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ABSTRACT

Studies about Information Technology (IT) professionals have shown that occupational commitment can be influenced by several factors. However, there is little empirical evidence about the relationship between the adaptation of the cultural features of the IT occupation and the level of commitment to this occupation. In a previous research study conducted by Guzman, Stanton and associates (2006), a survey instrument was developed and initially tested on the sample of American college students in IT-related majors. In this study, the same instrument was adapted and tested on a sample of IT professionals in an international setting - Bolivia, Palestine, China, Colombia and Poland. The reliability of survey instrument turned out to be very consistent with the previous results and the adaptation to the features of the IT occupational culture (i.e. stereotyping, jargon language, unusual demands, need for continuous updating, and pervasiveness) were demonstrated to be good predictors of the commitment to the occupation. Furthermore, we also found interesting differences across countries, especially in terms of the nature and level of commitment.

Keywords

IT professionals, Occupational Subculture of IT professionals, Occupational Commitment, IT Workforce.

INTRODUCTION

For a long time, literature about commitment was to a large extent dominated by organizational commitment studies (Allen & Meyer, 1993; O'Reilly & Chatman, 1986; Reichers, 1985), and as a result, a great deal of our understanding of this phenomenon was based on these studies. The past two decades, however, have witnessed an increased production of literature about occupational commitment, which refers to the strength of motivation to work and to the attachment an individual has to an occupation (e.g. Blau, 1985; Morrow & Wirth, 1989; Wetzel, Soloshy & Gallagher, 1990; Meyer, Allen, and Smith, 1993; Lee et al., 2000; Blau, 2003; and Mencil, 2005).

Meyer, Allen, and Smith (1993) presented empirical evidence for a three dimension view of occupational commitment drawn from a parallel structure they used for organizational commitment (Meyer & Allen, 1991). These three dimensions for occupational commitment are: affective, continuance, and normative. Affective commitment is a person's emotional attachment to their occupation. Employees with strong affective commitment remain with the occupation because they feel an emotional attachment to it. Continuance commitment involves the individual's assessment of the cost associated with leaving one's occupation. Finally, normative commitment is a person's sense of obligation to remain in their occupation. Studying the commitment to IT occupation is especially important because of the high turn over rates of IT employment and the difficulties to recruit and retain IT professionals (Guimaraes & Igbaria, 1992; Moore, 2000).

Recent studies of the information technology (IT) workforce have focused on two important aspects of the occupation: the occupational subculture as defined by Trice (1993) and applied to the IT occupation (Guzman et al., 2004; Guzman & Stanton, 2005) and occupational commitment in the IT field as studied by Stanton and Guzman (Stanton et. al., 2006; Guzman, 2006). The study of occupational subculture of IT workers showed that these workers indeed occupy a distinct and recognizable "occupational subculture" that crosses and transcends the particular organizational culture in which those IT professionals are embedded. The occupational culture of IT workers is characterized, for example, by the great value to the technical knowledge, use of technical jargon, need for constant self re-education, feelings of superiority, and a general lack of formal rules.

In Stanton et. al., (2006) and Guzman (2006) studies of the occupational commitment in the IT occupation, a survey instrument was developed and then improved in order to measure the perception towards each of the occupational subculture features in the IT occupation. In addition, the items of occupational commitment scales developed by Meyer, Allen, and Smith (1993) were adapted to the IT occupation and used as dependent variable. One of the goals of this study was to examine the relationship between the IT occupational subculture features and the level of commitment to the IT occupation of new information technologists. The participants of this study were college students or recently graduated individuals who had some work experience in the IT field. The main finding of this study was that the features occupational subcultures are good predictors of IT occupation commitment.

In Stanton et. al., (2006) study, the affective occupational commitment scale had six items and an alpha reliability estimate of .86; normative occupational commitment had six items and an alpha reliability estimate of .81; and continuance occupational commitment scale had five items and an alpha reliability estimate of .76. The authors used this modified scale to study a group college students (N=215) in IT-related majors or recent graduates who were at the time of the study involved in some type of work activity in the IT field such as an internship.

In this study, we continue the efforts to test the scales through studying a new different sample: IT professionals from different countries. With this multi-country sample, we are also interested in exploring if there are similarities/differences between these countries' samples in terms of the relationship between the features of IT occupational subculture and the level of the affective, continuance, and normative commitment to the occupation. The following are our research questions:

1- What are the features of the IT occupational subculture that mostly predict the IT professionals' level of commitment to their occupation?

2- Are there significant differences in the relationship between IT occupational sub-culture features and IT professionals' commitment to the IT occupation in the studied countries?

LITERATURE REVIEW

Occupational Subcultures

In today's world, people have turned to the world of work as a primary source of economic rewards, interpersonal relations, recognition and emotional support since the work of individuals' lives has been organized around occupations (Trice, 1993). People generally work within an occupation over longer periods of time than they do within particular organizations. As a result, occupations play a prominent role in work life for many people. Van Maanen and Barley described an occupational community as "a group of people who consider themselves to be engaged in the same sort of work" (1984, p.287). According to Trice (1993), each occupational subculture consists of a unique cluster of ideologies, beliefs, cultural forms, and practices. Groups of individuals from a particular occupation, working together, use their distinct ideologies to accentuate the behavior that works best within the context of their particular occupation. The conditions necessary for subculture development are social interaction, shared experiences, and similar personal characteristics (Hansen, 1995; Trice & Beyer, 1984).

According to Trice (1993), all cultures can be classified on the group and grid dimensions developed by Douglas (1982) as a model for mapping the links between culture and behavior. Based these dimensions, three previous qualitative studies used this framework for the IT field with participants in the United States. The first one used a qualitative study where researchers conducted 121 semi-structured interviews in 8 not-for-profit, small-to-medium sized organizations which included a private university, a suburban hospital, a counseling center, a manufacturing company, and a social service agency 1 (Guzman et al., 2004). The findings of this study indicated that IT people indeed occupy a recognizable occupational subculture that is characterized, for example, by the great value to the technical knowledge, use of technical jargon, need for constant self re-education, feelings of superiority by helping users and controlling the technology, and a general lack of formal rules. The second study consisted in nine focus groups conducted with college students in the IT field (Guzman et al., 2005). The main finding of this study was that people in the field absorb a picture of the IT occupational subculture primarily from the work experience. In the third study, the researchers conducted a two phase study using sequential mixed methodology. In the first phase of the study, the researchers conducted 25 interviews with college students with work experience in the IT field. The second phase of the study they used the qualitative tallies and verbatim comments to develop an initial version of the survey instrument that evaluates the perceptions of the participants towards the features of the occupational subculture (Stanton et al., 2006). A general description of the features and dimensions is listed in Table 1 (Guzman et al., 2004; Stanton, 2006).

These features of the occupational subculture in the IT field were operationalized in a set of items that include seven constructs: stereotyping, jargon, demands, updating, challenges, status, and pervasiveness. The survey instrument that was used in Stanton et al. (2006) was factor-analyzed and customized to our target of participants.

Dimension	Manifestations within the IT Occupational Community
Esoteric knowledge and expertise	*Recognized expertise with IT; control over information technologies in organizational settings (e.g., servers)*
Extreme and unusual demands	Need for constant self re-education; long hours; field forever changing; unsatisfied and/or angry users
Consciousness of kind	Complaining to other IT people about end users
Pervasiveness	IT people predominate in non-work social community
Favorable self-image, pride	Status benefits of the IT occupation; helping others
Abundance of cultural forms	Stigmatized as nerds/geeks; shared stories about user mistakes and challenges of IT work; shared jargon; informal clothing

Table 1. Subcategories of group dimension observed in the IT occupation (Guzman, 2006)

Understanding Commitment

This study looks at *occupational commitment* as dependent variable and explores its relationship with the IT occupational subculture features. Commitment by nature is a complex and multifaceted construct. Researchers have been defining and operationalizing commitment in different ways, rendering the synthesis of the accumulating research into a difficult task. However, based on previous studies we can conclude that commitment can take different forms.

"Organizational commitment" occupies a substantial amount of the work done in the organizational behavior literature referring to employees' commitment to their employers (O'Reilly & Chatman, 1986). Other studies examined commitment to unions, employment, professions, and careers and so on. A most general concept of organizational commitment defines it as a psychological state that a) characterized the employee's relationship with the organization and b) has implications for the decision to continue of discontinue membership in the organization (Meyer, Allen, & Smith, 1993).

In general, commitment has been significantly, negatively associated with turnover (Reichers, 1985). According to Blau (1985), someone with higher occupational commitment strongly identifies with and has positive feelings about their occupation. Furthermore, there was a large body of work that has focused on the antecedents of commitment, and several important classifications of variables have emerged from this stream of research. Specifically, psychological variables such as identification has been found to be an antecedent of commitment (Reichers, 1985).

Meyer et.al. (1991) propose a study to develop a multidimensional conceptualization of commitment that can be applied across domains. Later in 1993, the authors developed a study to examine the generalizability of the three component conceptualization of organizational commitment developed into the context of occupational commitment. Few studies were conducted about occupational commitment compared to those conducted on organizational commitment. In this study we apply this multidimensional concept of occupational commitment and we use the measures developed by the authors in 1993.

Occupational Commitment

Occupations represent a meaningful focus in the lives of many people (Lee, Carswell, & Allen, 2000). Occupational commitment has a potential link to retention – in terms of occupational and organizational membership. Occupational commitment contributes to our understanding of how people develop, make sense of, and integrate their multiple work-related commitments, including those that go beyond organizational boundaries (Lee et al., 2000; Meyer, Becker, & Vandenberghe, 2004; Reichers, 1985). Thus, understanding the occupational commitment construct is a very important for the purposes of our study.

Previous studies have defined occupation as an identifiable and specific line of work which individuals undertake to earn a living at a given point in time (e.g., teacher, bank teller) and it is made up of required skills, knowledge, and duties that differentiate it from other occupations and, typically, is transferable across settings (Lee et al., 2000; Mencil, 2005). The concept of occupation in this study is based on the theoretical framework of Trice (1993) but its characteristics do not substantially differ from the ones presented in the commitment literature. The term occupation, profession and career have been used somewhat interchangeably in the commitment literature as well as in this study because the work profession is more common than occupation. however in differentiating between the two , one observes that due to changes in

organizational structures and the employment relationship (Sullivan, 1999), employees are better able to manage their occupations compared to jobs in particular organizations. Therefore, occupations provide meaning for individuals' lives (Lee et al., 2000).

Occupational commitment refers to the strength of motivation to work in a chosen career role (Hall, 1971) and to the attachment an individual has to an occupation (Cable & DeRue, 2002). It is conceptualized as a psychological link between a person and his or her occupation that is based on an affective reaction to the occupation (Lee et al., 2000).

Results from a longitudinal study of medical technologists revealed a significant, positive relationship between job satisfaction and a later assessment of occupational commitment (Blau, 2003). Meta-analytic findings also showed a substantial relationship between job satisfaction and occupational commitment. Additionally, significant relationships were reported between occupational commitment and job involvement, organizational commitment, and performance (Lee et al., 2000). Terms used interchangeably with Occupational Commitment include professional commitment (Morrow & Wirth, 1989), career commitment (Blau, 1985) and professionalism (Wetzel, Soloshy & Gallagher, 1990).

The three-dimensional view of occupational commitment (Meyer et al., 1993):

Meyer, Allen, and Smith (1993) presented empirical evidence for a three-dimensional examination of occupational commitment based on their three-dimensional structure for organizational commitment (Meyer & Alien, 1991). The results of their study showed that occupational and organizational commitment contribute independently to the forecast of professional activity and work behavior.

The three dimensions for occupational commitment are: affective, continuance, and normative dimensions (Meyer et al., 1993):
Affective commitment is a person's emotional attachment to their occupation. Employees with strong affective commitment remain with the occupation because they like to. A variety of antecedents of affective commitment have been identified, including personal characteristics, structural characteristics, job related characteristics, and work experiences as the strongest and most consistent relationships
Continuance commitment involves the individual's assessment of the cost associated with leaving one's occupation. Employees with strong continuance commitment remain with the organization because they assess that they need to.
Normative commitment is a person's sense of obligation to remain in their occupation. Employees with strong normative commitment remain with the organization because they feel they ought to do so.

A multidimensional approach to the study of occupation commitment, as in the case of organizational commitment, provides a more comprehensive understanding of a person's bond to his or her occupation. In addition the antecedents and consequences of commitment may vary according the type of commitment. For instance, it was found that affective commitment is positively related to job performance and organizational citizenship, but normative commitment is negatively related and continuance commitment is unrelated (May, Korczynski and Frenkel, 2002). Previous studies about Information Technology (IT) people have shown that occupational commitment can be influenced by several factors such as occupational withdrawal intentions (Snape & Redman, 2003), job satisfaction and motivation, turnover (Reichers, 1985), serial tactics (King & Xia, 2001), and occupational identification (Blau, 1985).

Also, the findings of a recent study by one of the authors and colleagues (Stanton et al, 2006) showed that the features of occupational subculture are good predictors of occupational commitment. Specifically, the predictors had the greatest success in predicting affective commitment. Regression equations were statistically significant for both normative and continuance commitment, but the predictors explained a small amount of variance in these outcomes.

In this study with a multi-country approach, we are using the same survey instrument that was used in the latest studies with some modifications that will be explained in the methodology section, in order to find out about the relationship between the adaptation of the cultural features of the IT occupation and the level of the normative, affective and continuance commitment in the occupation.

METHOD

Participants and Procedures

We used a web-based survey to collect our data (see Appendix A for the survey questions). Participants were contacted via emails. The e mail message contained an introduction about the study and its objectives, a request for participation emphasizing the issues of voluntary participation and confidentiality. Our invitation for participation included a link to the

online survey. The survey included an introduction and a short glossary of terms in the first page used to clarify some of the terms of the survey. Our pilot testing showed that IT professionals completed the whole form (four pages) in about 34 minutes on average. Table 2 below provides titles, definitions, scale lengths, and reliabilities for each of the seven experimental scales we measured. We obtained N=90 usable responses for the data analysis. 52% of the respondents were between 26 and 35 years of age, 91% had obtained at least bachelor degree and 95% of all held an IT-related major.

Study respondents were recruited through a convince sample (more than half of the respondents (56) were from the authors home countries). Respondents represented nine countries and for further analysis Six groups were formed: Bolivia (n=5), China (18), Colombia (27), Palestine (12), Poland (21) and other (7) {consisting of France (1), India (1), Mexico (2) and Panama (3)}.

To meet the first objective of this study: testing the reliability of the survey instrument through studying a new sample (IT professionals from different countries), we made minor changes on the original survey instrument that was developed and used by Stanton et al, (2006).

Changes Related to the Target Sample

The original survey was developed to study current students and recent graduates from IT-related majors who, at the time of the survey, were either working at their internships or just finished it in IT-related areas. Since the target of the current study is IT Professionals with minimum one year work experience rather than students and recent graduate, we deleted all questions related to the internship setting and replaced some of them with questions relevant to the new target.

Changes Related to the Language of the Survey

Since the survey was originally developed in English to target English-speaking samples, we anticipated that the wording of some questions might pose some difficulties for non-English speaking respondents. We therefore changed the wording of some questions and provided the respondents with a glossary of some terms (e.g. Geek/Nerd, Jargon, Stereotype and Acronym) to make it easier to answer the survey questions. The authors anticipated that, for language and/or cultural reasons, such words might not be easily understood by the respondents.

RESULTS AND DISCUSSION

This study served three purposes: the first purpose was to test the survey instrument reliability; the second to examine the relationship between the IT occupational subculture features and the level of commitment to IT occupation, and the third was to see if there is any significant differences among different countries studied, in terms of IT occupational subculture and commitment. Table 2 shows the reliability for each scale.

Scale Title	Definition	Number of Items	Scale Reliability
Geek/Nerd	Evaluations of the stereotypical labels of "geek" and "nerd" as applied to them and their colleagues (abundance of cultural forms).	7	.12
Jargon	Evaluations of widespread use of jargon within IT occupations (abundance of cultural forms).	4	.85
Self Efficacy	Perceptions of self-efficacy in meeting the demands of an IT occupation (extreme/unusual demands).	8	.88
Esoteric Knowledge	Evaluations of learning the many areas of technique and knowledge in the IT field (esoteric knowledge and expertise).	6	.89
Extreme Demand	Evaluations of the need to adapt to new problems, long hours, and constant change (extreme and unusual demands).	5	.68
Status	Evaluations of the social status benefits of IT expertise, particularly helping others (favorable self-image, pride).	7	.80
Pervasiveness	The extent to which IT professionals integrate IT into non-work leisure time and socializing.	6	.84

Table 2. Reliability of the Scales of Perceptions of IT Occupational Subculture

For the first purpose, we calculated the reliability of the scales with our sample n=90. Based on these results, we observe that the items related to the stereotypes (geek/nerd) with this new group of participants functioned poorly (.12) compared to (.70) that was obtained in the previous study. This could be attributed in large to the language factor. Our non-English speaking respondents probably did not have a clear understanding of the terms geek and nerd. We, the authors of this study, being native speakers of languages of most of the respondents know that there is no literal translation of these words. This issue could be addressed in a future study. Also, we obtained very low reliability with the commitment scales compared to the previous study which makes us think that we need to use the instrument with other English speaking samples or to translate those questions to some other languages to find out more about the reasons for the differences.

Comparisons of Group Means

To address the second purpose, we conducted a set of independent sample t-tests, by dividing the respondents into separate groups of males and females. Table 3 lists the evaluative dimensions of IT occupational subculture as defined in Table 2 in relation to gender. All variables were on a scale from 1 to 6 (midpoint 3.5), with 1 indicating strongly disagree and 6 indicating strongly agree. The comparison between males (n=59) and females (n=31) shows that there is only one significant difference in the "Geek/Nerd" variable. Therefore, male IT professionals are more comfortable than females when being stereotyped as "geek" or "nerd". The previous study did not report similar results. It showed that male students reported higher self-efficacy with respect to the demands of the occupation than females, and tended to integrated IT into their leisure activities more extensively than females (Stanton et al, 2006).

Variable Name	Males	Females	t
Geek/Nerd	3.67	3.28	2.0 *
Jargon	4.57	4.55	.08
Self Efficacy	4.76	4.65	.58
Esoteric Knowledge	4.95	5.08	-.63
Extreme Demand	4.27	4.42	-.82
Status	4.40	4.44	.19
Pervasiveness	3.60	3.20	1.53

*p<.05, **p<.01

Table 3. Group Mean Differences on Evaluation of IT Subculture

Regression Analysis

To study the relationship between the features of IT occupational subculture and the level of commitment to the occupation, we computed and examined regression of all seven features of IT occupational subculture and the three occupational commitment scales. Table 4 displays the beta weights and R-squared values resulting from these three regression analyses.

	Type of Occupational Commitment		
Variable Name	**Normative (β)**	**Affective (β)**	**Continuance (β)**
Geek/Nerd	-.09	.04	-.10
Jargon	-.03	.12	.06
Self Efficacy	.00	.24*	.13
Esoteric Knowledge	.00	.47**	.20
Extreme Demand	.02	.11	-.21
Status	.10	-.07	-.00
Pervasiveness	.44**	-.10	.36**
R^2	.22**	.36**	.18*

*$p<.05$, **$p<.01$

Table 4. Group Mean Differences on Evaluation of IT Subculture

From the above table, we see that adaptation to the IT occupation predicted the three levels of commitment, especially normative and affective commitment. This is consistent with the results of our previous study (Stanton et al, 2006). The overall regression equations were statistically significant for all three levels of commitment; the predictors explained a medium amount of variance in the outcomes. Beta weights revealed few remarkable findings. Three of the predictors apparently had little value in predicting any of the commitment outcomes. The geek/nerd stereotyping labeling, the jargon scale and the status scale did not predict commitment. When analyzing beta weights' and their signs, we noticed some interesting results in the prediction of normative and continuance commitment. IT professionals who felt higher degree of pervasiveness (integrate IT into leisure time and socializing activities) felt higher need and obligation to remain in the field.

Analysis of Variance

To examine if there are some significant differences between the studied countries in terms of the relationships between the feature of IT subculture and the occupational commitment, an ANOVA test was conducted. Countries were divided into six groups. We put all countries with less than 5 respondents in one group "others". In the future, the authors are planning to collect more data about these countries and to include each country separately in the future analysis of this study. Table 5 shows the F values and significance levels of comparison among different countries, in terms of IT subculture feature and IT commitment.

All comparisons except jargon and continuance commitment were found significantly different among the studied countries. These initial findings deserve further exploration. When looking at the most significant differences, the following can be reported. First, Chinese IT professionals have the lowest means in four scales: geek/nerd stereotyping; perception of self efficacy in meeting the demands of an IT occupation; evaluations of learning the many technical areas and knowledge in the IT field and evaluations of the need to adapt to new problems, long hours, and constant change. Also, in the status scale, Bolivian IT professionals seem to have the highest point in evaluation of social status benefits of IT expertise compared to the Colombians who scored the lowest. Furthermore, IT professionals from Palestine seem to integrate IT into their leisure time more extensively than all the others. Lastly, in the comparison of normative commitment, we clearly notice that Palestinian IT professionals feel more obligations to remain in IT field than IT professionals from other counties. We realized that these samples are relatively small and more data needs to be collected.

Very few studies looked at these countries, especially Palestine and Bolivia. We find these findings and especially the country- based differences interesting. We expect that these differences might be largely attributed to the cultural and language differences, however, we believe that further study is needed to provide more scientific explanation and empirical evidence about these differences.

Variable Name	Bolivia	China	Colombia	Palestine	Poland	Other	Total	F	Sig
Geek/Nerd	3.42	3.21	3.35	4.00	3.93	3.22	3.54	2.97	0.02*
Jargon	5.56	4.57	4.21	5.33	4.35	4.68	4.57	2.02	0.08
Self Efficacy	5.33	4.23	5.03	4.76	4.36	5.38	4.72	6.20	0.00**
Esoteric Knowledge	5.40	4.52	4.95	5.51	4.87	5.55	5.00	3.08	0.01**
Extreme Demand	4.80	3.72	4.24	4.75	4.40	4.86	4.32	3.91	0.00**
Status	5.08	4.65	4.00	4.83	4.42	4.27	4.42	3.08	0.01**
Pervasiveness	2.70	4.09	2.67	4.36	3.76	3.14	3.47	8.63	0.00**
Identification	3.93	3.50	3.95	4.39	3.37	3.69	3.77	2.47	0.04*
Normative Commitment	2.95	3.36	2.61	4.04	2.95	2.46	3.03	3.87	0.00**
Continuance Commitment	3.50	3.64	3.39	3.91	3.44	4.00	3.57	1.04	0.40

*p<.05, **p<.01

Table 5. Group Mean Differences on Evaluation of IT Subculture per country

CONCLUSION

In overview, we administered a web survey to study the relationships between the features of IT occupational subculture and the level of occupational commitment (Affective, Continuance and Normative) of IT professionals from different countries. It should be noted that the study of these relationships is new to the literature about IT occupational subculture and commitment. This study is the first in kind that studies these relationships at the IT professionals' level in an international setting. The only two previous studies with this regard were Stanton et al, (2006) and Guzman (2006) which targeted both students and recent graduates from IT-related fields. With this new target, this study served as a good testing environment for the reliability of the survey instrument which was developed and improved in Stanton et al, (2006) and Guzman (2006) previous studies. The study showed to be consistent with the previous findings, although one scale- Geek/ Nerd was poorly functioning. The underlying reason may be attributed to language and to the fact that geek and nerd are English specific words. Although these findings increased our confidence in the survey and its applicability to study these relationships in other different settings, we believe that more testing studies are needed to make sure that this survey can be a valid standard instrument to study these relationships across different settings and targets. We hope that once we finish the testing process, this survey will be able to contribute to the theory of occupational commitment.

In addition to the reliability testing, the study provided interesting results about the relationships between the features of IT occupational subculture and the level of IT professionals' occupational commitment. This study showed that adaptation to the features of the IT occupational culture is good predictor of commitment. It also provided empirical evidence about the differences in the way each country's IT professionals correlated their adoption of the features of their occupation with their level of commitment to this occupation. With the current size of the sample from each country, we believe that we are not able to discuss and explain these differences. We assume, however, that most of these differences can be attributed to some language and cultural difference. An extensive future research is needed to discuss the literature about the IT occupation in each of these countries and the reasons for these significant differences.

Furthermore, please note that the preliminary nature of the study places significant limits on generalizability. The Study respondents comprised a convenience sample. In addition, all of the evaluative measures of IT occupational subculture were still in a preliminary form. We need to collect further validation evidence as well as continue to refine the item content for these scales. Despite these limitations, however, we believe that we have revealed a new and interesting view of how IT professionals relate the features of their occupational subculture to their commitment.

The results of this study can help in understanding some of the factors that determines/influences IT professionals' commitment to their occupation and consequently develop some mechanisms to increase this commitment and decrease turnover.

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APPENDIX A: OCCUPATIONAL SUBCULTURE SURVEY ITEMS

Answer Scale: 1- Not at all confident I can do this to 6- Totally confident I can do this	Answer Scale for ALL other scales: 1-Strongly disagree to 6- Strongly Agree
Instructions: Please indicate the degree of confidence that you have of being able to perform these tasks in the IT field.	Instructions: How do other people see you? How do you see yourself? Please indicate the extent to which you agree or disagree with these statements about stereotypes of the IT field.
Self-Efficacy	**Geek/nerd Stereotypes**
Solve difficult IT problems.	If someone called me a geek/nerd I would consider it an insult.
Accomplish all IT-related tasks designated to me.	I think other people do think of me as a geek or nerd.
Efficiently deal with unexpected IT-related events.	I don't consider myself a nerd or geek
Use my resourcefulness with technology to successfully handle unforeseen situations.	My family thinks of me as a computer nerd.
Solve the majority of IT-related problems if I invest the necessary effort.	Some of my colleagues are definitely computer nerds.
Remain calm when facing IT-related difficulties.	I do not mind being stereotyped as a geek/nerd.
Find the best possible solution when confronted with an IT-related problem.	Being seen as a geek by my friends is a problem for me.
Handle whatever comes my way when dealing with IT.	
Use of IT Jargon	**Extreme Demands**
I like IT jargon/technical language.	It is tough to do well in the IT field, but I like it that way.
When I start a new IT project, I don't mind learning all of the new names of products and technologies.	I enjoy dealing with difficult tasks in the IT field.
I enjoy using technical terms to communicate with other members of the IT profession.	Continuous changes in the IT field do not bother me.
In my IT profession we like to use acronyms/abbreviations.	For me the fast pace of the IT field makes it enjoyable.
	I would not mind an IT job that required an unusual work schedule.
Esoteric Knowledge	**Pervasiveness**
I enjoy learning how to solve IT-related problems.	When I'm not at work I spend time on my computer surfing the web.
I enjoy obtaining hands-on experience with IT.	When I'm not at work I often tinker with my own computer and software.
I like learning about the newest technologies in the IT field.	I enjoy PC/online gaming quite frequently.
Keeping up with the latest knowledge in my field is important for me.	I enjoy spending my free time playing with information technology.
I enjoy keeping myself updated with latest developments in IT.	One of the things that I share with some of my friends is our love for information technologies.
I enjoy spending extra hours learning more about information technology.	Socializing with other IT people is fun for me