809	.025	10.154	1	358	.002

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, PDI

c. Predictors: (Constant), CMSNOSUB, PDI, COM\_XPDI

d. Dependent Variable: NORMCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	987.792	1	987.792	34.134	.000 <sup>a</sup>
	Residual	10417.901	360	28.939		
	Total	11405.693	361			
2	Regression	1188.388	2	594.194	20.878	.000 <sup>b</sup>
	Residual	10217.306	359	28.460		
	Total	11405.693	361			
3	Regression	1470.200	3	490.067	17.658	.000 <sup>c</sup>
	Residual	9935.493	358	27.753		
	Total	11405.693	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, PDI

c. Predictors: (Constant), CMSNOSUB, PDI, COM\_XPDI

d. Dependent Variable: NORMCOMT

**Coefficients<sup>g</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	25.502	1.267		20.135	.000		
	CMSNOSUB	4.845E-02	.008	.294	5.842	.000	1.000	1.000
2	(Constant)	23.377	1.489		15.696	.000		
	CMSNOSUB	4.537E-02	.008	.276	5.462	.000	.980	1.020
	PDI	.268	.101	.134	2.655	.008	.980	1.020
3	(Constant)	23.594	1.472		16.025	.000		
	CMSNOSUB	3.795E-02	.009	.231	4.452	.000	.907	1.102
	PDI	.363	.104	.182	3.490	.001	.900	1.112
	COM_XPDI	-1.13E-02	.004	-.169	-3.187	.002	.870	1.149

a. Dependent Variable: NORMCOMT



**Model Summary<sup>g</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.294 <sup>a</sup>	.087	.084	5.37946	.087	34.134	1	360	.000
2	.302 <sup>b</sup>	.091	.086	5.37384	.004	1.754	1	359	.186
3	.305 <sup>c</sup>	.093	.085	5.37634	.002	.666	1	358	.415

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, UAI

c. Predictors: (Constant), CMSNOSUB, UAI, COM\_XUAI

d. Dependent Variable: NORMCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	987.792	1	987.792	34.134	.000 <sup>a</sup>
	Residual	10417.901	360	28.939		
	Total	11405.693	361			
2	Regression	1038.442	2	519.221	17.980	.000 <sup>b</sup>
	Residual	10367.252	359	28.878		
	Total	11405.693	361			
3	Regression	1057.691	3	352.564	12.197	.000 <sup>c</sup>
	Residual	10348.003	358	28.905		
	Total	11405.693	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, UAI

c. Predictors: (Constant), CMSNOSUB, UAI, COM\_XUAI

d. Dependent Variable: NORMCOMT

**Coefficients<sup>g</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	25.502	1.267		20.135	.000		
	CMSNOSUB	4.845E-02	.008	.294	5.842	.000	1.000	1.000
2	(Constant)	23.002	2.273		10.121	.000		
	CMSNOSUB	5.028E-02	.008	.305	5.987	.000	.973	1.028
	UAI	.181	.137	.068	1.324	.186	.973	1.028
3	(Constant)	22.887	2.278		10.046	.000		
	CMSNOSUB	5.131E-02	.008	.312	6.039	.000	.951	1.051
	UAI	.182	.137	.068	1.331	.184	.973	1.028
	COM_XUAI	-1.36E-03	.002	-.042	-.816	.415	.978	1.023

a. Dependent Variable: NORMCOMT

**Model Summary<sup>g</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.294 <sup>a</sup>	.087	.084	5.37946	.087	34.134	1	360	.000
2	.330 <sup>b</sup>	.109	.104	5.32152	.022	8.882	1	359	.003
3	.369 <sup>c</sup>	.136	.129	5.24632	.027	11.367	1	358	.001

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, MAS

c. Predictors: (Constant), CMSNOSUB, MAS, COM\_XMAS

d. Dependent Variable: NORMCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	987.792	1	987.792	34.134	.000 <sup>a</sup>
	Residual	10417.901	360	28.939		
	Total	11405.693	361			
2	Regression	1239.306	2	619.653	21.881	.000 <sup>b</sup>
	Residual	10166.388	359	28.319		
	Total	11405.693	361			
3	Regression	1552.158	3	517.386	18.798	.000 <sup>c</sup>
	Residual	9853.535	358	27.524		
	Total	11405.693	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, MAS

c. Predictors: (Constant), CMSNOSUB, MAS, COM\_XMAS

d. Dependent Variable: NORMCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	25.502	1.267		20.135	.000		
	CMSNOSUB	4.845E-02	.008	.294	5.842	.000	1.000	1.000
2	(Constant)	23.183	1.475		15.719	.000		
	CMSNOSUB	4.345E-02	.008	.264	5.189	.000	.960	1.042
	MAS	.314	.105	.152	2.980	.003	.960	1.042
3	(Constant)	23.462	1.456		16.110	.000		
	CMSNOSUB	3.684E-02	.008	.224	4.342	.000	.909	1.101
	MAS	.395	.106	.191	3.706	.000	.911	1.098
	COM_XMAS	-1.08E-02	.003	-.173	-3.371	.001	.916	1.092

a. Dependent Variable: NORMCOMT

**Model Summary<sup>a</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.294 <sup>a</sup>	.087	.084	5.37946	.087	34.134	1	360	.000
2	.318 <sup>b</sup>	.101	.096	5.34345	.015	5.868	1	359	.016
3	.366 <sup>c</sup>	.134	.127	5.25186	.033	13.632	1	358	.000

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, IDV

c. Predictors: (Constant), CMSNOSUB, IDV, COM\_XIDV

d. Dependent Variable: NORMCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	987.792	1	987.792	34.134	.000 <sup>a</sup>
	Residual	10417.901	360	28.939		
	Total	11405.693	361			
2	Regression	1155.346	2	577.673	20.232	.000 <sup>b</sup>
	Residual	10250.348	359	28.553		
	Total	11405.693	361			
3	Regression	1531.335	3	510.445	18.506	.000 <sup>c</sup>
	Residual	9874.359	358	27.582		
	Total	11405.693	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, IDV

c. Predictors: (Constant), CMSNOSUB, IDV, COM\_XIDV

d. Dependent Variable: NORMCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	25.502	1.267		20.135	.000		
	CMSNOSUB	4.845E-02	.008	.294	5.842	.000	1.000	1.000
2	(Constant)	23.489	1.508		15.577	.000		
	CMSNOSUB	4.707E-02	.008	.286	5.700	.000	.995	1.005
	IDV	.241	.100	.121	2.422	.016	.995	1.005
3	(Constant)	24.655	1.515		16.270	.000		
	CMSNOSUB	3.768E-02	.009	.229	4.431	.000	.906	1.103
	IDV	.287	.099	.144	2.908	.004	.980	1.021
	COM_XIDV	-1.15E-02	.003	-.191	-3.692	.000	.902	1.109

a. Dependent Variable: NORMCOMT

**Model Summary<sup>d</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.294 <sup>a</sup>	.087	.084	5.37946	.087	34.134	1	360	.000
2	.370 <sup>b</sup>	.137	.132	5.23689	.050	20.868	1	359	.000
3	.403 <sup>c</sup>	.163	.155	5.16547	.026	10.997	1	358	.001

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, LTO

c. Predictors: (Constant), CMSNOSUB, LTO, COM\_XLTO

d. Dependent Variable: NORMCOMT

**ANOVA<sup>d</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	987.792	1	987.792	34.134	.000 <sup>a</sup>
	Residual	10417.901	360	28.939		
	Total	11405.693	361			
2	Regression	1560.096	2	780.048	28.443	.000 <sup>b</sup>
	Residual	9845.597	359	27.425		
	Total	11405.693	361			
3	Regression	1853.525	3	617.842	23.156	.000 <sup>c</sup>
	Residual	9552.169	358	26.682		
	Total	11405.693	361			

a. Predictors: (Constant), CMSNOSUB

b. Predictors: (Constant), CMSNOSUB, LTO

c. Predictors: (Constant), CMSNOSUB, LTO, COM\_XLTO

d. Dependent Variable: NORMCOMT

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	25.502	1.267		20.135	.000		
	CMSNOSUB	4.845E-02	.008	.294	5.842	.000	1.000	1.000
2	(Constant)	22.558	1.391		16.214	.000		
	CMSNOSUB	4.226E-02	.008	.257	5.163	.000	.973	1.028
	LTO	.419	.092	.227	4.568	.000	.973	1.028
3	(Constant)	22.163	1.378		16.089	.000		
	CMSNOSUB	4.334E-02	.008	.263	5.363	.000	.971	1.030
	LTO	.425	.090	.230	4.693	.000	.972	1.029
	COM_XLTO	-1.56E-02	.005	-.161	-3.316	.001	.998	1.002

a. Dependent Variable: NORMCOMT

## Appendix J – Recalculation of Hofstede’s Index depending on the data of the present study

Hofstede’s index formulas (Hofstede, 2001)

NC Dimension	Index Formula
Power Distance (PDI)	$PDI = -35m(03) + 35m(06) + 25m(14) - 20m(17) - 20$
Individualism (IDV)	$IDV = -50m(01) + 30m(02) + 20m(04) - 25m(08) + 130$
Masculinity (MAS)	$MAS = +60m(05) - 20m(07) + 20m(15) - 70m(20) + 100$
Uncertainty Avoidance (UAI)	$UAI = +25m(13) + 20m(16) - 50m(18) - 15m(19) + 120$
Long Term Orientation (LTO)	$LTO = +45m(09) - 30m(10) - 35m(11) + 15m(12) + 67$

**Mean score of Hofstede's VSM94 twenty questions. (N: 362)**

<b>Question No. in the study questionnaire</b>	<b>Comparable Question No. in Hofstede's VSM</b>	<b>Mean (Yemeni) N= 230</b>	<b>Mean (Iraqi) N= 35</b>	<b>Mean (Indian) N= 33</b>	<b>Mean (Egyptian) N= 32</b>	<b>Mean (Malaysian) N= 32</b>
Q70	<b>Q1</b>	1.97	1.60	2.03	2.00	2.46
Q71	<b>Q2</b>	1.54	1.54	1.30	1.62	1.75
Q72	<b>Q3</b>	1.36	1.31	1.54	1.12	1.65
Q73	<b>Q4</b>	1.45	1.57	1.48	1.43	1.75
Q74	<b>Q5</b>	1.89	1.31	2.36	1.34	1.12
Q75	<b>Q6</b>	2.37	2.20	2.18	2.78	3.18
Q76	<b>Q7</b>	2.15	2.40	1.81	2.00	2.68
Q77	<b>Q8</b>	2.36	2.80	2.18	3.00	2.56
Q78	<b>Q9</b>	2.01	2.00	2.06	3.00	2.37
Q79	<b>Q10</b>	2.16	2.00	2.66	2.00	2.31
Q80	<b>Q11</b>	2.28	1.91	2.03	3.18	2.62
Q81	<b>Q12</b>	2.63	1.80	2.27	3.00	2.75
Q82	<b>Q13</b>	2.86	3.40	2.42	1.28	2.78
Q83	<b>Q14</b>	3.34	3.54	3.42	3.43	3.68
Q84	<b>Q15</b>	2.99	3.80	2.84	3.59	3.71
Q85	<b>Q16</b>	3.59	2.68	3.33	3.18	2.90
Q86	<b>Q17</b>	1.60	1.80	1.36	3.59	2.18
Q87	<b>Q18</b>	3.20	3.54	3.12	2.78	4.03
Q88	<b>Q19</b>	2.76	2.85	3.21	3.31	3.28
Q89	<b>Q20</b>	2.60	2.20	3.15	3.28	3.25

### Power Distance (PDI) index calculation

$$\text{PDI} = -35\text{m (03)} + 35\text{m (06)} + 25\text{m (14)} - 20\text{m (17)} - 20$$

Nationality	Index Formula	Index score
Yemenis	$\text{PDI} = -35 (1.36) + 35 (2.37) + 25 (3.34) - 20 (1.60) - 20 = 65$	65
Iraqis	$\text{PDI} = -35 (1.31) + 35 (2.20) + 25 (3.54) - 20 (1.80) - 20 = 63.65$	63.65
Indians	$\text{PDI} = -35 (1.54) + 35 (2.18) + 25 (3.42) - 20 (1.36) - 20 = 60.7$	60.7
Egyptians	$\text{PDI} = -35 (1.12) + 35 (2.78) + 25 (3.34) - 20 (3.59) - 20 = 49.8$	49.8
Malaysians	$\text{PDI} = -35 (1.65) + 35 (3.18) + 25 (3.68) - 20 (2.18) - 20 = 81.95$	81.95

### Uncertainty Avoidance (UAI) index calculation

$$\text{UAI} = +25\text{m (13)} + 20\text{m (16)} - 50\text{m (18)} - 15\text{m (19)} + 120$$

Nationality	Index Formula	Index score
Yemenis	$\text{UAI} = +25 (2.86) + 20 (3.59) - 50 (3.20) - 15 (2.76) + 120 = 61.9$	61.9
Iraqis	$\text{UAI} = +25 (3.40) + 20 (2.68) - 50 (3.54) - 15 (2.85) + 120 = 38.85$	38.85
Indians	$\text{UAI} = +25 (2.42) + 20 (3.33) - 50 (3.12) - 15 (3.21) + 120 = 42.95$	42.95
Egyptians	$\text{UAI} = +25 (1.28) + 20 (3.18) - 50 (2.78) - 15 (3.31) + 120 = 26.95$	26.95
Malaysians	$\text{UAI} = +25 (2.78) + 20 (2.90) - 50 (4.03) - 15 (3.28) + 120 = - 3.20$	- 3.2

### Masculinity (MAS) index calculation

$$\text{MAS} = +60\text{m (05)} - 20\text{m (07)} + 20\text{m (15)} - 70\text{m (20)} + 100$$

Nationality	Index Formula	Index score
Yemenis	$\text{MAS} = +60 (1.89) - 20 (2.15) + 20 (2.99) - 70 (2.60) + 100 = 48.2$	48.2
Iraqis	$\text{MAS} = +60 (1.74) - 20 (2.40) + 20 (3.80) - 70 (2.20) + 100 = 78.4$	78.4
Indians	$\text{MAS} = +60 (2.36) - 20 (1.81) + 20 (2.84) - 70 (3.15) + 100 = 41.7$	41.7
Egyptians	$\text{MAS} = +60 (2.90) - 20 (2.00) + 20 (3.59) - 70 (3.28) + 100 = 76$	76
Malaysians	$\text{MAS} = +60 (2.40) - 20 (2.68) + 20 (3.71) - 70 (3.25) + 100 = 37.1$	37.1

### Individualism (IDV) index calculation

$$\text{IDV} = -50\text{m (01)} + 30\text{m (02)} + 20\text{m (04)} - 25\text{m (08)} + 130$$

Nationality	Index Formula	Index score
Yemenis	$\text{IDV} = -50 (1.97) + 30 (1.54) + 20 (1.46) - 25 (2.36) + 130 = 47.9$	47.9
Iraqis	$\text{IDV} = -50 (1.60) + 30 (1.54) + 20 (1.31) - 25 (2.80) + 130 = 52.3$	52.3
Indians	$\text{IDV} = -50 (2.03) + 30 (1.30) + 20 (1.33) - 25 (2.18) + 130 = 39.6$	39.6
Egyptians	$\text{IDV} = -50 (2.00) + 30 (1.62) + 20 (1.34) - 25 (3.00) + 130 = 30.2$	30.2
Malaysians	$\text{IDV} = -50 (2.46) + 30 (1.75) + 20 (1.12) - 25 (2.56) + 130 = 17.9$	17.9



### Long Term Orientation (LTO) index calculation

$$\text{LTO} = +45\text{m (09)} - 30\text{m (10)} - 35\text{m (11)} + 15\text{m (12)} + 67$$

Nationality	Index Formula	Index score
Yemenis	$\text{LTO} = +45 (2.01) - 30 (2.16) - 35 (2.28) + 15 (2.63) + 67 = 52.3$	52.3
Iraqis	$\text{LTO} = +45 (2.00) - 30 (2.00) - 35 (1.91) + 15 (1.80) + 67 = 57.15$	57.15
Indians	$\text{LTO} = +45 (2.06) - 30 (2.66) - 35 (2.03) + 15 (2.27) + 67 = 42.9$	42.9
Egyptians	$\text{LTO} = +45 (3.00) - 30 (2.00) - 35 (3.18) + 15 (3.00) + 67 = 75.7$	75.7
Malaysians	$\text{LTO} = +45 (2.37) - 30 (2.31) - 35 (2.62) + 15 (2.75) + 67 = 53.9$	53.9

## **Appendix M – List of Publications**

The following publications have been produced as a direct result of the research discussed in this thesis:

### **Papers in International Journals**

Al-Neshmi, M. & Zin, S. (2011). Variations in communication satisfaction of academic staff in universities in Yemen depending on national culture, *Cross Cultural Management: An International Journal*, 18 (1), pp. 87-104. (ISI cited/Thomson Reuters).

### **Papers presented in International Conferences**

Al-Neshmi, M. & Zin, S. (2010, June). *Relationship between communication satisfaction and affective commitment of members of multicultural faculty in universities in Yemen*, The 16th international Conference of the International Association for Intercultural Communication Studies (IAICS). Guangzhou, China.

Al-Neshmi, M. (2009, August). *Relationship between national culture and communication satisfaction of academic staff in universities in Yemen*, The International Management Development Seminar in Human Development Paradigm between Universiti Utara Malaysia and University Brawijaya, Indonesia, Kuala Kedah, Malaysia.

Al-Neshmi, M. & Zin, S. (2009, January). *The effects of communication satisfaction on organizational commitment of members of a multicultural faculty in universities in Yemen, A conceptual paper*, The 7th Biennial Conference of the Pacific and Asian Communication (PACA), Selangor Darul Ehsan, Malaysia.