**Journal of Global Information Management**
Volume 28 • Issue 4 • October-December 2020

# Career Anchors of IT/IS Personnel:
## A Cross-Culture Research Based on the Guanxi Culture Theory

Christina Ling-hsing Chang, National Pingtung University, Pingtung, Taiwan
Kathy Ning Shen, University of Wollongong, Dubai, UAE
Sheng Wu, Southern Taiwan University of Science and Technology, Tainan, Taiwan

### ABSTRACT

While career anchors have mainly studied in the US society; this study demonstrates the difference in the career anchors of the information technology/information system (IT/IS) personnel rooted in different cultures. The survey was conducted in the PRC (202), Taiwan (145), India (223), the UAE (167), and the US (122) totaling 859 respondents. This study examines the relationship between the *guanxi* culture, career anchor, job satisfaction, and turnover intention among these five cultural societies' IT/IS personnel. The result shows that the *guanxi* culture has a different effect on each career anchor, and each one also has a different effect on job satisfaction in the five different cultural societies as well; thus, they have different results in the research model. Also discussed are the implications of the study and its contribution to the research and management practice.

### KEYWORDS

Career Anchor, Guanxi Culture, Job Satisfaction, Turnover Intention

### 1. INTRODUCTION

Information technology (IT) and information systems (IS) are the core capability of an organization in controlling critical downstream and upstream data (Chang et al., 2011). It is the IT/IS personnel that maintain this core capability for the organization making the turnover of the IT/IS personnel costly, not only in terms of replacing staff and training new employees, but also in terms of systems development productivity, and quality (Jiang & Klein, 1999; Thatcher et al., 2003). Since the 1960s, the turnover rate of the IT/IS personnel were much higher than that for other professional workers (BLS, 2011; Dinger et al., 2015). In the 21st century, notwithstanding the recent trend toward relocating IS jobs offshore, the IT/IS personnel's turnover remains a chronic problem (Lo, 2015).

On the basis of the aforementioned information, the rising turnover rate poses, for professionals and academics alike, serious concerns about how to retain qualified IT/IS personnel (Adams et al., 2006; Joseph et al., 2007). With respect to these issues, this paper finds that in comparison

DOI: 10.4018/JGIM.2020100109

with other occupations, the IT/IS personnel are more affected by the newly-developed IT (Chang et al., 2012; Armstrong et al., 2015). In addition, the IT/IS personnel need to stay current with respect to other professional knowledge which extends beyond their own field (Armstrong et al., 2015; Lounsbury et al., 2014). If the factors causing the IT/IS personnel's turnover can be ascertained, it will then be possible for solutions to be found to prevent it, and thus, to reduce the costs incurred from the turnover. In this regard, numerous researches into the MIS domain have acknowledged the importance of the influence of career planning on the turnover rate of the IT/IS personnel (Sumner & Yager, 2004).

In light of this, researchers argue that understanding the needs of the IT/IS personnel by determining their requirements is important, because an employee's career anchor[1] needs the influence selection of occupation and an intention to leave an organization (Agarwal & Ferratt, 2000; Quesenberry & Trauth, 2007; Kannabiran et al., 2016). The concept of career anchor was originally proposed by Schein (1978), who described it as that which guides an employee's career decisions. If an employee's career anchor was satisfied, then the individual has a higher level of job satisfaction. For this reason, positive attainment of job satisfaction is important to retain quality IT/IS personnel. Moreover, the first and second research questions to be resolved in this paper are: What is the relationship between job satisfaction and turnover intention of the IT/IS personnel? What is the relationship between the career anchors and job satisfaction of the IT/IS personnel?

Accordingly, culture is another important factor influencing the turnover of the IT/IS personnel (Gerpott et al., 1988; Joseph et al., 2007; Marshall & Bonner, 2003; Wong, 2007), while previous studies have established the different types of career anchors from the context of the US society only (e.g., Igbaria et al., 1999; Wynne et al., 2002; Hsu et al., 2003; Sumner & Yager, 2004). Meanwhile, Christianity in Europe and North America (e.g., Western society (US)), Confucianism in East Asia (e.g., Chinese society (PRC and Taiwan)), Hinduism in South Asia (e.g., India society), and Islam in the Middle-East and Southeast Asia (e.g., UAE society). These areas belong to significantly different cultural groups, and their religion exerts a definite impact on people in those areas, and it will be the most interesting of research topics for scholars (Hwang, 2015). Therefore, this study attempts to explore career anchors within the context of the PRC, Taiwan, India, the UAE and the US cultures, and to compare its findings with those of the aforementioned studies. We expect that the IT/IS personnel from different cultures may develop different needs and values attached to their careers.

Moreover, some researchers have treated networking in Western culture as being similar to *guanxi*[2], and *guanxi* is more likely to mix socio-emotional concerns with instrumental concerns in the workplace interactions (Chang & Chen, 2017; Chen & Chen, 2004; Huang & Aaltio, 2014; Hung, 2004); therefore, *guanxi* can be used to analyze interpersonal interactions in any culture (Hwang, 2015). For this reason, this study incorporates the *guanxi* culture to be the cultural dimension. Thus, the third research question to be resolved is: What is the relationship between the *guanxi* and career anchors of the IT/IS personnel in these five different cultural societies?

Due to the comparison between the IT/IS personnel from these five different cultural societies, it will also shed light on the difference in the career anchor's contribution to world globalization. Therefore, the fourth question to be resolved is: What are the differences between these five different cultural societies previously mentioned three research questions?

Finally, in this research, the key objective is to investigate career anchors among the IT/IS personnel in five different cultural contexts, and its impact on job satisfaction and subsequent turnover intention. Besides, we will also extend the research on career anchors to incorporate the impact of the *guanxi* culture. The result of the study will provide insight into the importance for the organizations retention of the IT/IS personnel in these five different cultural societies.

## 2. LITERATURE REVIEW

### 2.1 Career Anchors

A career anchor is shaped by long-term experience, in terms of the self-development, learning, family, and work (Schein, 1978). DeLong (1982) adopted the five career anchors of Schein (1978) as his basic model, he suggested that three more career anchors: service, variety, and identity. A number of scholars found that security embraces different meanings, then they suggested it should be separated into organizational stability and geographical security (Crepeau et al., 1992; Igbaria & Baroudi, 1993). In addition, Chang (2010) highlighted the importance of "learning motivation" as a career anchor.

The majority of extant research related to career anchors originally proposed by Schein (1978), adjusted by DeLong (1982), and measured by Igbaria & Baroudi (1993), Crepeau et al. (1992), Sumner & Yager (2004), on the basis of the above literature review (Chang, 2010; Crepeau et al., 1992; DeLong, 1982; Igbaria & Baroudi, 1993; Schein, 1978), the following 13 career anchors are proposed: (1) Technical Competence: focused on the exercise of technical expertise. (2) Managerial Competence: pursuit higher managerial level and greater responsibility. (3) Autonomy: the individual is free from organizational constraints and control. (4) Organizational Stability: seeking loyalty, and tenure security. (5) Challenge: preference for conquering difficult tasks or problems. (6) Lifestyle: integration of individual, family, and career. (7) Identity: Strong desire for status and prestige pertaining to specific organizations. (8) Creativity: the building of self-affirmation through creation. (9) Variety: Desire to work on a number of different tasks. (10) Service: dedication to helping and contributing others. (11) Entrepreneurship: establishing a new business and/or a new product independently of others. (12) Geographic Security: linking to a particular area on a long-term basis. (13) Learning Motivation: an incentive which motivates an individual to achieve a specific goal, to satisfy one's knowledge growth, and initiate the learning behavior.

### 2.2 Culture and Career Anchors

Accordingly, culture may influence how differently career anchors are valued and their implications in the working environment (Arnold et al., 2017; Costigan et al., 2018; Kim, 2005; Wechtler et al., 2017). Schein (1984, 1986), Derr and Laurent (1987) suggested that more investigation was required into the IT/IS personnel's career anchors from the perspectives of different cultures. In studies by Marshall and Bonner (2003), Huang and Aaltio (2014), it has been asserted that the culture construct has a significant effect on the career anchor of the IT/IS personnel, as one's needs and wants are shaped by certain culture through socialization and internalization (Kim, 2005).

Chang (2010) explored career anchors and subsequent job satisfaction and turnover intention among the IT/IS personnel in Taiwan society. Based on interviews, she reported different priorities in career anchors of Taiwan's IT/IS personnel from those in the US. Such findings imply the cultural impact on career anchors of the IT/IS personnel and suggest the necessity to incorporate culture as the endogenous factors in career anchor research. Similar qualitative evidence was also reported in prior research (such as Gerpott et al., 1988). However, the cultural impact on career anchors has received little empirical support. Another limitation in prior research was that most studies follow the Hofstede's (1983) culture of conceptualization and focuses on the cultural impact on career anchors (Chang, 2010). Although this approach is widely applied in prior research when comparing different cultures, the Hofstede's cultural dimensions may not be sufficient to capture the uniqueness in non-Western cultures (Hwang, 2015). For example, the Individualism of Hofstede (1983) overemphasizes the relationship of the instrumental tie of Hwang (1987). It ignores or neglects other types of interpersonal relationships; thus, this is undoubtedly a biased approach (Hwang, 2015).

In addition, Igbaria et al. (1995), and Igbaria and McCloskey (1996) hypothesized that culture has an impact on technical competence, managerial competence, organizational stability, geographical security, autonomy, service, entrepreneurship, pure challenge, and lifestyle of the IT/IS personnel in

South Africa, Taiwan, and the US. Marshall and Bonner (2003) asserted that culture has a significant impact on entrepreneurship, technical competence, organizational stability, and lifestyle.

However, most of the existing empirical research is conducted in Western countries and there is a dearth of research in the other cultural contexts (Igbaria et al., 1999; Wynne et al., 2002; Hsu et al., 2003; Sumner & Yager, 2004). To date, these perspectives have remained ignored, leading to a distinct lack of research in this field. Practically, with increasing diversity in the workforce of the IT/IS industry, it is imperative to understand the peculiarity in the IT/IS personnel' career anchor from different cultural contexts. Likewise, Joseph et al. (2007) developed a contextual turnover model for the IT/IS personnel, believing culture to be another important factor. The culture has a significant effect on the career anchor of the IT/IS personnel as their needs and wants are shaped by specific culture through socialization and internalization (Kim, 2005).

Meanwhile, a career anchor is rooted in culture which profoundly shapes one's values and needs (Arnold et al., 2017; Costigan et al., 2018; Fei, 2017; Gerpott et al., 1988; Joseph et al., 2007; Wong, 2007), and *guanxi* can be used to analyze interpersonal interactions in any culture (Hwang, 2015); thus, this study adopts the *guanxi* culture to explore the relationship between the *guanxi* and career anchors of the IT/IS personnel in different cultural societies.

### 2.3. Guanxi Culture

*Guanxi* consists of two Chinese words. The word "*guan*" means a gate, and "*xi*" refers to a tie, a relationship, or a connection. Therefore, *guanxi* means "pass the gate to get connected" (Lee & Dawes, 2005), and it is social connections and reciprocal favors and obligations to the *guanxi* circle. Outside such a circle, there is 'no tie, no obligation, and no rights' (Lee & Dawes, 2005). *Guanxi* is more likely to mix socio-emotional concerns with instrumental concerns in workplace interactions, and it typically involves personal gifts, shared meals, and addressing friends as brothers and sisters (Sanchez-Burks, 2002).

Hwang (1987) subdivides relationships into three kinds of *guanxi*: (1) Expressive ties: this is relatively permanent and stable social relationship within families. (2) Mixed ties: which has been termed a particularistic tie, occurs mainly among relatives, neighbors, classmates, colleagues, teachers, and students who share a common area. The members never as strong that all the participants in this tie are able to express their authentic behavior as freely as the members in the expressive tie. (3) Instrumental ties: an individual must establish instrumental ties with others outside one's family to attain one's material goals. In view of this, *guanxi* in Chinese culture is based on factors that promote shared social experience between and among individuals (Chiao, 1982; King, 1991).

Due to *guanxi* being a critical factor to impact on a female managers' career planning (Fei, 2017), and career-orientated IT/IS personnel (Huang & Aaltio, 2014). For this reason, the present study focuses on the mixed tie to understand the extent to which the *guanxi* culture has an effect on the career anchors of the IT/IS personnel.

## 3. HYPOTHESES DEVELOPMENT

### 3.1. Job Satisfaction and Turnover Intention

According to Fishbein and Ajzen (1975, p. 369), the best indicator to forecast behavior is the intention results in behavior. In point of fact, Mobley et al. (1979) asserted that intention is the best way to measure the turnover of the employees. Turnover intention concept has already been adopted in many scholarly fields as the best indicator for forecasting turnover behavior (Mobley et al., 1979).

Studies have found a relationship such that job satisfaction is an indicator of turnover (Chan & Mai, 2015; El-Masri et al., 2018; Guan et al., 2014; Jiang et al., 2018; Kang et al., 2015; Nauta et

al., 2009; Taylor & Joshi, 2019). Thus, job satisfaction negatively affects the intention to leave an organization (Guan et al., 2014; Laschinger, 2012). Hence, we posit:

$H_1$: Job satisfaction of the IT/IS personnel has a negative effect on their turnover intention.

### 3.2. Career Anchors and Job Satisfaction

Job satisfaction is highly related to career anchors that have impacted on successful IT/IS personnel management (Gupta et al., 1992; Igbaria et al., 1991; McLean et al., 1991). According to the results of the above studies, career anchors have had significant effects on the IT/IS personnel's job satisfaction (Agarwal & Ferratt, 2000; Chang, 2010; Hsu et al., 2003; Jiang et al., 2018; Wynne et al., 2002). Hence, we posit:

$H_{2a\sim2m}$: Career anchors of the IT/IS personnel have had an effect on their job satisfaction.

### 3.3. Guanxi Culture and Career Anchors

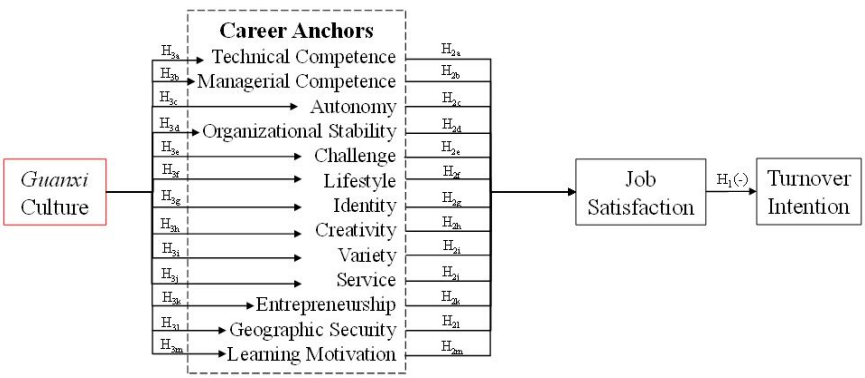
The ability to build interpersonal relationships (*guanxi*) was very important due to the fact that it will have a positive effect on the social standing of their family, and society; hence, they have to achieve a higher position (managerial competence) (Chang, 2010). In addition, how to build a good relationships (*guanxi*) with the IT/IS domain experts is also important due to the fact that it can help them to improve their technical competence too (Chang et al., 2016). While prior research has partly demonstrated the cultural impact on career anchors (Arnold et al., 2017; Costigan et al., 2018; Igbaria et al., 1995; Igbaria & McCloskey, 1996; Joseph et al., 2007; Marshall & Bonner, 2003), this research aims to contribute to the existing literature by investigating the role of the *guanxi* culture in career anchor formation, job related assessment, and decisions.

Thus, the study sets out to understand the way in which the *guanxi* culture impacts on the IT/IS personnel in the PRC, Taiwan, India, the UAE and the US, being five different cultural societies. Therefore, we posit:

$H_{3a\sim3m}$: *Guanxi* culture has an effect on the career anchors of the IT/IS personnel.

Finally, this study proposes the research model (see Figure1) on the basis of the literature review provided above to understand the interactions among the career anchors of the IT/IS personnel, *guanxi* culture, job satisfaction, and turnover intention.

**Figure 1. Research Model (Compare of Five Societies)**



## 4. RESEARCH METHOD

### 4.1. Survey Administration

Data of this study has been primarily collected via an Internet survey. An announcement was posted on the Internet discussion forum of five different cultural societies (the PRC, Taiwan, India, the UAE and the US) to recruit participants who were full time IT/IS personnel in a company. We released the invitation with limited distribution on the Internet, and the announcement stated the purpose of this study and specified that only those with IT/IS personnel would be qualified to participate in the survey. To ensure confidentiality, all the participants were informed that their responses would remain anonymous and would be used for academic purposes only. The one-year survey was conducted from 2016 to 2017.

Out of 859 (including: PRC: 202; Taiwan: 145; India: 223; UAE: 167; US: 122) responses received; 179 from the PRC, 111 from Taiwan, 207 from India, 131 from the UAE, and 113 from the US valid surveys were completed, with a response rate of the PRC 88.61%, Taiwan 76.55%, India 92.83%, the UAE 78.44%, and the US 92.62%. The demographic information of these respondents is listed in Table 1. The data shows that more males (Taiwan: 74.77%; India: 79.71%; the UAE: 74.81%; and the US: 73.45%) than females (Taiwan: 23.42%; India: 20.29%; the UAE: 24.43%; the US: 25.66%) in Taiwan, India, the UAE, and the US have responded, but not in the PRC. Most respondents were under the age of 40 and obtained a Bachelor's or Master's degree. The sample structure of the respondents in this study was similar to that used in the study of Armstrong et al. (2015), Fu and Chen (2015), whose target sample was information technology professionals on career experience, the representativeness of our sample was therefore assured.

### 4.2. Measurement Development

We developed measurement items by adopting measures that had been validated in prior studies, and modified the items to fit our context. The questionnaire consisted of 68 items to measure four constructs in the research model (see Appendix). A total of 56 questions obtained from DeLong (1982), Igbaria and Baroudi (1993), and Chang and Lin (2008) were used to measure the career anchors. A total of six questions obtained from Zhuang et al. (2010) were used to measure the mixed ties of the *guanxi* culture. A total of three questions obtained from Greenhaus et al. (1990) were used to measure job satisfaction. A total of three questions obtained from Mobley et al. (1978) were used to measure turnover intention.

Since traditional Chinese is the most commonly used language in Taiwan, the questionnaire items were translated into Chinese for a higher response rate. A backward translation was employed to ensure consistency between Chinese and the original English versions of the instrument. Two professional translators independently translated the English questions into Chinese. The translated Chinese question sets were then reviewed by a professor to ensure that the meanings were consistent with the English ones. This final set of Chinese questions was translated back into English by another professional translator in order to check the translation equivalence. The translators then collaborated on the comparison of the original English questions with the back translation. Based on the discussions among the translators, a final set of questions was confirmed. Domain experts reviewed the instrument to ensure its validity and to identify ambiguity. The wording of certain items was modified, based on suggestions from the domain experts.

All of the constructs were measured by at least three indicators, using a 5-point Likert scale. The anchors for all items ranged from 1 (strongly disagree) to 5 (strongly agree). We conceptualized and measured all of the constructs, respectively, thus setting the direction of causality from indicator to construct.

A pre-test of the questionnaire was performed with help from three specialists in the MIS department and three professors in the IS domain to assess the validity of its content; this included the ease of understanding, sequence of items, and contextual relevance. The questionnaire was slightly

**Table 1. Sample demographics**

| Demographical Characteristics | Contents | PRC | | Taiwan | | India | | UAE | | US | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % | # | % |
| Gender | (1) Male | 89 | 49.72 | 83 | 74.77 | 165 | 79.71 | 98 | 74.81 | 83 | 73.45 |
| | (2) Female | 90 | 50.28 | 26 | 23.42 | 42 | 20.29 | 32 | 24.43 | 29 | 25.66 |
| | (3) Others | 0 | 0.00 | 2 | 1.80 | 0 | 0.00 | 1 | 0.76 | 1 | 0.88 |
| Age | (1) <=25 | 7 | 3.91 | 12 | 10.81 | 30 | 14.49 | 21 | 16.03 | 13 | 11.50 |
| | (2) >25 and <=30 | 52 | 29.05 | 26 | 23.42 | 76 | 36.71 | 43 | 32.82 | 41 | 36.28 |
| | (3) >30and <=35 | 61 | 34.08 | 27 | 24.32 | 63 | 30.43 | 33 | 25.19 | 32 | 28.32 |
| | (4) >35and <=40 | 55 | 30.73 | 31 | 27.93 | 24 | 11.59 | 21 | 16.03 | 15 | 13.27 |
| | (5) >40 and <=45 | 1 | 0.56 | 7 | 6.31 | 9 | 4.35 | 11 | 8.40 | 7 | 6.19 |
| | (6) >45 and <=50 | 1 | 0.56 | 6 | 5.41 | 2 | 0.97 | 2 | 1.53 | 2 | 1.77 |
| | (7) >50and <=60 | 2 | 1.12 | 1 | 0.90 | 1 | 0.48 | 0 | 0.00 | 3 | 2.65 |
| | (8) over 60 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| | (9) Others | 0 | 0.00 | 1 | 0.90 | 2 | 0.97 | 0 | 0.00 | 0 | 0.00 |
| Education | (1) High school | 1 | 0.56 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 8 | 7.08 |
| | (2) Junior college graduates | 1 | 0.56 | 4 | 3.60 | 6 | 2.90 | 3 | 2.29% | 9 | 7.96 |
| | (3) Bachelor's degree | 126 | 70.39 | 43 | 38.74 | 129 | 62.32 | 87 | 66.41 | 64 | 56.64 |
| | (4) Master | 49 | 27.37 | 61 | 54.95 | 70 | 33.82 | 39 | 29.77 | 31 | 27.43 |
| | (5) Ph. D | 2 | 1.12 | 1 | 0.90 | 0 | 0.00 | 1 | 0.76 | 1 | 0.88 |
| | (6) Others | 0 | 0.00 | 2 | 1.80 | 2 | 0.97 | 1 | 0.76 | 0 | 0.00 |
| Industry | (1) Government | 0 | 00.00 | 19 | 17.12 | 12 | 5.80 | 28 | 21.37 | 5 | 4.42 |
| | (2) Information Service | 114 | 63.69 | 73 | 65.77 | 121 | 48.45 | 25 | 19.08 | 66 | 58.41 |
| | (3) Medicine | 1 | 0.56 | 10 | 9.01 | 8 | 3.86 | 11 | 8.40 | 7 | 8.19 |
| | (4) Financial | 3 | 1.68 | 0 | 0.00 | 14 | 6.76 | 12 | 9.16 | 3 | 2.65 |
| | (5) Others | 61 | 34.07 | 9 | 8.10 | 52 | 35.13 | 55 | 41.99 | 32 | 26.33 |
| Job Title | (1) System engineer | 30 | 16.76 | 14 | 12.61 | 23 | 11.11 | 16 | 12.21 | 3 | 2.65 |
| | (2) Software engineer | 56 | 31.28 | 24 | 21.62 | 23 | 11.11 | 8 | 6.11 | 8 | 7.08 |
| | (3) Hardware engineer | 21 | 11.73 | 6 | 5.41 | 0 | 0.00 | 4 | 3.05 | 1 | 0.88 |
| | (4) Network engineer | 6 | 3.35 | 7 | 6.31 | 9 | 4.35 | 17 | 12.98 | 6 | 5.31 |
| | (5) Programmer | 23 | 12.85 | 25 | 22.52 | 28 | 13.53 | 8 | 6.11 | 24 | 21.24 |
| | (6) DBA | 18 | 10.06 | 1 | 0.90 | 4 | 1.93 | 2 | 1.53 | 1 | 0.88 |
| | (7) Project manager | 9 | 5.03 | 3 | 2.70 | 13 | 6.28 | 20 | 15.27 | 15 | 13.27 |
| | (8) MIS Manager | 3 | 1.68 | 2 | 1.80 | 24 | 11.59 | 7 | 5.34 | 10 | 8.85 |
| | (9) System analyst | 9 | 5.03 | 8 | 7.21 | 18 | 8.70 | 9 | 6.87 | 13 | 11.50 |
| | (10) MIS sales | 4 | 2.23 | 4 | 3.60 | 2 | 0.97 | 0 | 0.00 | 1 | 0.88 |
| | (11) Others | 0 | 0.00 | 17 | 15.31 | 63 | 30.44 | 40 | 30.54 | 31 | 27.43 |

*continued on following page*

**Table 1. Continued**

| Demographical Characteristics | Contents | PRC | | Taiwan | | India | | UAE | | US | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % | # | % | # | % |
| Job experience | (1) 1~3 years | 16 | 8.94 | 26 | 23.42 | 48 | 23.19 | 26 | 19.85 | 22 | 19.47 |
| | (2) 4~6 years | 48 | 26.82 | 19 | 17.12 | 56 | 27.05 | 28 | 21.37 | 27 | 23.89 |
| | (3) 7~9 years | 45 | 25.14 | 16 | 14.41 | 46 | 22.22 | 26 | 19.85 | 22 | 19.47 |
| | (4) 10~13 years | 42 | 23.46 | 25 | 22.52 | 31 | 14.98 | 24 | 18.32 | 19 | 16.81 |
| | (5) 14~17 years | 24 | 13.41 | 13 | 11.71 | 11 | 5.31 | 13 | 9.92 | 14 | 12.39 |
| | (6) 18~21 years | 1 | 0.56 | 5 | 4.50 | 6 | 2.90 | 6 | 4.58 | 4 | 3.54 |
| | (7) 22 years or more | 3 | 1.68 | 6 | 5.41 | 8 | 3.86 | 3 | 2.29 | 5 | 4.42 |
| | (8) Others | 0 | 0.00 | 1 | 0.90 | 1 | 0.48 | 5 | 3.82 | 0 | 0.00 |
| Married | (1) Yes | 152 | 84.92 | 42 | 37.84 | 118 | 57.00 | 74 | 56.49 | 57 | 50.44 |
| | (2) No | 27 | 15.08 | 68 | 61.26 | 88 | 42.51 | 51 | 38.93 | 53 | 46.90 |
| | (3) Others | 0 | 0.00 | 1 | 0.90 | 1 | 0.48 | 6 | 4.58 | 3 | 2.65 |
| Career Stage | (1) Stage 1 | 8 | 4.47 | 27 | 24.32 | 49 | 23.67 | 23 | 17.56 | 24 | 21.24 |
| | (2) Stage 2 | 77 | 43.02 | 41 | 36.94 | 81 | 39.13 | 39 | 29.77 | 41 | 36.28 |
| | (3) Stage 3 | 83 | 46.37 | 26 | 23.42 | 60 | 28.99 | 52 | 39.69 | 34 | 30.09 |
| | (4) Stage 4 | 11 | 6.15 | 2 | 1.80 | 14 | 6.76 | 13 | 9.92 | 13 | 11.50 |
| | (5) Others | 0 | 0.00 | 15 | 13.51 | 3 | 1.45 | 4 | 3.05 | 1 | 0.88 |

modified according to the comments from these experts. To ensure the reliability of the questions and the feasibility of the survey process, a pilot test was taken involving 10 IT/IS personnel. The wording of the questions were also slightly changed based on the members' comments from the pilot test. In addition, the 10 pilot test members asserted that G1, G8, and G9, three items of Zhuang et al. (2010), were not suitable to this study; therefore, this study only used six items (G2, G3, G4, G5, G6, G7, and G8) of the *guanxi* of Zhuang et al. (2010).

### 4.3. Assessment of Reliability and Validity

Construct reliability was measured by Fornell's composite reliability (CR). To achieve the required reliability, the CR should be greater than 0.7 and all the factor loadings are above 0.5 (Jiang et al., 2009). In order to satisfy the reliability of the corresponding constructs of the five different cultural data; thus, some items are omitted from each of the following constructs: technical competence (TECH2, TECH4, and TECH5), managerial competence (MANG1, MANG2, and MANG5), autonomy (AUTO1, AUTO2, and AUTO3), challenge (CHAL1, and CHAL3), lifestyle (LIFE1, LIFE4, and LIFE5), identity (IDEN3, IDEN4, and IDEN5), creativity (CREA3), variety (VARI2, VARI4, and VARI5), service (SER1, and SER4), entrepreneurship (ENTE1, and ENTE4), learning motivation (LEAR1, and LEAR4), *guanxi* (GGX2, GGX4, GGX5, and GGX7), and job satisfaction (JS3). Subsequently, the remaining constructs have adequate reliability (see Table 2).

The result in Table 2 shows the proper reliability of the measurement items, and adequate convergent validity of the measurement items. To achieve adequate discriminant validity, the correlation between the pairs of constructs should be less than 0.90, and the square root of AVE should be greater than the inter-construct correlation coefficients (Fornell & Bookstein, 1982). As shown in Table 2 and Tables 3-7, the diagonal cells in Tables 3-7 are the square-root of the (AVE), and these values are higher than all the others in the same row, indicating a higher discriminant validity for the constructs; it can thus be observed that this survey is valid.

**Table 2. Standardized loadings and reliability estimates**

| Constructs | Items | PRC | | Taiwan | | India | | UAE | | US | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Factor Loadings | CR (AVE) | Factor Loadings | CR (AVE) | Factor Loadings | CR (AVE) | Factor Loadings | CR (AVE) | Factor Loadings | CR (AVE) |
| **Technical Competence** | TECH1 | 0.86 | 0.79 (0.65) | 0.66 | 0.81 (0.68) | 0.77 | 0.77 (0.62) | 0.75 | 0.82 (0.70) | 0.90 | 0.74 (0.60) |
| | TECH3 | 0.75 | | 0.97 | | 0.81 | | 0.91 | | 0.62 | |
| **Managerial Competence** | MANG3 | 0.87 | 0.91 (0.83) | 0.97 | 0.86 (0.76) | 0.77 | 0.83 (0.71) | 0.81 | 0.84 (0.72) | 0.84 | 0.87 (0.78) |
| | MANG4 | 0.95 | | 0.75 | | 0.91 | | 0.89 | | 0.93 | |
| **Autonomy** | AUTO4 | 0.96 | 0.82 (0.70) | 0.97 | 0.79 (0.67) | 0.80 | 0.79 (0.66) | 0.98 | 0.85 (0.74) | 0.91 | 0.76 (0.62) |
| | AUTO5 | 0.69 | | 0.63 | | 0.82 | | 0.72 | | 0.95 | |
| **Organizational Stability** | ORGS1 | 0.63 | 0.76 (0.51) | 0.81 | 0.77 (0.53) | 0.75 | 0.75 (0.51) | 0.85 | 0.80 (0.58) | 0.88 | 0.83 (0.63) |
| | ORGS2 | 0.83 | | 0.55 | | 0.73 | | 0.78 | | 0.87 | |
| | ORGS3 | 0.67 | | 0.80 | | 0.65 | | 0.63 | | 0.59 | |
| **Challenge** | CHAL2 | 0.74 | 0.79 (0.56) | 0.91 | 0.84 (0.64) | 0.70 | 0.80 (0.57) | 0.65 | 0.75 (0.51) | 0.89 | 0.83 (0.62) |
| | CHAL4 | 0.66 | | 0.68 | | 0.81 | | 0.88 | | 0.87 | |
| | CHAL5 | 0.84 | | 0.79 | | 0.75 | | 0.57 | | 0.55 | |
| **Lifestyle** | LIFE2 | 0.90 | 0.79 (0.65) | 0.83 | 0.82 (0.69) | 0.78 | 0.72 (0.57) | 0.90 | 0.76 (0.61) | 0.86 | 0.84 (0.72) |
| | LIFE3 | 0.70 | | 0.83 | | 0.73 | | 0.65 | | 0.83 | |
| **Identity** | IDEN1 | 0.86 | 0.81 (0.68) | 0.86 | 0.85 (0.73) | 0.81 | 0.83 (0.71) | 0.85 | 0.80 (0.75) | 0.91 | 0.89 (0.80) |
| | IDEN2 | 0.78 | | 0.85 | | 0.87 | | 0.88 | | 0.88 | |
| **Creativity** | CREA1 | 0.76 | 0.75 (0.60) | 0.75 | 0.83 (0.71) | 0.82 | 0.83 (0.70) | 0.76 | 0.78 (0.64) | 0.81 | 0.82 (0.70) |
| | CREA2 | 0.80 | | 0.92 | | 0.86 | | 0.84 | | 0.86 | |
| **Variety** | VARI1 | 0.77 | 0.80 (0.67) | 0.79 | 0.84 (0.72) | 0.81 | 0.81 (0.68) | 0.71 | 0.79 (0.65) | 0.77 | 0.81 (0.68) |
| | VARI3 | 0.86 | | 0.91 | | 0.83 | | 0.90 | | 0.88 | |
| **Service** | SER2 | 0.82 | 0.83 (0.70) | 0.74 | 0.83 (0.72) | 0.68 | 0.78 (0.64) | 0.89 | 0.82 (0.69) | 0.80 | 0.82 (0.70) |
| | SER3 | 0.86 | | 0.94 | | 0.91 | | 0.77 | | 0.87 | |
| **Entrepreneurship** | ENTE2 | 0.90 | 0.80 (0.67) | 0.99 | 0.80 (0.68) | 0.75 | 0.81 (0.68) | 0.92 | 0.85 (0.75) | 0.93 | 0.85 (0.74) |
| | ENTE3 | 0.75 | | 0.60 | | 0.90 | | 0.81 | | 0.78 | |
| **Geographical Security** | GEO1 | 0.54 | 0.76 (0.52) | 0.72 | 0.79 (0.56) | 0.77 | 0.85 (0.65) | 0.90 | 0.88 (0.72) | 0.93 | 0.85 (0.66) |
| | GEO2 | 0.77 | | 0.90 | | 0.87 | | 0.87 | | 0.72 | |
| | GEO3 | 0.79 | | 0.59 | | 0.79 | | 0.77 | | 0.79 | |
| **Learning Motivation** | LEAR2 | 0.81 | 0.82 (0.69) | 0.70 | 0.77 (0.62) | 0.78 | 0.80 (0.67) | 0.85 | 0.85 (0.73) | 0.86 | 0.86 (0.76) |
| | LEAR3 | 0.86 | | 0.87 | | 0.85 | | 0.87 | | 0.88 | |
| ***Guanxi* Culture** | CGX3 | 0.74 | 0.73 (0.57) | 0.77 | 0.79 (0.65) | 0.82 | 0.81 (0.69) | 0.77 | 0.82 (0.70) | 0.79 | 0.84 (0.72) |
| | CGX6 | 0.78 | | 0.84 | | 0.84 | | 0.90 | | 0.91 | |
| **Job Satisfaction** | JS1 | 0.79 | 0.76 (0.61) | 0.93 | 0.92 (0.86) | 0.93 | 0.92 (0.85) | 0.94 | 0.93 (0.88) | 0.92 | 0.91 (0.83) |
| | JS2 | 0.84 | | 0.92 | | 0.91 | | 0.94 | | 0.90 | |
| **Turnover Intention** | LINT1 | 0.82 | 0.88 (0.71) | 0.87 | 0.88 (0.72) | 0.88 | 0.89 (0.73) | 0.93 | 0.92 (0.79) | 0.87 | 0.87 (0.69) |
| | LINT2 | 0.84 | | 0.79 | | 0.91 | | 0.89 | | 0.84 | |
| | LINT3 | 0.86 | | 0.88 | | 0.78 | | 0.84 | | 0.77 | |
| SRMR Common Factor Model | | 0.08 | | 0.09 | | 0.08 | | 0.08 | | 0.09 | |

CR: Composite Reliability; AVE: Average Variance Extracted

**Table 3. Descriptive statistics, correlations, and square root of AVE (PRC)**

| Variables | Mean | M2 | M3 | M4 | K-S | VIF | $R^2$ | TECH | MANG | AUTO | ORGS | CHAL | LIFE | IDEN | CREA | VARI | SER | ENTE | GEO | LEAR | GuXi | JS | LINT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TECH | 3.90 | 0.64 | -0.50 | 0.34 | 0.17 | 1.55 | 0.13 | **0.81** | | | | | | | | | | | | | | | |
| MANG | 3.88 | 0.76 | -0.56 | 0.01 | 0.19 | 1.27 | 0.02 | 0.068 | **0.91** | | | | | | | | | | | | | | |
| AUTO | 3.81 | 0.65 | -0.42 | 0.32 | 0.20 | 1.47 | 0.04 | 0.188 | 0.22 | **0.84** | | | | | | | | | | | | | |
| ORGS | 4.08 | 0.54 | -0.46 | -0.13 | 0.16 | 1.53 | 0.06 | 0.317 | 0.259 | 0.26 | **0.71** | | | | | | | | | | | | |
| CHAL | 3.94 | 0.63 | -0.69 | 0.55 | 0.17 | 1.83 | 0.08 | 0.357 | 0.305 | 0.44 | 0.39 | **0.75** | | | | | | | | | | | |
| LIFE | 3.89 | 0.71 | -0.63 | 0.16 | 0.23 | 1.51 | 0.08 | 0.365 | 0.296 | 0.41 | 0.36 | 0.40 | **0.81** | | | | | | | | | | |
| IDEN | 3.96 | 0.63 | -0.33 | -0.21 | 0.18 | 1.82 | 0.16 | 0.310 | 0.128 | 0.29 | 0.40 | 0.38 | 0.32 | **0.82** | | | | | | | | | |
| CREA | 3.93 | 0.59 | -0.41 | 0.48 | 0.21 | 1.45 | 0.06 | 0.236 | 0.140 | 0.34 | 0.31 | 0.40 | 0.26 | 0.47 | **0.78** | | | | | | | | |
| VARI | 3.96 | 0.62 | -0.29 | -0.07 | 0.17 | 1.28 | 0.08 | 0.182 | 0.284 | 0.15 | 0.23 | 0.37 | 0.24 | 0.27 | 0.22 | **0.82** | | | | | | | |
| SER | 3.94 | 0.65 | -0.70 | 0.50 | 0.21 | 1.82 | 0.15 | 0.418 | 0.130 | 0.17 | 0.37 | 0.44 | 0.34 | 0.56 | 0.34 | 0.25 | **0.84** | | | | | | |
| ENTE | 3.71 | 0.78 | -0.44 | -0.06 | 0.14 | 1.32 | 0.04 | 0.278 | 0.261 | 0.25 | 0.29 | 0.36 | 0.21 | 0.15 | 0.21 | 0.29 | 0.14 | **0.82** | | | | | |
| GEO | 3.62 | 0.70 | -0.17 | -0.61 | 0.12 | 1.35 | 0.08 | 0.411 | -0.000 | 0.13 | 0.29 | 0.20 | 0.21 | 0.34 | 0.26 | 0.07 | 0.34 | 0.04 | **0.72** | | | | |
| LEAR | 3.99 | 0.67 | -0.44 | -0.01 | 0.19 | 1.47 | 0.16 | 0.329 | 0.26 | 0.30 | 0.44 | 0.39 | 0.32 | 0.35 | 0.26 | 0.24 | 0.39 | 0.27 | 0.19 | **0.83** | | | |
| GuXi | 4.02 | 0.62 | -0.69 | 0.32 | 0.23 | NA | NA | 0.360 | 0.134 | 0.20 | 0.24 | 0.29 | 0.27 | 0.40 | 0.25 | 0.29 | 0.38 | 0.20 | 0.27 | 0.40 | **0.76** | | |
| JS | 4.03 | 0.59 | -1.12 | 1.90 | 0.22 | NA | 0.37 | 0.337 | 0.085 | 0.19 | 0.30 | 0.39 | 0.27 | 0.44 | 0.34 | 0.19 | 0.47 | 0.19 | 0.39 | 0.39 | 0.44 | **0.78** | |
| LINT | 2.07 | 0.83 | 0.90 | -0.17 | 0.19 | NA | 0.42 | -0.0020 | 0.028 | -0.104 | -0.20000 | -0.306 | -0.28 | -0.31 | -0.28 | -0.22 | -0.36 | -0.02 | -0.33 | -0.26 | -0.29 | -0.65 | **0.84** |

Diagonal elements (bold) are the square root of AVE

M2: Standard deviation; M3: Skewness; M4: Kurtosis; K-S: Kolmogorov-Smirnov statistic with Lilliefors significance correlation (all $p < .05$)

VIF: Variance Inflation Factor (Dependent Variable: Job Satisfaction)

TECH: Technical; MANG: Management; AUTO: Autonomy; ORGS: Organizational Stability; CHAL: Challenge; LIFE: Lifestyle; IDEN: Identity; CREA: Creativity; VARI: Variety; SER: Service; ENTE: Entrepreneur; GEO: Geography; LEAR: Learning; GuXi: GuanXi; JS: Job Satisfaction; LINT: Leave Intention

**Table 4. Descriptive statistics, correlations, and square root of AVE (Taiwan)**

| Variables | Mean | M2 | M3 | M4 | K-S | VIF | $R^2$ | TECH | MANG | AUTO | ORGS | CHAL | LIFE | IDEN | CREA | VARI | SER | ENTE | GEO | LEAR | GuXi | JS | LINT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TECH | 3.59 | 0.69 | 0.39 | -0.59 | 0.19 | 1.84 | 0.16 | **0.83** | | | | | | | | | | | | | | | |
| MANG | 3.28 | 0.80 | -0.28 | 0.29 | 0.16 | 1.52 | 0.03 | 0.31 | **0.87** | | | | | | | | | | | | | | |
| AUTO | 3.60 | 0.67 | 0.17 | -0.50 | 0.17 | 1.98 | 0.12 | 0.34 | 0.19 | **0.82** | | | | | | | | | | | | | |
| ORGS | 3.80 | 0.77 | -0.23 | -0.45 | 0.11 | 1.92 | 0.11 | 0.41 | 0.43 | 0.35 | **0.73** | | | | | | | | | | | | |
| CHAL | 3.59 | 0.70 | 0.20 | -0.42 | 0.13 | 2.97 | 0.06 | 0.51 | 0.41 | 0.50 | 0.35 | **0.80** | | | | | | | | | | | |
| LIFE | 3.77 | 0.76 | 0.18 | -0.99 | 0.15 | 2.39 | 0.24 | 0.40 | 0.35 | 0.58 | 0.54 | 0.59 | **0.83** | | | | | | | | | | |
| IDEN | 3.47 | 0.84 | -0.11 | -0.30 | 0.12 | 1.37 | 0.03 | 0.33 | 0.33 | 0.34 | 0.26 | 0.41 | 0.33 | **0.86** | | | | | | | | | |
| CREA | 3.44 | 0.78 | -0.11 | -0.01 | 0.14 | 2.05 | 0.05 | 0.47 | 0.32 | 0.47 | 0.17 | 0.50 | 0.37 | 0.39 | **0.84** | | | | | | | | |
| VARI | 3.51 | 0.74 | -0.01 | -0.53 | 0.15 | 2.54 | 0.10 | 0.49 | 0.32 | 0.52 | 0.19 | 0.63 | 0.49 | 0.42 | 0.59 | **0.85** | | | | | | | |
| SER | 3.49 | 0.70 | 0.21 | -0.43 | 0.19 | 2.08 | 0.21 | 0.44 | 0.11 | 0.55 | 0.19 | 0.49 | 0.49 | 0.26 | 0.55 | 0.54 | **0.85** | | | | | | |
| ENTE | 2.99 | 0.63 | -0.22 | 0.93 | 0.23 | 1.46 | 0.04 | 0.02 | 0.16 | 0.32 | 0.02 | 0.15 | 0.27 | 0.17 | 0.35 | 0.41 | 0.27 | **0.82** | | | | | |
| GEO | 3.28 | 0.84 | 0.22 | -0.33 | 0.13 | 1.36 | 0.18 | 0.11 | 0.07 | 0.21 | 0.27 | -0.03 | 0.27 | 0.08 | 0.15 | 0.16 | 0.24 | 0.22 | **0.75** | | | | |
| LEAR | 3.75 | 0.67 | 0.10 | -0.49 | 0.15 | 1.67 | 0.18 | 0.32 | 0.25 | 0.38 | 0.23 | 0.56 | 0.42 | 0.24 | 0.42 | 0.43 | 0.46 | 0.12 | 0.20 | **0.79** | | | |
| GuXi | 3.51 | 0.60 | 0.39 | -0.46 | 0.20 | NA | NA | 0.40 | 0.19 | 0.35 | 0.33 | 0.25 | 0.49 | 0.18 | 0.23 | 0.32 | 0.46 | 0.20 | 0.42 | 0.42 | **0.81** | | |
| JS | 3.37 | 0.69 | 0.32 | 1.06 | 0.24 | NA | 0.33 | 0.41 | 0.11 | 0.04 | 0.20 | 0.10 | 0.17 | 0.01 | 0.10 | 0.22 | 0.19 | 0.07 | 0.34 | 0.18 | 0.47 | **0.93** | |
| LINT | 2.74 | 0.73 | -0.36 | 0.39 | 0.14 | NA | 0.39 | -0.31 | -0.02 | 0.07 | -0.28 | -0.04 | -0.19 | -0.02 | 0.04 | -0.06 | -0.14 | 0.22 | -0.25 | -0.16 | -0.43 | -0.63 | **0.85** |

Diagonal elements (bold) are the square root of AVE

M2: Standard deviation; M3: Skewness; M4: Kurtosis; K-S: Kolmogorov-Smirnov statistic with Lilliefors significance correlation (all $p < .05$)

VIF: Variance Inflation Factor (Dependent Variable: Job Satisfaction)

TECH: Technical; MANG: Management; AUTO: Autonomy; ORGS: Organizational Stability; CHAL: Challenge; LIFE: Lifestyle; IDEN: Identity; CREA: Creativity; VARI: Variety; SER: Service; ENTE: Entrepreneur; GEO: Geography; LEAR: Learning; GuXi: GuanXi; JS: Job Satisfaction; LINT: Leave Intention

**Table 5. Descriptive statistics, correlations, and square root of AVE (India)**

| Variables | Mean | M2 | M3 | M4 | K-S | VIF | $R^2$ | TECH | MANG | AUTO | ORGS | CHAL | LIFE | IDEN | CREA | VARI | SER | ENTE | GEO | LEAR | GuXi | JS | LINT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TECH | 3.97 | 0.72 | -0.56 | 0.16 | 0.17 | 1.24 | 0.05 | **0.79** | | | | | | | | | | | | | | | |
| MANG | 3.99 | 0.78 | -0.81 | 0.84 | 0.18 | 1.67 | 0.04 | 0.14 | **0.84** | | | | | | | | | | | | | | |
| AUTO | 3.66 | 0.75 | -0.17 | -0.33 | 0.16 | 1.40 | 0.03 | 0.25 | 0.18 | **0.81** | | | | | | | | | | | | | |
| ORGS | 4.03 | 0.65 | -0.62 | 0.20 | 0.13 | 1.44 | 0.03 | 0.27 | 0.30 | 0.26 | **0.71** | | | | | | | | | | | | |
| CHAL | 3.63 | 0.77 | -0.28 | 0.01 | 0.09 | 1.63 | 0.08 | 0.19 | 0.44 | 0.31 | 0.14 | **0.75** | | | | | | | | | | | |
| LIFE | 4.07 | 0.66 | -0.57 | -0.09 | 0.19 | 1.61 | 0.04 | 0.28 | 0.29 | 0.40 | 0.40 | 0.20 | **0.75** | | | | | | | | | | |
| IDEN | 3.97 | 0.83 | -0.82 | 0.49 | 0.18 | 1.45 | 0.01 | 0.28 | 0.37 | 0.30 | 0.32 | 0.28 | 0.28 | **0.84** | | | | | | | | | |
| CREA | 3.89 | 0.79 | -0.73 | 0.78 | 0.16 | 1.68 | 0.10 | 0.28 | 0.43 | 0.35 | 0.35 | 0.40 | 0.37 | 0.34 | **0.84** | | | | | | | | |
| VARI | 3.80 | 0.78 | -0.48 | 0.17 | 0.16 | 1.77 | 0.08 | 0.17 | 0.40 | 0.27 | 0.21 | 0.51 | 0.29 | 0.31 | 0.46 | **0.82** | | | | | | | |
| SER | 3.90 | 0.73 | -0.53 | 0.21 | 0.19 | 1.76 | 0.08 | 0.20 | 0.41 | 0.35 | 0.34 | 0.40 | 0.41 | 0.28 | 0.38 | 0.51 | **0.80** | | | | | | |
| ENTE | 3.65 | 0.89 | -0.60 | 0.02 | 0.14 | 1.46 | 0.02 | 0.21 | 0.39 | 0.19 | 0.10 | 0.36 | 0.22 | 0.02 | 0.38 | 0.34 | 0.29 | **0.83** | | | | | |
| GEO | 3.27 | 0.98 | -0.36 | -0.39 | 0.11 | 1.15 | 0.05 | 0.18 | 0.13 | 0.19 | 0.23 | 0.12 | 0.16 | 0.11 | 0.12 | 0.18 | 0.20 | 0.16 | **0.81** | | | | |
| LEAR | 4.15 | 0.75 | -0.91 | 0.54 | 0.20 | 1.43 | 0.01 | 0.20 | 0.24 | 0.16 | 0.29 | 0.18 | 0.43 | 0.21 | 0.26 | 0.33 | 0.41 | 0.18 | 0.00 | **0.82** | | | |
| GuXi | 3.58 | 0.82 | -0.60 | 0.52 | 0.16 | NA | NA | 0.22 | 0.19 | 0.18 | 0.16 | 0.29 | 0.20 | 0.11 | 0.31 | 0.28 | 0.28 | 0.14 | 0.22 | 0.10 | **0.83** | | |
| JS | 3.81 | 0.93 | -0.78 | 0.55 | 0.19 | NA | 0.28 | 0.22 | 0.25 | 0.14 | 0.23 | 0.32 | 0.30 | 0.09 | 0.38 | 0.32 | 0.36 | 0.28 | 0.22 | 0.27 | 0.28 | **0.92** | |
| LINT | 2.81 | 1.05 | 0.03 | -0.63 | 0.07 | NA | 0.15 | -0.05 | -0.01 | 0.08 | -0.09 | -0.07 | -0.15 | -0.10 | -0.18 | -0.12 | -0.10 | 0.05 | 0.04 | -0.13 | -0.10 | -0.38 | **0.86** |

Diagonal elements (bold) are the square root of AVE

M2: Standard deviation; M3: Skewness; M4: Kurtosis; K-S: Kolmogorov-Smirnov statistic with Lilliefors significance correlation (all $p < .05$)

VIF: Variance Inflation Factor (Dependent Variable: Job Satisfaction)

TECH: Technical; MANG: Management; AUTO: Autonomy; ORGS: Organizational Stability; CHAL: Challenge; LIFE: Lifestyle; IDEN: Identity; CREA: Creativity; VARI: Variety; SER: Service; ENTE: Entrepreneur; GEO: Geography; LEAR: Learning; GuXi: GuanXi; JS: Job Satisfaction; LINT: Leave Intention

**Table 6. Descriptive statistics, correlations, and square root of AVE (UAE)**

| Variables | Mean | M2 | M3 | M4 | K-S | VIF | $R^2$ | TECH | MANG | AUTO | ORGS | CHAL | LIFE | IDEN | CREA | VARI | SER | ENTE | GEO | LEAR | GuXi | JS | LINT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TECH | 3.55 | 0.90 | -0.79 | 0.61 | 0.16 | 1.14 | 0.02 | **0.83** | | | | | | | | | | | | | | | |
| MANG | 4.02 | 0.69 | -0.63 | 0.99 | 0.16 | 1.60 | 0.01 | 0.01 | **0.85** | | | | | | | | | | | | | | |
| AUTO | 3.71 | 0.75 | -0.21 | -0.45 | 0.17 | 1.36 | 0.01 | 0.17 | 0.24 | **0.86** | | | | | | | | | | | | | |
| ORGS | 3.94 | 0.66 | -0.32 | -0.11 | 0.10 | 1.43 | 0.00 | 0.11 | 0.29 | 0.24 | **0.76** | | | | | | | | | | | | |
| CHAL | 3.53 | 0.69 | 0.13 | -0.46 | 0.14 | 1.66 | 0.05 | 0.07 | 0.33 | 0.29 | -0.03 | **0.71** | | | | | | | | | | | |
| LIFE | 4.00 | 0.69 | -0.76 | 0.91 | 0.23 | 1.50 | 0.03 | 0.10 | 0.39 | 0.33 | 0.23 | 0.17 | **0.78** | | | | | | | | | | |
| IDEN | 3.93 | 0.85 | -1.03 | 1.44 | 0.18 | 1.40 | 0.05 | 0.23 | 0.30 | 0.27 | 0.22 | 0.32 | 0.24 | **0.87** | | | | | | | | | |
| CREA | 3.88 | 0.71 | -0.26 | -0.48 | 0.18 | 1.54 | 0.04 | 0.03 | 0.34 | 0.25 | 0.11 | 0.37 | 0.40 | 0.15 | **0.80** | | | | | | | | |
| VARI | 3.76 | 0.70 | -0.40 | -0.13 | 0.17 | 1.70 | 0.04 | -0.09 | 0.34 | 0.22 | 0.01 | 0.40 | 0.23 | 0.04 | 0.40 | **0.81** | | | | | | | |
| SER | 3.91 | 0.71 | -0.40 | -0.03 | 0.18 | 1.57 | 0.00 | 0.07 | 0.27 | 0.22 | 0.13 | 0.30 | 0.26 | 0.03 | 0.40 | 0.45 | **0.83** | | | | | | |
| ENTE | 3.40 | 0.93 | -0.53 | -0.06 | 0.16 | 1.68 | 0.04 | 0.06 | 0.39 | 0.16 | -0.12 | 0.44 | 0.28 | 0.09 | 0.38 | 0.38 | 0.24 | **0.86** | | | | | |
| GEO | 3.52 | 1.01 | -0.36 | -0.59 | 0.11 | 1.29 | 0.03 | 0.16 | 0.13 | 0.25 | 0.33 | 0.08 | 0.02 | 0.19 | -0.03 | 0.05 | 0.09 | -0.18 | **0.85** | | | | |
| LEAR | 4.12 | 0.69 | -0.63 | 0.02 | 0.17 | 1.71 | 0.02 | 0.09 | 0.29 | 0.34 | 0.35 | 0.16 | 0.37 | 0.24 | 0.27 | 0.39 | 0.45 | 0.08 | 0.17 | **0.86** | | | |
| GuXi | 3.42 | 0.79 | -0.30 | -0.08 | 0.15 | NA | NA | 0.13 | 0.08 | 0.10 | -0.05 | 0.22 | 0.18 | 0.22 | 0.21 | 0.19 | 0.06 | 0.20 | -0.16 | 0.14 | **0.83** | | |
| JS | 3.65 | 0.78 | -0.40 | 0.32 | 0.22 | NA | 0.11 | 0.04 | 0.04 | 0.15 | 0.04 | 0.07 | 0.15 | 0.11 | 0.11 | 0.18 | 0.08 | 0.11 | -0.03 | 0.25 | 0.20 | **0.94** | |
| LINT | 2.94 | 1.07 | -0.05 | -0.70 | 0.11 | NA | 0.21 | 0.02 | 0.03 | 0.04 | 0.03 | 0.10 | -0.26 | 0.05 | -0.01 | -0.03 | -0.02 | 0.09 | 0.21 | -0.13 | -0.10 | -0.46 | **0.89** |

Diagonal elements (bold) are the square root of AVE

M2: Standard deviation; M3: Skewness; M4: Kurtosis; K-S: Kolmogorov-Smirnov statistic with Lilliefors significance correlation (all $p < .05$)

VIF: Variance Inflation Factor (Dependent Variable: Job Satisfaction)

TECH: Technical; MANG: Management; AUTO: Autonomy; ORGS: Organizational Stability; CHAL: Challenge; LIFE: Lifestyle; IDEN: Identity; CREA: Creativity; VARI: Variety; SER: Service; ENTE: Entrepreneur; GEO: Geography; LEAR: Learning; GuXi: GuanXi; JS: Job Satisfaction; LINT: Leave Intention

**Table 7. Descriptive statistics, correlations, and square root of AVE (US)**

| Variables | Mean | M2 | M3 | M4 | K-S | VIF | $R^2$ | TECH | MANG | AUTO | ORGS | CHAL | LIFE | IDEN | CREA | VARI | SER | ENTE | GEO | LEAR | GuXi | JS | LINT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TECH | 3.88 | 0.70 | -0.62 | 0.46 | 0.22 | 1.57 | 0.02 | **0.77** | | | | | | | | | | | | | | | |
| MANG | 3.65 | 0.93 | -0.36 | -0.55 | 0.13 | 1.77 | 0.05 | 0.25 | **0.88** | | | | | | | | | | | | | | |
| AUTO | 3.69 | 0.81 | -0.37 | -0.17 | 0.16 | 1.26 | 0.00 | 0.19 | 0.07 | **0.79** | | | | | | | | | | | | | |
| ORGS | 3.84 | 0.73 | -0.74 | 1.17 | 0.15 | 1.62 | 0.11 | 0.49 | 0.33 | 0.11 | **0.79** | | | | | | | | | | | | |
| CHAL | 3.45 | 0.95 | -0.65 | 0.24 | 0.13 | 1.64 | 0.08 | 0.21 | 0.38 | 0.11 | 0.22 | **0.79** | | | | | | | | | | | |
| LIFE | 3.88 | 0.86 | -0.64 | 0.26 | 0.13 | 1.55 | 0.02 | 0.30 | 0.24 | 0.31 | 0.31 | 0.17 | **0.85** | | | | | | | | | | |
| IDEN | 3.39 | 1.03 | -0.56 | -0.16 | 0.15 | 1.46 | 0.12 | 0.26 | 0.36 | 0.08 | 0.34 | 0.47 | 0.18 | **0.89** | | | | | | | | | |
| CREA | 3.88 | 0.81 | -0.55 | 0.05 | 0.18 | 1.84 | 0.04 | 0.37 | 0.31 | 0.18 | 0.39 | 0.38 | 0.48 | 0.27 | **0.83** | | | | | | | | |
| VARI | 3.74 | 0.81 | -0.33 | -0.37 | 0.17 | 1.61 | 0.08 | 0.34 | 0.19 | 0.18 | 0.31 | 0.34 | 0.34 | 0.17 | 0.48 | **0.83** | | | | | | | |
| SER | 3.80 | 0.81 | -0.49 | 0.02 | 0.15 | 1.83 | 0.09 | 0.34 | 0.38 | 0.29 | 0.27 | 0.18 | 0.35 | 0.18 | 0.37 | 0.37 | **0.84** | | | | | | |
| ENTE | 3.62 | 0.92 | -0.54 | 0.04 | 0.15 | 1.62 | 0.03 | 0.29 | 0.47 | 0.26 | 0.15 | 0.21 | 0.32 | 0.23 | 0.33 | 0.30 | 0.38 | **0.86** | | | | | |
| GEO | 3.17 | 1.06 | -0.18 | -0.65 | 0.09 | 1.22 | 0.02 | 0.21 | 0.05 | 0.22 | 0.10 | 0.19 | 0.08 | 0.14 | -0.04 | 0.10 | 0.09 | -0.07 | **0.81** | | | | |
| LEAR | 3.99 | 0.75 | -0.37 | -0.42 | 0.15 | 1.67 | 0.10 | 0.23 | 0.08 | 0.17 | 0.24 | 0.20 | 0.39 | 0.14 | 0.37 | 0.43 | 0.51 | 0.18 | 0.00 | **0.87** | | | |
| GuXi | 3.45 | 0.94 | -0.38 | 0.00 | 0.16 | NA | NA | 0.34 | 0.23 | 0.04 | 0.33 | 0.28 | 0.13 | 0.35 | 0.19 | 0.28 | 0.30 | 0.16 | 0.14 | 0.31 | **0.85** | | |
| JS | 3.69 | 0.91 | -0.29 | -0.32 | 0.13 | NA | 0.25 | 0.28 | 0.19 | 0.15 | 0.18 | 0.12 | 0.40 | 0.16 | 0.25 | 0.36 | 0.27 | 0.16 | 0.10 | 0.23 | 0.60 | **0.91** | |
| LINT | 2.83 | 1.01 | 0.02 | -0.22 | 0.11 | NA | 0.19 | -0.02 | -0.04 | 0.05 | -0.04 | 0.07 | -0.11 | 0.14 | -0.14 | -0.14 | -0.01 | 0.05 | 0.06 | -0.11 | -0.21 | -0.43 | **0.83** |

Diagonal elements (bold) are the square root of AVE

M2: Standard deviation; M3: Skewness; M4: Kurtosis; K-S: Kolmogorov-Smirnov statistic with Lilliefors significance correlation (all $p < .05$)

VIF: Variance Inflation Factor (Dependent Variable: Job Satisfaction)

TECH: Technical; MANG: Management; AUTO: Autonomy; ORGS: Organizational Stability; CHAL: Challenge; LIFE: Lifestyle; IDEN: Identity; CREA: Creativity; VARI: Variety; SER: Service; ENTE: Entrepreneur; GEO: Geography; LEAR: Learning; GuXi: GuanXi; JS: Job Satisfaction; LINT: Leave Intention

In this paper, we assessed that the PLS is considered an appropriate analytical tool because of its ability to validate multiple causal relationships simultaneously. We used the SmartPLS 3 with bootstrapping as a resampling technique (5000 random samples) to estimate the structural model and the significance of the paths (t-value) (Chin et al., 2003).

Figure 1 represents the structural model that has been examined and describes the relationships or paths among the theoretical constructs. For each construct in this Figure, there is a related measurement model, which links the construct in the diagram to a set of items. Thus, the PLS recognizes two components of model building: the measurement model and the structural model.

The researcher has to first assess the measurement model, and then test for significant consistency in the relationship between the constructs and measuring items. The convergent and discriminant validity (Tables 3a~3e) indicates that the instrument can be used to test the proposed model in this research. The structural model assesses the explanatory power of the independent variables, and examines the size and significance of the path coefficients. Together, the measurement and structural models form a network of measures and constructs (Fornell, 1982; Fornell & Larcker, 1981).

Next, the path significance in the research model is evaluated, while the variance will be explained ($R^2$ value) by each examined path. To examine the specific hypotheses, we first assessed the t-statistics for the path coefficients and calculated the p-values based on a 2-tailed test with a significance level of 0.001~0.1. The significance and the relative strength of the specified individual paths are also evaluated, as summarized in Table 8. Finally, Tables 3-7 show that each VIF is lower than three for both the independent variables. Therefore, it is suggested that there is no collinearity problem.

## 5. RESULT AND DISCUSSION

### 5.1. Career Anchors to Job Satisfaction

#### *5.1.1. IT/IS Personnel in PRC*

The service ($H_{2j}$), geographic security ($H_{2l}$), and learning motivation ($H_{2m}$) anchors have a significantly positive effect on job satisfaction of the IT/IS personnel. Firstly, due to the rapid development of the IT, there has been an unprecedented change for the IT/IS personnel, therefore, for sustaining their competence, they have to keep learning (learning motivation, $H_{2m}$) the new and different types of information, technical knowledge, and the IT industry is extremely competent in the PRC. Secondly, service ($H_{2j}$) is very important due to the effort of the IT/IS personnel as it can provide achievement, as well as improving their self-confidence. Thirdly, because the IT industry has the potential for development in some metropolitan areas in the PRC, thus, geographic security ($H_{2l}$) for the IT/IS personnel is also a major factor to influence their job satisfaction, hence, they have many more opportunities to learn state-of-the-art IT knowledge in these metropolitan areas. In light of the fact that management should provide enough of these three anchors to satisfy their IT/IS personnel's need for improving their job satisfaction in the PRC.

#### *5.1.2 IT/IS Personnel in Taiwan*

The two anchors of technical competence ($H_{2a}$), and geographic security ($H_{2l}$), have a significantly positive effect on job satisfaction of the IT/IS personnel. Firstly, due to technical competence ($H_{2a}$) being the basic ability for the IT/IS personnel, thus, this anchor is very significant for them. Secondly, the job opportunities in the IT industry are more popular in the north of Taiwan, thus, geographic security ($H_{2l}$) is also a critical factor to influence the IT/IS personnel's job satisfaction. This means that the management should provide enough of these two anchors to satisfy their need to improve their job satisfaction in Taiwan.

### *5.1.3 IT/IS Personnel in India*

Challenge ($H_{2e}$), creativity ($H_{2h}$), and geographic security ($H_{2l}$), are three anchors that have a significantly positive effect on job satisfaction of the IT/IS personnel. The finding is consistent with the result of Kannabiran et al., (2016). Firstly, due to the IT industry in India being famous worldwide, due to it being very competent; thus, the ability of take challenge ($H_{2e}$), and creative new ideas (creativity, $H_{2h}$) is quite important for the IT/IS personnel. Secondly, because the IT industry has the potential for development in some metropolitan areas in India as well as the PRC, thus, geographic security ($H_{2l}$) for the IT/IS personnel is also a major factor to influence their job satisfaction. For this reason, management should provide enough of these three anchors to satisfy the IT/IS personnel's need for improving their job satisfaction in India.

### *5.1.4 IT/IS Personnel in UAE Society*

Only the learning motivation ($H_{2m}$) anchor has a significantly positive effect on the job satisfaction of the IT/IS personnel in the UAE society. Firstly, of course, because of the rapid development of the information technical knowledge, they have to be updated all the time, for sustaining the competence of the IT/IS personnel, as they have to keep learning (learning motivation, $H_{2m}$) the new and different types of IT knowledge. This means that management should provide enough of this anchor to satisfy the IT/IS personnel's need for improving their job satisfaction in the UAE.

### *5.1.5. IT/IS Personnel in USA*

Lifestyle ($H_{2f}$), and variety ($H_{2i}$) are two anchors that have a significantly positive effect on the job satisfaction of the IT/IS personnel. Firstly, the US has always emphasized the balance between the job and family life (lifestyle, $H_{2f}$), as this is very important to the IT/IS personnel in the US. Secondly, desire to work on a number of different tasks (variety, $H_{2i}$) is also a critical factor to influence job satisfaction for them. This means that the management should provide enough of these two anchors to satisfy their need for improving their job satisfaction in the US.

In sum, service ($H_{2j}$) in the PRC, technical competence ($H_{2a}$) in Taiwan, challenge ($H_{2e}$) and creativity ($H_{2h}$) in India, lifestyle ($H_{2f}$) and variety ($H_{2i}$) in the US, are the six anchors that have a significantly positive effect on the IT/IS personnel's job satisfaction. Therefore, management should provide these six anchors based on different and appropriate cultural areas; then they can achieve the goal to increase their job satisfaction. Meanwhile, the learning motivation ($H_{2b}$) anchor has a significantly positive effect on the IT/IS personnel's job satisfaction in the PRC and the UAE. For this reason, management can provide this anchor to the IT/IS personnel in these two societies much more than to other societies. Finally, the geographic security ($H_{2l}$) anchor also has a significant effect on the IT/IS personnel's job satisfaction in the PRC, Taiwan, and India. According to these three areas belonging to Eastern societies, and their IT industry development in some cities; hence, management should provide this anchor to the IT/IS personnel, and then they can achieve the goal of retention to qualify as IT/IS personnel.

All the above findings are consistent with the conception of Agarwal and Ferratt (2000), Chang (2010), Hsu et al. (2003), Jiang et al. (2018), Wynne et al. (2002), in that career anchors should be an antecedent variable of job satisfaction. The result of this study exhibits that only a few career anchors have an effect on the IT/IS personnel's job satisfaction in each society; thus, they partially supported the $H_{2a\sim2m}$. Meanwhile, career anchors have had different effects on the IT/IS personnel's job satisfaction in different cultural societies. Final, Comparison the results of the H2a~ H2m as shown in Table 9.

## 5.2. Guanxi Culture to Career Anchors

### *5.2.1. IT/IS Personnel in PRC*

*Guanxi* culture has had a significant effect on all 12 anchors of the IT/IS personnel in the PRC, except managerial competence ($H_{3b}$) The results could be due to: (1) people living in good *guanxi* societies

**Table 8. The results of the hypothesis test**

| Hypotheses | PRC | | Taiwan | | India | | UAE | | US | |
|---|---|---|---|---|---|---|---|---|---|---|
| | β | t Value | β | t Value | β | t Value | β | t Value | β | t Value |
| $H_1$: Job Satisfaction -> Turnover Intention | **-0.65*** ** | **13.61*** ** | **-0.63*** ** | **9.25*** ** | **-0.38*** ** | **5.33*** ** | **-0.46*** ** | **6.14*** ** | **-0.43*** ** | **5.18*** ** |
| $H_{2a}$: Technical Competence -> Job Satisfaction | 0.01 | 0.14 | **0.46*** ** | **3.82*** ** | 0.07 | 0.95 | 0.02 | 013 | 0.14 | 1.33 |
| $H_{2b}$: Managerial Competence -> Job Satisfaction | -0.05 | 0.71 | 0.01 | 0.05 | -0.01 | 0.13 | -0.12 | 0.87 | 0.11 | 0.87 |
| $H_{2c}$: Autonomy -> Job Satisfaction | -0.05 | 0.73 | -0.19 | 1.57 | -0.12 | 1.60 | 0.07 | 0.66 | 0.001 | 0.01 |
| $H_{2d}$: Organizational Stability -> Job Satisfaction | -0.04 | 0.45 | 0.04 | 0.29 | 0.03 | 0.36 | -0.01 | 0.11 | -0.09 | 0.75 |
| $H_{2e}$: Challenge -> Job Satisfaction | 0.14 | 1.78 | -0.11 | 0.64 | **0.16*** | **2.01*** | -0.05 | 0.43 | -0.09 | 0.56 |
| $H_{2f}$: Lifestyle -> Job Satisfaction | 0.03 | 0.31 | 0.003 | 0.02 | 0.10 | 1.10 | 0.05 | 0.40 | **0.31*** | **2.46*** |
| $H_{2g}$: Identity -> Job Satisfaction | 0.14 | 1.47 | -0.13 | 1.50 | -0.13 | 1.56 | 0.08 | 0.62 | 0.08 | 0.64 |
| $H_{2h}$: Creativity -> Job Satisfaction | 0.08 | 0.83 | -0.16 | 1.15 | **0.22*** | **2.35*** | 0.01 | 0.07 | -0.05 | 0.35 |
| $H_{2i}$: Variety -> Job Satisfaction | -0.004 | 0.05 | 0.17 | 1.08 | -0.02 | 0.20 | 0.14 | 1.13 | **0.27*** | **2.23*** |
| $H_{2j}$: Service -> Job Satisfaction | **0.18*** | **2.15*** | 0.04 | 0.31 | 0.14 | 1.48 | -0.09 | 0.67 | 0.06 | 0.48 |
| $H_{2k}$: Entrepreneurship -> Job Satisfaction | 0.05 | 0.79 | 0.06 | 0.57 | 0.05 | 0.61 | 0.08 | 0.73 | -0.10 | 0.86 |
| $H_{2l}$: Geographical Security -> Job Satisfaction | **0.20*** | **2.35*** | **0.28*** | **2.22*** | **0.14*** | **1.99*** | -0.07 | 0.52 | 0.02 | 014 |
| $H_{2m}$: Learning Motivation -> Job Satisfaction | **0.17*** | **2.15*** | 0.11 | 0.96 | 0.10 | 1.28 | **0.23*** | **1.97*** | -0.02 | 0.13 |
| $H_{3a}$: *Guanxi* Culture -> Technical Competence | **0.36*** ** | **5.32*** ** | **0.40*** ** | **4.65*** ** | **0.23** ** | **2.80** ** | 0.13 | 1.25 | **0.34*** ** | **4.16*** ** |
| $H_{3b}$: *Guanxi* Culture -> Managerial Competence | 0.13 | 1.95 | 0.19 | 1.59 | **0.19*** | **2.38*** | 0.08 | 0.94 | **0.23*** | **2.49*** |
| $H_{3c}$: *Guanxi* Culture -> Autonomy | **0.20** ** | **2.84** ** | **0.35*** ** | **4.16*** ** | **0.18*** | **2.55*** | 0.10 | 0.91 | 0.04) | 0.32 |
| $H_{3d}$: *Guanxi* Culture -> Organizational Stability | **0.24** ** | **3.11** ** | **0.33*** ** | **4.17*** ** | 0.16 | 1.77 | -0.05 | 0.39 | **0.33*** ** | **3.65*** ** |
| $H_{3e}$: *Guanxi* Culture -> Challenge | **0.29*** ** | **3.90*** ** | **0.25*** | **2.44*** | **0.29*** ** | **3.44*** ** | **0.22*** | **2.43*** | **0.28** ** | **2.83** ** |
| $H_{3f}$: *Guanxi* Culture -> Lifestyle | **0.27*** ** | **3.77*** ** | **0.49*** ** | **6.76*** ** | **0.20** ** | **2.80** ** | 0.18 | 1.76 | 0.13 | 1.15 |
| $H_{3g}$: *Guanxi* Culture -> Identity | **0.40*** ** | **5.99*** ** | 0.18 | 1.50 | 0.11 | 1.22 | **0.22*** | **2.45*** | **0.35*** ** | **4.44*** ** |
| $H_{3h}$: *Guanxi* Culture -> Creativity | **0.25** ** | **3.19** ** | **0.23*** | **2.28*** | **0.31*** ** | **3.96*** ** | **0.21*** | **2.51*** | 0.19 | 1.83 |
| $H_{3i}$: *Guanxi* Culture -> Variety | **0.29*** ** | **4.43*** ** | **0.32** ** | **3.14** ** | **0.28*** ** | **3.57*** ** | **0.19*** | **1.96*** | **0.28** ** | **3.22** ** |
| $H_{3j}$: *Guanxi* Culture -> Service | **0.38*** ** | **5.47*** ** | **0.46*** ** | **5.80*** ** | **0.28*** ** | **4.18*** ** | 0.06 | 0.52 | **0.30** ** | **2.89** ** |
| $H_{3k}$: *Guanxi* Culture -> Entrepreneurship | **0.21** ** | **2.96** ** | 0.20 | 1.30 | **0.14*** | **2.04*** | **0.20*** | **2.12*** | 0.16 | 1.50 |
| $H_{3l}$: *Guanxi* Culture -> Geographical Security | **0.28** ** | **3.16** ** | **0.42*** ** | **4.46*** ** | **0.22** ** | **2.68** ** | -0.16 | 1.49 | 0.14 | 1.02 |
| $H_{3m}$: *Guanxi* Culture -> Learning Motivation | **0.40*** ** | **5.73*** ** | **0.42*** ** | **5.51*** ** | 0.10 | 1.07 | 0.14 | 1.49 | **0.31** ** | **3.27** ** |

***: $p < 0.001 (t > 3.29)$; **: $p < 0.01 (t > 2.58)$; *: $p < 0.05 (t > 1.96)$

PLS-Bootstrap method was applied and bootstrap 5000 samples for parameters estimation.

All values in table are presented by standardized regression coefficient.

**Table 9. Comparison the results of the $H_{2a}$~ $H_{2m}$**

| Hypotheses | PRC | Taiwan | India | UAE | US |
|---|---|---|---|---|---|
| $H_{2a}$: Technical Competence -> Job Satisfaction | | Technical competence being the basic ability for IT/IS personnel in Taiwan | | | |
| $H_{2b}$: Managerial Competence -> Job Satisfaction | | | | | |
| $H_{2c}$: Autonomy -> Job Satisfaction | | | | | |
| $H_{2d}$: Organizational Stability -> Job Satisfaction | | | | | |
| $H_{2e}$: Challenge -> Job Satisfaction | | | The IT industry in India being famous worldwide; thus, the ability of take challenge is critical for IT/IS personnel | | |
| $H_{2f}$: Lifestyle -> Job Satisfaction | | | | | The US has always emphasized the balance of the job and family life, and it is very important to the IT/IS personnel in the US |
| $H_{2g}$: Identity -> Job Satisfaction | | | | | |
| $H_{2h}$: Creativity -> Job Satisfaction | | | The IT industry in India being famous worldwide; thus, the ability of creative new ideas is critical for IT/IS personnel in India | | |
| $H_{2i}$: Variety -> Job Satisfaction | | | | | Desire to work on a number of different tasks is critical for IT/IS personnel in the US |
| $H_{2j}$: Service -> Job Satisfaction | Service for IT/IS personnel, due to it can improve their self-confidence | | | | |
| $H_{2k}$: Entrepreneurship -> Job Satisfaction | | | | | |
| $H_{2l}$: Geographical Security -> Job Satisfaction | IT industry has the potential for development in some metropolitan areas in the PRC, thus, geographic security for IT/IS personnel is a critical factor | The job opportunities in the IT industry are more popular in the north of Taiwan, thus, geographic security is a critical factor for IT/IS personnel | IT industry has the potential for development in some metropolitan areas in India, thus, geographic security for IT/IS personnel is a critical factor | | |
| $H_{2m}$: Learning Motivation -> Job Satisfaction | IT industry is extremely competent in the PRC, IT/IS personnel have to keep learning the new and different types of information, technical knowledge | | | IT/IS personnel have to be updated their IT knowledge, for sustaining their competence | |

(the PRC and India) have to honor their family, thus, they will try their best to improve their ability (technical competence, $H_{3a}$; learning motivation, $H_{3m}$) and take risks (challenge, $H_{3e}$, creativity, $H_{3h}$; variety, $H_{3i}$); moreover, if they have good *guanxi* in their organization, be a boss (entrepreneurship, $H_{3k}$), they can arrange their time more easily (autonomy, $H_{3c}$); hence, their family will be very proud of their success. Meanwhile, maintaining good *guanxi* in an organization can help their work for a company which is famous, stable, and close to home (organizational stability, $H_{3d}$; identity, $H_{3g}$; geographical security, $H_{3l}$), to balance their work and family (lifestyle, $H_{3f}$). For this reason, not only can they take care of their family, but they can also honor their family. (2) Due to building good *guanxi* with others can be "helping and serving others is the foundation of happiness" ($H_{3j}$), and this is the most important adage children are taught within a Chinese cultural society, otherwise, they will not be respected by others in this society. For this reason, if the IT/IS personnel in the PRC have good *guanxi* in their organization it will improve their service ability.

According to the above discussion, the IT/IS Personnel in Chinese society who maintain good *guanxi* in their organization will be useful to influence almost all of the 12 types of career anchors, and it may well be a possible way to improve their job satisfaction indirectly.

### *5.2.2. IT/IS Personnel in Taiwan*

*Guanxi* culture has had a significant effect on technical competence ($H_{3a}$), autonomy ($H_{3c}$), organizational stability ($H_{3d}$), challenge ($H_{3e}$), lifestyle ($H_{3f}$), creativity ($H_{3h}$), variety ($H_{3i}$), service ($H_{3j}$), geographical security ($H_{3l}$), and learning motivation ($H_{3m}$), being the 10 anchors of the IT/IS personnel in Taiwan. It has similar reasons with the PRC according to both of them having inherited the same Chinese culture.

However, due to there being only a few chances of promotion to an IT/IS manager's position (managerial competence, $H_{3b}$) in Taiwan, even if the IT/IS personnel has good *guanxi* with others, it is still very difficult to have an opportunity for promotion. Meanwhile, most of the companies are small- to middle-sized enterprises, and it is hard to gain a good reputation from most people, thus, even if the IT/IS personnel have good *guanxi* with others it will be no use for their identity ($H_{3g}$). Moreover, the risk is too high and cannot guarantee success to create a new business for the IT/IS personnel (entrepreneurship, $H_{3k}$); thus, even if they have good *guanxi* with others it is still useless for this anchor. For this reason, managerial competence ($H_{3b}$), identity ($H_{3g}$), and entrepreneurship ($H_{3k}$) of the IT/IS personnel in Taiwan will not be significantly influenced by *guanxi*.

### *5.2.3. IT/IS Personnel in India*

*Guanxi* culture has had a significant effect on technical competence ($H_{3a}$), managerial competence ($H_b$), autonomy ($H_{3c}$), challenge ($H_{3e}$), lifestyle ($H_{3f}$), creativity ($H_{3h}$), variety ($H_{3i}$), service ($H_{3j}$), entrepreneurship ($H_{3k}$), and geographical security ($H_{3l}$), being the 10 anchors of the IT/IS personnel in India. It has similar reasons as with the PRC and Taiwan, suggesting similarity among these three societies. However, the managerial competence ($H_b$) is only significant in India, the PRC, and Taiwan; according to the IT industry in India being famous worldwide, there are many opportunities to be promoted to a managerial position for the IT/IS personnel.

However, as the IT industry is very dynamic in India, thus, even if the IT/IS personnel have good *guanxi* in the organization, organizational stability ($H_{3d}$), good reputation of organization (identity, $H_{3g}$), are not critical to them. Meanwhile, learning motivation ($H_{3m}$) is based on the IT/IS's personal cognition to pursue new knowledge behavior, and *guanxi* is not so relevant as to effect their learning motivation anchor in Indian society.

According to the above discussion, the IT/IS personnel in India who maintain good *guanxi* in their organization will be useful to influence almost 10 types of career anchors, and may well be a possible way to improve their job satisfaction indirectly.

### *5.2.4. IT/IS Personnel in UAE Society*

Challenge ($H_{3e}$), identity ($H_{3g}$), and creativity ($H_{3h}$), variety ($H_{3i}$), and entrepreneurship ($H_{3k}$) are the five anchors of the IT/IS personnel that have been significantly and positively influenced by *Guanxi* culture. However, technical competence ($H_{3a}$), managerial competence ($H_{3b}$), autonomy ($H_{3c}$), organizational stability ($H_{3d}$), lifestyle ($H_{3f}$), service ($H_{3j}$), geographical security ($H_{3l}$), and learning motivation ($H_{3m}$) are the eight anchors of the IT/IS personnel that have not been significantly influenced by the *guanxi* culture.

Firstly, due to the IT industry in the UAE that remains in the early stage, as this pushes the IT/IS personnel to prefer trying something new and taking risks to do their job (challenge, $H_{3e}$; creativity, $H_{3h}$), thus, maintaining good *guanxi* with others will enhance these two anchors' ability. In addition, according to the resource allocator that always considers the relationship with the petitioner before distributing the resource, which means that the IT personnel always behave as the consequence of consideration of their relationships with others; therefore, cultivating and maintaining *guanxi* is more important and relevant for conducting various tasks ($H_{3i}$) and entrepreneurship ($H_{3k}$). In contrast, being in a stable location of an organization (organizational stability, $H_{3d}$; geographical security, $H_{3l}$) for the IT/IS personnel is not so relevant to *guanxi* culture in this study.

Secondly, the balance of work and family (lifestyle, $H_{3f}$), to keep learning new IT knowledge (technical competence, $H_{3a}$; learning motivation, $H_{3m}$), being promoted to a manager's position (managerial competence, $H_{3b}$), and helping others (service, $H_{3j}$) will not be influenced by the *guanxi* culture accordingly if the IT/IS personnel in the UAE do not have motivation to pursue new IT knowledge, lifestyle, higher position in the organization, and helping others; thus, even good *guanxi* is useless for these five anchors.

Thirdly, building *guanxi* with others will help the IT/IS personnel in the UAE to work for a reputable company (identity, $H_{3g}$) to honor the IT/IS personnel's family to maintain their close family relationship. For this reason, the autonomy ($H_{3c}$) will not be so important and will not be influenced by the *guanxi* culture.

### *5.2.5. IT/IS Personnel in USA*

*Guanxi* culture has a significant effect on the technical competence ($H_{3a}$), managerial competence ($H_{3n}$), organizational stability ($H_{3d}$), challenge ($H_{3e}$), identity ($H_{3g}$), variety ($H_{3i}$), service ($H_{3j}$), and learning motivation ($H_{3m}$) being the eight anchors of the IT/IS personnel in the US.

Firstly, due to the IT/IS personnel preferring to take risks (challenge, $H_{3e}$; variety, $H_{3i}$), trying their best to improve their ability (technical competence, $H_{3a}$; learning motivation ($H_{3m}$), and having the ambition to be promoted to a higher position in the workplace (managerial competence, $H_{3b}$). Meanwhile, working for a company which is famous, and stable (organizational stability, $H_{3d}$; identity, $H_{3g}$), and helping to serve others (service, $H_{3j}$) can also enhance their reputation in the IT/IS domain; all of the above can emphasize their ability to achieve their ambition. For this reason, maintaining good *guanxi* with others will help them to achieve these anchors.

Secondly, because building good *guanxi* with others is useless to help the IT/IS personnel in the US to arrange their time more easily (autonomy, $H_{3c}$), and to balance their work and family (lifestyle, $H_{3f}$). In addition, creating (creativity, $H_{3h}$) a new business (entrepreneurship, $H_{3k}$) for them is too risky, and a workplace close to home (geographical security, $H_{3l}$) is not important for them, hence, maintaining good *guanxi* with others is also useless to influence these two anchors.

In light of above discussion, the result of this study clearly states that *guanxi,* indeed, has an effect on most of the career anchors of the IT/IS personnel in five different cultural areas; thus, partially supporting the $H_{3a\sim3m}$. This result is consistent with the conception of Arnold et al. (2017), Chang (2012), Costigan et al. (2018), Fei (2017), Huang and Aaltio (2014), Joseph et al. (2007), and Kim (2005), that *guanxi* should be a critical factor that impacts on career anchors. Meanwhile, *guanxi* has an effect on most of the career anchors of the IT/IS personnel in the PRC, Taiwan, and India. This could be due to these three areas belonging to Eastern societies, and *guanxi* has a similar effect on the

career anchors of the IT/IS personnel. In light of this, the *guanxi* culture, indeed, has had a different effect on the career anchors of the IT/IS personnel in different cultural societies. Final, Comparison the results of the H3a~ H3m as shown in Table 10.

### 5.3. Turnover Intention

Job satisfaction has a significantly negative effect on the IT/IS personnel's turnover intention in the PRC, Taiwan, India, the UAE, and the US. Our finding is consistent with the conception of Chan and Mai (2015), El-Masri et al. (2018), Guan et al. (2014), Jiang et al. (2018), Kang et al. (2015), Laschinger (2012), and Nauta et al. (2009); hence, supporting $H_1$.

However, the variances explanatory power ($R^2$) of the turnover intention has only 0.1 in India, 0.2 in the UAE, and 0.1 in the US, lower than 0.42 in the PRC, and 0.30 in Taiwan; thus, the results, indeed, have had a different effect on their turnover intention in different cultural societies. This indicates that the job satisfaction of the IT/IS personnel in the PRC, and Taiwan, has a higher level and is a critical factor to influence the turnover intention more than in India, the UAE, and the US. It could be due to the IT industry being very popular in the PRC (Cao, 2015; Jon, 2015; Zhu, 2016), which can attract both the PRC and Taiwan's IT/IS personnel into the PRC market. For this reason, these two areas have a number of IT job opportunities to choose from; therefore, the job satisfaction is a very critical factor to impact their turnover intention.

Moreover, although India, the UAE, and the US have the lower $R^2$, this does not mean that the job satisfaction is less important/critical accordingly, and indeed, has made a significant impact on the turnover intention of the IT/IS personnel. Simply stated, if management expects retention to qualify of the IT/IS personnel, satisfying their job satisfaction is a possible way, especially in the PRC and Taiwan; but the result shows that job satisfaction is not the only way to influence their turnover intention.

## 6. CONTRIBUTIONS

Of the most immense importance to an organization are its human resources, which include the employees' capacity to contribute to the company, staff training provided by the company, and implicit agreement, which may be characterized as aids/enhancements to human resources (Chang, 2010).

### 6.1. For Academic

Firstly, only a few career anchors of the IT/IS personnel have significant influence on their job satisfaction in all five different cultural societies, and job satisfaction has been influenced by different anchors in each society. The result has exhibited that each anchor for the IT/IS personnel have different meanings in different cultural societies.

Secondly, turnover intention of the IT/IS personnel has a significantly negative influence on job satisfaction in all five different cultural societies; and the variances explanatory power ($R^2$) of the turnover intention from job satisfaction in the PRC and Taiwan are higher than India, the UAE, and the US. In light of this, the result should serve as a reminder to researchers that job satisfaction is a critical factor for the turnover intention of the IT/IS personnel in Chinese cultural society. This finding is quite important according to there being no scholars that have had the same result until now.

In addition, *guanxi* has a significant influence on many career anchors of the IT/IS personnel in five different cultural societies. It shows that *guanxi* is meaningful for their career anchors, and the result has proven the argument of Hwang (2015) that *guanxi* can be used to analyze interpersonal interactions in any culture. Therefore, the result of this study signifies that *guanxi* can be added in the Career Anchor Theory due to it being significant as an independent variable to impact on career anchors in five different cultural societies; and this is a critical contribution of this study.

**Table 10. Comparison the results of the $H_{3a}$~ $H_{3m}$**

| Hypotheses | PRC | Taiwan | India | UAE | US |
|---|---|---|---|---|---|
| $H_{3a}$: *Guanxi* Culture -> Technical Competence | Honor their family | | | Not be influenced by *guanxi* culture | Maintaining good *guanxi* with others will help them to achieve this anchor |
| $H_{3b}$: *Guanxi* Culture -> Managerial Competence | *Guanxi* is not so critical as to have an effect on their managerial competence | Few chances of promotion to an IT/IS manager's positionin Taiwan | IT industry is famous in the world and there are many opportunities to promote to a manager position for IT/IS personnel | Not be influenced by *guanxi* culture | Maintaining good *guanxi* with others will help them to achieve this anchor |
| $H_{3c}$: *Guanxi* Culture -> Autonomy | Arrange time more easily to cultivating *guanxi* | | | Not be influenced by *guanxi* culture | |
| $H_{3d}$: *Guanxi* Culture -> Organizational Stability | Good *guanxi* can help their work for a stable company | | IT industry is very dynamic in India | Being in a stable organization for IT/IS personnel is not so relevant to *guanxi* culture | Maintaining good *guanxi* with others will help them to achieve this anchor |
| $H_{3e}$: *Guanxi* Culture -> Challenge | Honor their family | | | IT industry in the UAE that remains in the early stage | Maintaining good *guanxi* with others will help them to achieve this anchor |
| $H_{3f}$: *Guanxi* Culture -> Lifestyle | Good *guanxi* can help balance their work and family | | | Not be influenced by *guanxi* culture | |
| $H_{3g}$: *Guanxi* Culture -> Identity | Good *guanxi* can help their work for a famous company | Most of companies are small-to-middle -sized enterprises, if IT/IS personnel have good *guanxi* with others will be no use for their identity | IT industry is very dynamic in India | Good *guanxi* can help their work for a famous company | Maintaining good *guanxi* with others will help them to achieve this anchor |
| $H_{3h}$: *Guanxi* Culture -> Creativity | Honor their family | | | IT industry in the UAE that remains in the early stage | Maintaining good *guanxi* with others is also useless to this anchor |
| $H_{3i}$: *Guanxi* Culture -> Variety | Honor their family | | | Maintaining good *guanxi* with others will help them to achieve this anchor | |
| $H_{3j}$: *Guanxi* Culture -> Service | good *guanxi* with others can be "helping and serving others is the foundation of happiness" | | | Not be influenced by *guanxi* culture | Maintaining good *guanxi* with others will help them to achieve this anchor |
| $H_{3k}$: *Guanxi* Culture -> Entrepreneurship | Family proud for their success | The risk is too high and cannot guarantee success to create a new business for the IT/IS personnel | Family proud for their success | Cultivating and maintaining *guanxi* is more important and relevant for conducting various tasks | Maintaining good *guanxi* with others is also useless to this anchor |
| $H_{3l}$: *Guanxi* Culture -> Geographical Security | Good *guanxi* can help their work for a company which is close to home | | | being in a location of an organization for IT/IS personnel is not so relevant to *guanxi* culture | Maintaining good *guanxi* with others is also useless to this anchor |
| $H_{3m}$: *Guanxi* Culture -> Learning Motivation | Honor their family | | *Guanxi* is not so relevant as to effect their learning motivation anchor in India | Not be influenced by *guanxi* culture | Maintaining good *guanxi* with others will help them to achieve this anchor |

### 6.2. For Practice

Firstly, how to use job satisfaction to retain the valuable IT/IS personnel from different cultural societies is a challenge to management, and the result of this study provides an appropriate approach to organizations.

Secondly, according to *guanxi,* it significantly influences the career anchors of the IT/IS personnel in five different cultural societies, thus, management should use the *guanxi* culture to influence their anchors' cognition, as this will, in turn, be a good way to increase their job satisfaction. In addition, *guanxi* has a similar effect on the career anchors of the IT/IS personnel in the PRC, Taiwan, and India; as it could be due to them belonging to Eastern societies.

Finally, if management expects the retention of valuable IT/IS personnel, using *guanxi* as well as satisfying their job satisfaction will be a possible way, especially in the PRC, Taiwan, and India, Therefore, considering suitable and appropriate strategy to keep them will be necessary as well.

## 7. CONCLUSION

While career anchors have been mainly studied in the US; this study demonstrates the difference in career anchors rooted in five different cultural societies. By comparison between the IT/IS personnel from the PRC, Taiwan, India, the UAE, and the US, this study shows that the career anchors of the IT/IS personnel have had a different effect on their job satisfaction in different cultural societies. *Guanxi* culture is an important factor to influence their career anchors, and has a different effectiveness. Given the mobility of the IT/IS personnel in the global job market, this research enriches our understanding about career anchors in different cultural contexts and provides important guidelines for human resource (HR) managers to attract, recruit, and treat IT/IS personnel. However, due to the $R^2$ value of job satisfaction not being over 0.3 in India, the UAE, and the US, it means that, except for job satisfaction, there are other constructs that should be explored (e.g., professional identification, career stage) into theorization; and this is a limitation of this study. Meanwhile, as to why some career anchors in each society have no relationship with the *guanxi* culture cannot be clarified by this study, and it is also another limitation of this study. Therefore, it is necessary to adopt the qualitative research method to explore the reasons; and understand *guanxi,* as to whether it is a moderator between job satisfaction and turnover intention. By demonstrating significant differences in career anchors from different contexts, this research also implies the necessity to continue exploring the underlying reasons for such differences and contexts.

## ACKNOWLEDGMENT

The author is thankful to the Ministry of Science and Technology under the Grants NSC96-2416-H-251-006, MOST103-2410-H-153-024-MY2 and MOST106-2410-H-153-005.

## REFERENCE

Adams, C., Clark, L. M., Goldman, M., Jester, R., Lee, M., Noseworthy, D., & Thompson, E. et al. (2006). *Skills Shortages Are Emerging in the CSI Service Market.* Stamford, CT: Gartner Inc.

Agarwal, R., & Ferratt, T. W. (2000). Retention and the career motives of IT professionals. In *Proceedings of the 2000 ACM SIGCPR conference personnel research* (pp. 158-166). ACM. doi:10.1145/333334.333384

Armstrong, D. J., Brooks, N. G., & Riemenscheider, C. K. (2015). Exhaustion from Information System Career Experience: Implementation for Turn-Away Intention. *Management Information Systems Quarterly*, *39*(3), 713–727. doi:10.25300/MISQ/2015/39.3.10

Arnold, J., Coombs, C. R., & Gubler, M. (2017). Career anchors and preferences for organizational career management: A study of information technology professionals in three European countries. *International Journal of Human Resource Management*, 1–33. doi:10.1080/09585192.2017.1380058

BLS. (2011). *Unemployed persons by occupation and sex*. Retrieved from http://www.bls.gov/web/empsit/cpseea30.pdf

Cao, L. (2015). *2015 (1st Version) China E-Commerce Market Data Monitoring Report*. China E-Commerce Research Center. (in Chinese) Retrieved from http://www.100ec.cn/zt/2015sndbg/

Chan, S. H. J., & Mai, X. (2015). The relation of career adaptability to satisfaction and turnover intentions. *Journal of Vocational Behavior*, *89*(1), 130–139. doi:10.1016/j.jvb.2015.05.005

Chang, C. L. H. (2010). The study of the turnover of MIS professionals--The gap between Taiwanese and US societies. *International Journal of Information Management*, *30*(4), 301–314. doi:10.1016/j.ijinfomgt.2009.11.002

Chang, C. L. H. (2012). How to Build an Appropriate Information Ethics Code for Enterprises in Chinese Cultural Society. *Computers in Human Behavior*, *28*(2), 420–433. doi:10.1016/j.chb.2011.10.013

Chang, C. L. H., Shen, K. N., & Liu, C.C. (2016). Career Anchor and Role of Chinese Guanxi Culture. In *Proceedings of the Global Information Technology Management (GITMA) World Conference*. Academic Press.

Chang, C. L. H., & Chen, J. Q. (2017). The Information Ethics Perception Gaps between Chinese and American Students -- a Chinese Culture Perspective. *Information Technology & People*, *30*(2), 473–502. doi:10.1108/ITP-08-2014-0181

Chang, C. L. H., Chen, V., Klein, G., & Jiang, J. J. (2011). Information system personnel career anchor changes leading to career changes. *European Journal of Information Systems*, *20*(1), 103–117. doi:10.1057/ejis.2010.54

Chang, C. L. H., & Lin, I. C. (2008). Career anchors, national culture and leave intent of MIS professionals in Taiwan. In *Proceedings of the 12th PACIS (Pacific Asia Conference on Information Systems)*. Academic Press.

Chang, C. L. H., Jiang, J. J., Klein, G., & Chen, H. G. (2012). Career Anchors and Disturbances in Job Turnover Decisions--A Case Study of IT Professionals in Taiwan. *Information & Management*, *49*(6), 309–319. doi:10.1016/j.im.2012.08.002

Chen, X. P., & Chen, C. C. (2004). On the intricacies of the Chinese *guanxi*: A process model of guanxi development. *Asia Pacific Journal of Management*, *21*(3), 305–324. doi:10.1023/B:APJM.0000036465.19102.d5

Chiao, C. (1982). Guanxi: A preliminary conceptualization. In K. Yang & C.I. Wen (Eds.), The Sincization of Social and Behavioral Science Research in China (pp. 345-360). Academia Sinica. (in Chinese)

Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic mail emotion/adoption study. *Information Systems Research*, *14*(2), 189–217. doi:10.1287/isre.14.2.189.16018

Costigan, R., Gurbuz, S., & Sigri, U. (2018). Schein's career anchors: Testing factorial validity, invariance across countries, and relationship with core self-evaluations. *Journal of Career Development*, *45*(3), 199–214. doi:10.1177/0894845316676903

Crepeau, R. G., Crook, C. W., Goslar, M. D., & McMurtrey, M. E. (1992). Career anchors of information systems personnel. *Journal of Management Information Systems*, *9*(2), 145–160. doi:10.1080/07421222.1992.11517962

DeLong, T. J. (1982). Reexamining the career anchor model personal. *Personnel*, *59*(3), 50–63.

Derr, C. B., & Laurent, A. (1987). The internal and external careers: a theoretical and cross-cultural perspective. *Paper presented at the 47th Annual Meeting of the Academy of Management*. Academic Press.

Dinger, M., Stepina, L., Thatcher, J. B., Breland, J., & Treadway, D. (2015). Does Professionalism Matter in the IT Workforce? An Empirical Examination of IT Professionals. *Journal of the Association for Information Systems*, *16*(4), 281–313. doi:10.17705/1jais.00392

El-Masri, M., Al-Yafi, K., Addas, S., & Tarhini, A. (2018). Individual Determinants of IT Occupational Outcomes. *Communications of the Association for Information Systems*, *42*(1), 481–507. doi:10.17705/1CAIS.04218

Fei, Y. (2017). *Women Managers' Careers in a Chinese Commercial Bank* [Dissertation]. School of Management of Leicester University.

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior*. Reading, MA: Addison-Wesley.

Fornell, C. R. (Ed.). (1982). *A Second Generation of Multivariate analysis: Methods*. NY: Praeger publishers.

Fornell, C., & Larcker, D. F. (1981). Structural equation model with unobservable variables and measurement error: Algebra and statistics. *JMR, Journal of Marketing Research*, *18*(3), 382–389. doi:10.1177/002224378101800313

Fu, J. R., & Chen, J. H. F. (2015). Career commitment of information technology professionals: The investment model perspective. *Information & Management*, *52*(5), 537–549. doi:10.1016/j.im.2015.03.005

Gerpott, T. J., Domsch, M., & Keller, R. T. (1988). Career orientations in different countries and companies: An empirical investigation of West German, British and US industrial R&D professionals. *Journal of Management Studies*, *25*(5), 439–462. doi:10.1111/j.1467-6486.1988.tb00709.x

Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal*, *33*(1), 64–86.

Guan, Y., Wen, Y., Chen, S. X., Liu, H., Si, W., Liu, Y., & Dong, Z. et al. (2014). When Do Salary and Job Level Predict Career Satisfaction and Turnover Intention among Chinese Managers? The Role of Perceived Organizational Career Management and Career Anchor. *European Journal of Work and Organizational Psychology*, *23*(4), 596–607. doi:10.1080/1359432X.2013.763403

Gupta, Y. P., Guimaraes, T., & Raghunathan, T. S. (1992). Attitude and intentions of information center personnel. *Information & Management*, *22*(1), 151–160. doi:10.1016/0378-7206(92)90068-Q

Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, *14*(2), 75–89. doi:10.1057/palgrave.jibs.8490867

Hsu, M. K., Jiang, J. J., Gary, K., & Tang, Z. (2003). Perceived career incentives and intent to leave. *Information & Management*, *40*(5), 361–369. doi:10.1016/S0378-7206(02)00018-6

Huang, J., & Aaltio, I. (2014). Guanxi and social capital: Networking among women managers in China and Finland. *International Journal of Intercultural Relations*, *39*(1), 22–39. doi:10.1016/j.ijintrel.2013.09.002

Hung, C. F. (2004). Cultural influence on relationship cultivation strategies: Multinational companies in China. *Journal of Communication Management*, *8*(3), 264–281. doi:10.1108/13632540410807682

Hwang, K. K. (1987). Face and favor: Chinese power game. *American Journal of Sociology*, *92*(4), 944–974. doi:10.1086/228588

Hwang, K. K. (2015). Culture-Inclusive Theories of Self and Social Interaction: The Approach of Multiple Philosophical Paradigms. *Journal for the Theory of Social Behaviour*, *45*(1), 40–63. doi:10.1111/jtsb.12050

Igbaria, M., & Baroudi, J. J. (1993). A short-form measure of career orientations: A psychometric evaluation. *Journal of Management Information Systems*, *10*(2), 131–154. doi:10.1080/07421222.1993.11518003

Igbaria, M., Greenhaus, J. J., & Parasuraman, S. (1991). Career orientations of MIS employees: An empirical analysis. *Management Information Systems Quarterly*, *15*(2), 151–169. doi:10.2307/249376

Igbaria, M., Kassicieh, S. K., & Silver, M. (1999). Career orientations and career success among research, and development and engineering professionals. *Journal of Engineering and Technology Management*, *16*(1), 29–54. doi:10.1016/S0923-4748(98)00027-7

Igbaria, M., & McCloskey, D. W. (1996). Career orientations of MIS employees in Taiwan. *Computer Personnel*, *17*(2), 3–24. doi:10.1145/227728.227729

Igbaria, M., Meredith, G., & Smith, D. C. (1995). Career orientations of information systems employees in South Africa. *The Journal of Strategic Information Systems*, *4*(4), 319–340. doi:10.1016/0963-8687(95)80002-8

Jiang, J. J., & Klein, G. (1999). Supervisor support and career anchor impact on the career satisfaction of the entry-level information systems professional. *Journal of Management Information Systems*, *16*(3), 219–240. doi:10.1080/07421222.1999.11518262

Jiang, J. J., Huang, W. W., Klein, G., & Tsai, J. C. A. (2018). The Career Satisfaction of IT Professionals With Mixed Job Demands. *IEEE Transactions on Engineering Management*, 1–12. doi:10.1109/TEM.2018.2870085

Jon, S. (2015) *Technological Superpower China*. Edward Elgar Publishing, Retrieved from https://www.e-elgar.com/shop/technological-superpower-china?___website=uk_warehouse

Joseph, D., Ng, K. Y., Koh, C., & Ang, S. (2007). Turnover of information technology professionals: A narrative review, meta-analytic structural equation modeling, and model development. *Management Information Systems Quarterly*, *31*(3), 547–577. doi:10.2307/25148807

Kang, H. J. A., Gatling, A., & Kim, J. S. (2015). The impact of supervisory support on organizational commitment, career satisfaction, and turnover intention for hospitality frontline employees. *Journal of Human Resources in Hospitality & Tourism*, *14*(1), 68–89. doi:10.1080/15332845.2014.904176

Kannabiran, G., Sarata, A., & Nagarani, M. (2016). Career Anchors and Employee Retention: An Empirical Study of Information Technology Industry in India. *International Journal of Knowledge-Based Organizations*, *6*(3), 58–75. doi:10.4018/IJKBO.2016070104

Kim, N. (2005). Organizational interventions influencing employee career development preferred by different career success orientations. *International Journal of Training and Development*, *9*(1), 47–61. doi:10.1111/j.1360-3736.2005.00221.x

King, A. Y. (1991). Kuan-his and network building: A sociological interpretation. *Deadalus*, *120*(1), 63–84.

Laschinger, H. K. (2012). Job and career satisfaction and turnover intentions of newly graduated nurses. *Journal of Nursing Management*, *20*(4), 472–484. doi:10.1111/j.1365-2834.2011.01293.x PMID:22591149

Lee, D. Y., & Dawes, P. L. (2005). Trust, and long-term orientation in Chinese business markets. *Journal of International Marketing*, *13*(1), 28–56. doi:10.1509/jimk.13.2.28.64860

Lo, J. (2015). The information technology workforce: A review and assessment of voluntary turnover research. *Information Systems Frontiers*, *17*(2), 387–411. doi:10.1007/s10796-013-9408-y

Lounsbury, J. W., Sundstrom, E. S., Levy, J. J., & Gibson, L. W. (2014). Distinctive Personality Traits of Information Technology Professionals. *Computer and Information Science*, *7*(3), 38–48. doi:10.5539/cis.v7n3p38

Marshall, V., & Bonner, D. (2003). Career anchors and the effects of downsizing: implications for generations and cultures at work: A preliminary investigation. *Journal of European Industrial Training*, *27*(6), 281–291. doi:10.1108/03090590310479910

McLean, E. R., Smits, S. J., & Tanner, J. R. (1991). Managing new MIS professionals. *Information & Management*, *20*(4), 257–263. doi:10.1016/0378-7206(91)90018-W

Mobley, W., Griffeth, R., Hand, H., & Meglino, B. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, *86*(3), 493–522. doi:10.1037/0033-2909.86.3.493

Mobley, W., Horner, W., & Hollingsworth, A. (1978). An evaluation of the precursors of hospital employee turnover. *The Journal of Applied Psychology*, *63*(4), 408–414. doi:10.1037/0021-9010.63.4.408 PMID:701211

Nauta, A., van Vianen, A., van der Heijden, B., van Dam, K., & Willemsen, M. (2009). Understanding the factors that promote employability orientation: The impact of employability culture, career satisfaction, and role breadth self-efficacy. *Journal of Occupational and Organizational Psychology*, *82*(2), 233–251. doi:10.1348/096317908X320147

Quesenberry, J. L., & Trauth, E. M. (2007). What do women want?: An investigation of career anchors among women in the IT workforce. In *Proceedings of the 2007 ACM SIGCPR conference personnel research* (pp. 122-127). ACM. doi:10.1145/1235000.1235030

Sanchez-Burks, J. (2002). Protestant relational ideology and (in) attention to relational cues in work settings. *Journal of Personality and Social Psychology*, *83*(4), 919–929. doi:10.1037/0022-3514.83.4.919 PMID:12374444

Schein, E. H. (1978). *Career Dynamics: Matching Individual and Organizational Needs*. Reading, MA: Addision-Wesley.

Schein, E. H. (1984). Culture as an environmental context for careers. *Journal of Occupational Behaviour*, *5*(1), 71–81. doi:10.1002/job.4030050107

Schein, E. H. (1986). A critical look at current career development theory and research. In D. T. Hall (Ed.), *Career Development in Organizations* (pp. 310–331). San Francisco: Jossey-Bass.

Sumner, M., & Yager, S. (2004, April). Career orientation of IT personnel. In *Proceedings of the 2004 SIGMIS conference on Computer personnel research: Careers, culture, and ethics in a networked environment* (pp. 92-96). Academic Press.

Taylor, J., & Joshi, K. D. (2019). Joining the crowd: The career anchors of information technology workers participating in crowdsourcing. *Information Systems Journal*, *29*(3), 641–673. doi:10.1111/isj.12225

Thatcher, J. B., Stepina, L. P., & Boyle, R. (2002). Turnover of information technology workers: Examining empirically the influence of attitudes, job characteristics, and external markets. *Journal of Management Information Systems*, *19*(3), 231–261. doi:10.1080/07421222.2002.11045736

Wechtler, H., Koveshnikov, A., & Dejoux, C. (2017). Career anchors and cross-cultural adjustment among expatriates in a non-profit organization. *Management International Review*, *57*(2), 277–305. doi:10.1007/s11575-016-0307-6

Wong, A. L. Y. (2007). Making career choice: A study of Chinese managers. *Human Relations*, *60*(8), 1211–1233. doi:10.1177/0018726707081661

Wynne, L. A., Ferratt, T. W., & Biros, D. P. (2002, May). Career anchors of United States Air Force information systems workers: a turnover predictor? In *Proceedings of the 2002 ACM SIGCPR conference on Computer personnel research* (pp. 79-89). Academic Press.

Zhu, M. Q. (2016). *Observation: China's semiconductor ambitions and the plight of Taiwan*. BBC Chinese Network. (in Chinese) Retrieved from https://www.bbc.com/zhongwen/simp/china/2016/05/160506_china_semicounductor_business

Zhuang, G., Xi, Y., & Tsang, A. S. L. (2010). Power, conflict, and cooperation: The impact of guanxi in Chinese marketing channels. *Industrial Marketing Management*, *39*(1), 137–149. doi:10.1016/j.indmarman.2008.07.002

## ENDNOTES

[1] Career anchor: is a self-concept of a career that refers to the combination of an individual's needs, attitudes, values, and talents in the process of career development (Schein, 1978).

[2] Guanxi: literally means "relationships," and stands for any type of relationship. In the Chinese business world, however, it is also understood as the network of relationships among various parties that cooperate together and support one another. The Chinese businessmen's mentality is very much one of "You scratch my back, I'll scratch yours." In essence, this boils down to exchanging favors, which are expected to be done regularly and voluntarily. Therefore, it is an important concept to understand if one is to function effectively in Chinese society.

## APPENDIX: MEASUREMENT ITEMS

Technical Competence

TECH1. To build my career around some specific functional or technical area
TECH2. Remaining in my specialized area as opposed to being promoted out of my area of expertise
TECH3. Remaining in my area of expertise throughout my career
TECH4. I will accept a management position only if it is in my area of expertise
TECH5. I would rather leave my company than be promoted out of my area of expertise

Managerial Competence

MANG1. The process of supervising, influencing, leading, and controlling people at all levels
MANG2. To be in charge of a whole organization
MANG3. To rise to a high position in general management
MANG4. I would like to reach a level of responsibility in an organization whereby I would supervise others in various business functions and my role would primarily be to integrate their efforts
MANG5. I will feel successful in my career only if I become a high-level general manager in some organization

Autonomy

AUTO1. The chance to do things my own way and not to be constrained by the rules of an organization
AUTO2. A career that is free from organization restrictions
AUTO3. A career that permits a maximum amount of freedom and autonomy to choose my own work, hours, etc
AUTO4. During my career I have been mainly concerned with my own sense of freedom and autonomy
AUTO5. I do not want to be constrained by either an organization or the business world

Organizational Stability

ORGS1. An employer who will provide security through guaranteed work, benefits, a good retirement program, etc.
ORGS2. An organization that will give me long-run stability
ORGS3. I prefer to work for an organization that provides tenure (lifetime employment)

Challenge

CHAL1. Working on problems that are almost insolvable
CHAL2. Competing with and winning out over others
CHAL3. The only real challenge in my career has been confronting and solving tough problems, no matter what area they were in
CHAL4. Competition and winning are the most important and exciting parts of my career
CHAL5. I feel successful only if I am constantly challenged by a tough problem or a competitive situation

Lifestyle

LIFE1. Developing a life cycle that balances my career and family needs
LIFE2. Developing a career that permits me to continue to pursue my own life-style
LIFE3. I have always tried to give equal weight to my family and to my career
LIFE4. A career is worthwhile only if it enables to lead my life in my own way
LIFE5. Choosing and maintaining a certain life-style is more important than is career success

Identity

IDEN1. I want others to identify me by my organization and my job title
IDEN2. To be recognized by my title and status is important to me
IDEN3. I like to be identified with a particular organization and the prestige that accompanies that organization
IDEN4. It is important for me to be identified by my occupation
IDEN5. Being identified with a powerful or prestigious employer is important to me

Creativity

CREA1. To be able to create or build something that is entirely my own product or idea
CREA2. I have been motivated throughout my career by the number of products that I have been directly involved in creating
CREA3. I would like to accumulate a personal fortune to prove to myself and others that I am competent

Variety

VARI1. An endless variety of challenges is what I really want from my career
VARI2. A career that provides a maximum variety of types of assignments and work projects is important to me
VARI3. I have been motivated throughout my career by using my talents in a variety of different areas of work
VARI4. The excitement of participating in many areas of work has been the underlying motivation behind my career
VARI5. A career that gives me a great deal of flexibility is Important to me

Service

SER1. Using my skills to make the world a better place to live and work in
SER2. Being able to use my skills and talents in the service of an important cause
SER3. I have always sought a career in which I could be of service to others
SER4. I want a career in which I can be committed and devoted to an important cause

Entrepreneurship

ENTE1. Building a new business enterprise
ENTE2. I am always on the lookout for ideas that would permit me to start and build my own enterprise
ENTE3. Entrepreneurial activities are the central part of my career
ENTE4. I have always wanted to start and build up a business of my own

Geographic Security

GEO1. Remaining in one geographical area rather that moving because of a promotion
GEO2. It is more important for me to remain in my present geographical location than to receive a promotion or new job assignment in another location
GEO3. I prefer to work for an organization that will permit me to remain in one geographical area

Learning Motivation

LEAR1. Whether company can provide good training programs and educational opportunities is a very important issue to me
LEAR2. Whether I am able to learn new knowledge and skills from my current job is a very important issue to me
LEAR3. The present job could provide any learning opportunity to me is important
LEAR4. Whether company allows me to go to school for continue study is a very important issue to me

Guanxi

GGX2. My colleagues and I frequently meet in activities such as dinner or social events
GGX3. My colleagues often look after me in doing business
GGX4. I do not forget my colleagues at festival events and always give them valuable gifts
GGX5. My colleagues do not forget me either at festival events and always give me something valuable
GGX6. I think that my colleagues and I are members of the same network
GGX7. The relationship between my colleagues and me has lasted for a long time

Job Satisfaction

JS1. Generally speaking, I feel satisfied with this job
JS2. Overall, I feel satisfied with the kind of work I do in this job
JS3. In general, I feel satisfied with my job

Turnover Intention

LINT1. I think a lot about leaving this organization
LINT2. I am actively searching for an acceptable alternative to this organization
LINT3. When I can, I will leave the organization

*Christina Ling-hsing Chang is a Professor in the Department of Information Management, National Pingtung University in Taiwan R. O. C. She completed her Ph. D. degree at the Department of Information Management of Sun Yat-Sen University. Her research areas include the power and political behavior of the IT development process, the relation between culture and IT development, career anchors and management of IS personnel, information ethics, and qualitative methodology. She has had research papers published in Computers in Human Behavior; the European Journal of Information Systems; Information & Management; the International Journal of Information Management; the International Journal of Project Management; the Journal of Knowledge Management among others and at many international conferences. Moreover, the paper which was published in Journal of Knowledge Management (The Role of Organizational Culture in The Knowledge Management Process) has received the Emerald Literati Network Awards for Excellence 2016 winner.*

*Kathy Ning Shen was an Associate Professor in the Faculty of Business and Management at the University of Wollongong in Dubai. She got her Doctoral degree in Information Systems from City University of Hong Kong and was the Chairperson of Management Information System Department at Abu Dhabi University. Her main research areas include human-computer interaction, applications of information systems in organizations, e-marketing, virtual communities, and knowledge management. She has published more than 80 refereed journal and conference articles. Her work has appeared in top refereed journals such as the Journal of the American Society for Information Science and Technology, Communications of the ACM, Behaviour and Information Technology, the Journal of Computer Information Systems, Internet Research, and the International Journal of Human-Computer Interaction, and top conferences in the field. Currently she is the CEO and Co-Founder of HarirData, a big data consulting firm.*

*Sheng Wu is an Associate Professor of Information Management at Southern Taiwan University of Science and Technology in Taiwan. He received his Ph.D. degree from National Sun Yat-Sen University. His current research interests include knowledge management, electronic commerce, and management of information systems. His research has been accepted or published in academic journals such as Information & Management, Information Systems Journal, Decision Support Systems, Online Information Review, Information Technology and People, the Journal of Organizational Computing and Electronic Commerce, Expert Systems with Applications and various other journals. Correspondence to: Sheng Wu, Email: shengwu@stust.edu.tw.*