

AN ANALYSIS OF THE INDUSTRY EMPLOYMENT INTENTIONS OF  
UNDERGRADUATE FRESHMEN IN SHANGHAI  
MAJORING IN TOURISM AND HOSPITALITY MANAGEMENT UTILIZING  
MOTIVATION AND DEMOGRAPHIC INFORMATION

by

Baoqing Cheng

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Baoqing Cheng

APPROVED BY:

Dissertation Advisor: Rachelle Kisst Hackett, Ph.D.

Committee Member: Marilyn Draheim, Ph.D.

Committee Member: Delores McNair, Ed.D.

Dean of the School of Education: Lynn G. Beck, Ph.D.

Dean of Research and Graduate Studies: Bhaskara R. Jasti, Ph.D.

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## DEDICATION

This dissertation is dedicated posthumously  
to my dearly beloved father  
Jupu Cheng  
(February 6, 1936 – May 23, 2013)  
who taught me the value of education and  
rejoiced at each step I had made  
along the path towards this accomplishment.

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An Analysis of the Industry Employment Intentions of Undergraduate Freshmen in Shanghai Majoring in Tourism and Hospitality Management Utilizing Motivation and Demographic Information

Abstract

by Baoqing Cheng

University of the Pacific  
2014

The purpose of this study is to develop a better understanding of the industry employment intentions of the undergraduate freshmen majoring in tourism and hospitality management, their motivation for choosing these programs, and the relationship between their industry employment intentions and their motivation as well as demographic profiles. The 1140 undergraduate freshmen who were enrolled in the tourism and hospitality management programs at Shanghai's 13 higher educational institutions in the fall of 2013 were recruited to participate in the study. In the pilot study, 244 students among 250 recruited completed the survey developed by the researcher using Self-determination Theory as the theoretic framework. In the formal study, 685 out of 890 students completed the modified survey. Data analysis techniques included descriptive statistics, one-way between-subjects factor ANOVA, and multiple regression. Results of the study showed that: (1) on average, students' motivations for choosing a tourism and hospitality program were slightly above a moderate level of autonomy; (2) students' intentions to find job placements in the



tourism and hospitality industry after graduation were at a moderate level; (3) there were significant differences among students majoring in tourism and hospitality management from the three different tiers of higher educational institutions regarding their family SES, motivations for choosing tourism and hospitality programs, and industry employment intentions; (4) among students' demographics, gender, family SES, and tier of higher educational institutions were significant predictors of their industry employment intentions, though only explaining 4.0% of the variance in students' industry employment intentions; (5) degree of autonomy of students' motivation for choosing their academic programs was a significant predictor of their industry employment intentions, explaining 15.3% of the variance in students' industry employment intentions; (6) degree of autonomy of students' motivation in choosing their academic programs was still a significant predictor of their industry employment intentions after controlling for demographics, leading to a 15.2% increase in explained variance; and (7) the degree of autonomy of students' motivation in choosing their academic programs and their demographics combined predicted 19.2% of their industry employment intentions. Implications for researchers, educators, policy makers and industry, as well as recommendations for further study, were discussed.

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## Chapter 1: Introduction

### Background

According to the United Nations World Tourism Organization (UNWTO, 2014) across six decades of continuous development, tourism has become “one of the largest and fastest-growing economic sectors in the world” (p. 2). International tourist arrivals have grown worldwide from 25 million in 1950 to 1087 million in 2013 (UNWTO, 2014). In accordance with this global trend, tourism in China has also witnessed a continued expansion and has grown to “rank third in arrivals (58 million) and fourth in receipts (US\$ 48 billion)” (UNWTO, 2012, p. 6) since 2010.

With the growth in tourism, industries have experienced an increasing demand for human resources. For example, according to the World Travel & Tourism Council (2014a, 2014b) travel and tourism in the year 2013 generated directly over 100 million jobs worldwide and over 22 million jobs in China alone. In addition, it is estimated that in over the next 10 years, travel and tourism will generate over 25 million more jobs worldwide and 4 million more jobs in China (World Travel & Tourism Council, 2014a, 2014b).

Given the fact that the growth and development of the tourism and hospitality industry both worldwide and in China requires an ample supply of well-educated and skilled personnel, it is not surprising that China’s tourism and hospitality management programs in higher education have undergone a rapid increase in both of the number of programs and enrollment. The number of higher educational institutions with tourism and hospitality management programs has risen from 311 in the year 2001 to



1,097 in the year 2012, a 253% increase, while the number of students in these programs has risen from 102,200 in 2001 to 576,200 in 2012, a 464% increase (National Tourism Administration of the People's Republic of China, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013).

Although enrollment in tourism and hospitality programs is rising, the tourism and hospitality industry in China is experiencing a great shortage of these graduates and is finding great difficulty in recruiting them. Song and Chon (2012) have observed that the proportion of graduates from tourism and hospitality programs who moved into jobs associated with their major has been low. According to the annual employment reports for the years 2009, 2010 and 2011 and an annual employment index report provided by the MyCOS institute<sup>1</sup> (2009, 2010, 2011a, 2011b), the major-career corresponding rate of graduates of tourism and hospitality management programs who graduated in 2010 ranks the 4th lowest among all the surveyed 606 four-year programs in China. Only 37% of the students who graduated in 2010 of tourism and hospitality management programs went on to actually work in a career in tourism and hospitality. Why do students select tourism and hospitality management programs and tend not to choose associated fields as their profession?

### **Problem Statement**

A number of factors that impact students' intentions to enter (and/or actual entry into) the tourism and hospitality industry have been identified in past studies. They include perceptions of jobs in the industry or outcome expectations (e.g., Chuang & Dellmann-Jenkins, 2010; Gu, Kavanaugh, & Cong, 2007; Liu, 2006; Mei & Zhan, 2009; Mishra & Rana, 2012), vocational interests (e.g., Lu & Adler, 2009),

---

<sup>1</sup> The MyCOS institute is a research institute in MyCOS, an authoritative third-party consulting and assessment organization of educational data in China.

personality (e.g., Lu & Adler, 2009; Teng, 2008), personal profile including gender, program year, transfer status, and work experience in tourism industries (e.g., Chuang & Dellmann-Jenkins, 2010; Koyuncu, Burke, Fiksenbaum, & Demirer, 2008), engagement in and burnout during their studies (e.g., Koyuncu, Burke, Fiksenbaum, & Demirer, 2008), and choice of major (e.g., Wang, 2011 ). Most of these past studies focus on senior students or graduates.

There are at least three aspects which previous research has not elucidated. They include (a) the nature of the industry employment intentions of undergraduate freshmen majoring in Tourism and Hospitality Management, (b) whether the industry employment intentions differ among these freshmen in a way related to the level or tier of university they are attending, and (c) whether their industry employment intentions are related with their demographic profiles and their motivation in choosing tourism and hospitality management as their college major.

It is significant to study the industry employment intentions of freshmen and their motivation in choice of college major because, different from many other countries, choice of college major for students in China is determined to a large extent by their scores on the National College Entrance Examination (NCEE). After they have taken this examination, students have to decide their academic major at the same time they choose which university they are going to attend. And it is not common for students in China to change their academic major once they are enrolled in the university. Relatedly, in China the level or tier of college, the specific institution and the academic program into which students can enroll is, to a great degree, determined by his or her score on the NCEE.

### **Purpose of the Study**

The purpose of this study is to develop a better understanding of the industry employment intentions of the undergraduate freshmen majoring in tourism and hospitality management, their motivation for choosing these programs, and the relationship between their industry employment intentions and their motivation as well as demographic profiles. Limited by time and budget, this study focuses on Shanghai, one of the biggest cities in China. There, the tourism and hospitality industry itself, as well as the higher education field related to it, are among the most advanced in China. At the same time, the industry is experiencing a great shortage of educated personnel.

### **Theoretical Framework**

The theoretical framework for this study is Self-determination Theory (SDT) initially developed by Edward Deci and Richard Ryan. This theory proposes the following:

All human beings have fundamental psychological needs to be competent, autonomous, and related to others. Satisfaction of these basic needs facilitates people's autonomous motivation (i.e., acting with a sense of full endorsement and volition), whereas thwarting the needs promotes controlled motivation (i.e., feeling pressured to behave in particular ways) or being amotivated (i.e., lacking intentionality). (Deci & Ryan, 2012, p. 85)

A core element of SDT is that autonomous motivation, controlled motivation, and amotivation constitute a continuum (Deci & Ryan, 2000). At the one end of the continuum is the most autonomous, or self-determined motivation (i.e., intrinsic motivation); while at the other end is the least autonomous, or nonself-determined motivation (i.e., amotivation) (Deci & Ryan, 2000). In between these two ends are integrated regulation, identified regulation, introjected regulation and external

regulation in order from higher to lower self-determined (or autonomously) motivated (See Figure 1). Previous studies employing SDT have shown that people with autonomous or self-determined motivation will achieve “psychological health and effective performance” (Deci & Ryan, 2012, p. 85).

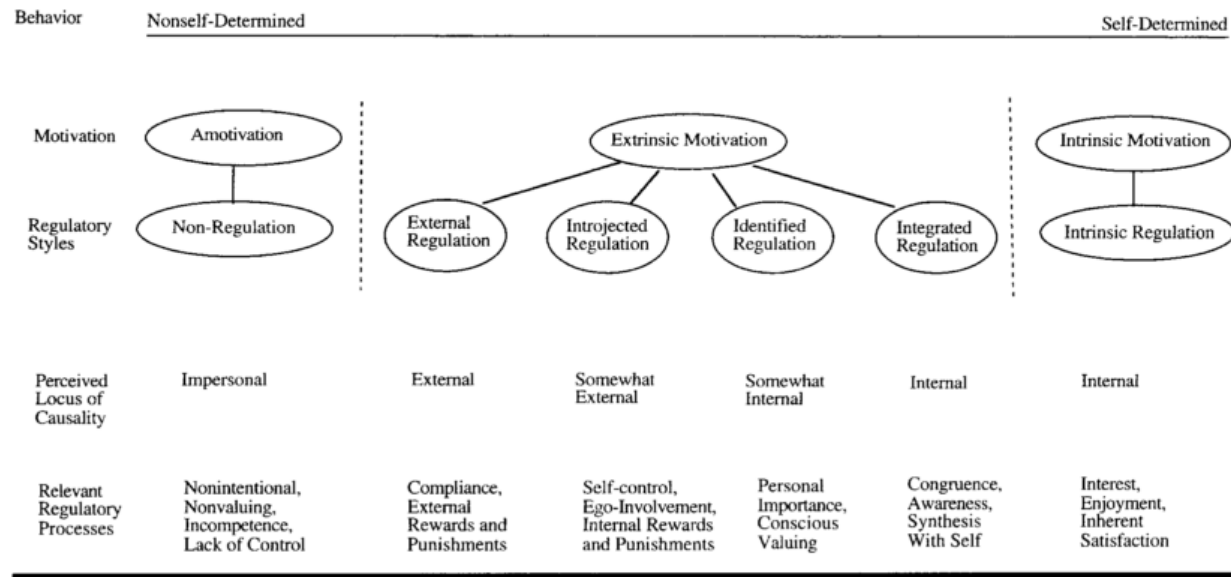
According to SDT, social context plays an important role in people’s motivation. As stated by Deci and Ryan (2012):

Social context within which people operate, however proximal (e.g., a family or workgroup) or distal (e.g., a cultural value or economic system), affect their need satisfaction and type of motivation, thus affecting their wellness and effectiveness. Social contexts also affect whether people’s life goals or aspirations tend to be more intrinsic or more extrinsic, and that in turn affects important life outcomes. (p. 85)

This research employed SDT as a theoretical framework in exploring the extent to which students were autonomously motivated in choosing tourism and hospitality management as their college major. Based on SDT, the relationships between students’ industry employment intentions and the degree of autonomy of students’ motivation in choosing their college major were examined.

**Figure 1**

*The Self-Determination Continuum Showing Types of Motivation With Their Regulatory Styles, Loci of Causality, and Corresponding Processes*



*Figure 1.* The Self-Determination Continuum showing types of motivation with their regulatory styles, loci of causality, and corresponding processes.

*Source:* From “Self-determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-being,” by R. Ryan & E. Deci, 2000, *American Psychologist*, 55(1), p.72. Reprinted with permission.

## Research Questions and Hypotheses

The following research questions were addressed in this study.

Research Question One (RQ1): What are the demographic profiles (gender, age, ethnic identity, place of residence, category of residence, parental education, parental profession and family socioeconomic status) of students who chose tourism and hospitality management undergraduate programs in Shanghai?

Research Question Two (RQ2): How autonomously motivated are students in choosing a tourism and hospitality program?

Research Question Three (RQ3): What are the intentions of students who chose tourism and hospitality management undergraduate programs in Shanghai to find job placements in the tourism and hospitality industry after graduation?

Research Question Four (RQ4): Are there any differences among students majoring in tourism and hospitality management from different tiers of higher educational institutions regarding their demographic profiles, motivation, and industry employment intentions?

Research Question Five (RQ5): Is any one of students' demographics (gender, place of residence, category of residence, family socioeconomic status, and tier of higher educational institutions) a significant predictor of their industry employment intentions?

Research Question Six (RQ6): Is degree of autonomy of students' motivation in choosing their academic programs a significant predictor of their industry employment intentions?

Research Question Seven (RQ7): Is degree of autonomy of students' motivation in choosing their academic programs a significant predictor of their industry employment intentions after controlling for demographics?

Research Question Eight (RQ8): To what extent does the degree of autonomy of students' motivation in choosing their academic programs and their demographics combined predict their industry employment intentions?

The research questions reflect the researcher's intent to describe (RQ1-RQ3), compare (RQ4), and correlate (RQ5-RQ8) variables. Despite the use of the word "predictor" in RQ5-RQ7 and "predict" in RQ8, for ease of expression, it should be noted that the development of a prediction model, its cross-validation, and use for forecasting is not intended as part of this study.

To clarify, the table below shows hypotheses for those research questions in which the nature of relationship (positive or negative) or the specific differences between subgroups can be anticipated (see Table 1).

Table 1. Directional hypotheses corresponding to research questions.

| Research Questions | Directional Hypotheses  |
|--------------------|---|
| RQ1                | N/A   |
| RQ2                | N/A   |
| RQ3                | N/A   |
| RQ4                | Hypothesis One (H1): Students majoring in tourism and hospitality management from first tier higher educational institutions have lower industry employment intentions than those from second and third tiers of higher educational institutions. |
| RQ5                | Hypothesis Two (H2): Students' family socioeconomic status is negatively associated with their industry employment intentions.  |
| RQ6                | Hypothesis Three (H3): Students' degree of autonomy of motivation in choosing tourism and hospitality management as their college major is positively associated with their industry employment intentions.                                       |
| RQ7                | Hypothesis Four (H4): Students' degree of autonomy of motivation in choosing tourism and hospitality management as their college major is positively associated with their industry employment intentions after controlling for demographics.     |
| RQ8                | N/A   |

### **Significance of the Study**

This study is significant for two reasons. First, it serves to fill a gap in the literature dealing with the study of tourism and hospitality management higher education as well as the literature studying human resources issues in the tourism and hospitality industry. Second, it also serves to help understand the profiles of undergraduates majoring in tourism and hospitality management in Shanghai specifically. Of particular interest in this regard are: what motivations stand behind their program choice, what are their intentions relative to obtaining employment in the tourism and hospitality industry, and what relationships exist between their motivations, demographic profiles and intentions. An enhanced understanding in these regards will facilitate recommendations for college and program recruitment policies. It will also promote program developers to take measures to increase the effectiveness of their programs. At the same time it will provide clues on how to tackle the above-mentioned personnel supply-and-demand dilemma currently experienced by the tourism and hospitality industry in China, Shanghai in particular.

### **Delimitations**

This study is delimited to undergraduate freshmen who were enrolled in four-year tourism and hospitality management programs from three tiers of higher educational institutions in Shanghai, China in the fall of 2013.

### **Chapter Summary**

In this chapter the researcher first described the background of the study, i.e., the dilemma resulting from students' selection of tourism and hospitality management programs in college and the tendency among these students to not choose related fields as their profession. The researcher then identified the problem that is associated with and emerges from this dilemma and discussed the ways in which self-



determination theory (the theoretical framework employed) could be of value in addressing this problem. This latter discussion relates directly to the relationship between students' motivation in choosing the programs and their industry employment intentions. On this foundation, the researcher put forward eight research questions and four directional research hypotheses. Finally, the researcher explained the significance of the study.

### **Definitions of Terms**

*Demographic profile:* Personal demographic information including gender, age, place of residence, category of residence (i.e., urban or rural), parents' education and profession, and so on.

*Industry employment:* Obtaining a job placement in the tourism and hospitality industry.

*Motivation:* "The process whereby goal-directed activities are energized, directed, and sustained" (Schunk, Pintrich, & Meece, 2008).

*Self-determination theory (SDT):* The theory aiming to predict qualities of human behaviors by classifying human motivation into different types according to how autonomous it is, i.e., autonomous motivation, controlled motivation, and amotivation (Deci & Ryan, 2012).

*Tiers of higher educational institutions:* The classification of four-year higher educational institutions in China. The first tier is the most prestigious and requires the highest scores in the college entrance examination, while the second tier requires lower scores than does the first tier, while the third tier requires still lower scores than the second.

*Sectors in Tourism and Hospitality Industry:* There are various classifications of sectors in the tourism and hospitality industry. This study classifies tourism and

hospitality industry into the following eight sectors which are in accordance with the current state of China's tourism and hospitality industry while taking account of two typical international classifications, i.e., the six-sector classification provided by International Labour Office (2010) and the eight-sector classification offered by Canadian Tourism Human Resource Council (2011):

- (a) Accommodation including hotels, bed and breakfasts and farm/ranch vacation sites, motels, campgrounds, hostels, and so on;
- (b) Food and beverage services including restaurants, bars, cafeterias, snack bars, pubs, nightclubs and other similar establishments;
- (c) Attractions including historic sites, heritage homes, museums, halls of fame, art galleries, botanical gardens, aquariums, zoos, water parks, amusement parks, and so on;
- (d) Adventure tourism and recreation including outdoor adventure and ecotourism, ski resorts, golf and tennis facilities, parks, and marine facilities;
- (e) Transportation including air transport, rail transport, ground transport, and water transport;
- (f) Travel trade including retail travel agencies and wholesale tour operators;
- (g) Events and conferences including special events, conferences, meetings, trade shows and conventions;
- (h) Tourism planning and design services.

## **Chapter 2: Literature Review**

The goal of this study is to understand the profiles of the first year college students majoring in tourism and hospitality management in Shanghai. This will include their motivations in choosing these programs, their intentions regarding seeking employment in the tourism and hospitality industry after graduation, and whether there are any differences among these students in this regard based upon their studying in different tiers of higher educational institutions in Shanghai (e.g., those studying in private colleges and universities as opposed to those studying at large public institutions, etc.). Based on Self-determination Theory (SDT), another goal is to test the hypothesis that a positive relationship exists between students' motivation for choosing to major in tourism and hospitality management and their industry employment intentions.

The first section of this literature review provides an overview of research studies regarding the industry employment intentions, actual industry entry and retention of undergraduates worldwide who major in tourism and hospitality management. The overview suggests that the actual entry and retention of these students is generally quite low while the strength of students' intentions to seek and obtain job placements in the tourism and hospitality industry varies. In addition, it is pointed out that few studies in this regard focus on undergraduate freshmen.

The second section of this chapter reviews literature on explanations of these students' industry employment intention. In this review, evidence emerged that few studies attempt to explain students' industry employment intentions based on their

motivations in choosing tourism and hospitality management as their academic major. The third section of this chapter reviews literature regarding students' motivations in choosing tourism and hospitality management as their academic major. Types of motivations appearing in the literature were summarized in a table after the review.

The fourth section provides an overview of the college application and admission process in China. This consists of two subsections, one describing China's National College Entrance Examination, the other explaining the procedure for college application and admission. This review shows that the college application and admission process in China is unique and itself exerts a huge influence on students' motivation in choosing their academic majors.

The fifth section reviews literature which analyzes students' motivation in choosing academic majors with self-determination theory as a framework for analysis. To date, two such research studies have been found and reviewed. These are highly relevant to the study, as will be explained in that section. The chapter concludes by providing a summary of the proceeding analysis.

### **Tourism and Hospitality Undergraduates' Intended or Actual Industry Entry**

To begin the literature review, publications concerning tourism and hospitality undergraduates' intended or actual entry into related industry are analyzed to provide an overall picture of the personnel supply to the industry from higher educational institutions both within and beyond China. Publications in this area can be grouped into three sub-areas: (a) employment intentions in the tourism and hospitality industry; (b) actual entry in the tourism and hospitality industry; and (c) retention in the tourism and hospitality industry.

**Employment intentions in the tourism and hospitality industry.** Research findings show students' intention to enter the tourism and hospitality industry varies,

with some studies finding very high intention while some finding very low one. For example, Chuang and Dellmann-Jenkins (2010) surveyed 360 undergraduates at a Southwestern university in the U.S. Their study shows the majority of survey participants (83%) intend to pursue careers in the hospitality industry after graduation. Lu and Adler (2009) presents survey data collected from 503 students of hospitality and tourism programs at four major universities in Guangdong Province, China. Among these respondents, 68.4% intend to pursue a career in the tourism industry upon graduation. The authors subdivide the tourism industry into six sectors: hotel sector, travel agencies and general tourism business, convention and event management, tourism attractions, food and beverage sector, tourism education, and others. Among these six sectors, over half of the students plan to choose the hotel sector as their first job. Yu and Zhang (2009) surveyed 203 juniors and seniors of the tourism and hospitality major in universities of Shandong Province, China. The results show that about 42% of students intend to find job placements in the tourism and hospitality industry.

**Actual entry in the tourism and hospitality industry.** Comparison of findings shows that there are very large differences concerning students' actual entry in the tourism and hospitality industry across various types of schools worldwide. For examples, Gu, Kavanaugh, and Cong's (2007) study provides survey data collected from 67 tourism educational institutions including both vocational schools and 4-year colleges and universities across China. Findings show that a large proportion of students chose to work in the tourism industry immediately upon graduation (59.7% of the surveyed institutions reported more than 51% of their students chose to work in the tourism industry upon graduation). Further, more than half of the surveyed institutions reported hotels as their students' first choice of employment sector, while

more than a quarter of institutions reported travel service as their students' first choice of employment sector. Although this study does not focus on tourism majors in higher education per se, its findings provide a valuable backdrop for studying China's tourism education and students' attitudes toward the major and the industry. Based on longitudinal data from graduate exit surveys of an undergraduate hospitality and tourism management program in a Hong Kong university which were distributed between 2002 and 2010, Chang and Tse (2012) find that 56.7% of the program's graduates who finished the survey (n=180) began their first job in the hospitality and tourism industries.

According to the annual employment reports of three successive years and an annual employment index report provided by the MyCOS institute (2009, 2010, 2011a, 2011b), contrary to the findings of Gu et al. (2007) and Chang and Tse (2012), only 37% of 2010 graduates of 4-year tourism and hospitality programs actually began careers in the industry. This ranks the 4<sup>th</sup> lowest among all the surveyed 606 four-year programs in China that year. These statistics show that in general the actual industry entry of students from 4-year tourism and hospitality programs in mainland China is quite low.

**Retention in the tourism and hospitality industry.** Retention is a hot topic in the tourism and hospitality industry worldwide. The extant literature generally shows that graduates' retention in the industry is low, for example, McKercher, Williams, and Coghlan (1995) surveyed 41 students and graduates of the tourism management degree program of Charles Sturt University in Australia. Their findings show that "only about 40% of all former tourism students and only 55% of (current) Tourism Management majors surveyed are working in the tourism industry" (McKercher et al., 1995, p. 541). In their comparative study, King, MaKercher, and

Waryszak (2003) present survey data collected from 220 graduates of the hospitality and tourism degree programs of the Hong Kong Polytechnic University and 107 hospitality and tourism graduates of the Victoria University in Melbourne, Australia. The findings show that these two groups of respondents experienced similar career routes. Around half of the graduates in both groups left the tourism and hospitality industry within 3-5 years after graduation. Xiao and Zhang (2006) surveyed the human resources demand of tourism enterprises in Jiangsu Province of China and found that three quarters of surveyed tourism enterprises think the graduates with a bachelor's degree in tourism they have recruited do not have a high intention of staying on with them. Although the survey is geographically limited in scope (i.e., Jiangsu Province of China), its results raise interesting questions regarding the intention of students majoring in this area to enter into a long-term career in the field.

The above overview suggests that the actual industry entry and retention of tourism and hospitality college and university graduates is generally quite low while students' intention rate relative to finding job placements in the industry varies. In addition, few studies dealing with employment in this industry focus on first year college students. This seems to indicate a gap in the literature which should be filled if we are to unravel the situation relative to intention versus actions in this regard, a potentially important issue from the standpoint of academic program development and design in tourism and hospitality.

### **Factors Influencing Students' Industry Employment Intentions or Actual Entry**

Academics in the field of tourism and hospitality have realized that there is an increasing need to tackle the personnel supply-and-demand dilemma experienced by the industry. A few research studies have been conducted to explore factors

influencing students' industry employment intention or actual entry into the industry. These studies can be grouped into four categories by their perspectives.

The first category of research studies explains students' industry employment intention based on their industry perception. For example, the survey data collected from 67 tourism educational institutions across China by Gu et al. (2007) show that perceived low salary accompanied by low social status and unpromising career development are major reasons for students to not choose a career in the tourism industry. Liu (2006) presents focus group interview data collected from eight human resource managers of international tourist hotels in Kaohsiung, Taiwan. The data show that human resource managers agree that there are several reasons causing the industry's failure to recruit and retain qualified tourism and hospitality management graduates. For one, some students have a poor attitude toward tourism and hospitality jobs and this holds them back from pursuing industry employment. In addition, some students hold unrealistic views of tourism and hospitality careers before entering the industry. This, in turn, results in their turnover after brief employment in the industry. Then, there is a misconnection between the actual skills of students and expectations of the industry for them as employees. These findings provide valuable insights into the problem from the industry perspective. Mishra and Rana (2012) also address factors influencing students' commitment to career in the hospitality industry from the perspective of students' industry perception. They argue that "nature of work" and "career prospects" are two positive factors, "promotion opportunities" is a negative factor, while "social status" is a mixed factor in determinations made during the final year of undergraduate study in hospitality programs in Utrakhand, India (Mishra & Rana, 2012, p. 11). They support this claim by developing a conceptual framework



including factors likely to influence students' career commitment, then administering a questionnaire to 380 related students.

The second category of research studies explains students' industry employment intention from mixed perspectives. For example, the survey data collected from 503 students of hospitality and tourism programs at four major universities in Guangdong Province, China by Lu and Adler (2009) show that the top five reasons for considering a career in the tourism industry include the following: "opportunities for employment and career development", "apply the knowledge learned in HTM (hospitality and tourism management)", "opportunities to meet and communicate with different people", "personal interests" and "full of challenges". On the other hand, some of the top reasons attached to the decision of those who did not plan to pursue a career in the tourism industry include the following: "having no personal interests", "unsuitable personalities", "low salary", "no development prospect", and "no regular working hours" (Lu & Adler, 2009, p. 72). Koyuncu, Burke, Fiksenbaum, and Demirer (2008) present survey data collected from 1,013 undergraduate students studying in nine tourism schools in Turkey. The data show that students' commitment to careers in the tourism industry is related to their gender, program year, experience in tourism, engagement in study, and burnout during study. Similar to the results reported by Koyuncu et al., Chuang and Dellmann-Jenkins (2010) find US students' career intentions in hospitality were significantly associated with their gender, work experience, transfer status, and outcome expectations in the industry. Further, rewards most frequently reported by students focused on intrinsic outcomes of the industry (opportunities for career accomplishment and self-fulfillment). Although Mei and Zhan's (2009) study is geographically limited in scope and involved undergraduates in a tourism management major from only one

higher educational institution in Guangzhou City, China, its research methods (i.e., factor analysis and a logistic regression model) and findings are intriguing in that they provide not only in-depth perceptions of factors influencing employment tendencies of undergraduates majoring in tourism management, but also a formula to predict students' intention to enter into the tourism industry. Twelve factors are found in the study: education and internship experiences, non-profession abilities, career prospects, educational mode, family background, reputation of enterprises, personal values, professional abilities, gender, macro employment policies, industry profile, and attention given by enterprises (Mei & Zhan, 2009). These factors are further grouped by the authors into three categories: promoting factors, restricting factors, and one neutral factor. This structure forms a conceptual framework for further exploration.

The third category of research studies explains students' industry employment intention in relation to their personality traits. For example, Teng (2008) presents survey data collected from 483 post-internship undergraduate seniors of hospitality management, hotel management, and food and beverage management programs across 14 universities or vocational and technological colleges in Taiwan. The results show that among the "Big Five" personality traits, a "five-factor model of personality" which include "extroversion, openness to experience, conscientiousness, agreeableness, and neuroticism" (Teng, 2008, p. 77), extroversion has a significantly positive prediction regarding students' attitudes toward hospitality jobs and their intentions to work in the hospitality industry; and industry-person congeniality mediates the influence of extroversion on employment aspirations.

The fourth category of research studies explains students' industry employment intention from the perspective of their motivation in choosing tourism and hospitality as their academic major. Only one research study has been found

falling within this category. Wang (2011) studies the relationship of students' choice of major with their choice of job placement in tourism and hospitality industry.

Through an analysis of survey data of 686 students of tourism programs at different levels of schools in Sichuan Province of China, the researcher finds that the stronger initiative of students have in choosing a tourism major, the more optimistic they are about the prospect of their tourism employment and the stronger willingness they display to find jobs in tourism industry .

From this review, it appears that few studies, except that of Wang (2011), have tried to explain students' industry employment intention through their motivations in choosing tourism and hospitality management as their academic major. Wang's (2011) study has limitations in that it does not focus on undergraduates. In addition, students' motivations in choosing an academic major are not analyzed comprehensively. In the following section, the motivations analyzed by Wang (2011) will be further expounded upon.

### **Motivations in Choosing Tourism and Hospitality Major**

Extant research studies on students' motivations in choosing tourism and hospitality as their undergraduate academic field of study are mainly conducted by Asian scholars (e.g., Guo, Zhang, Li, Song, Chen, & Zhang, 2004; Kim, Lee, & Chon, 2008; Liu, 2011; Sha, 2011, and Wang, 2011). This is probably due to the different college application and admission processes executed in Asian countries as compared with those in western countries where students are less confined in choosing their academic majors.

This literature can be grouped into two categories according to their similarities. The first category includes research studies of Guo, Zhang, Li, Song, Chen, and Zhang (2004), Kim, Lee, and Chon (2008), and Lee, Kim, and Lo (2008).

Guo et al. (2004) present survey data collected from undergraduates majoring in hospitality and tourism management across nine universities in Shanghai, three universities in Xi'an, and six universities in Taiwan. Through factor analysis, the authors summarize 21 motivations in choosing the major of hospitality and tourism management (HTM) into six factors which include employment opportunity, interest in practical field, academic achievement, industry attraction, interests in abroad, and easy to learn. Students from mainland China differ from students from Taiwan regarding these six factors. Kim et al. (2008) present a picture of Korean undergraduate and graduate students' motivation to study HTM. The authors collected 364 usable questionnaires from undergraduates of HTM programs at nine universities and 175 usable questionnaires from graduates of four major universities with the largest HTM graduate enrollment in Korea. Results show that the top reasons for undergraduates to pursue these programs are "self-actualization", "job opportunity", and "overseas experience" while for graduate students the top reasons are "self-actualization", "scholastic achievement" and "overseas experience" (Kim et al., 2008, p. 216). The research objectives and design of the Lee et al. (2008) study are similar to those of Kim et al., but with different subjects. The authors surveyed 384 undergraduate students majoring in HTM at PolyU, Hong Kong. Results show that the top reasons for these students to choose studying HTM are self-actualisation, job opportunity, field attractiveness, ease of study, and scholastic achievement. This presents similarities as well as differences between Korean students and Hong Kong students. In general, these three research studies are very similar regarding the items used to measure students' motivations in choosing tourism and hospitality as their academic major. Each has used similar or identical 21 to 23 items (see Table 2).

The other category of literature, when compared with those in the first category, is quite simple regarding the items used to measure students' motivations in choosing tourism and hospitality as their academic major. Research studies of Liu (2011), Sha (2011) and Wang (2011) fall into this category. Liu (2011) surveyed 274 tourism management majors from five higher educational institutions in Xuzhou City of China's Jiangsu Province. Students' motivations in choosing tourism management as their academic major vary, with 35% students making this selection out of personal interest, 32% being allocated by admission offices, 14% resulting from their positive perceptions regarding job opportunities in the tourism and hospitality industry, 8% stemming from influences of parents, relatives, and friends, and 11% resulting from other reasons. Sha (2011) also conducted a survey of students' motivations in choosing tourism management as their major field of study. 171 students ranging from freshmen to seniors in Beifang University of Nationalities were involved in the survey. The findings show that 31.7% students chose this major out of interest, 6.2% due to the request of parents, 4.5% due to teachers' recommendation, 7.2% due to influences from good friends, 42.4% were allocated by the university's admission office, and 8.0% chose the major for other reasons. Wang's (2011) research study is different from the other two research studies above in that multiple motivations were investigated, as opposed to just one major motivation. The researcher found that among the surveyed 686 students of tourism programs at different levels of schools in Sichuan Province of China, 64.6% chose tourism and hospitality as their academic major because of their interest in tourism activities; 42% were truly motivated to work in the tourism and hospitality industry; 33.8% of students chose the major because they believe there are high employment opportunities in the industry; 16.2% students were allocated to this major by the admission offices; 10.2% just randomly chose this

major; and 5.5% of students chose the major out of other reasons. For future reference, the motivations appearing in the literature discussed above are summarized in the following table (see Table 2). These motivations can be used as a framework for future research regarding students' motivation in choosing tourism and hospitality as their academic field of study.

Table 2. Students' motivations in choosing Tourism and Hospitality major.

| Motivations   | Guo et al., 2004 | Kim et al., 2008 | Lee et al., 2008 | Liu, 2011 | Sha, 2011 | Wang, 2011 |
|---|------------------|------------------|------------------|-----------|-----------|------------|
| Want to gain self-actualization   |                  | X                | X                |           |           |            |
| Interest in tourism activities  |                  |                  |                  |           |           | X          |
| Attracted by scenes or pictures of the hospitality industry appearing in movies or TV | X                | X                | X                |           |           |            |
| Interest in tourism and hospitality major   | X                | X                | X                | X         | X         |            |
| Study of Tourism and hospitality is practical rather than theoretical                 | X                | X                | X                |           |           |            |
| Perception of match between self-aptitude and tourism and hospitality major           | X                | X                | X                |           |           |            |
| Like to serve others  | X                | X                | X                |           |           |            |
| Want to be a theoretical expert in tourism and hospitality                            | X                | X                | X                |           |           |            |
| Want to be an excellent scholar in tourism and hospitality                            | X                | X                | X                |           |           |            |
| Want to study more in tourism and hospitality   | X                | X                | X                |           |           |            |
| Perception of being easier to get a professorship in tourism and hospitality          | X                | X                |                  |           |           |            |

Table 2. Students' motivations in choosing Tourism and Hospitality major (continued).

| Motivations   | Guo et al., 2004 | Kim et al., 2008 | Lee et al., 2008 | Liu, 2011 | Sha, 2011 | Wang, 2011 |
|---|------------------|------------------|------------------|-----------|-----------|------------|
| Want to work in tourism and hospitality industry  |                  |                  |                  |           |           | X          |
| Working in tourism and hospitality industry looks good  | X                | X                | X                |           |           |            |
| Perceptions of jobs in tourism and hospitality industry being attractive                            | X                | X                | X                |           |           |            |
| Perception of high employment opportunities in tourism and hospitality industry                     | X                | X                | X                | X         |           | X          |
| Perception of a variety of job opportunities  | X                | X                | X                |           |           |            |
| Perception of high level of salary in tourism and hospitality industry                              | X                | X                | X                |           |           |            |
| Perception of more promotion opportunities in tourism and hospitality industry                      | X                | X                | X                |           |           |            |
| Perception of growing potential in tourism and hospitality industry                                 | X                | X                | X                |           |           |            |
| Perception of opportunity to interact with foreigners and foreign cultures                          | X                | X                | X                |           |           |            |
| Perception of the opportunity to take more overseas business trips or meetings in foreign countries | X                | X                | X                |           |           |            |
| Like to learn foreign languages   | X                | X                | X                |           |           |            |
| Easier to study   | X                | X                | X                |           |           |            |
| Easy to get good grades   |                  |                  | X                |           |           |            |
| Influenced by parents and/or relatives  |                  | X                | X                | X         | X         |            |
| Recommended by teachers   |                  | X                | X                |           | X         |            |
| Influenced by good friends  |                  | X                | X                | X         | X         |            |

Table 2. Students' motivations in choosing Tourism and Hospitality major (continued).

| Motivations                        | Guo et al., 2004 | Kim et al., 2008 | Lee et al., 2008 | Liu, 2011 | Sha, 2011 | Wang, 2011 |
|------------------------------------|------------------|------------------|------------------|-----------|-----------|------------|
| Allocated by admission office      |                  |                  |                  | X         | X         | X          |
| Score for university entrance exam | X                | X                | X                |           |           |            |
| Chose randomly                     |                  |                  |                  |           |           | X          |
| Others                             |                  |                  |                  | X         | X         | X          |

### College Application and Admission Process in China

A study of Chinese college students' motivation in their choice of academic major is incomplete without considering the Chinese college application and admission process. It must be noted that the National College Entrance Examinations play a specific important role in Chinese students' college application and admission process. And being so, the examinations also exert great influences on students' motivation in their choice of college major. This will be discussed in detail below.

**National College Entrance Examinations.** Since the 1895 establishment of Peiyang University (*Bei yang da xue tang*), the first formal higher educational institution in China, the Chinese college application and admission mechanism has undergone a series of changes (Fan, 2011). Before 1977, various ways to recruit college students had been developed. These included administering examinations by individual institutions or by a union of institutions, organizing national examinations and by way of recommendations (Fan, 2011; Quan & Ma, 2012). Since 1977, organizing national college entrance examinations (NCEE) has been the dominant mechanism through which to recruit college students, although there are continuous



reforms on the form and content of the examinations. Every year, millions of examinees take the NCEE, with the largest number being 10.5 million in 2008 (Zhongguo Jiaoyu Zaixian, 2011). Since 2008, there has been a decline in the number of examinees (Zhongguo Jiaoyu Zaixian, 2011).

Except for several regions which administer an extra round of college entrance examinations in the spring of every year, most regions of China only administer college entrance examinations once a year. The nationwide college entrance examinations, i.e., NCEE, adopt a unified examination time. Between 1979 and 2003, the examinations had been conducted on the 7<sup>th</sup>-9<sup>th</sup> of July. Since 2003, they have been conducted on the 7<sup>th</sup> and 8<sup>th</sup> of June every year, moved one month earlier. Some regions may extend their examinations until the 9<sup>th</sup> because they administer more subject examinations than can be conducted on just two days (Fan, 2011).

Although the examination time is unified, since 2004 there is a tendency for more and more regions to administer their own form of examination (Fan, 2011). In 2011, 16 regions including 12 provinces and 4 municipalities administered directly by the central government implemented their own form of examinations (Fan, 2011). Chinese language, mathematics and foreign language are tested subjects on the NCEE and all examinees across China have to test in these subject areas. In addition to these three subjects, examinees have to take one or more other subjects according to the regulation of their region of residence. However, most regions administer an X which means a comprehensive test of liberal arts subjects or science subjects. Examinees should choose one from these two options. Liberal arts subjects include history, geography and political science while science subjects include biology, chemistry and physics (Yu & Suen, 2005).

**Application and admission.** The Chinese postsecondary education application process differs from Western institutional processes. In order to fully understand the motivations of students in choosing their college and field of study, an overview of the processes individuals navigate is warranted. Currently there are three timings for college application across China. Examinees from Beijing and Shanghai apply to colleges and academic majors before they take the NCEE; examinees from Liaoning Province, Heilongjiang Province and Xinjiang Uygur Autonomous Region apply after they take the NCEE but before the scores are announced; while examinees from the remaining 26 provinces, municipalities directly under the central government, and autonomous regions apply after they take the NCEE and get their scores (Jiaoyubu Yanggang Gaokao Pingtai, 2012).

China's higher educational institutions are classified into four hierarchical tiers: national key institutions, provincial common institutions, private or independent four-year institutions, and two-or-three-year institutions. Applicants totally have four chances to apply. If they are not admitted by any of the first tier of institutions, they can apply again for the second tier of institutions. Their chances last until the fourth round of application. Provincial educational administration institutions decide on the "cut-off mark" for making application to each tier of institutions according to 120% of the total college seats provided by the institutions of each tier to their provinces (Lewin & Lu, 2012; Jiaoyubu Yanggang Gaokao Pingtai, 2012). Only those applicants whose total score on the NCEE reach the cut-off mark can apply for that tier of institutions. However, they can not apply to all of these institutions. Usually they can only apply to five institutions. In each of these five institutions, they must apply to at most five academic majors which recruit in their region of residence. Students must decide on the order of application to these five institutions and

academic majors. Computers will then order the application of first ordered institutions according to applicants' scores and submit the applications to specific institutions until all seats are filled. If there are more applicants for one specific institution than the seats available, then those with lower scores will have to wait for the decision of their second ordered institutions and so forth down the order of the students' preference. As there is an element of chance in the process, some students may fail to be admitted by any of their five choices. And their scores may not be the lowest 20%. Under such a circumstance, they must wait for the next round of application (i.e., the next tier of institutions). The process for admission into academic majors is as same as that for the institutions (Jiaoyubu Yanggang Gaokao Pingtai, 2012).

From the above overview of the college application and admission process in China, it is evident that this process is unique compared to most Western countries. It tends to exert a huge influence on students' motivation in choosing their academic majors.

### **Self-determination Theory Applied in Interpreting Students' Motivation in Choosing Academic Majors**

Two research studies which applied SDT (i.e., Self-determination Theory, the theoretical framework to be used in this study) to interpret students' motivation in choosing academic majors were found to be of interest. They will be presented below in detail as this study uses the same theoretical framework to explore a similar topic. Both their research methodology and results have been referred to in this study.

Jirwe and Rudman (2012) conducted a research study of the motivations of Swedish undergraduate nursing students in pursuing their studies. In the study, they utilized SDT to explain the relationship between the various motivations of students

and their “perceived career-choice stress” (Jirwe & Rudman, 2012, p. 1615). The motivations were measured through an 8-item questionnaire which was developed from students’ reported “motives for pursuing higher educational nursing studies” in the pilot study (Jirwe & Rudman, 2012, p. 1617). These eight items asked research respondents to report the degree of their agreement on the following eight motivations behind the pursuit of nursing studies:

- (1) Recommendations from family and friends;
- (2) Not being able to get into any other higher educational programme;
- (3) Chance;
- (4) Wanting to care for and help others;
- (5) Wanting to develop a knowledge of health care;
- (6) The possibility of a good job after not too long a training period;
- (7) Availability of training close to home; and
- (8) The wide range of possible work tasks and areas in the profession. (Jirwe & Rudman, 2012, p. 1618)

An exploratory factor analysis was conducted on the data regarding students’ motivations which resulted in the emergence of three primary factors including “genuine interest”, “practical reasons”, and “default choice” (Jirwe & Rudman, 2012, p. 1618). Factor One “genuine interest” has two component items: Item (4) “wanting to care for and help others” and Item (5) “wanting to develop a knowledge of health care”; Factor Two “practical reasons” has three component items: Item (6) “the possibility of a good job after not too long a training period”, Item (7) “availability of training close to home”, and Item (8) “the wide range of possible work tasks and areas in profession”; Factor Three “default choice” also has three component items: Item (1) “recommendations from family and friends”, Item (2) “not being able to get into any

other higher educational programme” and Item (3) “chance” (Jirwe & Rudman, 2012, p. 1619). Afterwards, multiple regression analysis was conducted to explore the relationship between these three factors and students’ perceived stress in choosing careers. Results showed that students with “genuine interest” motivation were the least stressed about career choice, while students with “default choice” motivation were the most stressed about career choice (Jirwe & Rudman, 2012, p. 1619).

Through applying SDT and discussing the results, Jirwe and Rudman (2012) interpreted motivations based on “genuine interest” as autonomous motivations, while motivations based on “practical reasons” are “more controlled” motivations, and motivations based on “default choice” are “the least autonomous” motivations (Jirwe & Rudman, 2012, p. 1621). Jirwe and Rudman (2012) concede that their study has structural limitations in that the eight items in the questionnaire were developed on the basis of students’ reported motivations and the three primary factors were named according to the content of grouped items after the exploratory factor analysis. They suggest that future studies are needed to “develop the items directly based on SDT and the continuum of autonomous motives in relation to nursing education” (Jirwe & Rudman, 2012, p. 1622).

Zhou and Xu (2012) utilized SDT to examine the motivations in choosing IT-related majors of 83 Chinese undergraduate students at one university. They also explored the relationships between these motivations and students’ learning motivation, learning strategy use and academic performance. In the examination of students’ motivation in choosing their academic majors, Zhou and Xu (2012) asked an open-ended question in their survey: “Why do you choose this as your major?” (p. 52) Students’ answers were coded into six categories: “self-interest”, “assigned by university”, “good career”, “parents’ decision”, “to improve computer skills” and

“others” (Zhou & Xu, 2012, p. 53). Zhou and Xu (2012) further matched these six categories with “the types of motivation specified by SDT” and found that they matched very well except the “others” category (p. 54). “Assigned by university” and “parents’ decision” were matched with “extrinsically-regulated”, corresponding to “external motivation”; “good career” and “to improve computer skills” were matched with “identified-regulated”, corresponding to “identified motivation”; while “self-interest” were matched with “intrinsically-regulated”, corresponding to “intrinsic motivation” (Zhou & Xu, 2012, p. 54). According to this division, student respondents were divided into three corresponding groups based on their responses to the question for further analysis.

The analyses by Zhou and Xu (2012) utilized correlational analyses, multivariate analysis of variance, and univariate analyses of variance. They found that the motivations behind students’ major selection have statistically significant correlations with students’ learning motivations and learning strategy use. The more autonomous motivations students had in choosing their academic major, the higher learning motivation and the better learning strategy use they would have (Zhou & Xu, 2012). In addition, there were statistically significant group differences in learning motivation, learning strategy use and academic performance (Zhou & Xu, 2012).

The studies by Jirwe and Rudman (2012) and Zhou and Xu (2012) have similarities concerning students’ motivation in choosing academic majors. The two studies identify similar specific motivations though the eight motivations identified by Jirwe and Rudman (2012) are a bit more inclusive than the five motivations identified by Zhou and Xu (2012). Two studies also both grouped students’ motivations into three types with SDT as a framework, though they give different names to the three types of motivation, which actually are in accordance with each other, i.e.

“autonomous motivations”, “controlled motivations”, and “the least autonomous motivations” are parallel to “intrinsic motivations”, “identified motivations”, and “external motivations”, respectively.

### **Summary, Implications, and Discussion**

This review of the literature demonstrates that there is a need to understand the industry employment intentions of university freshmen in the tourism and hospitality management major as few studies regarding industry employment intentions have focused on undergraduate freshmen. While the intentions of juniors and seniors have been widely studied (e.g., Teng, 2008; Yu and Zhang, 2009), a neglected fact is that their intentions are possibly influenced by their educational and internship experiences during their years in universities. Different from many western countries, as majority of higher educational institutions in China practice restricts on switching academic majors, only few college students in China switch academic majors. Besides, the national drop-out rate of college students in China is quite low. According to the statistics provided by the Ministry of Education of the People’s Republic of China, the annual college drop-out rate is around .75% (Yu, 2013). Thus, to explain the general low industry entry by graduates of higher education, which the tourism and hospitality industry is experiencing, it is necessary to understand the initial intentions of university freshmen.

The review of literature also indicates that there is a need to explore the relationship between the freshmen’s industry employment intentions and their motivation in choosing tourism and hospitality as their academic major as it has not been adequately addressed to date. To explore this relationship, SDT is utilized as a theoretical framework to classify students’ different motivations in choosing tourism and hospitality management as their academic major.

## Chapter 3: Methodology

### Introduction

This chapter consists of nine sections. The first section is a brief introduction to the research study which reiterates the purpose of the study, and the research questions and hypotheses. The second through the eighth sections detail the study's methodology, covering research design, population and sampling, instrumentation, data collection procedures, data analysis, and limitations. The last section is a brief summary of the whole chapter.

**Purpose of the study.** The purpose of this study is to develop a better understanding of the industry employment intentions of the undergraduate freshmen majoring in tourism and hospitality management, their motivation in choosing these programs, and the relationship between their industry employment intentions and their motivation as well as demographic profiles.

**Research questions and hypotheses.** Research Question One (RQ1): What are the demographic profiles (gender, age, ethnic identity, place of residence, category of residence, parental education, parental profession and family socioeconomic status) of students who chose tourism and hospitality management undergraduate programs in Shanghai?

Research Question Two (RQ2): How autonomously motivated are students in choosing a tourism and hospitality program?



Research Question Three (RQ3): What are the intentions of students who chose tourism and hospitality management undergraduate programs in Shanghai to find job placements in the tourism and hospitality industry after graduation?

Research Question Four (RQ4): Are there any differences among students majoring in tourism and hospitality management from different tiers of higher educational institutions regarding their demographic profiles, motivation, and industry employment intentions?

Research Question Five (RQ5): Is any one of students' demographics (gender, place of residence, category of residence, family socioeconomic status and tier of higher educational institutions) a significant predictor of their industry employment intentions?

Research Question Six (RQ6): Is degree of autonomy of students' motivation in choosing their academic programs a significant predictor of their industry employment intentions?

Research Question Seven (RQ7): Is degree of autonomy of students' motivation in choosing their academic programs a significant predictor of their industry employment intentions after controlling for demographics?

Research Question Eight (RQ8): To what extent does the degree of autonomy of students' motivation in choosing their academic programs and their demographics combined predict their industry employment intentions?

Based on these research questions, there are four specific hypotheses.

Hypothesis One (H1): Students majoring in tourism and hospitality management from first tier higher educational institutions have lower industry employment intentions than those from second and third tiers of higher educational institutions.

Hypothesis Two (H2): Students' family socioeconomic status is negatively associated with their industry employment intentions.

Hypothesis Three (H3): Students' degree of autonomy of motivation in choosing tourism and hospitality management as their college major is positively associated with their industry employment intentions.

Hypothesis Four (H4): Students' degree of autonomy of motivation in choosing tourism and hospitality management as their college major is positively associated with their industry employment intentions after controlling for demographics.

### **Research Design**

In this quantitative study, survey research methodology, specifically a cross-sectional survey design, was used to get information concerning the demographic profiles of undergraduate freshmen in Shanghai, China who major in tourism and hospitality management, their motivations in choosing their major, and their industry employment intentions. This methodology was employed because it is usually used to “describe the attitudes, opinions, behaviors, or characteristics of the population” (Creswell, 2012, p. 376).

With the data collected, descriptive analysis was conducted to address RQ 1, 2 and 3. The data was also used to compare students based on the different tiers of higher educational institutions in which they have enrolled regarding their demographic profiles, motivations and industry employment intentions, addressing the comparative research question (RQ 4).

The data collected was also used in correlational analysis to address RQ5, 6, 7 and 8, examining the relationship between students' industry employment intentions and (1) their demographics (RQ 5), (2) motivations in choosing undergraduate

tourism and hospitality management programs (RQ 6), (3) motivations after controlling for demographics (RQ7), and (4) demographics and motivations combined (RQ8). Correlational analysis was conducted because it is appropriate when we seek to “describe and measure the degree of association (or relationship) between two or more variables or sets of scores” (Creswell, 2012, p. 338).

### **Population and Sampling**

The target population of this study consists of all the undergraduate freshmen who were enrolled in the tourism and hospitality management programs at Shanghai’s higher educational institutions in the fall of 2013. In the case of Fudan University, the target population consists of sophomores because, in this university, students’ major field of study is decided at the beginning of their second year of study. Currently, 13 higher educational institutions in Shanghai offer four-year undergraduate tourism and hospitality management programs, among which four institutions belong to the first tier of higher educational institutions (i.e., national key institutions), five institutions belong to the second tier (i.e., provincial common institutions), while the other four are of the third tier (i.e., private or independent four-year institutions). In the fall of 2013, among these 13 institutions, five institutions recruited one class of students; four institutions recruited two classes of students; two institutions recruited three classes of students; one institution recruited four classes of students; and one institution recruited six classes of students. The class sizes range from 30-50 students. The total population is 1140. This target population is also the assessable population for this research study. A list of these institutions, the tier they belong to, class(es) of students they enrolled in the fall of 2013, and their enrollment are in Table 3.

The sample of this study was selected from the above-mentioned population. Specifically, for the pilot study, two classes of students from one first-tier institution (i.e., Shanghai Normal University. It has the biggest enrollment among all the 13 institutions.), one class of students from each of the two second-tier institutions which have the biggest enrollment among institutions of this tier (i.e., Shanghai Business School and Shanghai Second Polytechnic University), and one class of students from each of the two third-tier institutions which have the biggest enrollment among institutions of this tier (i.e., Shanghai Sanda University and Shanghai Jianqiao University) were randomly selected and recruited. Totally 244 students among 250 recruited students completed the survey, yielding a volunteer return rate of 97.6%.

For the formal study, all of the remaining 890 students among the 1140 students from the 13 institutions were recruited as participants. A total of 685 of them completed the survey, which corresponds to a response rate of 77.0%. This sample size is appropriate for this study as we have used the software G\* Power to determine the required sample size. For RQ7 (to answer this research question, linear multiple regression with fixed model and  $R^2$  increase test will be conducted), with the effect size  $f^2=.02$  (small effect),  $\alpha=.05$ ,  $\text{power}=.80$ , number of tested predictors=1 (industry employment intentions), and total number of predictors=6 (5 demographic predictors including gender, place of residence, category of residence, family socioeconomic status, and tier of higher educational institutions, and 1 motivation predictor), the minimum sample size is 395. This sample size will result in a small to medium effect ( $f^2=.03$ ) for RQ5 with the same alpha and power values and the above-mentioned five demographic predictors (However, different from RQ7, RQ5 will test the  $R^2$  deviation from zero).

Table 3. List of higher educational institutions in Shanghai which offer four-year undergraduate Tourism and Hospitality Management programs and their 2013 Fall enrollment.

| Higher Educational Institutions                             | Tier | Class(es) Enrolled | Enrollment |
|---|------|--------------------|------------|
| Fudan University <sup>a</sup>                               | 1    | 1                  | 40         |
| East China Normal University                                | 1    | 1                  | 40         |
| Shanghai Normal University                                  | 1    | 6                  | 240        |
| Donghua University  | 1    | 2                  | 60         |
| Shanghai University of International Business and Economics | 2    | 1                  | 39         |
| Shanghai University of Engineering Science                  | 2    | 1                  | 35         |
| Shanghai Business School                                    | 2    | 4                  | 160        |
| Shanghai Second Polytechnic University                      | 2    | 2                  | 92         |
| School of Finance and Business, Shanghai Normal University  | 2    | 1                  | 38         |
| Shanghai Sanda University                                   | 3    | 3                  | 140        |
| Shanghai Jianqiao University                                | 3    | 3                  | 108        |
| Xianda College of Economics and Humanities Shanghai         | 3    | 2                  | 68         |
| International Studies University                            |      |                    |            |
| Shanghai Normal University                                  | 3    | 2                  | 80         |
| Tianhua College   |      |                    |            |

<sup>a</sup>At Fudan University, students' major field of study is decided at the beginning of their second year, whereas this occurs the first year for all other institutions.

### Instrumentation

This research study used a packet of researcher-designed Chinese-version questionnaires which include a demographic profile questionnaire, a self-regulation questionnaire regarding students' motivation for choosing their college major and an intention questionnaire regarding tourism and hospitality industry employment. There are a total 39 items in the whole packet which takes 10-15 minutes to answer (The English version of the questionnaires can be seen in Appendix B). An appendix of table of professions was also provided to the respondents (in Chinese; and it is also

available in the appendices) for reference while they answered two questions in the demographic profile questionnaire.

**Demographic profile.** The demographic profile questionnaire consists of 13 items concerning participants' gender, age, ethnic identity, name of higher educational institution in which enrolled, place of residence, category of residence, and parental education and profession. For Item 5 regarding place of residence, 31 options are grouped into three as there are 31 provincial-level places of residence in China which are usually grouped according to their economic development status into eastern area, middle area and western area (Wei & Wang, 2004). The eastern area is the most economically developed while the western area is the least economically developed (Wei & Wang, 2004). Items 6 & 7 concern categories of students' residence which are divided into four: rural, county-level city or town, prefecture-level city, and big city including provincial capital, municipality with independent planning status (Dalian, Qingdao, Ningbo, Xiamen, and Shenzhen) and municipality directly under the central government. In China, county-level city or town is the smallest among the three categories of cities while prefecture-level city falls in between county-level city or town and big city. The four categories are in an increasing order of openness to the outside world. Extant studies (e.g., Guo, 1998; and Li, Chen, & Ning, 2008) have found that there are differences among college students from these four categories of residence in many aspects including their adaptability to college life, consuming behavior, and so on.

Participants' responses to parental education and profession were used to get participant's family socioeconomic status score. Items 10 & 11 and Items 12 & 13 are two pairs of questions. Item 10 and Item 12 ask participants to report their mother and father's profession respectively while Item 11 and Item 13 ask them to write

down the code of their parents' profession respectively corresponding to the "Table of Professions" appended to the questionnaire. During the later process of analysis, the reported parents' professions of participants were transferred into their socioeconomic status index based on the table of socioeconomic status index corresponding to China's 161 professions provided by Li (2005b, pp. 194-202).

#### **Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC).**

The Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC) was developed by the researcher of this study because extant questionnaires related with SDT are not appropriate for the domain of this study. The researcher was cautious in remaining true to the concepts of SDT, the theoretical framework of the study, in the process of questionnaire development. SRQ-APC in both English and Chinese was developed to facilitate the research study as the study was conducted in China.

Reference documents in the development of this questionnaire include: the two versions of Learning Self-Regulation Questionnaire (SRQ-L) developed by Williams and Deci (1996) and Black and Deci (2000) respectively; the two versions of the Academic Self-Regulation Questionnaire (SRQ-A) developed by Ryan and Connell (1989) and Deci, Hodges, Pierson, and Tomassone (1992) respectively; the Self-Regulation Questionnaire-Study Aboard (SRQ-SA) developed by Chirkov, Vansteenkiste, Tao, and Lynch (2007); the short version of SRQ-SA developed by Chirkov, Safdar, de Guzman, and Playford (2008); the questionnaire items concerning motivation in choosing tourism and hospitality as academic major by Guo et al. (2004), Kim et al. (2008), Lee et al. (2008), Liu (2011), Sha (2011), and Wang (2011) (see Table 2); and the questionnaire items concerning motivation in choosing academic majors applying SDT by Jirwe and Rudman (2012) and Zhou and Xu (2012).

SRQ-APC concerns the reasons why students choose a specific academic major, specifically, tourism and hospitality management. It is developed for students in late high school or college. The questionnaire asks participants to indicate how true each of the given 15 motivations for choosing tourism and hospitality management as college major is for them. The fifteen motivation items are scattered in five subscales including Intrinsic Regulation, Identified Regulation, Introjected Regulation, External Regulation and Amotivation (see Table 4). In common with other regulation instruments for different contexts, the SRQ-APC does not include an integrated regulation subscale. All five subscales have equal numbers of items. The Intrinsic Regulation subscale consists of items 1, 11 and 14. This subscale assesses how strongly students were motivated in choosing tourism and hospitality management as their academic major due to the interesting and enjoyable nature of the field of study itself. The subscale of Identified Regulation consists of items 3, 9 and 15. This subscale assesses how strongly students were motivated in choosing tourism and hospitality management as their academic major due to their understanding and acceptance of the importance of the field of study for themselves. The subscale of Introjected Regulation consists of items 7, 12 and 13. This subscale assesses how strongly students were motivated in choosing tourism and hospitality management as their academic major due to their perceived chance to “demonstrate ability” or “avoid failure” (Ryan & Deci, 2000, p. 72). The External Regulation subscale consists of items 2, 5 and 10. This subscale assesses how strongly students were motivated in choosing tourism and hospitality management as their academic major to “satisfy an external demand” (Ryan & Deci, 2000, p. 72) or avoid punishments (Deci & Ryan, 2012). The subscale of Amotivation consists of items 4, 6 and 8. This subscale assesses how strongly students chose tourism and hospitality



management as their academic major due to lack of intentionality (Deci & Ryan, 2012).

Table 4. Items in SRQ-APC.

| Item No. | Items  | Corresponding Regulation |
|----------|--|--------------------------|
| 1        | Because I am interested in the study of the field of tourism and hospitality management.   | Intrinsic regulation     |
| 2        | Because my score for university entrance exam only qualified me to apply for this field of study.  | External regulation      |
| 3        | Because there is the possibility of a satisfying job after graduation from this field of study, so it is personally important to me to pursue this field of study. | Identified regulation    |
| 4        | Because I don't care which field of study I will be enrolled in.   | Amotivation              |
| 5        | Because I probably was not able to get into any other higher educational program.  | External regulation      |
| 6        | Because I was assigned to the field of study by admission office of the university.  | Amotivation              |
| 7        | Because this seems like a field in which I might stand out to others.  | Introjected regulation   |
| 8        | Because I chose the field of study randomly.   | Amotivation              |
| 9        | Because I want to serve others and this field will allow me to do so.  | Identified regulation    |
| 10       | Because others (parents, relatives, teachers, and/or friends) were pushing me to choose this field of study.   | External regulation      |
| 11       | Because there is wide range of possible work tasks and areas in profession of tourism and hospitality that interest me.  | Intrinsic regulation     |
| 12       | Because I want to avoid the shame and guilt of not doing this.   | Introjected regulation   |
| 13       | Because I expect to get respect and recognition from others for doing so.  | Introjected regulation   |
| 14       | Because I thought this field of study would be very exciting to learn.   | Intrinsic regulation     |
| 15       | Because to study in this field is one of my life goals.  | Identified regulation    |

SRQ-APC was designed as a 5-point Likert-type scale with 1 signifies “not at all true” while 5 signifies “very true”. “Each participant gets a score on each subscale by averaging responses to each of the items that make up that subscale” (The Self-Regulation Questionnaires, n.d.). Then, the subscale scores will be weighted and combined to get a “Relative Autonomy Index (RAI)” with “the more controlled the regulatory style represented by a subscale, the larger its negative weight and the more autonomous the regulatory style represented by a subscale, the larger its positive weight” (The Self-Regulation Questionnaires, n.d.). “The RAI has been widely applied with different contextual measures of the self-determination continuum” to get a single index representing “the overall degree of relative autonomy in the regulation of a behavior” (Markland & Ingledew, 2007, p. 841). “Higher positive scores for the RAI indicate more autonomous motivation whereas negative scores indicate less autonomous motivation (Markland & Ingledew, 2007, p. 841). In this research study, the amotivation subscale will be weighted -3, the external subscale will be weighted -2, the introjected subscale will be weighted -1, the identified subscale will be weighted +2, and the intrinsic subscale will be weighted +3, thus resulting in the following formula. The maximum possible score when applying this formula to SRQ-APC is 19 (when participants get 5 scores for each of the two subscales with positive weighting and 1 score for each of the three subscales with negative weighting) and the minimum is -25 (when participants get 1 score for each of the two subscales with positive weighting and 5 score for each of the three subscales with negative weighting). These weightings are in accordance with Farmanbar, Niknami, Lubans, and Hidarnia (2013) and Markland and Ingledew (2007).

$$\text{Relative autonomy index (RAI)} = (3 \times \text{intrinsic motivation}) + (2 \times \text{identified regulation}) + (-1 \times \text{introjected regulation}) + (-2 \times \text{external regulation}) + (-3 \times \text{amotivation})$$

**Industry employment intentions.** The intention questionnaire regarding tourism and hospitality industry employment consists of eleven questions. The first eight questions ask about students' intention to get job placement after graduation in eight specific sectors of tourism and hospitality industry. These eight sectors are identified as in accordance with the current state of China's tourism and hospitality industry while taking account of two typical international classifications, i.e., the six-sector classification provided by International Labour Office (2010) and the eight-sector classification offered by Canadian Tourism Human Resource Council (2011):

- (a) Accommodation including hotels, bed and breakfasts and farm/ranch vacation sites, motels, campgrounds, hostels, and so on;
- (b) Food and beverage services including restaurants, bars, cafeterias, snack bars, pubs, nightclubs and other similar establishments;
- (c) Attractions including historic sites, heritage homes, museums, halls of fame, art galleries, botanical gardens, aquariums, zoos, water parks, amusement parks, and so on;
- (d) Adventure tourism and recreation including outdoor adventure and ecotourism, ski resorts, golf and tennis facilities, parks, and marine facilities;
- (e) Transportation including air transport, rail transport, ground transport, and water transport;
- (f) Travel trade including retail travel agencies and wholesale tour operators;

- (g) Events and conferences including special events, conferences, meetings, trade shows and conventions; and
- (h) Tourism planning and design services.

The next two questions, i.e., Questions 9 and 10, ask about students' intention to get job placement after graduation in two sectors which do not belong to the tourism and hospitality industry, but are closely related with the field of study of tourism and hospitality management. Participants respond to these questions on a 5-point Likert-type scale ranging from 1 representing "no intent", to 3 representing "some intent", and to 5 representing "high intent". The eleventh question is an open-ended one. It asks students to write in which other sectors they intend to work after graduation. Participants' response to question 1-8 are summed up and averaged to get their overall scores for industry employment intentions.

**Validity and reliability.** To establish validity and reliability of this packet of researcher-developed questionnaires, three steps were taken. First, Edward L. Deci and Richard M. Ryan, the two initiators of SDT were consulted through emails to ensure the face and content validity of the 15-item Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC). Revisions were made according to the suggestions given by these two experts. Second, faculty members of the Tourism and Hospitality program at Shanghai Normal University Tianhua College were consulted to ensure the face and content validity of the whole packet. Revisions were made accordingly. Third, a pilot test was conducted in early November. The Cronbach alpha statistic was used on the overall scale of SRQ-APC and each of its five subscales to gauge the internal consistency reliabilities. As Table 5 shows, the reliability of Intrinsic Regulation Subscale is quite high (.831), the reliabilities of the overall scale and three subscales are between .60 to .70, while the reliability of

External Regulation Subscale is quite low (.404). Rewording of the items in the four subscales whose reliabilities were below .70 were made for the formal study.

Table 5. Post-hoc instrument reliability of the pilot study.

| Scales                          | n of Items | Reliability |
|---------------------------------|------------|-------------|
| Overall scale                   | 15         | .693        |
| Intrinsic Regulation Subscale   | 3          | .831        |
| Identified Regulation Subscale  | 3          | .625        |
| Introjected Regulation Subscale | 3          | .619        |
| External Regulation Subscale    | 3          | .404        |
| Amotivation Subscale            | 3          | .653        |

In the pilot test, two classes of students from one first-tier institution, i.e., Shanghai Normal University, one class of students from each of two second-tier institutions, i.e., Shanghai Business School and Shanghai Second Polytechnic University, and one class of students from each of two third-tier institutions, i.e., Shanghai Sanda University and Shanghai Jianqiao University, were randomly selected and recruited.

Participants in the pilot survey were “asked to examine the survey on many different fronts: clarity of language and terms, basic spelling and grammar, depth and breadth of subquestions and items, and overall psychometric properties of the instrument” (Lodico, Spaulding, & Voegtle, 2006, p. 169). The researcher of this study provided “an additional sheet to the survey for pilot participants to write any comments, suggestions, or questions they have about the survey” (Lodico et al., 2006, p. 169). This feedback was used to “make corrections or refinements to the final survey” ((Lodico et al., 2006, p. 169).

### **Data Collection Procedures**

The data collection procedures involved several steps. First, the researcher asked for permission and cooperation from the chairs of tourism and hospitality management programs at the 13 higher educational institutions. They all granted permission and cooperation. Second, survey packets with return postage paid were mailed to faculty members designated by the chairs to take charge of the survey on behalf of the researcher. Then the faculty members administered the pilot or the formal survey to participants in classrooms. To ensure that nobody except the researcher would look over participants' responses, each participant was given, in addition to a questionnaire, an envelope into which they could put their finished survey. The sealed envelopes with finished surveys from each participant were collected and put into a larger envelope by the faculty members who then mailed to the researcher once all finished surveys were collected. As the survey was administered by faculty members who were in positions of authority to students, to ensure that students would not feel coerced into participation, the researcher attached an informed consent to each survey telling students that their participation is entirely voluntary and that they can say no at any time. The English version of the informed consent can be found in Appendix A. As shown in the "population and sampling" section in this chapter, students understood that it was voluntary to participate in the survey as among the 1140 students recruited, 211 students did not complete the survey (6 did not complete the pilot survey and 205 did not complete the formal survey).

### **Data Analysis**

Data analysis was conducted in four steps in this study. The first step was to calculate and report the reliability of the overall SRQ-APC scale and its five subscales

(see Table 7 of next chapter). The second through the fourth steps involves detailed steps to address the eight research questions. To clarify, Table 6 presents an overview of the data analysis involved to address each of the eight research questions.

In the second step, descriptive statistics and frequencies were calculated for all the participants concerning their demographic profiles, motivations in choosing tourism and hospitality management as their academic major, and intentions to find job placement in tourism and hospitality industry after graduation to address RQ1-3. The results were reported in Tables 8 to 11 of the next chapter.

The third step compared means among students from the three different tiers of higher educational institutions concerning their socioeconomic status, motivations and industry employment intentions using ANOVA to address RQ4. As there are more than two groups to be compared, multiple comparison (post hoc) tests were employed. Results were reported in Tables 12 to 14 of the next chapter.

The last step addressed RQ5-8. Multiple regressions were utilized to answer these four questions. For all these four research questions, the dependent variable is the industry employment intention; while there are two general predictors: motivation and demographics. The demographics include several predictors: gender, place of residence, category of residence, family socioeconomic status, and tier of higher educational institutions. As it was found in later analysis that there was hardly any variability in age or ethnicity, age and ethnicity were not investigated as potential predictors. Parental educations were also not investigated as potential predictors because although participants' family socioeconomic status (SES) scores were not calculated based on their parental education in this study, parental education and family SES have been found correlated in previous studies. Results of multiple regressions to address RQ5-8 were reported in Tables 15-19 of the next chapter.

Table 6. Overview of data analysis to address each research question.

| Research Question Number | Research Question   | Cases Involved / Subgroups          | Variables Involved / Instruments  | Statistical Analysis  | Tables or Figures  |
|--------------------------|---|-------------------------------------|---|---|--------------------|
| 1                        | What are the demographic profiles (gender, age, ethnic identity, place of residence, category of residence, parental education, parental profession and family socioeconomic status) of students who chose tourism and hospitality management undergraduate programs in Shanghai? | Question applies to all respondents | The demographic profile questionnaire entitled with "demographic information" | Report the number and percentage of respondents in each category of each of the demographic variables including gender, age, ethnic nationality, place of residence, category of residence, parental education, parental profession. Compute each participant's family socioeconomic status and then report the mean, standard deviation, minimum and maximum of participants' family socioeconomic status. | See Table 8 and 9. |
| 2                        | How autonomously motivated are students in choosing a tourism and hospitality program?  | Question applies to all respondents | Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC)               | Relative autonomy index will be calculated according to the formula (p. 58) for each participant. Then report the mean, standard deviation, minimum and maximum of participants' Relative autonomy index.   | See Table 10.      |



Table 6. Overview of data analysis to address each research question (continued).

| Research Question Number | Research Question   | Cases Involved / Subgroups          | Variables Involved / Instruments  | Statistical Analysis   | Tables or Figures         |
|--------------------------|---|-------------------------------------|---|--|---------------------------|
| 3                        | What are the intentions of students who chose tourism and hospitality management undergraduate programs in Shanghai to find job placements in the tourism and hospitality industry after graduation?                                  | Question applies to all respondents | Industry Employment Intention Questionnaire   | Calculate the average industry employment intentions for each participant. Then report the mean, standard deviation, minimum and maximum of participants' industry employment intentions.                            | See Table 11              |
| 4                        | Are there any differences among students majoring in tourism and hospitality management from different tiers of higher educational institutions regarding their demographic profiles, motivation, and industry employment intentions? | Question applies to all respondents | The demographic profile questionnaire entitled with "demographic information", Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC), and Industry Employment Intention Questionnaire | Report mean difference, standard error and significance of socioeconomic status, motivation and industry employment intentions between participants from each of the three tiers of higher educational institutions. | See Table 12, 13, and 14. |

Table 6. Overview of data analysis to address each research question (continued).

| Research Question Number | Research Question   | Cases Involved / Subgroups          | Variables Involved / Instruments  | Statistical Analysis   | Tables or Figures |
|--------------------------|---|-------------------------------------|---|--|-------------------|
| 5                        | Is any one of students' demographics (gender, place of residence, category of residence, family socioeconomic status, and tier of higher educational institutions) a significant predictor of their industry employment intentions? | Question applies to all respondents | The demographic profile questionnaire entitled with "demographic information" and Industry Employment Intention Questionnaire | Gender (dummy coded), place of residence (dummy coded), category of residence (dummy coded), family socioeconomic status, and tier of higher educational institutions (dummy coded) will be simultaneously entered in predicting industry employment intentions. | See Table 15.     |
| 6                        | Is degree of autonomy of students' motivation in choosing their academic programs a significant predictor of their industry employment intentions?  | Question applies to all respondents | Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC), and Industry Employment Intention Questionnaire              | Relative autonomy index will be entered in predicting industry employment intentions.  | See Table 16.     |

Table 6. Overview of data analysis to address each research question (continued).

| Research Question Number | Research Question   | Cases Involved / Subgroups          | Variables Involved / Instruments  | Statistical Analysis  | Tables or Figures    |
|--------------------------|---|-------------------------------------|---|---|----------------------|
| 7                        | Is degree of autonomy of students' motivation in choosing their academic programs a significant predictor of their industry employment intentions after controlling for demographics? | Question applies to all respondents | The demographic profile questionnaire entitled with "demographic information", Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC), and Industry Employment Intention Questionnaire | Gender (dummy coded), place of residence (dummy coded), category of residence (dummy coded), family socioeconomic status, and tier of higher educational institutions (dummy coded) will be simultaneously entered as control variables, and then sequentially, relative autonomy index will be added in predicting industry employment intentions. | See Table 17.        |
| 8                        | To what extent does the degree of autonomy of students' motivation in choosing their academic programs and their demographics combined predict their industry employment intentions?  | Question applies to all respondents | As above  | R square will be reported   | See Table 18 and 19. |

## **Limitations**

There are several limitations in this study which affect the generalizing of the findings. First, as this study adopts a researcher-developed instrument, the validity and reliability of the instrument is still a limitation although experts in the field were consulted to get content validity and a pilot test was conducted. Second, survey data collected relies on participant self-report although measures including the anonymity of data collection and use of sealed return envelopes were taken to maximize honest self reporting. Third, as the participants were sampled only from Shanghai, it may limit the generalizability of the findings; caution must be exercised in extending the findings to undergraduate students majoring in tourism and hospitality management elsewhere in China.

## **Summary**

This chapter describes the methodology for this research study. To address the eight research questions and to test the four hypotheses, a packet of questionnaires was developed by the researcher. This packet includes a demographic profile questionnaire, SRQ-APC and an intention questionnaire regarding tourism and hospitality industry employment. SRQ-APC was developed according to SDT and concerns the reasons why students choose a specific academic major, specifically, tourism and hospitality management.

To ensure validity and reliability of the questionnaires, expert-consultation and pilot testing were conducted. In regards to sampling, 1140 undergraduate freshmen majoring in tourism and hospitality management were contacted from 13 higher educational institutions which offer 4-year tourism and hospitality management programs in Shanghai. Two hundred and fifty of these students were invited to take part in the pilot study while the remaining 890 were invited to participate in the

formal study. A variety of statistical analyses were performed including basic descriptive statistics to address questions 1-3, ANOVAs to address research question 4, and multiple linear regression to address research questions 5 to 8.

## Chapter 4: Results

As stated in Chapter One, this research study examined the industry employment intentions of the undergraduate freshmen majoring in tourism and hospitality management, their motivation in choosing these programs, and the relationship between their industry employment intentions and their motivation as well as demographic profiles. After presenting the reliability information of the Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC), this chapter is organized in terms of the eight specific research questions and the four hypotheses posed in Chapter One.

### Reliability

As the Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC), the instrument to measure students' motivation in choosing the tourism and hospitality programs, was developed by the researcher of this study and was used for the first time, it is important to investigate and report the reliability information of the instrument. To investigate the instrument's reliability, the internal consistency reliability procedure was adopted as it is an often-adopted procedure to examine an instrument's reliability (Creswell, 2012). "Scores from an instrument are reliable and accurate if an individual's scores are internally consistent across the items on the instrument" (Creswell, 2012, p.161). In the formal study, the Cronbach alpha statistic was used on the overall scale of SRQ-APC and each of its five subscales to gauge the internal consistency reliabilities. As Table 7 shows, the reliability of the Intrinsic Regulation Subscale is quite high (.845), the reliabilities of the overall scale and three

subscales are between .60 to .70, while the reliability of External Regulation Subscale is still quite low (.539). To facilitate further analysis, the 3-item External Regulation Subscale is deleted from the overall scale of SRQ-APC and a second Cronbach alpha statistic was used on the new 12-item overall scale. The reliability of it is .745, acceptable for further analysis. Among SDT literature, three, four, five and six subscales were all found to have been employed. And it was also found that researchers (e.g., Trepanier, Fernet, & Austin, 2012) sometimes deleted one or two subscales from their actual study. In the case of Trepanier, Fernet, and Austin (2012), the external regulation subscale in the original scale was not used in their actual study while the same weighting of the remaining subscales were kept.

Table 7. Post-hoc instrument reliability of 5-subscale SRQ-APC.

| Scales                          | Number of Items | Reliability |
|---------------------------------|-----------------|-------------|
| Overall scale                   | 15              | .669        |
| Intrinsic Regulation Subscale   | 3               | .845        |
| Identified Regulation Subscale  | 3               | .653        |
| Introjected Regulation Subscale | 3               | .662        |
| External Regulation Subscale    | 3               | .539        |
| Amotivation Subscale            | 3               | .660        |

### **Research Question One: What are the Demographic Profiles of Students who Chose Tourism and Hospitality Management Undergraduate Programs in Shanghai?**

Research Question One (RQ1) asks the demographic profiles (gender, age, ethnic identity, place of residence, category of residence, parental education, parental profession and family socioeconomic status) of students who chose tourism and hospitality management undergraduate programs in Shanghai. To address RQ1,

descriptive statistics and frequencies were calculated for all the participants. As shown in Table 8, the majority of respondents is female (77.4%) and is aged between 18 and 20 (95.3%). Table 8 also shows that 94.5% of the respondents are of Han ethnic identity, which is 3.5% higher than the ratio of Han population to the whole population in China. The remaining respondents (excluding the five international students) are of 12 other ethnic groups.

Table 8 shows that respondents from the eastern area, the more economically developed area in China, are the majority (63.1%) while respondents from the middle area and the western area represent 19.1% and 16.8% of the sample, respectively. In regard to category of residents, respondents from big cities (44.4%) are much more than from other categories, with rural at 25.7%, county-level city or town at 17.2%, and prefecture-level city at 12.1%. The distribution of mother's education is quite similar with that of father's education while the ratio of fathers who have received professional college educations or above (38%) is about 8% higher than that of mothers (30.3%).

Although RQ1 does not cover which tier of institutions the respondents are currently enrolled into, as tier of institutions will be used as a variable in later analysis, its descriptive percentages are presented here in Table 8. Ratios of respondents from the first, second, and third tier of institutions are 22.8%, 33.1%, and 44.1% respectively.



Table 8. Demographic profiles of participants.

| Demographic Profiles  |                                       | n   | %    |
|-----------------------|---------------------------------------|-----|------|
| Gender                | Female                                | 530 | 77.4 |
|                       | Male                                  | 155 | 22.6 |
| Age                   | 16-17                                 | 9   | 1.3  |
|                       | 18-20                                 | 653 | 95.3 |
|                       | 21-25                                 | 23  | 3.4  |
| Ethnic identity       | Han                                   | 647 | 94.5 |
|                       | Hui                                   | 9   | 1.3  |
|                       | Man                                   | 6   | .9   |
|                       | Zhuang                                | 4   | .6   |
|                       | Tujia                                 | 3   | .4   |
|                       | Chaoxian                              | 2   | .3   |
|                       | Inner Mongolian                       | 2   | .3   |
|                       | Miao                                  | 2   | .3   |
|                       | Li                                    | 1   | .1   |
|                       | Uygur                                 | 1   | .1   |
|                       | Yao                                   | 1   | .1   |
|                       | Yilao                                 | 1   | .1   |
|                       | Tibetan                               | 1   | .1   |
|                       | Not declared (International students) | 5   | .7   |
| Place of residence    | Eastern area                          | 432 | 63.1 |
|                       | Middle area                           | 131 | 19.1 |
|                       | Western area                          | 115 | 16.8 |
|                       | Missing                               | 6   | .9   |
| Category of residence | Rural                                 | 176 | 25.7 |
|                       | County-level city or town             | 118 | 17.2 |
|                       | Prefecture-level city                 | 83  | 12.1 |
|                       | Big city                              | 304 | 44.4 |
|                       | Missing                               | 4   | .6   |
| Mother's education    | None                                  | 9   | 1.3  |
|                       | Primary school                        | 77  | 11.2 |
|                       | Junior middle school                  | 172 | 25.1 |
|                       | High school                           | 174 | 25.4 |
|                       | Professional school                   | 37  | 5.4  |
|                       | Professional college                  | 14  | 2.0  |
|                       | Common 2-3-year college               | 76  | 11.1 |
|                       | 4-year college                        | 111 | 16.2 |
|                       | Master or above                       | 7   | 1.0  |
|                       | Missing                               | 8   | 1.2  |

Table 8. Demographic profiles of participants (continued).

| Demographic Profiles |   | n   | %    |
|----------------------|---|-----|------|
| Father's education   | None                                    | 5   | .7   |
|                      | Primary school                          | 36  | 5.3  |
|                      | Junior middle school                    | 172 | 25.1 |
|                      | High school                             | 178 | 26.0 |
|                      | Professional school                     | 26  | 3.8  |
|                      | Professional college                    | 15  | 2.2  |
|                      | Common 2-3-year college                 | 99  | 14.5 |
|                      | 4-year college                          | 133 | 19.4 |
|                      | Master or above                         | 13  | 1.9  |
|                      | Missing                                 | 8   | 1.2  |
| Tier of institutions | 1 (national key institutions)           | 156 | 22.8 |
|                      | 2 (provincial common institutions)      | 227 | 33.1 |
|                      | 3 (private or independent institutions) | 302 | 44.1 |

Concerning participants' parental socioeconomic status (SES), as mentioned in the third chapter (p. 43), the table of socioeconomic status index corresponding to China's 161 professions provided by Li (2005b, pp. 194-202) was used to get each participant's parental SES score. Established on the basis of national research and widely accepted in China, this table gives SES scores ranging from the lowest 10.04 to the highest 90.00 to 161 professions in China. After getting each participant's parental SES scores, family SES for each participant was based upon the higher value between mother's SES and father's SES. The mean, standard deviation, minimum and maximum of mother's SES, father's SES, and the family SES of participants can be found in Table 9.

Table 9. Statistics of socioeconomic status of participants' mother, father, and family.

|  | n   | M     | SD    | Min   | Max   |
|--|-----|-------|-------|-------|-------|
| Mother's socioeconomic status            | 651 | 60.29 | 11.63 | 33.55 | 90.00 |
| Father's socioeconomic status            | 636 | 64.70 | 11.38 | 10.04 | 90.00 |
| Family socioeconomic status <sup>a</sup> | 658 | 66.39 | 11.26 | 42.84 | 90.00 |

<sup>a</sup> Based on the higher value between mother's SES and father's SES; which parent is higher varies across participants; hence the mean family SES is not one of the means above it.

### **Research Question Two: How Autonomously Motivated are Students in Choosing a Tourism and Hospitality Program?**

Research Question Two (RQ2) asks how autonomously motivated students are in choosing a tourism and hospitality program. To address RQ2, first, each participant's responses to each of the items that make up each of the four subscales were averaged to get each participant's score on each subscale; then, the subscale scores were weighted and combined to get the Relative Autonomy Index (RAI) according to the following revised formula for each participant:

$$\text{Relative autonomy index (RAI)} = (3 \times \text{intrinsic motivation}) + (2 \times \text{identified regulation}) + (-1 \times \text{introjected regulation}) + (-3 \times \text{amotivation})$$

Now, the maximum possible score when applying this revised formula is 21 (when participants get 5 scores for each of the two subscales with positive weighting and 1 score for each of the two subscales with negative weighting) and the minimum is -15 (when participants get 1 score for each of the two subscales with positive weighting and 5 score for each of the two subscales with negative weighting). A RAI

value that is greater than 3, the midpoint of the potential score range (when participants get 3 scores for each of the four subscales), means that the participant's motivations for choosing a tourism and hospitality program are above a moderate autonomy level.

After getting each participant's RAI score, descriptive statistics were calculated based on all the participants. The mean, standard deviation, minimum and maximum of participants' (revised) Relative Autonomy Index are shown in Table 10. On average, students' motivations for choosing a tourism and hospitality program were slightly above a moderate autonomy level with the mean RAI being 7.62.

Table 10. Statistics of participants' (revised) relative autonomy index.

|                                   | n   | M    | SD   | Min   | Max   |
|-----------------------------------|-----|------|------|-------|-------|
| Relative autonomy index (revised) | 685 | 7.62 | 5.19 | -9.67 | 18.67 |

**Research Question Three: What are the Intentions of Students who Chose Tourism and Hospitality Management Undergraduate Programs in Shanghai to Find Job Placements in the Tourism and Hospitality Industry after Graduation?**

Research Question Three (RQ3) asks the intentions of students who chose tourism and hospitality management undergraduate programs in Shanghai to find job placements in the tourism and hospitality industry after graduation. To address RQ3, each participant's responses to questions 1-8 of the Industry Employment Intentions Questionnaire were summed up and averaged to get their overall scores for industry employment intentions. Based on descriptive statistics, the mean, standard deviation, minimum and maximum of participants' industry employment intentions are shown in Table 11. As indicated in Chapter Three, 1=no intent, 3= some intent, 5= high intent,

thus a 3.24 mean score implies that, on average, students' intentions to find job placements in the tourism and hospitality industry after graduation were at a moderate level.

Table 11. Statistics of participants' industry employment intentions.

|                                | n   | M    | SD  | Min  | Max  |
|--------------------------------|-----|------|-----|------|------|
| Industry employment intentions | 684 | 3.24 | .65 | 1.00 | 5.00 |

**Research Question Four: Are there any Differences among Students Majoring in Tourism and Hospitality Management from Different Tiers of Higher Educational Institutions regarding Their Demographic Profiles, Motivation, and Industry Employment Intentions?**

Research Question Four (RQ4) examines whether there are any differences among students majoring in tourism and hospitality management from the three different tiers of higher educational institutions regarding their demographic profiles, motivation, and industry employment intentions. To address RQ4, one-way, between-subjects factor ANOVAs were used, followed by multiple comparisons tests employing an alpha level of .05.

**Socioeconomic status.** To examine the first part of RQ4, whether there are any differences among students majoring in tourism and hospitality management from the three different tiers of higher educational institutions regarding their family socioeconomic status, mean scores for the first, second and third tier of students on their family SES were compared. The multiple comparison, post hoc LSD test was used because homogeneity of variance was met. According to the results of the post hoc analysis using the LSD test, as Table 12 illustrates, there was a significant

difference among the means of the three tiers of students. Family SES of the first-tier students is significantly higher than that of the second and third-tier students.

According to the results, we are 95% confident that family SES of the first-tier students is at least 1.758 and at most 6.430 points higher than that of the second-tier students, and is at least 1.350 and at most 5.746 points higher than that of the third-tier students (see Table 12).

Table 12. Multiple comparisons of family socioeconomic status.

Dependent Variable: Family Socioeconomic Status

LSD

| Tier of Institutions | Tier of Institutions | Mean Difference | Std. Error | Sig. | 95% Confidence Interval |             |
|----------------------|----------------------|-----------------|------------|------|-------------------------|-------------|
|                      |                      |                 |            |      | Lower Bound             | Upper Bound |
| 1                    | 2                    | 4.094           | 1.190      | .001 | 1.758                   | 6.430       |
|                      | 3                    | 3.548           | 1.119      | .002 | 1.350                   | 5.746       |
| 2                    | 1                    | -4.094          | 1.190      | .001 | -6.430                  | -1.758      |
|                      | 3                    | -.546           | 1.004      | .586 | -2.517                  | 1.424       |
| 3                    | 1                    | -3.548          | 1.119      | .002 | -5.746                  | -1.350      |
|                      | 2                    | .546            | 1.004      | .586 | -1.424                  | 2.517       |

**Motivation.** To examine the second part of RQ4, whether there are any differences among students majoring in tourism and hospitality management from the three different tiers of higher educational institutions regarding their motivation in choosing tourism and hospitality programs, mean scores for the first, second and third tier of students on their motivation RAI were compared. According to the results of the Post hoc analysis using LSD, because homogeneity of variance was met and as Table 13 illustrates, there was a significant difference among the means of the three tiers of students. RAI of the second-tier students ( $M=8.611$ ,  $SD=5.023$ ) is significantly higher than that of the first-tier students ( $M=7.474$ ,  $SD=4.713$ ) and that

of the third-tier students ( $M=6.939$ ,  $SD=5.442$ ). According to the results, we are 95% confident that RAI of the second-tier students is at least .086 and at most 2.187 points higher than that of the first-tier students and at least .784 and at most 2.559 points higher than that of the third-tier students (see Table 13).

Table 13. Multiple comparisons of motivation.

Dependent Variable: Motivation

LSD

| Tier of Institutions | Tier of Institutions | Mean Difference | Std. Error | Sig. | 95% Confidence Interval |             |
|----------------------|----------------------|-----------------|------------|------|-------------------------|-------------|
|                      |                      |                 |            |      | Lower Bound             | Upper Bound |
| 1                    | 2                    | -1.137          | .535       | .034 | -2.187                  | -.086       |
|                      | 3                    | .535            | .507       | .292 | -.461                   | 1.531       |
| 2                    | 1                    | 1.137           | .535       | .034 | .086                    | 2.187       |
|                      | 3                    | 1.672           | .452       | .000 | .784                    | 2.559       |
| 3                    | 1                    | -.535           | .507       | .292 | -1.531                  | .461        |
|                      | 2                    | -1.672          | .452       | .000 | -2.559                  | -.784       |

**Industry employment intentions.** To examine the third part of RQ4, whether there are any differences among students majoring in tourism and hospitality management from the three different tiers of higher educational institutions regarding their industry employment intentions, mean scores for the first, second and third tier of students on their industry employment intentions were compared. According to the results of the Post hoc analysis using the LSD test, as Table 14 illustrates, there was a significant difference between the means of the first-tier students and the third-tier students while the difference between the means of the first-tier students and the second-tier students was approaching statistical significant. There was insufficient evidence to suggest that the industry employment intentions of those in the second-tier differ from those in the third-tier. Industry employment intentions of the first-tier

students ( $M=3.124$ ,  $SD=.609$ ) is significantly lower than that of the third-tier students ( $M=3.277$ ,  $SD=.685$ ). According to the results, we are 95% confident that industry employment intentions of the first-tier students is at least .027 and at most .279 points lower than that of the third-tier students (see Table 14).

Table 14. Multiple comparisons of industry employment intentions.

Dependent Variable: Industry Employment Intentions

LSD

| Tier of Institutions | Tier of Institutions | Mean Difference | Std. Error | Sig. | 95% Confidence Interval |             |
|----------------------|----------------------|-----------------|------------|------|-------------------------|-------------|
|                      |                      |                 |            |      | Lower Bound             | Upper Bound |
| 1                    | 2                    | -.133           | .068       | .050 | -.266                   | .000        |
|                      | 3                    | -.153           | .064       | .018 | -.279                   | -.027       |
| 2                    | 1                    | .133            | .068       | .050 | -.000                   | .266        |
|                      | 3                    | -.020           | .057       | .731 | -.132                   | .093        |
| 3                    | 1                    | .153            | .064       | .018 | .027                    | .279        |
|                      | 2                    | .020            | .057       | .731 | -.093                   | .132        |

#### **Research Question Five: Is Any One of Students' Demographics a Significant Predictor of Their Industry Employment Intentions?**

Research Question Five (RQ5) explores whether any one of students' demographics is a significant predictor of their industry employment intentions. As it was found in the analysis addressing RQ1 that there was hardly any variability in participants' age (95.3% were in the 18-20 age group) or ethnicity (94.5% were of Han ethnic background), age and ethnicity were not investigated as potential predictors of their industry employment intentions. Parental educations were also not investigated as potential predictors because, although participants' family SES scores were not calculated based on their parental educations in this study, parental education and family SES have been found correlated in previous studies. Thus, the



independent variables are students' demographics including gender, place of residence, category of residence, family SES, and tier of higher educational institutions. The dependent variable is students' industry employment intentions. All independent variables except family SES variable are categorical variables. The family SES variable and the dependent variable are continuous variables. To address RQ5, first, all categorical variables were dummy coded. Then, a regression was carried out.

In the regression, students' industry employment intentions were regressed on family SES independent variable and dummy-coded independent variables of gender, place of residence, category of residence, and tier of higher educational institutions. These independent variables were entered into SPSS simultaneously.

“To probe violations of assumptions and spot impossible or improbable values and other problems with data” (Keith, 2006, p. 187), regression diagnostics were adopted. As reflected from the statistical output in Appendix D, there were no violations of nonlinearity, homoscedasticity, and normality of residuals, the three among the four basic assumptions underlying regression as noted by Keith (2006). The remaining basic assumption, independence of errors, was not tested as the researcher of this study was assuming each student's motivation and industry employment intentions are not a function of the particular college they attend. Furthermore, regression diagnostics focusing on distance, leverage, and influence revealed ten unusual cases. However, a check of the finished questionnaires of these cases found no data entry errors. Thus, all of these cases were kept in the dataset.

The results of the regression show that the above-mentioned independent variables explained 4.0% of the variance in students' industry employment intentions, which, when translated into Cohen's  $f$  squared, is  $.040 / (1 - .040) = .042$ , a small effect

(Effect size, n.d.). Although small, it is statistically significant ( $F [9,640] = 2.976$ ,  $p < .01$ ). As shown in Table 15, there are several variables among demographics which significantly predict students' industry employment intentions. Specifically, the gender dummy variable is a significant predictor of students' industry employment intentions with  $b = .187$ ,  $t(640) = 3.016$ ,  $p < .01$ ; family SES is another significant predictor of students' industry employment intentions with  $b = -.006$ ,  $t(640) = -2.272$ ,  $p < .05$ ; tier of higher institution is still another significant predictor of students' industry employment intentions given the dummy variable "From third-tier",  $b = .160$ ,  $t(640) = 2.387$ ,  $p < .05$ . That the coefficient for females is positive suggests that females have higher intent to be employed in the industry than do males. That the coefficient for family SES is negative suggests that students from families of higher socio-economic levels are less intent on entering the profession. The positive coefficient for Tier 3 suggests student attending such colleges are more intent on entering the industry than are those attending Tier 1 institutions.

Table 15. Predicting the influence of demographics on industry employment intentions.

| Model <sup>a</sup>             | Unstandardized Coefficients |            | Standardized Coefficients | t      | p    |
|--------------------------------|-----------------------------|------------|---------------------------|--------|------|
|                                | B                           | Std. Error | Beta                      |        |      |
| 1 (Constant) <sup>b</sup>      | 3.341                       | .202       |                           | 16.540 | .000 |
| Females                        | .187                        | .062       | .120                      | 3.016  | .003 |
| From western areas             | -.028                       | .076       | -.016                     | -.366  | .714 |
| From middle areas              | .090                        | .075       | .054                      | 1.199  | .231 |
| From rural areas               | -.006                       | .072       | -.004                     | -.077  | .939 |
| From county-level city or town | -.010                       | .078       | -.006                     | -.126  | .900 |
| From prefecture-level city     | .011                        | .094       | .005                      | .116   | .907 |
| Family SES                     | -.006                       | .003       | -.098                     | -2.272 | .023 |
| From second-tier               | .133                        | .072       | .095                      | 1.856  | .064 |
| From third-tier                | .160                        | .067       | .122                      | 2.387  | .017 |

<sup>a</sup>  $R^2 = .040$

<sup>b</sup> Males, students from eastern areas, students from big cities and students from first-tier institutions served as the reference category for each variable in the multiple regression analyses.

**Research Question Six: Is Degree of Autonomy of Students' Motivation in Choosing Their Academic Programs a Significant Predictor of Their Industry Employment Intentions?**

Research Question Six (RQ6) explores whether degree of autonomy of students' motivation for choosing their academic programs is a significant predictor of their industry employment intentions. The independent variable here is degree of autonomy of students' motivation in choosing their academic programs, which is represented by students' Relative Autonomy Index (RAI). The dependent variable is students' industry employment intentions. Both the independent variable and the dependent variable are continuous variables. To address RQ6, the dependent variable, students' industry employment intentions were regressed on the independent variable, students' RAI.

As in RQ5, regression diagnostics were carried out. As evident from the statistical output in Appendix D, there were no violations of nonlinearity, and both the assumptions of homoscedasticity and normality of residuals were met. Regression diagnostics focusing on distance, leverage, and influence revealed sixteen unusual cases. However, a check of the finished questionnaires of these cases found no data entry errors. Thus, all of these cases were kept in the dataset.

The regression results show that the independent variable explained 15.3% of the variance in students' industry employment intentions, which is statistically significant ( $F [1,682] = 123.459, p < .001$ ). As shown in Table 16, degree of autonomy of students' motivation is a significant predictor of students' industry employment intentions with  $b = .049, t (682) = 11.111, p < .001$ . For each standard deviation increase in motivation (using the RAI score), there is a corresponding .392 standard deviation increase in industry employment intentions. In short, those who are more

autonomously motivated when choosing the major also have higher intentions of entering the industry, as hypothesized. As magnitude of effects is concerned, as  $R^2 = .153$ , the translated Cohen's  $f$  squared is  $.153/(1-.153) = .181$  (Effect size, n.d.). As Cohen's  $f$  squared of 0.02, 0.15, and 0.35 are counted by convention as small, medium, and large effect size, respectively (Effect size, n.d.), students' motivation exerts a medium effect on their industry employment intentions.

Table 16. Predicting the influence of motivation on industry employment intentions.

| Model <sup>a</sup> | Unstandardized Coefficients |            | Standardized Coefficients | t      | p    |
|--------------------|-----------------------------|------------|---------------------------|--------|------|
|                    | B                           | Std. Error | Beta                      |        |      |
| 1 (Constant)       | 2.859                       | .041       |                           | 69.760 | .000 |
| motivation         | .049                        | .004       | .392                      | 11.111 | .000 |

<sup>a</sup>  $R^2 = .153$

**Research Question Seven: Is Degree of Autonomy of Students' Motivation in Choosing Their Academic Programs a Significant Predictor of Their Industry Employment Intentions after Controlling for Demographics?**

Research Question Seven (RQ7) explores whether degree of autonomy of students' motivation in choosing their academic programs is a significant predictor of their industry employment intentions after controlling for demographics. To address RQ7, sequential multiple regression was carried out. In the first step, family SES and dummy-coded variables of gender, place of residence, category of residence, and tier of higher educational institutions were simultaneously entered as control variables;

and then sequentially, degree of autonomy of students' motivation in choosing their academic programs represented by students' RAI was added in predicting the dependent variable, students' industry employment intentions. The result shows that the addition of RAI to the equation of control variables leads to an increase in  $R^2$  of .152, or a 15.2% increase in explained variance. This increase is statistically significant ( $F [1,639] = 120.217, p < .001$ ). As shown in Table 17, degree of autonomy of students' motivation is a significant predictor of students' industry employment intentions after controlling for demographics with  $b = .050, t (639) = 10.964, p < .001$ . As magnitude of effects is concerned, as the  $\Delta R^2 = .152$ , the translated Cohen's  $f$  squared, for the sequential multiple regression, is  $.152 / (1 - .192) = .188$  (Effect size, n.d.), indicating a medium effect of students' motivation on their industry employment intentions after controlling for demographics.

Table 17. Predicting industry employment intentions from motivation after controlling for demographics.

| Model <sup>a</sup> | Unstandardized Coefficients    |            | Standardized Coefficients | t                 | p      |      |
|--------------------|--------------------------------|------------|---------------------------|-------------------|--------|------|
|                    | B                              | Std. Error | Beta                      |                   |        |      |
| 1                  | (Constant) <sup>b</sup>        | 3.341      | .202                      |                   | 16.540 | .000 |
|                    | Females                        | .187       | .062                      | .120              | 3.016  | .003 |
|                    | From western areas             | -.028      | .076                      | -.016             | -.366  | .714 |
|                    | From middle areas              | .090       | .075                      | .054              | 1.199  | .231 |
|                    | From rural areas               | -.006      | .072                      | -.004             | -.077  | .939 |
|                    | From county-level city or town | -.010      | .078                      | -.006             | -.126  | .900 |
|                    | From prefecture-level city     | .011       | .094                      | .005              | .116   | .907 |
|                    | Family SES                     | -.006      | .003                      | -.098             | -2.272 | .023 |
|                    | From second-tier               | .133       | .072                      | .095              | 1.856  | .064 |
|                    | From third-tier                | .160       | .067                      | .122              | 2.387  | .017 |
| 2                  | motivation                     | .050       | .005                      | .397 <sup>b</sup> | 10.964 | .000 |

<sup>a</sup>  $R^2 = .192$  ; <sup>b</sup>  $\Delta R^2 = .152$

<sup>b</sup> Males, students from eastern areas, students from big cities and students from first-tier institutions served as the reference category for each variable in the multiple regression analyses.

**Research Question Eight: To What Extent Does the Degree of Autonomy of Students' Motivation in Choosing Their Academic Programs and Their Demographics Combined Predict Their Industry Employment Intentions?**

Research Question Eight (RQ8) examines to what extent the degree of autonomy of students' motivation in choosing their academic programs and their demographics combined predicts their industry employment intentions. To address RQ8, result of last sequential multiple regression was examined. As shown in Table 18 and 19, the overall  $R^2 = .192$ ,  $F [10,639] = 15.199$ ,  $p < .001$ . In other words, the degree of autonomy of students' motivation in choosing their academic programs and their demographics combined predicts 19.2% of their industry employment intentions, which is statistically significant. As magnitude of effects is concerned, as the  $R^2 = .192$  for the full model, the translated Cohen's  $f$  squared is  $.192 / (1 - .192) = .238$  (Effect size, n.d.), indicating a medium effect of students' motivation and their demographics combined on their industry employment intentions.

Table 18. Squared multiple correlation coefficients as indications of effect size for predicting industry employment intentions from demographics alone and from motivation and demographics combined.

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1     | .200 | .040     | .027              | .64566                     |
| 2     | .438 | .192     | .180              | .59280                     |



Table 19. ANOVA summary tables for predicting industry employment intentions from demographics alone and from motivation and demographics combined.

|   | Model      | Sum of Squares | df  | Mean Square | F      | Sig. |
|---|------------|----------------|-----|-------------|--------|------|
| 1 | Regression | 11.164         | 9   | 1.240       | 2.976  | .002 |
|   | Residual   | 266.800        | 640 | .417        |        |      |
|   | Total      | 277.964        | 649 |             |        |      |
| 2 | Regression | 53.410         | 10  | 5.341       | 15.199 | .000 |
|   | Residual   | 224.554        | 639 | .351        |        |      |
|   | Total      | 277.964        | 649 |             |        |      |

## Chapter 5: Discussion

This chapter first provides a summary of the exploration of the industry employment intentions of the undergraduate freshmen majoring in tourism and hospitality management, their motivation in choosing these programs, and the relationship between their industry employment intentions and their motivation as well as demographic profiles. Then, the results for the eight research questions presented in the last chapter are discussed one by one except Research Question One (RQ1), as they relate to extant literature. At last, significance and implications for researchers, educators, policy makers and industry, limitations of the study as well as recommendations for further study are presented.

### Summary of Findings

Results of the study show that: (1) with the mean Relative Autonomy Index (RAI) being 7.62, on average, students' motivations for choosing a tourism and hospitality program were slightly above a moderate autonomy level since the potential RAI score range in this study is -15 to 21, and the midpoint is 3; (2) with the mean Industry Employment Intentions score being 3.24, on average, students' intentions to find job placements in the tourism and hospitality industry after graduation were at a moderate level since the measure was scaled with 1=no intent, 3= some intent, and 5= high intent; (3) there are significant differences among students majoring in tourism and hospitality management from the three different tiers of higher educational institutions regarding their family SES, their program-choosing motivation as well as industry employment intentions; (4) among students' demographics, gender, family

SES, and tier of higher educational institutions are significant predictors of their industry employment intentions, though, in total, they only explain 4.0% of the variance in students' industry employment intentions; (5) degree of autonomy of students' motivation in choosing their academic programs is a significant predictor of their industry employment intentions, explaining 15.3% of the variance in students' industry employment intentions. (6) degree of autonomy of students' motivation in choosing their academic programs is still a significant predictor of their industry employment intentions after controlling for demographics, leading to an increase in  $R^2$  of .152, or a 15.2% increase in explained variance; and (7) the degree of autonomy of students' motivation in choosing their academic programs and their demographics combined predicts 19.2% of their industry employment intentions.

### **Discussion of Findings**

**Research Question Two.** The analysis of Research Question Two (RQ2) revealed that, on average, students' motivations for choosing a tourism and hospitality program were slightly above a moderate autonomy level. A further study of participants' responses to the three intrinsic motivation items revealed that students' intrinsic motivations for choosing a tourism and hospitality program were also slightly above a moderate level. In the 5-point Likert-type questionnaire used to measure students' motivations for choosing a tourism and hospitality program, the Self-regulation Questionnaire-Academic Program Choice (SRQ-APC), 1 means the motivation is not at all true for the participant, 3 means the motivation is somewhat true for the participant, while 5 means the motivation is very true for the participant. For Intrinsic Item 1, "I have chosen tourism and hospitality management as my college major because I am interested in the study of the field of tourism and hospitality management" (Item 1 in the SRQ-APC), the mean score is 3.39 with a

cumulative 82.3% of participants agreeing that this motivation is at least somewhat true for them. Among this 82.3%, 35.3% chose 3, 31.7% chose 4 and 15.3% chose 5 on Intrinsic Item 1. For Intrinsic Item 2, “I have chosen tourism and hospitality management as my college major because there is wide range of possible work tasks and areas in profession of tourism and hospitality that interest me” (Item 11 in the SRQ-APC), the mean score is 3.31 with a cumulative 77.5% of participants agreeing that this motivation is at least somewhat true for them. Among this 77.5%, 32.7% chose 3, 28.6% chose 4 and 16.23% chose 5 on Intrinsic Item 2. For Intrinsic Item 3, “I have chosen tourism and hospitality management as my college major because I thought this field of study would be very exciting to learn” (Item 14 in the SRQ-APC), the mean score is 3.45 with a cumulative 83% of participants agreeing that this motivation is at least somewhat true for them. Among this 83%, 33.67% chose 3, 29.56% chose 4 and 19.9% chose 5 on Intrinsic Item 3. As extant relevant research studies (Liu, 2011; and Sha, 2011) have used a different format (a yes/no format) from this study, it’s very hard to compare the above-mentioned findings with theirs. However, it seems that participants of this study have higher intrinsic motivations for choosing a tourism and hospitality program. Liu (2011) surveyed 274 tourism management majors from five higher educational institutions in Xuzhou City of China’s Jiangsu Province. Among the 274 students, only 35% students have chosen tourism management as their academic major out of personal interest. Among the 171 students ranging from freshmen to seniors in the tourism management program of Beifang University of Nationalities who participated in the study of Sha (2011), only 31.7% have chosen their program out of interest.

The findings of this study that both students’ overall motivations for choosing a tourism and hospitality program and their intrinsic motivations for choosing their

program were only slightly above a moderate level suggest that there is a need to investigate the reasons behind their moderate motivations.

**Research Question Three.** The results for Research Question Three (RQ3) show that, on average, students' intentions to find job placements in the tourism and hospitality industry after graduation were at a moderate level with the mean Industry Employment Intentions (IEI) score being 3.24 (As mentioned above, in the Industry Employment Intentions measure, 1=no intent, 3= some intent, and 5= high intent). That these freshmen's intentions to find job placements in the tourism and hospitality industry after graduation were only at a moderate level suggests that probably the tourism and hospitality industry does not seem very appealing to these freshmen. Further study is needed to investigate their perceptions toward the industry. Another topic for further exploration is the future plans of those students who have no intent to find job placements in the industry upon their graduation.

A further study of the frequencies of participants' IEI scores found that 71.8% of participants scored no less than 3, indicating 71.8% of participants at least have some intent to find job placements in the tourism and hospitality industry after graduation. This number implies that the majority of these freshmen have at least some intent to enter into the industry and thus there is hope for program faculty and the tourism and hospitality industry to foster these students' interests in the industry.

Due to the same reason (employing different format, i.e., yes/no format, in studies) as mentioned in the discussion of RQ2, the above 71.8% number is also very hard to compare with that in extant literature (e.g., Lu & Adler, 2009; and Yu & Zhang, 2009). Lu and Adler (2009) found that among the 503 students of hospitality and tourism programs at four major universities in Guangdong Province of China they surveyed, 68.4% intend to pursue a career in the tourism industry upon graduation.

What is worth mentioning is that different from this study, Lu and Adler (2009) take tourism education as a sector of the tourism industry. So, possibly the percentage of Lu and Adler (2009) would be a little lower without the tourism education being included. In Yu and Zhang (2009) study, they found that among the 203 juniors and seniors of the tourism and hospitality major in universities of Shandong Province of China they surveyed, about 42% intend to find job placements in the tourism and hospitality industry. Considering the actual low industry entry from graduates of tourism programs as reported by MyCOS institute (2009, 2010, 2011a, 2011b), it seems that students' intent to work in the industry decreases with their study. What causes this decrease is worth studying.

**Research Question Four.** The analysis for Research Question Four (RQ4) indicates that there are significant differences among students majoring in tourism and hospitality management from the three different tiers of higher educational institutions regarding their family SES. Family SES of the first-tier students is significantly higher than that of the second and third-tier students. The findings further support the conclusions of Liu (2007), Wen (2005), and Xie and Luo (2004). According to these studies, “there is an unequal distribution of higher education opportunities among the social classes in China” (Liu, 2007, p. 22); students from high family SES are more likely enrolled in key national higher educational institutions than students from low family SES (Liu, 2007; Wen, 2005; Xie & Luo, 2004).

The analysis for RQ 4 also indicates that there are significant differences among students majoring in tourism and hospitality management from the three different tiers of higher educational institutions regarding their program-choosing motivation. The second-tier students are more autonomously motivated in choosing tourism and hospitality management as their college programs than the first-tier and

the third-tier students. This finding is quite significant as extant literature has not been found covering this area. As being able to be enrolled into a first-tier university is thought by Chinese people as a much greater honor than being enrolled into a second or a third-tier university, a possible explanation for the finding that the first-tier students are less autonomously motivated than the second-tier students is that for them, to be able to be enrolled into a first-tier university is the top concern. A possible reason behind the finding that the third-tier students are less autonomously motivated than the second-tier students is that for them, to be able to be enrolled into a four-year university is more important than what area of study to choose.

The researcher of this study has proposed a hypothesis (i.e., H1) in RQ4 that students majoring in tourism and hospitality management from first-tier higher educational institutions have lower industry employment intentions than those from second and third-tiers of higher educational institutions. This is supported by the findings. The analysis for RQ4 shows that there was a significant difference between the means of the first-tier students and the third-tier students concerning their industry employment intentions while the difference between the means of the first-tier students and the second-tier students was approaching statistical significant. Industry employment intentions of the first-tier students are significantly lower than that of the third-tier students. This suggests that there is a need to compare the three tiers of students regarding their education and career development plans upon their graduation. Curriculum and career development guidance need to be adjusted to accommodate the differences found, if there are any.

**Research Question Five.** The analysis for Research Question Five (RQ5) reveals that among students' demographics, gender, family SES, and tier of higher educational institutions are significant predictors of their industry employment

intentions, though, in total, they only explain 4.0% of the variance in students' industry employment intentions. Females have higher industry employment intentions than males, which is in accordance with the findings of Chuang and Dellmann-Jenkins (2010) and Koyuncu, Burke, Fiksenbaum, and Demirer (2008). Students' family SES is negatively related with students' industry employment intentions. For each standard deviation increase in family SES, students' industry employment intentions can be expected to have a .098 standard deviation decrease. This finding supports Hypothesis Two (H2) that students' family socioeconomic status is negatively associated with their industry employment intentions. Zheng (2004) found that it is more likely for college graduates who have a higher social capital (which is brought by their parents' higher socioeconomic status) to "suspend their employment" or to "have higher income expectation" (p. 118) upon graduation. Further study is needed to investigate whether students majoring in tourism and hospitality with higher family SES have more intentions to suspend employment and have higher income expectation. Regarding tier of higher educational institutions, students from the third-tier have higher industry employment intentions than those from the first-tier. Reflecting on two of the findings of RQ4: (1) family SES of the first-tier students is significantly higher than that of the second and third-tier students, and (2) students from first-tier higher educational institutions have lower industry employment intentions than those from second and third-tiers of higher educational institutions, it is reasonable to say that the comparatively higher family SES of the first-tier students may be responsible for these students' lower industry employment intentions compared with that of the third-tier students.

**Research Question Six.** The analysis of Research Question Six (RQ6) shows that degree of autonomy of students' motivation in choosing their academic programs



is a significant predictor of their industry employment intentions, explaining 15.3% of the variance in students' industry employment intentions. For each standard deviation increase in motivation (using the RAI score), there is a corresponding .392 standard deviation increase in industry employment intentions. In short, those who are more autonomously motivated when choosing the major also have higher intentions of entering the industry, as hypothesized. These findings are of significance in two aspects. First, it confirms the conclusion of Wang (2011) that students' program-choosing motivation is highly related with their industry employment intentions. Second, it broadens the application of Self-determination theory. Further studies can be carried out to measure students' motivation in their college program choice applying the Self-determination theory and to then relate students' motivation with other variables.

**Research Question Seven and Eight.** The analysis for Research Question Seven (RQ7) and Research Question Eight (RQ8) reveals that degree of autonomy of students' motivation in choosing their academic programs leads to a 15.2% increase in explaining industry employment intentions after controlling for demographics, supporting Hypothesis Four (H4) that students' degree of autonomy of motivation in choosing tourism and hospitality management as their college major is positively associated with their industry employment intentions after controlling for demographics. Besides, the degree of autonomy of students' motivation and their demographics combined predicts 19.2% of their industry employment intentions, the two kinds of predictors exerting a moderately large effect (Cohen's  $f$  squared is .238) on the dependent variable, students' industry employment intentions.

## Significance

This study mainly addresses whether students' motivation in choosing tourism and hospitality management programs and their demographics relate with their industry employment intentions. The significance of the study is two-fold. First, some of the findings support extant literature. For example, the study found that family SES of the first-tier students is significantly higher than that of the second and third-tier students, supporting the conclusion of Liu (2007), Wen (2005), and Xie and Luo (2004): students from high family SES are more likely enrolled in key national higher educational institutions than students from low family SES. For another example, the study found that females have higher industry employment intentions than males, supporting the findings of Chuang and Dellmann-Jenkins (2010) and Koyuncu, Burke, Fiksenbaum, and Demirer (2008). For still another example, the study found that those who are more autonomously motivated when choosing the major have higher intentions of entering the industry, confirming the conclusion of Wang (2011).

This study is also significant because it has addressed some gaps that had existed in the literature. The demographic profiles, the moderately autonomous program-choosing motivation, and the moderate intentions to seek job placements in tourism and hospitality industry upon graduation found of the students under study contribute to current knowledge about students majoring in tourism and hospitality. The differences among the three tiers of students concerning their program-choosing motivation and industry employment intentions are newly-covered areas. By using SDT as theoretical framework, this study applies the theory into a new area (i.e., choice of college program) and new group of students (i.e., undergraduate freshmen majoring in tourism and hospitality management in the higher educational institutions

in Shanghai). The instrumentation developed by the researcher for this study, the Self-regulation Questionnaire-Academic Program Choice, in particular, fills the gap in measuring students' program-choosing motivation and addressing the relationship between the motivation and industry employment intentions.

### **Implications**

The findings of the study have implications for college policy-makers, program faculty, students and industry partners respectively. For college policy-makers, as students' program-choosing motivation is at a moderate level, it is probably better to recruit students into a general management program for their first academic year and let the students decide their specific field of study after one year of college study. More flexible policies are needed which allow students to change their programs of study to accommodate their actual interests.

For program faculty and industry partners, as both students' program-choosing motivation and industry employment intentions are at a moderate level, it is necessary for them to cooperate in changing the curriculum so that the students can realize what is promising and interesting about jobs in the industry. Program faculty could also invite graduates of tourism and hospitality programs who have entered into the industry and succeeded in developing their career in the industry to introduce their experiences. Program faculty need to talk to students and find who have low program-choosing motivation and low industry employment intentions. They also need to find out the reasons behind students' low motivation and intentions so that they can address the problems accordingly. Industry partners need to take actions to change the industry's image and design some appealing career-development programs for undergraduate students. As the moderate program-choosing motivation and industry employment intentions are found among freshmen, it means that probably

there is not enough education concerning the positive aspects of the programs and the industry during students' high school years. It may be of some benefit if program faculty and industry partners promote their positive aspects before students are recruited to the college. As it is found that the first-tier students have lower industry employment intentions than that of the second and third tier students, program faculty of the first tier institutions particularly need to find out their students' future plans and then change their curriculum and career development guidance accordingly.

As demonstrated in the study, Chinese students choose a college program out of different motivations. Extant literature (e.g., Liu, 2006) show that many students chose tourism and hospitality programs without a clear perception toward the programs and the tourism and hospitality industry. Some thought the industry is interesting because it is related with recreation and fun-pursuit without considering the service-providing nature of the industry while some others only saw the downside of the industry without thinking forward as to future career development opportunities in the industry. Both groups of students need to rediscover the industry and then make plans for their own future.

### **Limitations**

There are several limitations in this study which affect the validity of the findings. First, as this study adopts a researcher-developed instrument, the validity and reliability of the instrument is a limitation although a pilot test was conducted. Because the reliability of one of the five subscales of SRQ-APC fell below .60, this subscale was removed when the RAI (motivation) score was calculated for use in this study. Although the reliability of the overall scale of SRQ-APC increased from .669 to .745 after the deletion, the reliabilities of three among the remaining four subscales of the SRQ-APC fell below .70, all being between .650 to .670. The second limitation

of this study lies in the fact that the survey data collected relies on participant self-report although measures including the anonymity of data collection and use of sealed return envelopes were taken to maximize honest self-reporting. The third, because the participants were sampled only from Shanghai, caution must be exercised in extending the findings to undergraduate students majoring in tourism and hospitality management elsewhere in China.

### **Recommendations for Further Study**

There are several recommendations for further study. First, as the SRQ-APC instrument finally adopted in this study only uses four instead of five subscales, and the reliabilities of three subscales fall between .65 to .67, below the threshold of .70, further modifications of the instrument need to be made to improve its reliability. The SRQ-APC instrument, with improved reliability and additional validity evidence, may then be used to measure the program-choosing motivations of students outside of Shanghai. Similarly, SRQ-APC instrument can be developed for other fields of study and used to address the program-choosing motivations of students of these fields of study.

To see whether autonomous motivation mediates the relationship between tier and intentions, or whether tier moderates the relationship between motivation and intentions, further studies where a path model is tested can be conducted. Further studies are needed to identify other significant predictors of the industry employment intentions of undergraduate freshmen majoring in tourism and hospitality management.

Further studies (perhaps utilizing qualitative methodology) are also needed to explain the reasons behind students' moderate motivations in choosing tourism and hospitality management as their college programs. To understand and accommodate

students' moderate industry employment intentions, it is necessary to examine the reasons behind these moderate intentions and to explore what other intentions the students with low intentions have upon graduation.

As this study investigates freshmen's industry employment intentions, it is worthwhile to explore those of the sophomores, juniors and seniors of the tourism and hospitality programs as well.

### **Conclusion**

Different from extant literature concerning the industry employment intentions of tourism and hospitality management students, which usually focuses on junior and senior students, this study explores the industry employment intentions of the undergraduate freshmen majoring in tourism and hospitality management. The fact that, on average, these students only have "some" intention to look for job placements after graduation in the tourism and hospitality industry, on one hand, suggests that the tourism and hospitality industry is not very appealing as a career field to freshmen; on the other hand, it signifies that there is a lot of room for program faculty and human resource managers in the industry to foster the interests and confidence of students to work in the industry.

Students' moderate motivation for choosing tourism and hospitality programs as their college major, as found in this study, in some degree reflects problems of the tourism and hospitality industry itself. This calls for the industry to reflect and make improvements. The significant relationship found between students' industry employment intentions and their program-choosing motivation suggests an important variable to incorporate as a predictor within models forecasting the supply and demand of tourism and hospitality industry employees.

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## APPENDIX A. INFORMED CONSENT

### The Backgrounds and Future Plans of Students Majoring in Tourism & Hospitality Management

You are invited to participate in a research study which will involve the backgrounds and future plans of Shanghai's undergraduate freshmen majoring in tourism and hospitality management. My name is Baoqing Cheng, and I am a doctoral student at the University of the Pacific, Gladys L. Benerd School of Education. You were selected as a possible participant in this study because of being an undergraduate freshman enrolled in one of the tourism and hospitality programs in Shanghai's higher educational institutions.

The purpose of this study is to develop a better understanding of the backgrounds and future plans of students majoring in tourism and hospitality management. If you decide to participate, you will be asked to finish a short written survey. Your participation in this study will last 10 to 15 minutes.

Possible risks involved for participants are psychological, sociological, and loss of confidentiality although all three are quite minimal risks which will not exceed the risks encountered in everyday life. Minimal psychological and sociological risks are possible because mild anxiety may be induced when completing the survey especially as individuals reflect on their prior experiences and employment plans for the future.

The major measure to insure participants' confidentiality is to administer an

anonymous survey. Your name will not appear anywhere on the survey. In addition, each participant will be given an envelop in addition to the survey. You can put your finished survey into the envelop and seal it before handing it in. The faculty member who is gathering the sealed, anonymous surveys on my behalf has agreed that he/she will not open the envelops but send them directly to me, the researcher. The data obtained will be maintained in a safe, locked location and will be destroyed after a period of three years after the study is completed.

There are some benefits to this research, particularly that it will help professionals better understand and address the personnel supply-and-demand dilemma experienced by the tourism and hospitality industry and increase the effectiveness of the tourism and hospitality management higher education.

If you have any questions about the research at any time, please call me at (021) 39966304, or my advisor, Dr. Rachelle Kisst Hackett, at (209) 946-2678. If you have any questions about your rights as a participant in a research project please call the Research & Graduate Studies Office, University of the Pacific (209) 946-7367. In the event of a research-related injury, please contact your regular medical provider and bill through your normal insurance carrier, then contact the Office of Research & Graduate Studies.

Your participation is entirely voluntary and your decision whether or not to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

Completion and return of the questionnaire will constitute your consent to participate. Please detach this letter and keep it for your records before you return the questionnaire.



5. What is your place of residence?

- Beijing    Tianjin    Liaoning    Hebei    Shandong    Jiangsu  
Shanghai    Zhejiang    Fujian    Guangdong    Hainan  
Heilongjiang    Jilin    Shanxi    Anhui    Jiangxi  
Henan    Hubei    Hunan    Xinjiang    Sicuan  
Chongqing    Tibet    Yunnan    Qinghai    Gansu    Ningxia  
Shannxi    Guizhou    Guangxi    Inner Mongolian

6. What is your category of residence?     Urban                       Rural

7. Please indicate the category of your residence if you live in urban area.

- County-level city or town                      Prefecture-level city  
Big city including provincial capital, municipality with independent planning status (Dalian, Qingdao, Ningbo, Xiamen, and Shenzhen), and municipality directly under the central government

8. What is the highest level of schooling completed by your mother?

\_\_\_\_\_

9. What is the highest level of schooling completed by your father?

\_\_\_\_\_

10. What is your mother's main job? \_\_\_\_\_

11. Please refer to the appended "Table of Professions" and write down the code of your mother's job. \_\_\_\_\_

12. What is your father's main job? \_\_\_\_\_

13. Please refer to the appended "Table of Professions" and write down the code of your father's job. \_\_\_\_\_

### Self-Regulation Questionnaire-Academic Program Choice (SRQ-APC)

The following questions relate to your reasons for choosing tourism and hospitality management as your college major. Different people have different reasons for choosing such a major, and we want to know how true each of these reasons is for you. There are 15 items in total; and each item pertains to the sentence that appears before the first item. Please indicate how true each reason is for you using the following scale:

|                 |   |               |   |           |
|-----------------|---|---------------|---|-----------|
| 1               | 2 | 3             | 4 | 5         |
| not at all true |   | somewhat true |   | very true |

I have chosen tourism and hospitality management as my college major:

- 1 Because I am interested in the study of the field of tourism and hospitality management.
- 2 Because my score for university entrance exam only qualified me to apply for this field of study.
- 3 Because there is the possibility of a satisfying job after graduation from this field of study, so it is personally important to me to pursue this field of study.
- 4 Because I don't care which field of study I will be enrolled in.
- 5 Because I probably was not able to get into any other higher educational program.
- 6 Because I was assigned to the field of study by admission office of the university.
- 7 Because this seems like a field in which I might stand out to others.
- 8 Because I chose the field of study randomly.
- 9 Because I want to serve others and this field will allow me to do so.
- 10 Because others (parents, relatives, teachers, and/or friends) were pushing me to choose this field of study.

- 11 Because there is wide range of possible work tasks and areas in profession of tourism and hospitality that interest me.
- 12 Because I want to avoid the shame and guilt of not doing this.
- 13 Because I expect to get respect and recognition from others for doing so.
- 14 Because I thought this field of study would be very exciting to learn.
- 15 Because to study in this field is one of my life goals.

### Industry Employment Intention Questionnaire

The following questions relate to your intention to get job placement after graduation in the tourism and hospitality industry. Different people have different intentions on future profession. Item 1 to 8 list eight specific sectors of the tourism and hospitality industry. Item 9 and 10 list two sectors which do not belong to the tourism and hospitality industry, but are closely related with the field of study of tourism and hospitality management. Item 11 is an open-ended question asking you to write down in which other sectors you intend to work after graduation. Items 1-10 pertain to the sentence that appears before the first item. Please indicate how intent you are to get job placement in each of these ten sectors using the following scale:

|           |   |             |   |             |
|-----------|---|-------------|---|-------------|
| 1         | 2 | 3           | 4 | 5           |
| no intent |   | some intent |   | high intent |

I intend to get job placement after graduation in:

- 1 Accommodation including hotels, bed and breakfasts and farm/ranch vacation sites, motels, campgrounds, hostels, and so on;
- 2 Food and beverage services including restaurants, bars, cafeterias, snack bars, pubs, nightclubs and other similar establishments;
- 3 Attractions including historic sites, heritage homes, museums, halls of fame, art

- galleries, botanical gardens, aquariums, zoos, water parks, amusement parks, and so on;
- 4 Adventure tourism and recreation including outdoor adventure and ecotourism, ski resorts, golf and tennis facilities, parks, and marine facilities;
  - 5 Transportation including air transport, rail transport, ground transport, and water transport;
  - 6 Travel trade including retail travel agencies and wholesale tour operators;
  - 7 Events and conferences including special events, conferences, meetings, trade shows and conventions;
  - 8 Tourism planning and design services;
  - 9 Governmental tourism administrative organizations including tourism bureaus at all levels and their subordinate institutions;
  - 10 Tourism education and research organizations; and
  - 11 What other sectors do you intend to work in after graduation and how intent you are to work in each of these sectors?



## APPENDIX C. TABLE OF PROFESSIONS IN CHINESE

## 附录 职业分类表

职业分类表 1：国家机关、党群组织、企业、事业单位负责人

| 代码  | 职业名称                 | 说明                        |
|-----|----------------------|---------------------------|
| •   | <u>政府机关及其工作机构负责人</u> |                           |
| 101 | 中央政府领导人              | 包括党、政、人大、政协机关总理级领导干部      |
| 111 | 中央级政府机关部长级领导干部       |                           |
| 112 | 中央级政府机关局长            |                           |
| 113 | 中央级政府机关处长            |                           |
| 114 | 中央级政府机关科长            |                           |
| 115 | 中央级政府机关股长            |                           |
| 121 | 省级（含计划单列市）政府机关省长     | 包括省委书记及省长；省人大常委会主任、省政协主席等 |
| 122 | 省级（含计划单列市）政府机关局（厅）长  |                           |
| 123 | 省级（含计划单列市）政府机关处长     |                           |
| 124 | 省级（含计划单列市）政府机关科长     |                           |
| 125 | 省级（含计划单列市）政府机关股长     |                           |
| 132 | 地、市级政府机关市长           | 包括市委书记及市长；市人大常委会主任、市政协主席等 |
| 133 | 地、市级政府机关处长           |                           |
| 134 | 地、市级政府机关科长           |                           |

|     |                    |                          |
|-----|--------------------|--------------------------|
| 135 | 地、市级政府机关股长         |                          |
| 143 | 区、县级政府机关县长         | 包括县委书记及县长；人大常委会主任、县政协主席等 |
| 144 | 区、县级政府机关局长 ( 科 )   |                          |
| 145 | 区、县级政府机关股长         |                          |
| 154 | 街道、乡镇级政府机关乡镇长、街道主任 |                          |

|     |                        |                  |
|-----|------------------------|------------------|
| 155 | 街道、乡镇级政府机关股长           |                  |
| 156 | 居委会主任、村长、村书记           |                  |
| 171 | 法院院长、检察长               |                  |
| 172 | 法院、检察院部门负责人            |                  |
| •   | <u>企业单位及其工作机构负责人</u>   |                  |
| 181 | 企业负责人(厂长、总经理、董事长)      |                  |
| 182 | 企业部门负责人(部门经理、车间主任、工段长) |                  |
| 183 | 企业班组长、领班、拉长            |                  |
| 188 | 私营企业老板(业主)             |                  |
| •   | <u>事业单位及其工作机构负责人</u>   |                  |
| 184 | 新闻出版单位负责人              | 如报社社长、出版社社长、电台台长 |
| 191 | 研究机构负责人(所长)            |                  |
| 192 | 大学校长及主要负责人             |                  |
| 193 | 市立、区县中学校长              |                  |
| 194 | 区县以下中学校长               |                  |
| 195 | 市、区、县小学校长              |                  |
| 196 | 乡镇小学校长                 |                  |
| 197 | 社区、村小学校长               |                  |
| 198 | 律师事务所、税务师事务所、会计师事务所负责人 |                  |
| 199 | 医院院长                   |                  |

职业分类表 2：专业技术人员

| 代码  | 职业名称          | 说明 |
|-----|---------------|----|
| •   | <u>专业技术人员</u> |    |
| 201 | 社会科学研究人员      |    |
| 202 | 自然科学研究人员      |    |
| 203 | 工程技术人员        |    |
| 204 | 飞机和船舶技术人员     |    |

|     |                 |                                       |
|-----|-----------------|---------------------------------------|
| 205 | 医疗卫生技术人员        | 包括医生、护士、卫生员、开个体诊所的医生、兽医等              |
| 206 | 农林技术人员          | 如农机站技术员                               |
| 207 | 科学技术管理人员        |                                       |
| 208 | 经济业务人员          | 如经济师、审计师、统计师、会计师、市场分析人员等              |
| 209 | 法律工作人员          | 审判人员；检察人员；律师；其他法律工作人员。                |
| 210 | 高等学校教学人员        | 大学学校教师和教学辅助人员。                        |
| 211 | 中等学校教学人员        | 中等专业学校教师；技工学校教师；技工学校实习指导；中学教师；教学辅助人员。 |
| 212 | 初等学校教学人员        | 小学教师；教学辅助人员。                          |
| 213 | 其它教学人员          | 从事幼儿教育、特殊教育、其他教育的人员                   |
| 214 | 文艺工作人员          | 司仪；报幕员；文艺评论人员；编剧；导演；指挥；作曲；.演员等        |
| 215 | 体育工作人员          | 教练员；裁判员；运动员；体格训练师；其他体育工作人员。           |
| 216 | 新闻出版、文化工作人员     | 如作家、记者、编辑、校对、撰稿人、电台主持人、翻译等            |
| 217 | 社会工作者           | 如民间福利组织工作人员                           |
| 218 | 人事和职业工作人员       | 人事专业工作人员；职业指导顾问；职业分析人员；其他人事和职业工作人员。   |
| 219 | 宗教职业者           | 宗教活动组织者；宗教职业者。                        |
| 221 | 服装设计师           |                                       |
| 222 | 电脑工程师、IT 行业专业人员 |                                       |
| 223 | 家居装饰设计师         |                                       |
| 224 | 工艺设计师           |                                       |

职业分类表 3：办事人员和有关人员

| 代码  | 职业名称                            | 说明  |
|-----|---------------------------------|---|
| •   | <u>政府机关的办事人员</u>                | 在各类政府机关中，在各级负责人的领导下，办理具体的行政、政工等实际业务工作                     |
| 301 | 办公室管理者（主任、副主任等）                 |   |
| 302 | （负责人）秘书，（负责人）助理                 |   |
| 303 | 行政执行人员和行政业务管理人员                 |   |
| 304 | 文案工作人员，档案图书资料管理人员               | 文书，文案人员，图书资料管理人员，档案人员，速记员，打字员，誊印人员，编码员，校对员，计算机操作员，复印机操作员等 |
| 305 | 收发员，通讯员，传达室人员，接待人员，话务员          |   |
| 306 | 财务人员                            | 出纳员，工资员   |
| 307 | 后勤工作人员                          | 房管人员，保管员，仓库管理员  |
| 308 | 政工人员                            | 政治工作人员、宣传工作人员、纪律检查人员、单位内部党办、工会、妇联、共青团工作人员                 |
| 309 | 保卫人员                            | 警卫人员、保安人员等  |
| 313 | 监察执法人员（公、检、法、司、工商、税务、城管、交通、环卫等） | 如工商税务人员、法院检察院办事人员   |
| •   | <u>企业单位办事人员</u>                 | 在各类企业中（包括邮电、通讯、交通、银行等）中，在各级负责人的领导下，办理具体的行政、业务、政工等实际业务工作   |
| 361 | 办公室管理者（主任、副主任等）                 |   |
| 362 | （负责人）秘书，（负责人）助理                 |   |

|     |                                     |  |
|-----|-------------------------------------|--|
| 363 | 行政执行人员和业务管理人员                       |  |
| 364 | 文案工作人员，档案图书资料管理人员                   | 文书，文案人员，图书资料管理人员，档案人员，速记员，打字员，誉印人员，编码员，校对员，计算机操作员，复印机操作员等  |
| 365 | 收发员，通讯员，传达室人员，接待人员，话务员              |  |
| 366 | 财务人员                                | 出纳员，工资员、成本核算员、审计员、材料和生产规划员   |
| 367 | 后勤工作人员                              | 房管人员，保管员，仓库管理员   |
| 368 | 政工人员                                | 政治工作人员、宣传工作人员、纪律检查人员、单位内部党办、工会、妇联、共青团工作人员  |
| 369 | 保卫工作人员                              | 警卫人员、保安人员等   |
| 370 | 非专业技术性的业务人员（指无专业技术职称或无需专业资格认证的业务人员） | 如邮电业务人员（分拣、邮递、送信等人员），电信业务人员（电话交换机操作员、报务员、话务员等），银行业务人员（簿记员、出纳员等），交通运输业务人员（调度员、检查员、管理员；航空公司、轮船公司或火车站售票员等）。 |
| •   | <u>事业单位办事人员</u>                     | 在各类事业单位，在各级负责人领导下，办理具体的行政、业务、政工等实际业务工作   |
| 371 | 办公室管理者（主任、副主任等）                     |  |
| 372 | （负责人）秘书，（负责人）助理                     |  |

|     |                        |   |
|-----|------------------------|---|
| 373 | 行政执行人员和行政业务管理人员        |   |
| 374 | 文案工作人员，档案图书资料管理人员      | 文书，文案人员，图书资料管理人员，档案人员，速记员，打字员，誉印人员，编码员，校对员，计算机操作员，复印机操作员等 |
| 375 | 收发员，通讯员，传达室人员，接待人员，话务员 |   |
| 376 | 财务人员                   | 出纳员，工资员   |
| 377 | 后勤工作人员                 | 房管人员，保管员，仓库管理员  |
| 378 | 政工人员                   | 政治工作人员、宣传工作人员、纪律检查人员、单位内部党办、工会、妇联、共青团工作人员                 |
| 379 | 保卫人员                   | 警卫人员、保安人员等  |

职业分类表 4：商业工作人员

| 代码  | 职业名称  | 说明  |
|-----|---|---|
| •   | <u>商业工作人员</u>   | 从事各类盈利性交换，例如商品、财产、劳务的收购、采购、批发、零售、推销、回收、代理、拍卖等 |
| 401 | 小商店、小旅馆、小招待所、小餐厅、美容院、发廊、酒吧、歌舞厅、洗衣店等服务业和娱乐业的小业主（个体老板）和经理 |   |
| 402 | 营业员、售货员   | 在商店或流动摊点从事商品出售及有关工作                           |
| 403 | 收银员   | 从事收取现金、支票、为顾客开具发票并以本部门销售收入进行核算的人员             |

|     |                       |  |
|-----|-----------------------|--|
| 404 | 采购员和供销人员              | 从事商品的采购、经发、推销工作的采购员兼供销人员                         |
| 405 | 收购人员                  | 从事农副产品、废旧物资或信托的收购人员                              |
| 406 | 推销人员                  | 从事商品、服务推销的人员，如商品推销员、提供售前、售中、售后服务人员、办理商品的交付、发运人员等 |
| 407 | 商业代理人员                | 从事推销和代理的批发、销售代理人（商）、中间商、经纪人、商品中介人、技术推销员、商品演示员    |
| 408 | 服装模特、广告模特             |  |
| 409 | 保险、不动产、证券、商业服务推销员和拍卖人 | 从事保险、不动产、证券、商业服务的推销和拍卖，技术服务咨询，广告推销，评价人（估价人）、拍卖师等 |
| 410 | 街头小贩、商品兜售员和报贩         | 用地摊或街边小摊出售小商品、小杂货等                               |
| 411 | 市场管理人员                | 对商品集贸市场进行管理的人员                                   |
| 412 | 其它商业工作人员              |  |
| 413 | 农副产品小贩                | 在街边小摊或农贸市场出售蔬菜、肉食等                               |

职业分类表 5：服务性工作人员

| 代码  | 职业名称                          | 说明 |
|-----|-------------------------------|----|
| •   | <u>饭店、旅游及健身娱乐场所服务人员</u>       |    |
| 501 | 宾馆、酒店、夜总会等服务业和娱乐业的部门经理、领班、组长等 |    |
| 502 | 宾馆、旅馆、旅店、招待所服务员               |    |
| 503 | 饭馆、餐厅、快餐部、咖啡馆、酒吧服务员           |    |



|     |  |                                   |
|-----|--|-----------------------------------|
| 504 | 歌厅、夜总会等娱乐场所服务员，伴舞者，坐台小姐                      |                                   |
| 505 | 理发馆、发廊、美容院、化妆室、按摩室、浴室、桑拿、洗头屋、洗脚屋服务员          | 如美容师、理发师、按摩师等                     |
| 506 | 理发馆、发廊、美容院、化妆室、按摩室、浴室、桑拿、洗头屋、洗脚屋的辅助性服务人员（小工） |                                   |
| 507 | 影剧院、体育场、体育馆、公共游览观赏场所服务员                      |                                   |
| 508 | 园林服务人员                                       |                                   |
| 509 | 导游员  | 在旅游中担任向导并作介绍的人员                   |
| •   | <u>运输服务人员</u>                                |                                   |
| 510 | 飞机上的乘务长、班长、组长                                |                                   |
| 511 | 飞机上的乘务员                                      | 如乘务员、空中小姐                         |
| 512 | 航空运输的地面服务人员                                  | 如售票员、客运员、货运员                      |
| 513 | 火车、轮船上的乘务长、班长、组长                             |                                   |
| 514 | 火车、汽车、轮船上的服务员、售票员                            | 乘务员、售票员                           |
| 515 | 火车、汽车、轮船客运的其他工作人员                            | 如调度员、客运员、检票员、值班员、计划员、行李员、售票员      |
| 516 | 火车、客运汽车的驾驶员                                  | 火车司机、公共汽车司机、长途汽车司机等               |
| 517 | 出租汽车司机                                       |                                   |
| 518 | 人力和机动三轮车夫                                    | 拉客三轮车、送货三轮车                       |
| •   | <u>其他服务性工作人员</u>                             |                                   |
| 519 | 医疗卫生辅助服务人员                                   | 如医院里的护理员、配膳员、药房辅助员、防疫员、消毒员、妇幼保健员等 |
| 520 | 托儿所、幼儿园保育员                                   |                                   |

|     |                                     |                                     |
|-----|-------------------------------------|-------------------------------------|
| 521 | 饭店、酒店、餐厅的厨师                         |                                     |
| 522 | 单位食堂的厨师和炊事员                         |                                     |
| 523 | (照相馆) 摄影师                           |                                     |
| 524 | (眼镜店) 验光配镜人员                        |                                     |
| 525 | 消防人员                                |                                     |
| 526 | 殡葬人员                                |                                     |
| 536 | 服务行业的保管员、理货员、<br>养护员、储运员、冷藏工等       |                                     |
| 527 | 办公设备维修人员                            | 包括个体维修人员                            |
| 528 | 家电维修人员                              | 包括个体维修人员                            |
| 529 | 生活日用品修理人员                           | 如修理自行车、钟表、家具、皮鞋<br>等，包括个体维修人员       |
| 530 | 洗染织补人员                              | 如洗衣工、熨衣工、弹棉花的人                      |
| 531 | 家庭保姆、做家务小时工                         | 家庭保姆，家庭服务员，受雇服侍病<br>人与老人者，私人侍女，贴身男仆 |
| 532 | 清洁工，勤杂工，环卫工人                        |                                     |
| 533 | 寄存处工作人员                             |                                     |
| 534 | 看守、看门人、看车人、开电<br>梯的人、锅炉房烧开水、更夫<br>等 |                                     |
| 535 | 其他服务性工作人员                           |                                     |
| 537 | 各类机关、企业单位中开小<br>(轿) 车司机             |                                     |
| 538 | 提供水、电、煤气等维护、服<br>务人员                | 如液化气公司送气上门的人                        |
| 539 | 相面算命                                |                                     |
| 540 | 汽车、摩托车修理工、加油站<br>加油工等               | 包括个体维修人员                            |
| 541 | 邮递员、报关员                             |                                     |
| 542 | 保安                                  |                                     |
| 543 | 拾破烂、收废品                             |                                     |
| 544 | 民间艺人                                |                                     |

|     |        |                         |
|-----|--------|-------------------------|
| 545 | 电影放映员  |                         |
| 546 | 社区工作人员 | 居委会和村委会调解员、计划生育人员、妇女主任等 |

职业分类表 6：农、林、牧、渔、水利业生产人员

| 代码  | 职业名称                       | 说明  |
|-----|----------------------------|---|
| •   | <u>农林牧渔水利业生产人员 (农民、工人)</u> | 在农村集体单位、家庭、农场、林场、水产养殖场等地方，专门从事农业、林业、畜牧、渔业生产，以及农业机械操作、狩猎 |
| 601 | 粮农                         | 从事各类粮食作物的种植、管理、收获                                       |
| 602 | 棉农                         | 从事棉花的种植、管理、收获   |
| 603 | 菜农                         | 从事蔬菜、瓜类的种植、管理、收获  |
| 604 | 果农、茶农、桑农、甘蔗农以及其他农民         | 从事果品、茶叶、甘蔗等作物的种植、管理、收获等                                 |
| 605 | 其他农产品种植人员                  |   |
| 606 | 苗圃和园林人员，营林、造林人员            |   |
| 607 | 森林管理员、护林员，木材估测员            |   |
| 608 | 采伐、切割、运输人员                 |   |
| 609 | 制碳人员和其他林业工人                |   |
| 610 | 其他林业劳动者                    |   |
| 611 | 大牲畜饲养人员                    |   |
| 612 | 家禽、家畜、蜜蜂、蚕的饲养人员            | 包括养殖专业户   |
| 613 | 特殊用途动物饲养人员                 | 观赏动物、军犬、警犬饲养等   |
| 614 | 其他畜牧业人员                    |   |
| 615 | 水产养殖劳动者                    |   |
| 616 | 水产捕捞劳动者                    |   |

|     |                      |                              |
|-----|----------------------|------------------------------|
| 617 | 天然水生物采集劳动者           | 采集贝类、海藻、海带等                  |
| 618 | 机动渔船驾驶员              |                              |
| 619 | 其他渔业劳动者              |                              |
| 620 | 狩猎业劳动者               |                              |
| 621 | 农业机械操作人员，<br>农业机械专业户 |                              |
| 622 | 其他农、林、牧、渔<br>劳动者     |                              |
| 623 | 农村（个人）泥瓦匠            |                              |
| 624 | 农、林、牧、渔家庭<br>雇工      | 受雇于他人（其他个人、家庭）的农、林、牧<br>渔劳动者 |
| 625 | 农业工人                 | 国营或集体农场工人                    |
| 626 | 农村（个人）木匠             |                              |
| 627 | 农村（个人）铁匠、<br>锁匠      |                              |
| 628 | 农村运输专业户（个<br>体运输）    |                              |
| 629 | 个体屠夫                 |                              |
| 630 | 家庭副业（养猪、<br>鸡、种自留地等） |                              |

职业分类表 7：生产工人、运输工人和有关人员

| 代码  | 职业名称                  | 说明  |
|-----|-----------------------|---|
| •   | <u>生产工人、运输工人和有关人员</u> | 直接运用生产工具，改变物的形态或位置的人员，包括从事矿物采掘，工业产品制造、保养、修理，运输设备操作等 |
| 701 | 采矿、采石、勘探、钻<br>井、采盐工人  | 从事矿物采掘，地质勘探采掘物提炼前的<br>处理，操作钻井设备等                    |
| 702 | 金属冶炼和处理工人             | 从事金属冶炼、有色金属精炼、金属轧<br>制、铸造、热处理、拉拔、挤压，金属表<br>面处理等     |

|     |                         |   |
|-----|-------------------------|---|
| 703 | 化学工人                    | 从事化工和日用化工产品、化学纤维、石油炼制、烧焦、各种药品、其他化学品的生产，以及生产过程中动力设备的操作 |
| 704 | 橡胶和塑料制品生产工人             | 从事橡胶、天然橡胶、合成橡胶和塑料的揉合、积压、模制、轧片、射出成型，操作有关机器设备，生产产品      |
| 705 | 纺织、针织、印染工人              | 从事纤维预处理、纺织、针织、印染工作，操作有关机器或进行机器的调节、维修                  |
| 706 | 皮革、皮毛制造及制品制作工人          | 从事各种兽皮的加工，皮革、皮毛制品制作等                                  |
| 707 | 裁剪、缝纫工人                 | 从事以纺织品为材料的服装、鞋帽、帐幔、垫等的设计和制造                           |
| 708 | 食品饮料制作工人                | 制造各种食品、饮料   |
| 709 | 制烟工人                    | 从事烟叶处理和制造各种烟制品  |
| 710 | 木料加工和木、竹、麻、藤、棕、草制品制作工人  | 从事木料处理、加工，制造家具和木质构造物，竹、麻、藤、棕、草制品的制造                   |
| 711 | 造纸和纸制品制作工人              | 制造纸浆、纸，以及纸袋、纸盒、纸箱、信封、纸板等                              |
| 712 | 印刷工人和有关人员               | 从事排字、制版、印刷、装订等印刷物生产                                   |
| 713 | 石料切割和雕刻工                | 从事石材、碑材等的裁切、琢磨、雕刻、琢制、着色、雕花等                           |
| 714 | 锻工、工具制造工、机床安装操作工        | 从事金属的锤、锻，金属工具、模具、样板的制作，金属切削和锻压机床的安装、操作，工具磨利等          |
| 715 | 机器装配工和精密仪器制造工           | 从事各种机器、设备的装配、保养、修理，钟表和其他非电子精密仪器的制造、保养、修理              |
| 716 | 电气、电子设备安装工、修理工、装配工和有关人员 | 从事电气、电子设备的装配、安装、保养、修理，各种电力设备的敷设、检修等                   |

|     |                      |   |
|-----|----------------------|---|
| 717 | 录音设备操作人员和电影放映员、录像放映员 | 从事广播电台(站)各类设备的操作, 电影放映, 录音、录像、音响设备的操作等                                    |
| 718 | 管工、焊工、冷作工和金属构件安装工    | 从事金属管道及管道系统的装配、安装、修理, 金属的火焰、电弧等切割, 金属薄板制品的冷作、修理, 金属建材或其他金属构件的成形、组合、架设、修理等 |
| 719 | 玻璃、陶瓷和搪瓷制品工人         | 从事玻璃的成型、切割、研磨、修整, 陶瓷和搪瓷制品的原料生产、制作、雕刻、蚀刻、彩绘、装饰等                            |
| 720 | 油漆工人                 | 从事建筑物、船舶、飞机、车辆、木器、金属品等的表面油漆处理   |
| 721 | 文教、工艺品生产工人和有关人员      | 从事文教、体育用品制造, 乐器制造和调音, 珠宝、金银首饰加工, 工艺美术品制作等                                 |
| 722 | 图纸、文件复制工人和有关人员       | 从事制图、绘图、描图、绘画、影印、复印等  |
| 723 | 日用杂品生产工人和有关人员        | 从事箱包、手袋、玩具、伞、灯笼、纸扇的制造等  |
| 724 | 建筑材料生产工人和有关人员        | 从事水泥、石棉、砖瓦、石灰、耐火材料及其制品的制造   |
| 725 | 其他生产工人和有关人员          |   |
| 726 | 建筑工人                 | 直接从事建筑物的建筑和修理, 不包括管道工、焊接工和土建设备操作工人  |
| 727 | 动力设备操作工              | 从事发电、变电、送电、配电工作, 各类有关动力设备(电动机、锅炉、空气压缩机、冷冻设备、水处理设备)的值班运行及维护                |
| 728 | 装卸工和有关设备操作工          | 从事货运、装卸、贴标签, 以及安装索具, 操作各种起重机械和土建设备  |
| 729 | 运输设备操作工(驾驶员, 司机)     | 操作或驾驶各种车辆、船舶、皮带运输机、管道运输、畜力车等  |
| 730 | 检验、计量、试验、分析          | 从事检验、检查、计量、测试、试验、化  |

|     |                   |  |
|-----|-------------------|--|
|     | 人员和有关人员           | 验、分析等                                    |
| 731 | 其他工人和有关人员         | 例如水下操作人员，测绘人员，土木工人，修路工人，铁道线路工人，其他工人和有关人员 |
| 732 | 装卸工、搬运工           | 从事货运、装卸的体力工                              |
| 733 | 室内、室外装修工人         |  |
| 734 | 建筑队、工程队、装修队等的包工头  |  |
| 735 | 军工厂、兵工厂生产工人       |  |
| 736 | (家庭或个人)小手工业主、小作坊主 |  |
| 737 | 制药工人              |  |
| 738 | 养路工               |  |

职业分类表 8：警察及军人

| 代码  | 职业名称              | 说明 |
|-----|-------------------|----|
| •   | <u>公安干警、交通干警</u>  |    |
| 811 | 公安、交警机构局级及以上级别的干部 |    |
| 812 | 公安、交警机构处级干部       |    |
| 813 | 公安、交警机构科级干部       |    |
| 814 | 公安、交警机构股级干部       |    |
| 815 | 普通公安人员(警察)、交通警察   |    |
| 816 | 派出所治安员            |    |
| •   | <u>武装警察(武警)</u>   |    |
| 821 | 武警师级以上军官          |    |
| 822 | 武警团营级军官           |    |
| 823 | 武警连排级军官           |    |
| 824 | 武警士兵、班长           |    |
| •   | <u>军人</u>         |    |
| 831 | 军队师级以上军官          |    |
| 832 | 军队团营级军官           |    |

|     |         |  |
|-----|---------|--|
| 833 | 军队连排级军官 |  |
| 834 | 军队士兵、班长 |  |
| 841 | 其它警察及军人 |  |

职业分类表 9：不便分类人员

| 代码  | 职业名称                      | 说明 |
|-----|---------------------------|----|
| 902 | 自由职业者(专业人员)               |    |
| 903 | 打零工而职业类型不稳定者              |    |
| 904 | 家庭主妇和其他在家做家务的人            |    |
| 905 | 正在寻找职业者 ( 包括下岗无职业者 )      |    |
| 906 | 因生理疾病原因而无工作能力的人           |    |
| 907 | 无职业也不寻找职业者                |    |
| 908 | 炒股票或以其它证券经营谋生者            |    |
| 909 | 靠不动产赢利谋生者 ( 如出租、转租房屋或土地 ) |    |





## APPENDIX D. REGRESSION DIAGNOSTICS

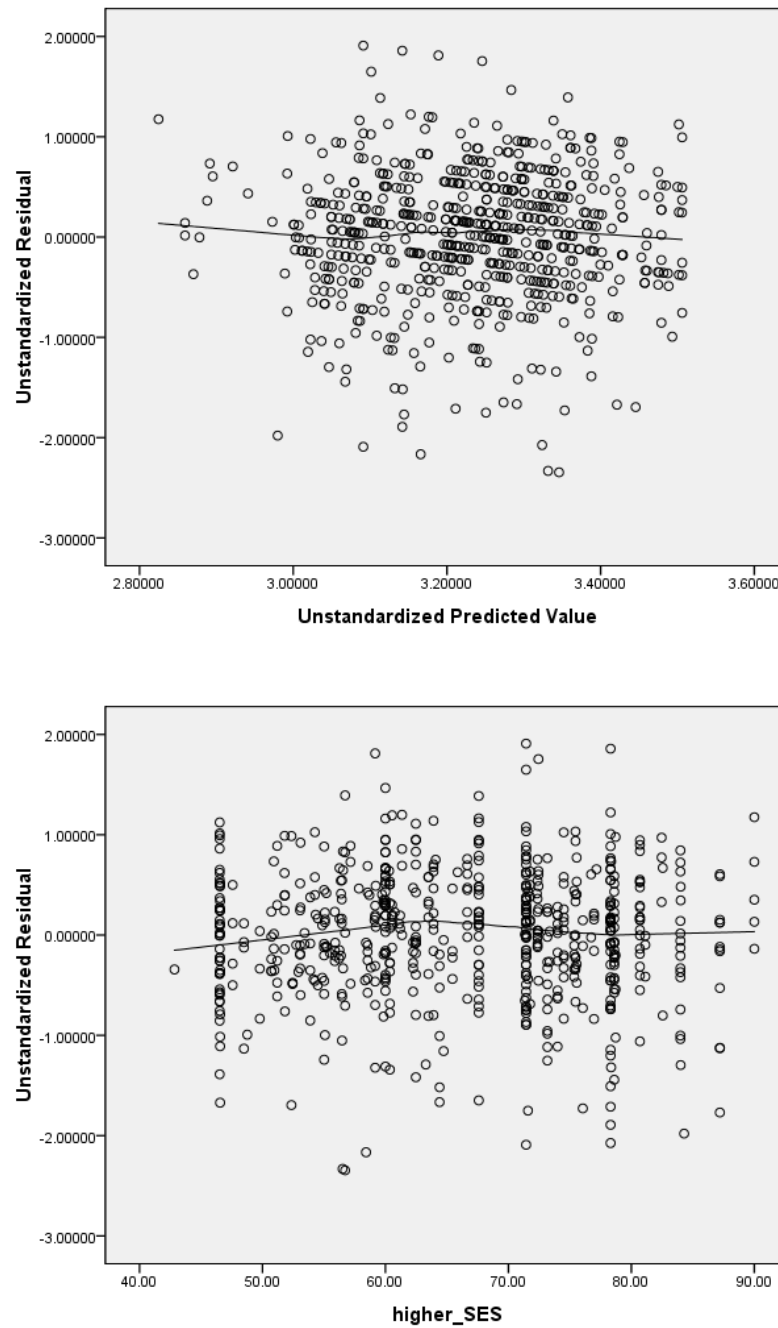


Figure 2. Linearity assumption for RQ5: Unstandardized residual plotted against the predicted industry employment intentions.

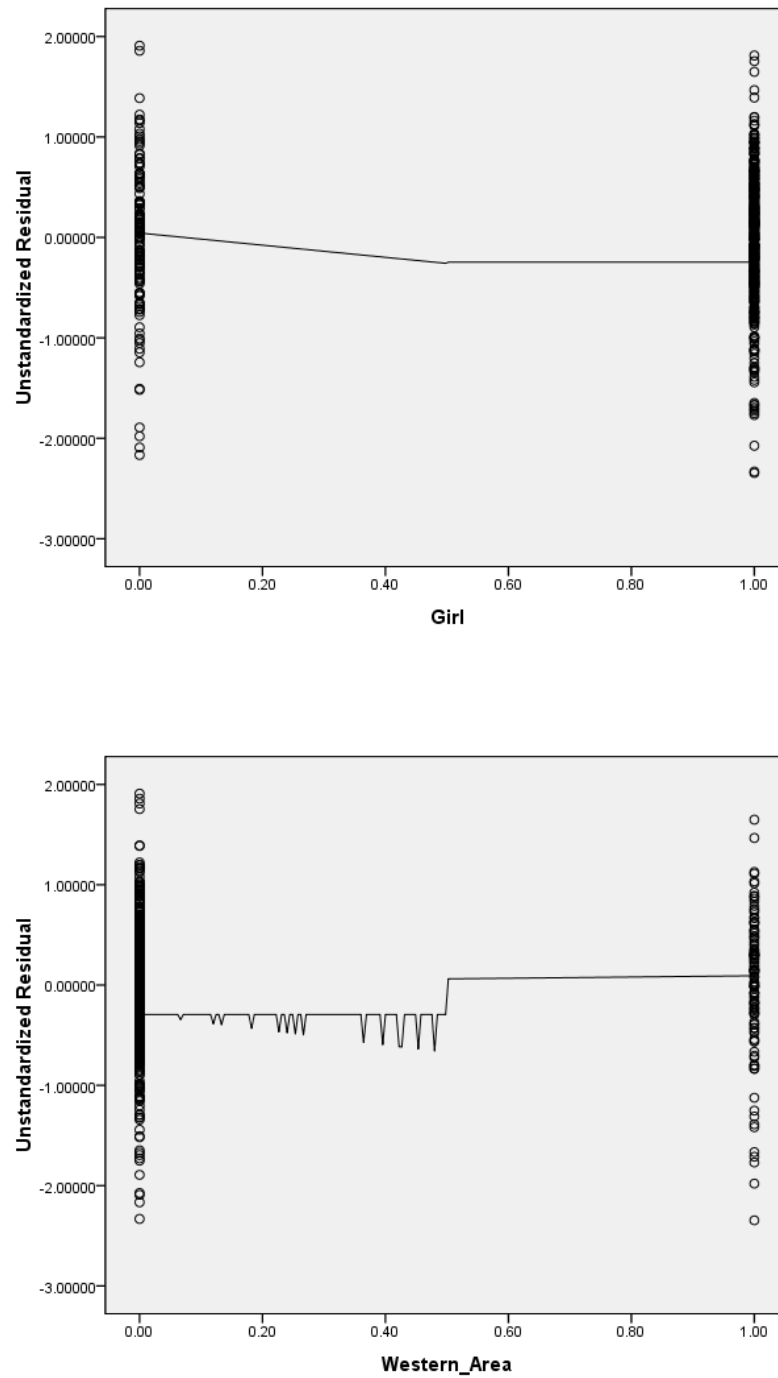


Figure 2. Linearity assumption for RQ5: Unstandardized residual plotted against the predicted industry employment intentions (continued).

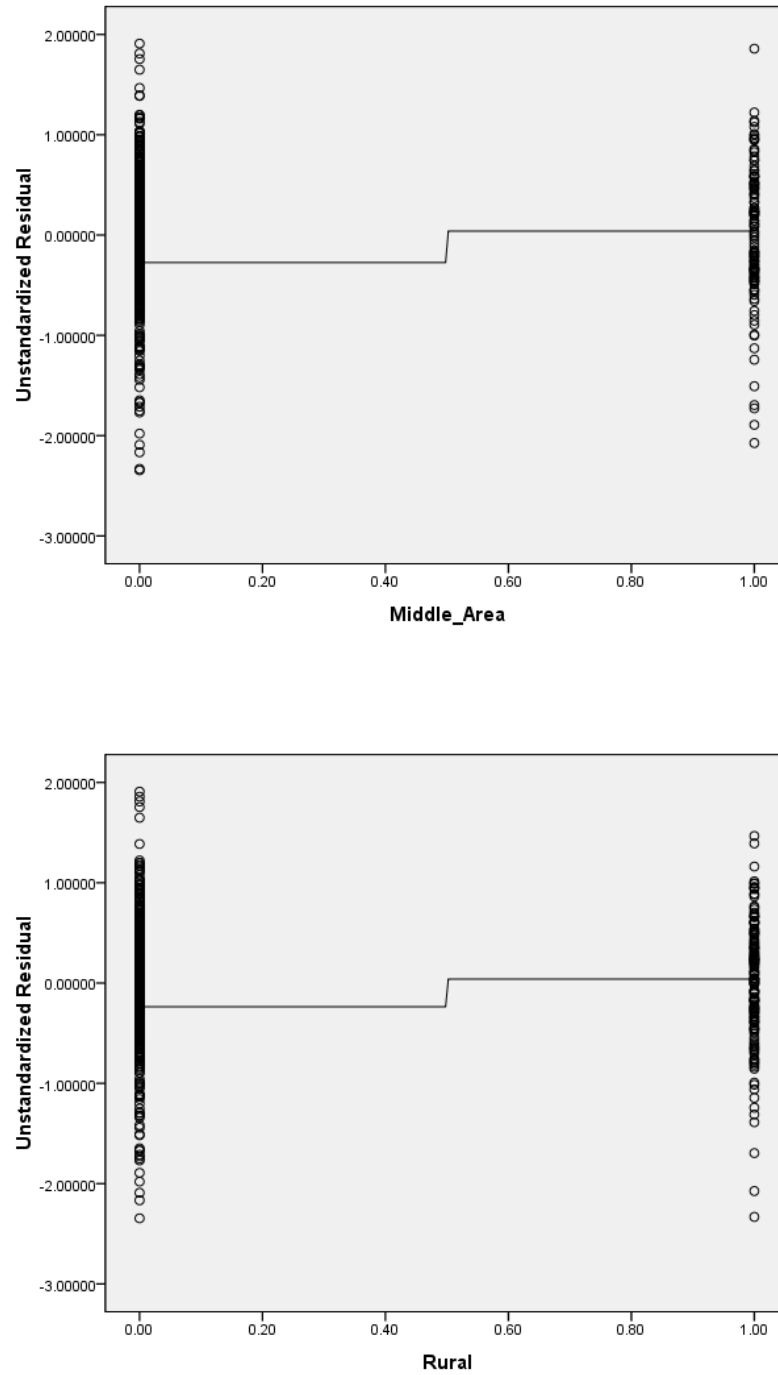


Figure 2. Linearity assumption for RQ5: Unstandardized residual plotted against the predicted industry employment intentions (continued).

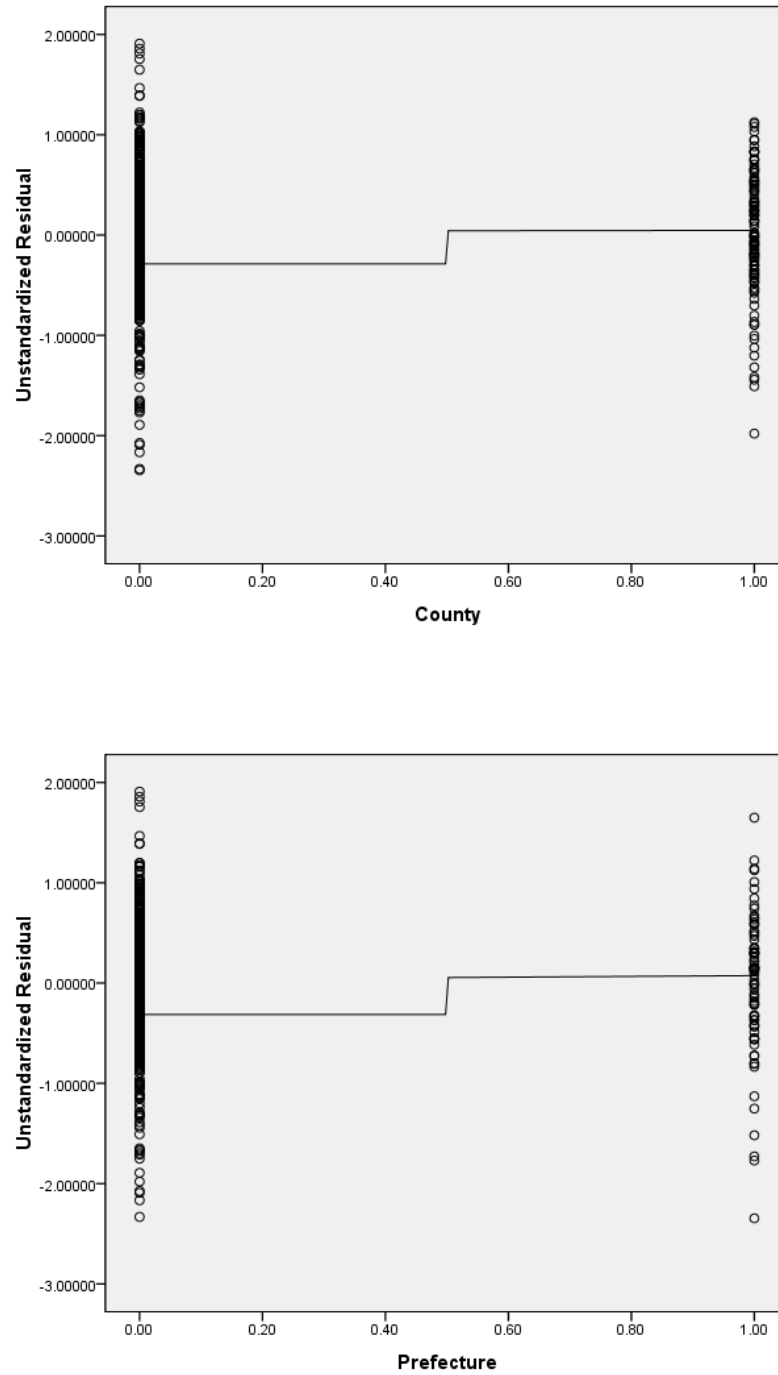


Figure 2. Linearity assumption for RQ5: Unstandardized residual plotted against the predicted industry employment intentions (continued).

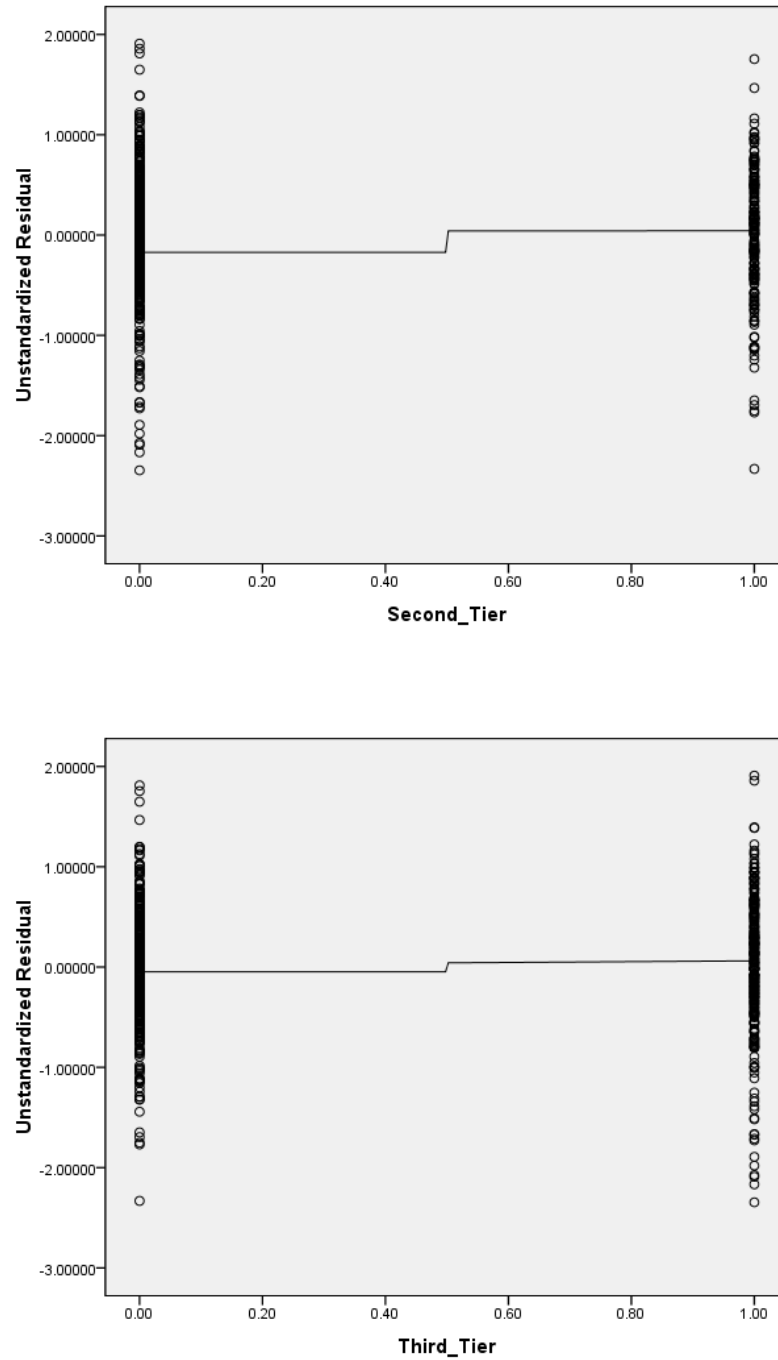


Figure 2. Linearity assumption for RQ5: Unstandardized residual plotted against the predicted industry employment intentions (continued).

Table 20. Homoscedasticity assumption for RQ5: Comparison of the variance of residuals for different levels of predicted industry employment intentions.

| Report                    |               |     |                |          |
|---------------------------|---------------|-----|----------------|----------|
| Unstandardized Residual   |               |     |                |          |
| Percentile Group of PRE_1 | Mean          | N   | Std. Deviation | Variance |
| 1                         | -2.2304684E-2 | 129 | .63696586      | .406     |
| 2                         | -2.0967846E-2 | 131 | .69478535      | .483     |
| 3                         | .0436377      | 131 | .58121144      | .338     |
| 4                         | .0138729      | 129 | .66056618      | .436     |
| 5                         | -1.4477294E-2 | 130 | .63442358      | .402     |
| Total                     | .0000000      | 650 | .64116569      | .411     |

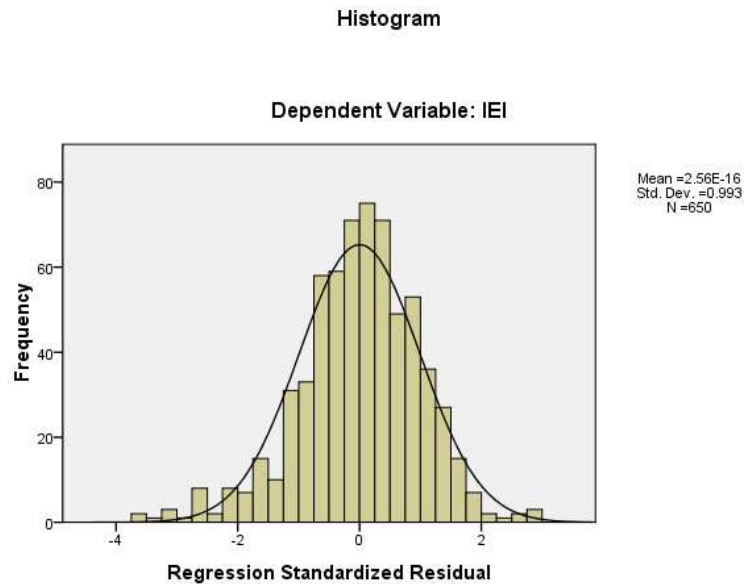


Figure 3. Normality of residuals assumption for RQ5: Histogram.

Normal P-P Plot of Regression Standardized Residual

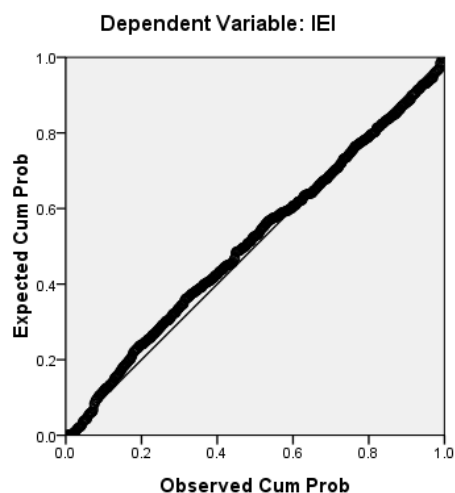


Figure 4. Normality of residuals assumption for RQ5: P-P Plot.

Table 21. Multicollinearity test for RQ5.

| Coefficients <sup>a</sup> |              | Collinearity Statistics |       |
|---------------------------|--------------|-------------------------|-------|
|                           |              | Tolerance               | VIF   |
| Model                     |              |                         |       |
| 1                         | (Constant)   |                         |       |
|                           | higher_SES   | .799                    | 1.252 |
|                           | Female       | .953                    | 1.049 |
|                           | Western_Area | .760                    | 1.315 |
|                           | Middle_Area  | .740                    | 1.351 |
|                           | Rural        | .647                    | 1.547 |
|                           | County       | .731                    | 1.368 |
|                           | Prefecture   | .682                    | 1.465 |
|                           | Second_Tier  | .569                    | 1.758 |
|                           | Third_Tier   | .576                    | 1.737 |

a. Dependent Variable: IEI



Table 22. Regression diagnostics for RQ5 focusing on distance, leverage, and influence.

| Residuals Statistics <sup>a</sup>    |          |         |         |                   |     |
|--------------------------------------|----------|---------|---------|-------------------|-----|
|                                      | Minimum  | Maximum | Mean    | Std.<br>Deviation | N   |
| Predicted Value                      | 2.8247   | 3.5061  | 3.2321  | .13116            | 650 |
| Std. Predicted Value                 | -3.106   | 2.089   | .000    | 1.000             | 650 |
| Standard Error of<br>Predicted Value | .054     | .126    | .079    | .016              | 650 |
| Adjusted Predicted Value             | 2.8013   | 3.5174  | 3.2322  | .13162            | 650 |
| Residual                             | -2.34592 | 1.90884 | .00000  | .64117            | 650 |
| Std. Residual                        | -3.633   | 2.956   | .000    | .993              | 650 |
| Stud. Residual                       | -3.674   | 2.972   | .000    | 1.001             | 650 |
| Deleted Residual                     | -2.39808 | 1.92895 | -.00007 | .65156            | 650 |
| Stud. Deleted Residual               | -3.710   | 2.990   | .000    | 1.003             | 650 |
| Mahal. Distance                      | 3.522    | 23.879  | 8.986   | 3.922             | 650 |
| Cook's Distance                      | .000     | .030    | .002    | .003              | 650 |
| Centered Leverage Value              | .005     | .037    | .014    | .006              | 650 |

a. Dependent Variable: IEI

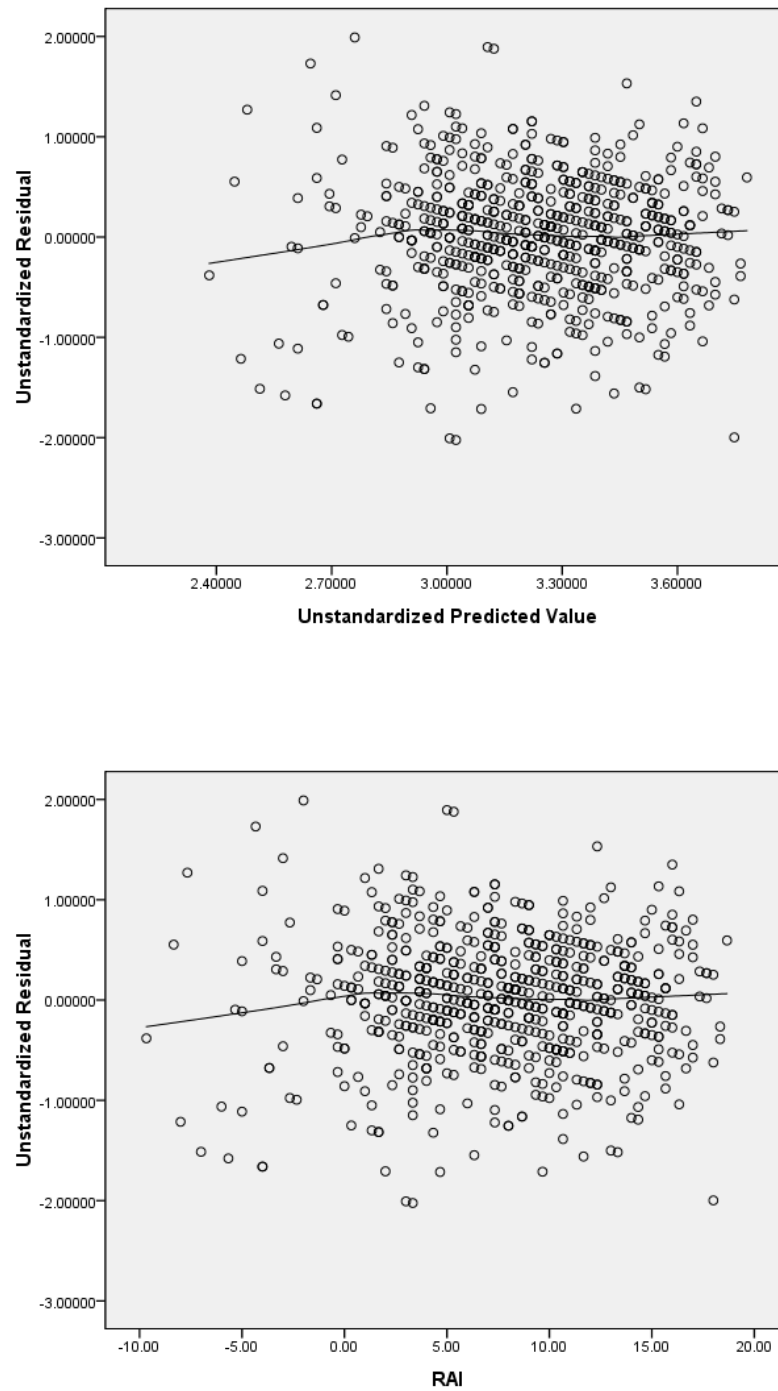


Figure 5. Linearity assumption for RQ6: Unstandardized residual plotted against the predicted industry employment intentions.

Table 23. Homoscedasticity assumption for RQ6: Comparison of the variance of residuals for different levels of predicted industry employment intentions.

| Report                    |                |     |                |          |
|---------------------------|----------------|-----|----------------|----------|
| Unstandardized Residual   |                |     |                |          |
| Percentile Group of PRE_1 | Mean           | N   | Std. Deviation | Variance |
| 1                         | .0207652       | 135 | .73157851      | .535     |
| 2                         | .0163741       | 129 | .60070876      | .361     |
| 3                         | .0194890       | 149 | .54385136      | .296     |
| 4                         | -4.1858618E-2  | 127 | .54566871      | .298     |
| 5                         | -1.7384605E-2  | 144 | .57711288      | .333     |
| Total                     | -1.3512579E-16 | 684 | .60165856      | .362     |

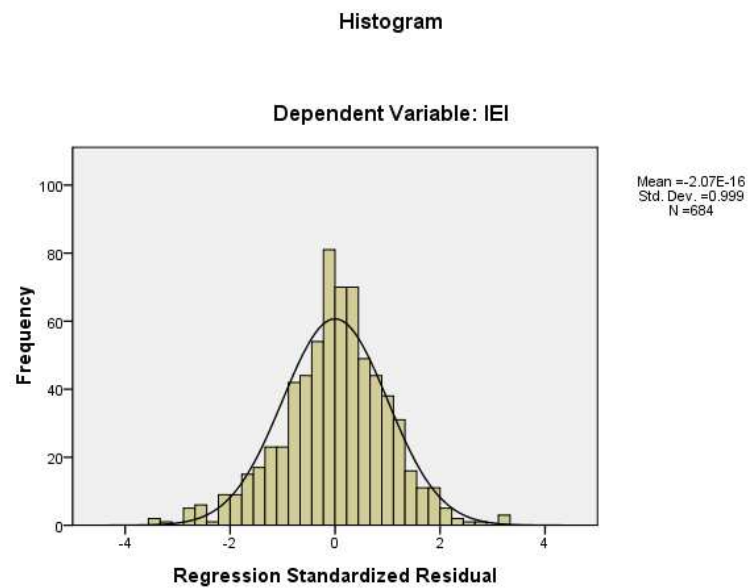


Figure 6. Normality of residuals assumption for RQ6: Histogram.

Normal P-P Plot of Regression Standardized Residual

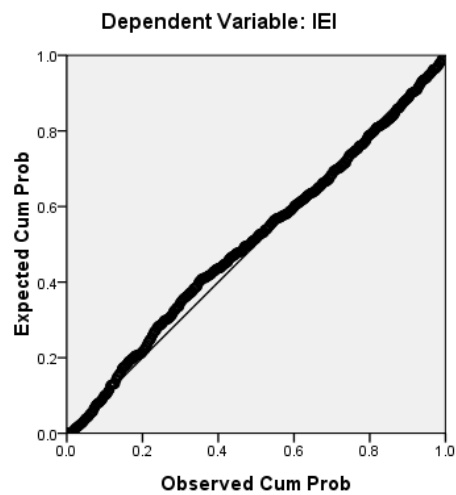


Figure 7. Normality of residuals assumption for RQ6: P-P Plot.

Table 24. Multicollinearity test for RQ6.

| Coefficients <sup>a</sup> |            |                         |       |
|---------------------------|------------|-------------------------|-------|
| Model                     |            | Collinearity Statistics |       |
|                           |            | Tolerance               | VIF   |
| 1                         | (Constant) |                         |       |
|                           | RAI        | 1.000                   | 1.000 |

a. Dependent Variable: IEI

Table 25. Regression diagnostics for RQ6 focusing on distance, leverage, and influence.

| Residuals Statistics <sup>a</sup> |          |         |         |                |     |
|-----------------------------------|----------|---------|---------|----------------|-----|
|                                   | Minimum  | Maximum | Mean    | Std. Deviation | N   |
| Predicted Value                   | 2.3814   | 3.7807  | 3.2356  | .25599         | 684 |
| Std. Predicted Value              | -3.337   | 2.130   | .000    | 1.000          | 684 |
| Standard Error of Predicted Value | .023     | .080    | .031    | .009           | 684 |
| Adjusted Predicted Value          | 2.3883   | 3.7759  | 3.2356  | .25584         | 684 |
| Residual                          | -2.02348 | 1.98992 | .00000  | .60166         | 684 |
| Std. Residual                     | -3.361   | 3.305   | .000    | .999           | 684 |
| Stud. Residual                    | -3.365   | 3.316   | .000    | 1.001          | 684 |
| Deleted Residual                  | -2.02848 | 2.00297 | -.00006 | .60383         | 684 |
| Stud. Deleted Residual            | -3.391   | 3.340   | .000    | 1.003          | 684 |
| Mahal. Distance                   | .000     | 11.133  | .999    | 1.359          | 684 |
| Cook's Distance                   | .000     | .043    | .002    | .005           | 684 |
| Centered Leverage Value           | .000     | .016    | .001    | .002           | 684 |

a. Dependent Variable: IEI