AN INVESTIGATION INTO FEMALE SOLO TRAVELERS: SOLO TRAVEL EXPOSURE AND PERCEIVED CONSTRAINTS, PERSONAL DEVELOPMENT, AUTHENTIC PERSONALITY AND SELF-ESTEEM

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2016

Submitted to the Faculty of the Graduate College of the Oklahoma State University in partial fulfillment of the requirements for the Degree of MASTER OF SCIENCE December, 2018

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Date of Degree: DECEMBER, 2018

Title of Study: AN INVESTIGATION INTO FEMALE SOLO TRAVELERS: SOLO

TRAVEL EXPOSURE, PERCEIVED CONSTRAINTS, PERSONAL

DEVELOPMENT, AUTHENTIC PERSONALITY AND SELF-ESTEEM

Abstract: Female solo travelers have become one of the most promising markets in today's tourism industry. Many women are motivated to travel solo with the hope to achieve self-discovery and self-development. Nevertheless, they are hesitant to travel on their own because of various constraints as a woman. Therefore, this study aims to explore solo travel experiences (i.e. solo travel exposure and perceived constraints), and how they contribute to the personal development, authentic personality, and self-esteem of females. A quantitative approach was used to achieve the study objectives. Results confirmed the significant influence of solo travel exposure including three key aspects, frequency of making own solo travel arrangements, frequency of traveling solo and solo trip length of time on minimizing women's solo travel perceived constraints. In addition, this study's findings supported the influence of solo travel constraints on personal development. The difference between internal (e.g. attitudes and perceptions) and external constraints (e.g. local destinations and local hosts) were found to be critical in determining the level of personal development. Lastly, the positive relationship among personal development, authentic personality and self-esteem were also proven confirming the benefits of solo travel and personal development in forming women's authentic personality and self-esteem. The findings of this study contribute to current minimal literature on female solo travel experiences, and assist tourism practitioners in tailoring meaningful experiences to facilitate opportunities for females to learn and grow from their solo travel experiences.

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CHAPTER I

INTRODUCTION

Background

Solo travel has become one of the most prominent global travel trends. A recent survey conducted by Book Yoga Retreats asked 300 travelers from various countries, and reported that 51% of the respondents would travel solo for their next vacation (McCarthy, 2016). Currently, over 50% of Intrepid Travel's customers (the world's largest small-group adventure travel company) are solo travelers, leading to the company's launch of various solo travel arrangements in 2017 (ETB Travel News, 2017).

Solo travel is significantly popular among female travelers. The term "female solo travel" has been searched for more than 100 million times on Google; while on Pinterest, a 350% increase in women pining solo travel ideas has been recorded since the beginning of 2017, reflecting an increasingly growing interest in women travelling alone over the past five years (Chaudhri, 2017). Female solo travelers typically opt for adventure or nature-based trips (Kow, 2016; Notable Life, 2017). For example, Intrepid Travel has reported a 35% increase in women booking leisure trips in 2017 (Kow, 2016). Similarly, REI adventures, a global travel agency for adventurer-seekers, has experienced a growth of 60% in women bookings since 2010 (Notable Life, 2017).

Problem statement

Motivations encouraging women to travel alone include experience, escape, relax, social, self-esteem (Chiang & Jogaratnam, 2006), self and identity discovery, self-empowerment, and connectedness with others (Wilson & Harris, 2006). In other words, by escaping from the mundane and "ideal" world and immersing into a totally novel environment on their own, women presumably expect to improve their personal development (Michael, 2017), leading to a boost in their authentic personality and subsequently their self-esteem (Wood et al., 2008). Nonetheless, past studies have found a considerable number of constraints that deter women from participating in solo travel such as fear of unsafety, lack of confidence, and social expectations (Wilson, 2004; Wilson & Little, 2005, 2008). On the other hand, feminist researchers proposed that if women were able to overcome those constraints or challenges to enjoy their solo travel experiences, they would be able to experience greater levels empowerment and self-growth (Jordan & Gibson, 2005; Wearing, 1998; Wearing, 1998).

Few academic studies have examined solo travel experiences such as the level of exposure and the level of constraints or challenges women have encountered during their solo travel and how those experiences enrich a woman's mind and contribute to her self-esteem. The most relevant research was conducted by Wilson and Harris (2006) which examined how meaningful solo travel experiences assisted women in learning about themselves, enhancing self-empowerment and expanding their networks. As a result, these experiences significantly increased their sense of self, as well as positively modified their perspectives towards life, society and their relationships with others. Nevertheless, no studies have conceptually studied the contribution of solo travel experiences that include solo travel exposure and solo travel constraints toward the personal development, authentic personality, and self-esteem of females.

Purpose statement and research objectives

The purpose of this study was to explore solo travel experiences (i.e. solo travel exposure and perceived constraints), and how they contribute to the personal development, authentic personality, and self-esteem of females. The research objectives of this study were as follows:

- (1) To investigate the general characteristics of female solo travelers;
- (2) To investigate the influence of solo travel exposure on females' perceptions of solo travel constraints;
- (3) To investigate the influence of perceived constraints on the personal development of female solo travelers; and
- (4) To investigate the relationships among personal development, authentic personality and self-esteem.

Significance of study

This study can help advance current literature in female leisure research, specifically female solo travel. While past studies have examined female motivations to travel solo (Chiang & Jogaratnam, 2006; Wilson & Harris, 2006) and female solo travel constraints (Jordan & Aitchison, 2008; Wilson, 2004; Wilson & Little, 2005, 2008), there are very few studies which examine solo travel experiences, and their contribution to the self-perceptions of the travelers. Studies about leisure, women, and gender only constitute about 10% of the research studies (Henderson & Gibson, 2013). Literature on female solo travel is even more minimal, and thus this study will look deeply into female travel experiences while travelling alone. Furthermore, this study was informed by literature from three distinct study areas, namely tourism (to investigate the aspects of solo travel experiences), gender (to investigate the unique aspects of females), and psychology studies (to investigate the aspects of personal development, authentic personality, and self-esteem), and thus could elicit synergistic theoretical and practical implications. In terms of methods, past scholars examining female solo travel studies have mostly utilized qualitative research to approach their studies (e.g. Jordan & Gibson, 2005; Harris & Wilson, 2007; Wilson & Little, 2005, 2008), and hence by using quantitative methods, this study produced patterns and connections of arising findings from a much larger population (DeFranzo, 2011).

On the practical side, this study provided a foundation for destination managers, travel agencies, and other tourism-related enterprises to create more meaningful solo travel experiences that cater to the needs and wants of this growing and noteworthy travel segment. Specifically, this study helped identify the type of experiences that could create significantly positive impacts on female solo travelers. In addition, tourism practitioners can use the information to understand the self-perception transformation of female solo travelers, and tailor products accordingly to help boost the authentic personality and self-esteem of these travelers. It is undeniable that women hold

power in shaping the tourism and travel industry. Currently, they influence 80% of travel decisions, and account for 50% of online sales (Enelow, 2017). Thus, being able to gain insights on female travel behaviors, tourism organizations and practitioners could gain major competitive advantages and market share.

Operational definitions

The terms below are key terms used in this study. Their definitions were operationalized as follows:

- Female solo travelers: adult females (aged 18 and above) who have had traveled solo for leisure or vacation purposes (trips that do not include business trips).
- Solo trips: those trips that involve travelers spending their time mostly by themselves
 and are not accompanied by anyone that they know (e.g. family members, friends,
 spouses, partners, etc.).
- Solo travel exposure: the extent to which females are exposed to solo travel experiences including three key elements: (1) frequency of making own solo travel arrangements, (2) frequency of traveling solo per year, and (3) average length of time per solo trip.
- Solo travel constraints: challenges, restrictions or limitations that hinder female solo
 travelers from enjoying and fully immersing into the solo travel experiences.
- Personal development: "the conscious pursuit of personal growth by expanding selfawareness and knowledge and improving personal skills" (Thum, 2012).
- Authentic personality: being true to one self and behaving according to one's true values and beliefs (Wood et al., 2008).

Self-esteem: "an individual's subjective evaluation of his or her worth as a person"
 (Orth & Robins, 2014, p. 383).

Organization of thesis

This study is divided into five main chapters: (1) introduction, (2) literature review, (3) research methods, (4) findings, and (5) discussion and conclusion. The introduction (Chapter One) briefly explains the background/context of this study, the key reasons which justify the study, and its impacts on both the theoretical and practical aspects. Chapter Two (Literature Review), synthesizes and compares past theories and/or findings on the characteristics of female travelers, solo travel experiences and the concepts of personal development, authentic personality and self-esteem with a view to identifying the connections between female solo travel experiences and those concepts. Chapter Three (Research Methods), explains the sampling strategy of this study, as well as the approaches to data collection and data analysis. Chapter Four (Results), discusses the findings from data analysis to address the research questions and its corresponding hypotheses. Lastly, Chapter Five (Discussion and Conclusion), discusses the research findings, provide linkages to previous literature, discusses theoretical and practical implications, and proposes limitations of the study to set the stage for future studies.

CHAPTER II

LITERATURE REVIEW

Chapter II reviews related literature in the fields of female leisure travel, solo travel, personal development from travel, as well as the concept of authenticity and self-esteem. The first part of the chapter describes the characteristics of female travelers, their travel constraints and travel preferences. The second part of the chapter discusses personal development as a key aspect of travel motivations, travel experiences and travel benefits, and how it has been studied in the solo travel context. The third and fourth part respectively explains the characteristics and key components of authentic personality and self-esteem. The chapter then discusses the conceptual framework which guides the study and introduces the research purpose, objectives, research questions and corresponding hypotheses.

Characteristics of female travelers

Female travelers, regardless of age and status, are an explosive market for the travel and tourism industry. According to the Travel Industry Association, an estimated 32 million American single women traveled at least once in 2016, and 80% of all travel decisions are made by women (the percentage increases to 92% if online travel purchases are added) (Bond, 2017).

Moreover, 73% of travel agents polled noted there are more female solo travelers than their male counterparts, and there has been a 230% increase in the number of women-only travel organizations in the past six years (Galles, 2017). With 67 million women participants in the travel industry, the market receipt potentially exceeds \$19 trillion USD per year (Bond, 2017).

When exploring female motivations to travel, it is critical to discuss it based on the gender differences in leisure participation between men and women. It is worth noting that literature on leisure for women did not exist until the early 1980s, although leisure-related studies had been published over a decade earlier (Henderson, 2013). In the past, women's social role and gendered location as "female" had tremendously and intensely constrained their access to leisure participation (Jackson & Henderson, 1995)

For instance, the social expectations towards women were strongly linked to the stereotypical image of marriage and children, emphasizing on the key responsibilities of women as family keepers and taking care of their husband and children (Cambronero-Saiz, 2013; Wilson & Little, 2005). Due to the concept of *ethic of care*, women often prioritized providing for the needs of others first over their own leisure pursuits (Henderson & Allen, 1991). Many women even believed they had no right to leisure, thus placing a severe limitation on their construction of time for leisure and their attitudes toward it (Henderson & Dialeschki, 1991). Jackson and Henderson (1995) identified several challenges in leisure participation perceived by women, such as finding

others to participate with, lack of time due to too much dedication to family, lack of knowledge, lack of transportation, feeling discomfort in social situations, and being physically unable to participate.

Based on the gender differences theory, it is no surprise that past studies have reported the travel motivations of women are highly associated with their role as a *family keeper*. For example, women were primarily involved in shopping activities (for their family) during their traveling times (Kent, Shock, & Snow, 1983). Similarly, Cai and Combrink (2000) examined the preferred activities of Japanese female travelers and noted shopping was the most popular activity for outbound tourism. Urry (1990, p. 152) explained this phenomenon by asserting that "shopping is a sphere of social activity in which women are empowered. It links together the public and domestic and involves activity in which women are permitted to demonstrate competence." Additionally, safety is a significant determinant during the travel decision-making process of women, including mode of transportation, type of lodging, and particularly destination selection (Uysal, McGehee, & Loker-Murphy, 1996). This concern for safety typically plays an important role in travel decisions by mothers who are planning family vacations and taking the welfare of their children into consideration.

Even though the gendered presumption still exists, today's society has placed less pressure for marriage and children on women (Wilson & Little, 2005). This is largely due to the significant increase in the financial autonomy of women, enabling them to have greater purchasing power (Granot, Greene, & Brashear, 2010). Nowadays, women have more opportunities to earn an equitable income as a result of equal employment opportunities, and are becoming one of the most powerful and influential segments in the consumer market in some developed countries, such as the US (Silverstein & Sayre, 2009). Women now control over \$15 trillion USD in spending power, representing a market that is double that of China and India's (top economic markets globally) growth market combined (Bond, 2017). The higher social autonomy and social

acceptance of women have opened more doors for them to pursue different types of tourism and leisure activities (Berdychevsky, Gibson, & Bell, 2016).

Due to increased levels of freedom in leisure participation, female's preferences for tourism products are changing, which then requires the travel and tourism industry to identify new products and services for women that match with new travelling behaviors. Today's women are being portrayed more as *searching for independence, adventure, and self-values* (Cockburn-Wootten, Friend, & McIntosh, 2006; Wilson & Harris, 2006; Zhang & Hitchcock, 2017). Health and wellness, natured-based tourism, adventure tourism and ecotourism become travel sectors that are prominently attractive to female travelers (Bond, 2017; Doran, 2016; Notable Life, 2017; Weaver, 2001). Therefore, when examining women in the travel context, they should be analyzed through the lens of a demographic group that is seeking ways to escape from the social pressure of being a woman, and to have more freedom to develop self-identification and self-confidence. These women are mostly open to new experiences and adventures, yet still somewhat are affected by the conservative social expectations of being a female in the travel space due to their deeply rooted image as a family keeper.

Female solo travel's motivations, constraints and experiences

Laessser et al. (2009) identified the main motivations for solo travelers in general as curious hedonism (desire to have novel experiences without withholding from comfort and convenience) and social motives (the need to foster and develop social networks). Mehmetoglu, Dann and Larsen (2001) examined why people travel on their own and identified several motivators, such as ease, flexibility, freedom, exploration, absence of travel companion, prestige, spontaneity and solitude. Hyde and Lawson (2003) demonstrated that solo travelers typically have an evolving itinerary, are willing to take risks in selecting vacation elements and possess a desire to experience the unplanned. Bianchi (2015) found that solo travelers were generally motivated due

to certain push factors such as feelings of freedom, escape and bravery. In the context of female solo travel, the motivation of women to travel alone relates to their desire to challenge themselves, find a sense of autonomy and self-determination, meet new people and extend themselves out of their comfort zone (Chiang & Jogaratnam, 2006; Jordan & Gibson, 2005; Wilson & Harris, 2006).

Previous studies on solo travel typically investigated the constraint aspects that deter women from travelling alone (Jordan & Gibson, 2005; Wilson, 2004; Wilson & Little, 2005, 2008). As previously discussed, the gendered location of a woman being the family keeper is one of the biggest constraints for women's leisure participation compared to their male counterparts (Jackson & Henderson, 1995). Constraints such as fear for personal safety and feelings of vulnerability appear to be heightened for women when they partake in outdoor leisure activities (Deem, 1996; Little, 2002; Virden & Walker, 1999; Whyte & Shaw, 1994). For example, in a study on ski tourism, Hudson (2000) reported female tourists experienced a much higher level of constraints compared to male tourists, in terms of their "intrapersonal constraints" (psychological states and attitudes that limited a person's participation such as lack of self-confidence, fear, anxiety, and lack of perceived skills or ability), "interpersonal constraints" (factors that emerge from an individual's social interactions with their significant others such as friends, family members, and work colleagues), and "structural constraints" (any factor that intervened between leisure preference and participation). In addition, some empirical evidence suggested that these constraints and limitations may be intensified when women travel abroad (Carr, 2001; Jordan & Gibson, 2000; Wilson & Little, 2008).

Wilson and Little (2005) conducted a qualitative study on female solo travel and explicitly categorized female solo travel constraints (both precedent and in situ constraints) into four categories: "social-cultural, personal, practical and spatial constraints". First, *social-cultural constraints* mostly related to a woman's social roles and expectations, which potentially made

them look socially inappropriate in the public eye and caught unwanted attention from others. For instance, travelling to certain places requires women to obey rules that are not necessarily followed by male tourists, otherwise it would result in comparatively unconformable scrutiny by the local people (e.g. women who are travelling to Dubai are expected to cover their hair and face in public areas). Additionally, women generally receive comments of pity and concern as well as certain levels of public attention while travelling alone as they are mostly expected to be accompanied by male travelers. Personal constraints revolve around personal limitations and restrictions based on the self- perceptions, beliefs, and attitudes of women (Wilson & Little, 2005). Their doubts and fears being a female solo traveler, particularly the fear of harassment, as well as the fear of loneliness are prominent personal constraints. Therefore, safety issues are the prime concerns for every female traveler before travelling to any destination or even during their trips since they are typically perceived as easy targets for many criminal activities. For instance, Turkey has been regarded as the most dangerous destination for female travelers because of numerous incidents of terrorist attacks and sexual harassment (International Women's Travel Center, 2017). *Practical constraints* refer to practical challenges such as lack of time and money, lack of local knowledge, lack of guidance, and the stress and fatigue of being a female solo traveler (Wilson & Little, 2005). Linked closely to the effects of the previous three categories, spatial constraints refer to those factors that restrict the freedoms and movements of solo women within tourist settings. For example, Middle Eastern countries have been notoriously alleged as "unsafe" for female travelers, and very dangerous for female travelers to be out of their accommodations during the night time.

Personal development from solo travel experiences

Personal development as travel motivations

Crompton (1979) was one of the first tourism researchers to identify the importance of learning when identifying education as one of two pull factors for tourism participation, and also noted that exploration and self-evaluation were an important push motive. According to Iso-Ahola (1982), leisure tourism motivators consisted of escaping from daily routine as well as attaining psychological rewards including a sense of mastery, learning and exploration. The learning aspect of tourism was later elaborated by Pearce and Lee (2005) using the concept of the "travel career ladder", which identified fourteen core motivational factors for travelling and empirically confirmed these factors across large international studies. The travel career pattern asserts that travelers have different configurations of needs based on previous travel experiences and life stages (Hsu & Huang, 2008). The model identified a core set of motives that are the primary drivers for all travelers regardless of travel experience or life cycle, which consisted of escape and relaxation, experiencing novelty and building relationships. Other motives are structured into the middle and outer layer of importance. Learning and education are implicit in motives such as self-development through involvement with hosts or the site, self-development and self-actualization (getting a new life perspective), which are positioned in the middle layer of the model.

There are some interesting parallels between Pearce and Lee's (2005) travel career concept and Stebbins' (1982) notion of "serious leisure". Serious leisure describes leisure activities that are actively pursued to support the accumulation of experience and development of skills and knowledge. Thus, learning is an implied dimension of serious leisure, for without learning, there is little scope for the development of skills and knowledge. Jones and Symon (2001) suggested a reciprocal relationship between lifelong learning and serious leisure. Freysinger & Kelly (2004) suggested increasing numbers of Western people are viewing leisure and tourism as opportunities

for self-development and learning and seeking experiences that expand their understanding of themselves and their world. Lifelong learning through serious leisure provides individual freedom for self-actualization and self-expression in an activity which is often freely chosen and which satisfies a quest for excitement (Jones & Symon, 2001). The literature evidently affirmed the influence of serious leisure or tourism for knowledge accumulation on an individual's personal development and self-growth.

Personal development as travel experiences

Pine and Gilmore (1999) proposed that experiences are a new economic offering, distinct from, and often more highly valued than goods and services. They suggested people want an experience that is engaging, personal, sensation-rich and memorable; as well as an experience that changes them, alters their view of the world, boosts their personal capabilities, or instils a sense of wonder, beauty and appreciation. The authors also identified four experience realms: education, esthetics, entertainment and escape. These realms are positioned on a two-dimensional framework anchored by active versus passive participation and absorption versus immersion experience (refer to Figure 1). From the framework, it was found that education was a critical element in providing active and absorbing experiences.

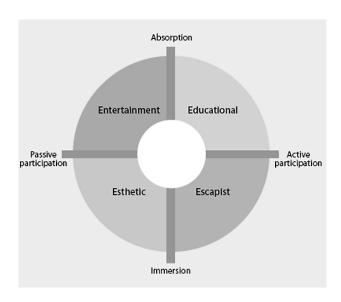


Figure 1. Experience Economy

Framework (Pine & Gilmore, 1999)

Along those lines of thoughts, Falk et al. (2012) provided a two-dimensional (*active and passive*) conceptual framework explaining the learning opportunities from travel including three categories: "knowledge, practical skills, and practical wisdom". For *practical skills*, while a passive traveler will earn incidental development of generic skills and techniques (e.g. communication, organization, problem solving, navigation); an active traveler will display active quest for control and mastery of physical or cognitive skills (e.g. golfing, sailing, photography). For *knowledge*, a passive traveler will be likely to attain knowledge serendipitously and spontaneously (e.g. incidental learning about sites, settings and species); whereas an active learner will deliberately search for knowledge and understanding (e.g. intentional learning about sites, settings and species). On the other hand, for *practical wisdom*, while a passive learner will accumulate "life experiences" through exposure to varied situations and settings (e.g. self-awareness, social and cultural awareness); an active traveler will have active pursuit of a good and virtuous life (e.g. consciously learning about sustainable and ethical behaviors and cultural

perspectives). Tying these findings back to this study, it can be inferred that the level of personal development gained from the travel experiences can be largely influenced by the level of *activeness* and *immersion* of the traveler in those experiences. Therefore, in this study, it is anticipated that solo travel exposure (i.e. frequency of making own solo travel arrangements, frequency of traveling solo per year, and average length of time per solo trip) would be a critical component to highly affect the quality of the female solo travel experience and subsequently their personal development.

Learning is a uniquely personal and contextual experience, and vastly idiosyncratic. Learning is powerfully influenced by the inside world of our past experiences, but equally by the outside world. Thus learning possesses two key dimensions: the outside world as dictated and interpreted by other humans in our lives (Gutiérrez & Rogoff, 2003); and the sights, sounds, tastes and sensation of that world as perceived directly through our own senses and framed by the lenses of our evolutionary (Barkow, Cosmides, & Tooby, 1995) and personal-social (Wertsch, 1985) history. However, many tourism sites have assumed that the key issue to educational challenge is that tourists are having a knowledge deficit and true learning can only occur when new knowledge is acquired (Falk et al., 2012).

A better approach, typically described as asset-based rather than deficit-based, suggests that personal growth and learning only happen when individuals build from their existing interests, knowledge and skills (Brotman, Mensah, & Lesko, 2011; Falk, 2009; Roth & Lee, 2002). This approach recognizes that learning outcomes often represent a unique and individual combination of what is seen, read, heard, felt or reflectively considered rather than a simple transfer of information (Ballantyne, Packer, & Sutherland, 2010). Recent conceptualizations of the tourist experience thus focus attention on the tourist as a co-creator of meaning rather than on the displayed objects provided by the industry (Uriely, 2005). In other words, the travelers are not only attaining knowledge but are also involved in creating the learning experiences, and the

knowledge earned out of those experiences is unique and personal to the travelers. In this study, it could be inferred that the interaction between each female solo traveler and the local destinations (e.g. local hosts, local cultures, or local languages), which could be reflected by their exposure and challenges, is highly influential in the formation of learning outcomes.

Impacts of travel experiences on personal development

Lonely Planet, a large travel guide book publisher and global leader in the provision of travel information, has been devoted to understanding the impact of traveling on the personal views of independent travelers. In one of its survey reports, 65% of the respondents stated that independent travel had made them respect the local culture, while 51% of them reported that experiences of independent traveling intensified their intention to travel independently. Respondents also reported development of value and morals (44%), and concerns about social justice and poverty issues (41%), among other perceived impacts (Lonely Planet, 2005). From Scarinci and Pearce's (2012) study, travel experiences facilitated generic skills learning, especially among respondents who had traveled internationally four or more times. Those generic qualities influenced by international travels included independence, being open-minded and feeling comfortable around different kinds of people. Likewise, Pan (2014) discovered that Taiwanese volunteers in Mainland China had gained several benefits from their volunteering experiences, including a better attitude toward learning, better communication skills, better stress management, becoming more generous and developing empathetic skills, having an open mind, and learning to control material desire.

The travel experiences of backpackers were typically used as a benchmark in studies on female solo travelers (Jordan & Gibson, 2005; Wilson & Little, 2005), and thus the personal development of backpackers will be looked into more deeply with a view to relating to the

personal development of female solo travelers. Pearce and Foster (2007) developed a 42-item scale to measure backpackers' generic skills development, which was grouped into eight categories: problem-solving and thinking skills, interpersonal/social skills, information literacy and management, learning, adaptability/flexibility, social and cultural awareness, management of resources, and personal attributes. Based on in-depth interviews with twenty-two US backpackers that have had overseas travel experiences, Kanning (2008) confirmed that their worldviews had been influenced by their experiences, especially by the interactions with local residents and fellow backpackers. Building up on previous studies, Chen, Bao, and Huang (2014) combined, synthesized and developed a scale to measure individual personal development for backpackers consisting of five main components: capacity (communication capability, adaptability, and resolving problems capability), emotion (anxiety, stress, and frustration management), worldview (view towards world, life and value), skill (time, money, and material management) and self-consciousness (awareness of self and other people).

Impacts of solo travel constraints on female travelers' personal development

While women are faced with a number of constraints to travel, the ability to overcome these constraints and to attain the feelings of empowerment accrued through travel should not be underestimated (Harris & Wilson, 2007). Tourism can become a sphere for self-expression and self-exploration. This can be facilitated by the "liminoid quality of travel spaces" that nurture a sense of escape and freedom from the strictures of everyday life and a sense of communitas characterized by a strong sense of belonging and absence of everyday social statuses (Lett, 1983; Turner, 1974). Wearing and Wearing (1996) advocated for the use of the feminist concept of "chora", which means site of identity (re)creation. The authors proposed that female solo travelers are regarded as "chorasters" who exercise the concept of "chora". Female solo travelers

could "recereate their identity" because they are able to develop multiple subjectivities and move beyond their everyday categories and gender roles during their solo travel. As a result, researchers have found that female solo travel is associated with various outcomes including exercising agency and resistance, experiencing self-transformation, existential authenticity, independence, emancipation, and empowerment (Jordan & Gibson, 2005; Obenour, 2005).

Jordan and Gibson (2005) proposed a feminist conceptual framework including three poststructural theories interacting with each other, namely the concept of "surveillance", "resistance" (Foucault, 1980), and "empowerment" (Deveaux, 1994). This framework explains that humans are encouraged, through self-surveillance in response to collective gaze, to conform to social norms. In tourism studies, tourism spaces are socially regarded as hedonism, freedom, sex, and fantasy, and are more "socially appropriate" for men rather than women. Thus, in this case, female solo travelers are marginalized, and thus demotivated to participate in tourism spaces. However, when female travelers are able to resist to these social norms to retain their tourism spaces and enjoy their trips, this has the potential to be empowering (Wearing, 1998). Therefore, it could be implied that the degree to which females resist their perceived solo travel constraints, which are part of the solo travel experiences, could have an impact on their personal development.

Authentic personality

One of the earliest concepts of personal authenticity was proposed by Winnicott (1965), who postulated that one's personality could be divided into two versions: the "true self" (more spontaneous and authentic) and the "false self" (more defensive and protective). This theory posited that the ideal-self, representing whom one would like to be, often deviates from the true self, due to lack of positive memories during childhood and/or the influence of feedback and opinions received during their developmental period. Similarly, Rogers (1959) defined the real

self as the underlying "organismic-self". The gap between the real self and the ideal self was referred to as *incongruity*. Both theories also suggest that large gaps or incongruence between the true and false self can lead to various psychological problems, while behaving according to one's "true self," as well as having clear and explicit identity, tends to have positive consequences.

Kernis (2003) conceptualized authenticity to have four separate components: "awareness, unbiased processing, action, and relational orientation." The *awareness* component refers to having awareness of, and trust in, one's motives, feelings, desires, and self-relevant cognitions. It includes, but is not limited to, being aware of one's strengths and weaknesses, trait characteristics, and emotions. Another aspect of this component is being aware of one's inherent polarities. According to Perls, Hefferline, and Goodman (1965), this means being aware of both "figure" and "ground" in one's personality aspects. As individuals function with greater authenticity, they are aware that they possess these multifaceted self-aspects, and they utilize this awareness in their interchanges with others and with their environments.

The second component of authenticity involves the *unbiased processing* of self-relevant information. In other words, it involves not denying, distorting, exaggerating, or ignoring private knowledge, internal experiences, and externally-based evaluative information. Instead, it involves objectivity and acceptance of one's positive and negative aspects, attributes, and qualities. The third component involves *behavior*, specifically whether people act in accordance with their true self. This means acting accordingly to one's values, preferences, and needs as opposed to acting merely to please others or to attain rewards or avoid punishments through acting "falsely." *Relational authenticity* involves endorsing the importance for "close others" (e.g. family, spouses, children, etc.) to see the real self, regardless of the individual's good and bad. Toward that end, authentic relations involve a selective process of self-disclosure and the development of mutual intimacy and trust. In short, relational authenticity means being genuine and not "fake" in one's relationships with the close others.

Later, Wood et al. (2008) proposed a more elaborate framework known as the "tripartite person-centered view of authenticity", which involved "consistency between the three levels of (a) a person's primary experience, (b) their symbolized awareness, and (c) their outward behavior and communication" (p.386). This framework begins by contrasting actual experience (the true self, including actual physiological states, emotions, and schematic beliefs) with the aspects of experience that are represented in cognitive awareness. The first aspect of authenticity involves the inevitable mismatch between the conscious awareness and actual experience. Perfect congruence between these aspects of experience is never possible, and the extent to which the person experiences *self-alienation* between conscious awareness and actual experience (the true self) composes the first aspect of authenticity. The subjective experience of not knowing oneself, or feeling out of touch with the true self, is indicative of this aspect of authenticity.

Secondly, authenticity involves the congruence between experience as consciously perceived and behavior (Rogers, 1959). *Authentic living* involves behaving and expressing emotions in such a way that is consistent with the conscious awareness of physiological states, emotions, beliefs, and cognitions. In other words, authentic living involves being true to oneself in most situations and living in accordance with one's values and beliefs. The third aspect of authenticity involves the extent to which one accepts the *external influence* of other people and the belief that one would have to conform to the expectations of others. Humans are fundamentally social beings, and both self-alienation and authentic living are affected by the social environment (Schimid, 2005). Introjecting the views of others and accepting external influence affect both feelings of self-alienation and the experience of authentic living.

Bladon (2012) stated that personal development is the antecedent to an authentic personality. Personal development "involves mastering (not repressing) our thoughts, emotions and bodies to free ourselves from the fears, insecurities, conditioned behaviors, reactive emotions, critical judgments and limiting beliefs… to reveal our own inner beauty" (Bladon, 2012, p.117). Studies

on leadership education also asserted the positive relationship between personal development and authentic personality of the leaders (Hoque, 2013; Scott et al., 2015). Therefore, it could implied that there would be a positive relationship between personal development and authentic personality in this study.

Self-esteem

Self-esteem has been shown to largely vary based on age cohort, gender, ethnicity, and personality. Self-esteem levels tend to be high in childhood, drop during adolescence, increase gradually throughout adulthood, and decline sharply in old age (Robins et al., 2002). For example, female gender, Hispanic race, overweight and obesity, sensation seeking, rebelliousness, and daily TV time have been each independently associated with lower self-esteem (McClure et al., 2012). Self-esteem is a vital aspect of life as it can predict personal and social life outcomes in the long run such as high academic and/or job performance, as well as successful social and romantic relationships. On the other hand, low self-esteem could lead to negative outcomes like poor physical and mental health, low economic prospects and delinquency (Steiger et al., 2014).

Baumeister, Tice, and Hutton (1989) posited that low self-esteem individuals are uncertain and confused individuals whose self-feelings are predominantly neutral. They based this assertion on data from many studies suggesting that low self-esteem individuals typically give responses on self-esteem inventories that hover around the midpoint of response scales (reflect neutral self-feelings). Low self-esteem individuals also possess low *self-concept clarity*. This implies their self-concepts lack internal consistency and stability and are held with little confidence. Low self-esteem can be deeply rooted, with origins in traumatic childhood experiences or emotional,

physical, or sexual abuse. In later life, self-esteem can be undermined by ill health, negative life events, deficient or frustrating relationships, and a general sense of lack of control that is especially marked in victims of emotional, physical, or sexual abuse, or victims of discrimination on the grounds of religion, culture, race, sex, or sexual orientation (Burton, 2012).

On the other hand, high self-esteem has been conceptualized as global feelings of self-liking, self-

worth, respect, and acceptance (Brown, 1993; Rosenberg, 1965). This conceptualization has the advantage of anchoring self-esteem to feelings about the self as a whole, not to evaluations of one's various characteristics or specific qualities. Kernis (2003) postulated that global self-esteem is best understood as an affective construct consisting of self-related emotions tied to worthiness, value, likeableness, and acceptance. Furthermore, this constellation of emotions can reflect notions of superiority or deservingness, or it can reflect a sense of being at peace with oneself. Interestingly, high self-esteem does not always result in positive outcomes. High self-esteem can be divided into "fragile high self-esteem" and its secure counterpart "secure high self-esteem" (Kernis, 2003): When having a fragile high self-esteem (defensive high self-esteem), a person may deliberately misrepresent self-feelings as positive, and is unwilling to admit that those feelings were negative feelings. The secure counterpart to this form (genuine high self-esteem) involves a person accurately depicting self-feelings of worth as positive, as evidenced by a willingness to admit to negative characteristics in other domains. Another form of fragile high self-esteem (high explicit and low implicit self-esteem) occurs when a person consciously holds positive feelings of self-worth but non-consciously holds negative feelings. The secure counterpart to this form involves possessing positive conscious and non-conscious feelings of self-worth. A third form of fragile high self-esteem (contingent high self- esteem) occurs when a person bases positive feelings of self-worth on specific attainments or evaluations. The secure counterpart to this form (true self-esteem) involves feelings of self-worth that do not require

continual validation. A fourth form of fragile high self-esteem (unstable high self-esteem) involves instances in which a person reports typically holding positive feelings of worth, yet the person's current, contextually based feelings of self-worth exhibit considerable short-term fluctuations. The secure counterpart to this form (stable high self-esteem) involves contextually based feelings of self-worth that remain basically unchanged across time and contexts.

Thus, it can be seen that there are different levels (e.g. low, high) and types of self-esteem (e.g. stable, unstable), and when one seems to have a high self-esteem on the outside, it does not necessarily hold a high self-esteem implicitly (low stability). However, only those with high implicit self-esteem would have consistent positive self-thoughts regardless of the external influence and would not need continuous self-validation to feel good about themselves. Hence, for this study, a desirably high self-esteem would hold the following characteristics, namely *genuine*, *highly implicit*, *true*, *and stable*.

Self-esteem generally is not stable throughout one's life and can be significantly enhanced when an individual has various chances to identify their own needs and develop solutions for their difficulties (Plummer, 2005). This applies well in a solo travel context in which female solo travelers could encounter various new experiences (e.g. new cultures, new languages, etc.), and face different challenges (e.g. time management, budget management, self-protection, as well as various hardships and constraints unique to the female solo traveler context mentioned above) during their trip, and from which they learn more skills and knowledge, and become more aware of themselves and the world around them (key outcomes related to personal development). *A sense of mastery*, which could be attained from those traveling experiences, is found to predict higher level of self-esteem (Erol & Orth, 2011; Iso-Ahola, 1982).

In addition, studies have shown that there is a positive correlation between authentic personality and self-esteem (Kernis, 2003; Sheldon et al., 1997; Wood et al., 2008). Authenticity has found to

be highly correlated with optimal self-esteem, which is the high and stable self-esteem type (Goldman & Kernis, 2002; Kernis, 2003). When being an authentic individual, this means that the indivual would embrace both their good and bad, behave truly to their beliefs and is not influenced by external opinions (Kernis, 2003; Wood et al., 2008). This matches well with the characteristics of an optimal self-esteem (Kernis, 2003).

Conceptual framework

The purpose of this study is to explore how solo travel experiences contribute to the personal development, authentic personality, and self-esteem of females. This results in four main research objectives: (1) to investigate the general characteristics of female solo travelers; (2) to investigate the influence of solo travel exposure on females' perceptions of solo travel constraints; (3) to investigate the influence of perceived constraints on the personal development of female solo travelers; and (4) to investigate the relationships among personal development, authentic personality and self-esteem.

Six research questions were developed corresponding to the four study's objectives: (1) What are the general characteristics of female solo travelers? (2) Do perceptions of solo travel constraints change with more exposure to solo traveling? (3) Do changes in perceptions of solo travel constraints influence different levels of personal development? (4) What are the key personal development factors that contribute to respondents' perceptions of their authentic personality? (5) What are the key personal development factors that contribute to respondents' self-esteem? (6) What are the key authentic personality factors that contribute to self-esteem?

The level of "activeness" and "absorption" of the travel experiences could lead to "escapist" experiences and profound learning outcomes (Falk et al, 2012; Pine & Gilmore, 1999), where women are able to more fully escape from their normal lives and gender role and gain significant knowledge and skills to overcome various challenges in solo travel spaces. This infers that an increase in the level of solo travel exposure reflected by the frequency of making own travel arrangement, frequency of traveling solo per year, and average length of time per solo trip would mitigate the level of female perceived solo travel constraints. Thus, the first three hypotheses, which correspond to the research question "do perceptions of solo travel constraints change with more exposure to solo traveling" are as follows:

H1a: There is a decrease in perceived solo travel constraints as female solo travelers make more solo travel arrangements on their own.

H1b: There is a decrease in perceived solo travel constraints as female solo travelers travel more per year.

H1c: There is a decrease in perceived solo travel constraints as the average length of trip increases for female solo travelers.

The co-creation of the travel experiences were asserted to be instrumental in the traveler's learning outcomes (Ballantyne, Packer, & Sutherland, 2010; Uriely, 2005). This could be reflected by the interactions between travelers with different aspects of the solo travel experiences, which would not always be positive. In this study, the negative interactions, operationally defined as perceived female solo travel constraints, were investigated in relation to the personal development of travelers. In this study, these perceived constraints were expected to result in an increase in women's self-growth. Researchers examining solo travel for females have found that being able to resist or overcome solo travel constraints to more fully enjoy the solo travel experiences would result in prominent outcomes such as empowerment, self-transformation, independence, and emancipation (Harrison & Wilson, 2007; Jordan & Gibson, 2005; Obenour, 2005). These outcomes are related to the concept of personal development and thus, the following four hypotheses of this study were developed (corresponding with the third research question: Do changes in perceptions of solo travel constraints influence different levels of personal development?

H2a: There is an increase in personal development when female solo travelers experience higher levels of perceived social-cultural constraints.

H2b: There is an increase in personal development when female solo travelers experience higher levels of perceived spatial constraints.

H2c: There is an increase in personal development when female solo travelers experience higher levels of perceived personal constraints.

H2d: There is an increase in personal development when female solo travelers experience higher levels of perceived practical constraints.

In addition, past studies in psychology research have also purported the positive relationship between personal development and authenticity (Bladon, 2012; Hoque, 2013; Scott et al., 2015); the positive relationship between personal development and self-esteem (Erol & Orth, 2011; Plummer, 2005); as well as the positive relationship between authenticity and self-esteem (Kernis, 2003; Sheldon et al., 1997; Wood et al., 2008). This could be applied to the female solo travel context. Therefore, the last three research questions of this study are: (1) what are the key personal development factors that contribute to respodent's perceptions of authentic personality? (2) what are the key personal development factors that contribute to respodent's self-esteem? (3) what are the key authentic personality factors that contribute to respodent's self-esteem?

The study's objectives, research questions and hypotheses are indicated in Table 1 below:

Table 1. Study Objectives and Corresponding Research Questions (RQ) and Hypotheses (H)

Study Objectives	Research Questions (RQ)	Hypotheses (H)
(1) To investigate the general characteristics of female solo travelers;	RQ1: What are the general characteristics of female solo travelers?	N/A
(2) To investigate the influence of solo travel exposure on females' perceptions of solo travel constraints;	RQ2: Do perceptions of solo travel constraints change with more exposure to solo traveling?	H1a: There is a decrease in perceived solo travel constraints as female solo travelers make more solo travel arrangements on their own. H1b: There is a decrease in perceived solo travel constraints as female solo travelers travel more per year. H1c: There is a decrease in perceived solo travel constraints as the average length of trip increases for female solo travelers.

(3) To investigate the influence of perceived constraints on the personal development of female solo travelers;	RQ3: Do changes in perceptions of solo travel constraints influence different levels of personal development?	H2a: There is an increase in personal development when female solo travelers experience higher levels of perceived social-cultural constraints. H2b: There is an increase in personal development when female solo travelers experience higher levels of perceived spatial constraints. H2c: There is an increase in personal development when female solo travelers experience higher levels of perceived personal constraints. H2d: There is an increase in personal development when female solo travelers experience higher levels of perceived practical constraints.
(4) To investigate the relationships among personal development, authentic personality and selfesteem.	RQ4: What are the key personal development factors that contribute to respondent's perceptions of their authentic personality? RQ5: What are the key personal development factors that contribute to respondent's self-esteem? RQ6: What are the key authentic personality factors that contribute to self-esteem?	N/A

The conceptual framework of this study is illustrated in Figure 2:

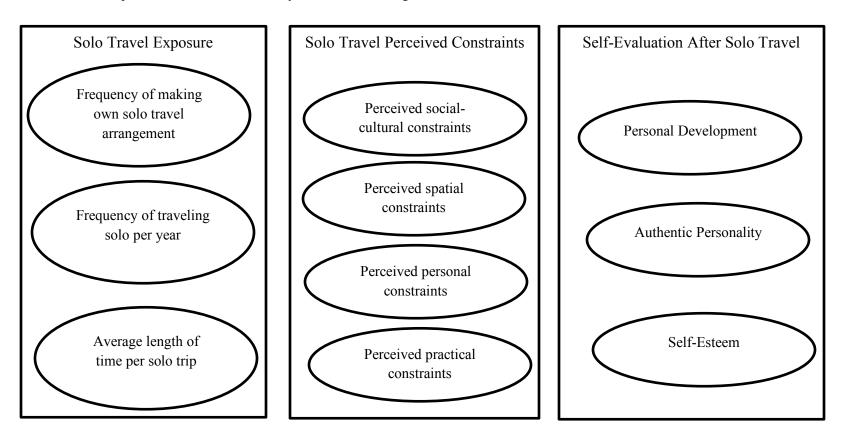


Figure 2. Conceptual Framework

CHAPTER III

RESEARCH METHODS

Chapter III includes the methodological techniques and approaches utilized in this study. It describes the target population, development of the research instrument, sampling and data collection procedures and the methods used for data analysis.

Research design

A quantitative research strategy was adopted to achieve the objectives of this study: (1) To investigate the general characteristics of female solo travelers; 2) to investigate the influence of solo travel exposure on females' perceptions of solo travel constraints; (3) to investigate the influence of perceived constraints on the personal development of female solo travelers; and (4) to investigate the relationships among personal development, authentic personality and self-esteem.

Target population

The target population of this study was *adult females* (aged 18 and above) who have had traveled solo for *leisure or vacation purposes*. This study focused on leisure travel rather than business trips as previous literature has suggested that due to women's traditional role as a family keeper, women did not prioritize participating in leisure activities and were demotivated to traveling for leisure due to various preconceived constraints such as lack of confidence, lack of perceived capabilities, lack of time, and fear and anxiety of traveling (Hudson, 2000; Jordan & Gibson, 2000; Wilson, 2004; Wilson & Little, 2005). Therefore, by investigating the leisure experiences of women, it was anticipated that there would be more prominent findings of the influence of solo travel, particularly solo travel exposure and constraints, on their perceptions of self-discovery.

Sampling population and sampling strategy

According to Qualtrics (2018), the sample size calculation is as follows:

$$Sample\ size = \frac{Z - score^2\ X\ Standard\ deviation\ X\ (1 - standard\ deviation)}{Margin\ of\ error^2}$$

From the formula, with a 95% confidence level (resulting in a z-score of 1.96), a confidence interval of 5% and a standard deviation of 0.5 (considered to be the safe decision ensuring the sample is large enough), the sample size needed for this study was:

Sample size =
$$\frac{1.96^2 \text{ X } 0.5 \text{ X } (1-0.5)}{5\%^2}$$
 = 384.16 \approx **385**

Thus, the sample size needed for this study was N=385. Prolific Academic was chosen to be the recruiting platform for this study. The decision was largely due to the new European Union's General Data Protection Regulation (GDPR) implemented in May 2018, which requires more stringent process when collecting data in the European Union (EU). This survey questionnaire would benefit from collecting data from women all around the world, and including EU citizens was taken into consideration regarding the sampling strategy.

Prolific Academic is a global crowdsourcing community that particularly assists academic researchers in recruiting their respondents. The company was founded in 2014 and is headquartered in Oxford (United Kingdom). This could possibly explain the reason why Prolific Academic's participants are mostly Caucasian and from the UK (Peer at al., 2017). Since its launch, more than 2000 academics, startups, charities and businesses have used Prolific Academic, and more than 8000 academic studies worldwide have been conducted (Prolific, 2018). Due to its focus on academic studies, Prolific Academic adopted a highly ethical business model. In comparison to other crowdsourcing platforms like MTurk and CrowdFlower, Prolific Academic not only has a pool of participants that are more honest, but also produces higher quality data. A great portion of Prolific Academic users have at least a Bachelor's degree with relatively low annual income (Peer et al., 2017).

More importantly, Prolific Academic is a reliable data collection platform that meets the newly established EU IRB guidelines. Therefore, it was ultimately selected as the recruiting tool for this study. Prolific Academic ensures the desired sample size is achieved and has the function to prescreen to recruit the desired respondents of this study (i.e. adult female aged 18 and above,

who have had traveled solo for leisure or vacation purposes). In addition, the platform ensures that random sampling and all responses are independent of each other.

Instrument

A self-administered online questionnaire was used to carry out this study. The questionnaire consisted of six main sections: (1) solo travel exposure, (2) perceptions of solo travel constraints, (3) level of personal development from solo trips, (4) perceptions of level of authentic personality, (5) perceptions of level of self-esteem, and lastly (6) socio-demographic characteristics. All questions from section two to four were measured based on a seven-point Likert scale, while questions in section one and six are a combination of different types of questions (e.g. multiple-choice questions, ranking questions, etc.) (refer to Appendix for survey questionnaire). Each of these sections will be described in more details below.

Solo travel experiences

In this section, the solo travel experiences of the respondents were assessed via the following questions: (1) How frequently do travelers make their solo travel arrangements by themselves (without the assistance of travel agencies and/or tour operators)? (2) What are the types of travelers (i.e. adventurer, economizer, worrier, dreamer and indulger) that most and least reflect the respondents as they identify themselves as solo travelers? (3) How many times have the respondents travelled solo in each regions of the world? (4) What are the months of the year that the respondents typically travel solo? (5) On average, how many solo trips do the respondents take per year? (6) On average, what is the length of a typical solo trip?

These questions were used to ascertain the degree to which respondents have been engaged in solo travel. It is hypothesized that the more exposure to solo travel (operationally measured by three main factors including how frequently travelers make their own solo travel plans, frequency of solo trips, and duration of solo trips) will positively influence the self-discovery process of the respondents (Pine & Gilmore, 1999; Falk et al., 2012). Additionally, these general descriptions of female solo travelers will provide a better understanding of this travel segment and what kind of experience or travel plans they are looking for, which eventually will help to fill a void in the literature.

Solo travel constraints

Past literature on solo travel constraints has addressed the topic by employing qualitative methods (Jordan & Gibson, 2005; Wilson, 2004; Wilson & Little, 2005, 2008). Hence, a valid and reliable scale to credibly measure the unique solo travel constraints for female solo travelers could not be found. For that reason, the themes arising from past qualitative studies were carefully selected and modified into a scalable format to measure solo travel constraints. A review of various past studies identified themes from Wilson and Little (2005)'s study, which proposed a thorough and robust set of themes and items directly related to female constraints during solo traveling, to have the most potential to be converted into scalable items for this study given.

According to Wilson and Little (2005), there are four main "in situ" constraints impacting women during their solo travel: *personal* (including subcategories of fear and vulnerability, and loneliness), *sociocultural* (including subcategories of host attitude and unwanted attention), *spatial* (including subcategories of restricted movement and conspicuousness), and *practical* (including subcategories of lack of local knowledge, traveling with others, and stress and fatigue).

Based on the analysis of the qualitative responses which elaborated more on the meaning of each original items, a new adapted set of 17 items in scale format for measuring perceived female solo travel constraints was developed. These items asked respondents to rate the perceived level of significance of their solo travel constraints across all their solo trips. A panel of experts was consulted to refine these items into a credible measurement scale for solo travel constraints (conceptualized as the solo travel experience in this study). A pilot study was used to assess the effectiveness of the scales as well as the validity of the entire survey questionnaire. A summary of the original and adapted items could be found in Table 2 below.

Table 2. Adaptation of Original Themes and Items of In Situ (During Travel) Constraints Impacting on Woman Solo Travel from Wilson and Little (2005) for Scalable Items Measuring Perceived Female Solo Travel Constraints

In Situ Constraints	Constraints Subcategories	Adapted Scalable Items
	Host attitude	1. The local attitude was unfavorable to me
	1103t utiltude	2. Tourism and hospitality businesses were not single-friendly
Social-cultural		3. I received unwanted local attention
Social-cultural	Unwanted attention	4. I received unwated male attention
	Onwanted attention	5. I received male harrasment
		6. I felt I was being watched
	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7. I felt fearful
Personal	Fear and vulnerability	8. I felt unsafe
	Loneliness	9. I felt lonely
		10. I lack local languages
	Lack of local knowledge	11. I lack geographical understanding
Practical		12. I lack cultural understanding
Fractical	Traveling with others	13. Meeting up with other travelers prevented me from truly absorbing my solo travel experiences
	Stress and fatique	14. I felt stressful
	Restricted movement	15. I could not travel to certain places
Spatial	Restricted movement	16. I could not travel at certain times of the day
1	Conspicuousness	17. I was restricted to do certain things

Personal development

Personal development was measured with six factors and seventeen items, adapted from the scale developed by Chen et al. (2014) and Jordan and Gibson (2005), which inquired respondents to rate their degree of agreement/disagreement in terms of their personal development from their solo trips. The first five factors including *capability, emotion, skill, worldview, and self-consciousness* (consisting of fourteen items) were taken from backpacker's personal development scale proposed by Chen et al. (2014), whereas the last factor – *empowerment*, with three items were taken from the qualitative work of Jordan and Gibson (2005) looking into the impact of solo travel constraints on females.

The personal development scale from Chen et al. (2014) was used in this study as it was the most holistic and recent measurement scale for personal development in the context of tourism, specifically backpackers. However, the unique aspect of personal development was not captured in the scale developed by Chen et al. (2014). The additional factor of empowerment from Jordan and Gibson (2005) was hence added to the personal development scale as it illustrated a unique and essential aspect of personal development generating from female travelers resisting to social norms while travelling solo (Wearing, 1998; Wearing & Wearing, 1996). Therefore, the addition of the empowerment factor helps to more fully capture the distinct aspects of female personal development through solo travel, as expressed in previous literature.

Authentic personality

Authentic personality was measured with three factors and twelve items adopted from Wood et al. (2008) and asked respondents to rate their degree of agreement/disagreement on the statements

about their authentic personality. The scale by Wood et al. (2008) was used in this study as it was the most updated and credible scale to measure dispositional authentic personality using the tripartite conception of authenticity. The three factors included in the authentic scale were (1) self-alienation, (2) authentic living and (3) accepting external influence. *Self-alienation* encompasses statements on the incongruence between the true personality and actual behavior (i.e. "I don't know how I really feel inside," "I feel as if I don't know myself very well," "I feel out of touch with the 'real me'", "I feel alienated from myself"). *Authentic living* describes how an individual behaves true to their personality and belief systems (i.e. "I think it is better to be yourself, than to be popular," "I always stand by what I believe in," "I am true to myself in most situations," "I live in accordance with my values and beliefs"). *Accepting external influence* illustrates how influential other people are to an individual's behavior (i.e. "I am strongly influenced by the opinions of others," "I usually do what other people tell me to do," "I always feel I need to do what others expect me to do," "other people influence me greatly").

Self-esteem

Self-esteem was measured with a single ten-item scale adopted from Rosenberg (1965) asking respondents to rate their degree of agreement/disagreement on the statements about their self-esteem. The scale measured both positive and negative feelings about the self. Statements illustrating positive feelings of the self are "on the whole, I am satisfied with myself," "I feel that I have a number of good qualities," "I am able to do things as well as most other people," "I feel that I'm a person of worth, at least on an equal plane with others," "I wish I could have more respect for myself," and "I take a positive attitude toward myself." On the other hand, statements illustrating negative feelings of the self-include "at times, I think I am no good at all," "I certainly feel useless at times," "I feel I do not have much to be proud of" and "all in all, I am inclined to

feel that I am a failure." Even though Rosenberg's self-esteem measurement scale was proposed more than fifty years ago, it has proven to be the most widely used and credible scale when self-evaluating an individual's self-esteem (Gil-Or, Levi-Bells, & Turmel, 2015; Steiger et al., 2014).

Socio-demographic characteristics

The last section asked respondents about their socio-demographic characteristics including age, country of origins, ethnicity/race, marital status, whether they are raising children, education level, employment status, financial background and income range. These questions were asked to help better understand the profile of respondents.

Panel of experts and pilot study

To test the overall validity and credibility of the research instrument, a panel of experts was used. The experts consisted of researchers with expertise related to the research topic and/or the methodology used. The panel of experts provided feedbacks on the questionnaire design and constructs. The researcher then used the feedback to make necessary adjustments and refine the research instrument.

A pilot test was then used to pre-test the instrument. The pilot test was defined as "a small-scale version or a trial run in preparation for a major study" (Polit, Beck, & Hungler, 2001, p. 467), and/or typically used to try out a research instrument (Baker, 1994). The survey questionnaire was pilot tested to avoid the use of misleading, inappropriate, or redundant questions, and to ensure that the research instrument could produce consistent results (Simon & Goes, 2011).

Feedback from the pilot study was taken into consideration and changes were made accordingly to improve the overall quality of the questionnaire before distribution to the whole sample size.

Data collection & analysis

Data were collected via Prolific Academic in September 2018. To recruit the right respondents for this study three prescreening questions were requested: (1) Are you a female? (2) Are you 18 years old and above? (3) Have you travelled solo for leisure purposes? The respondents on Prolific Academic completed the survey via Qualtrics. After reaching the required sample size, information on Qualtrics was exported to an Excel file. Data was screened and cleaned accordingly.

Then, the data was exported to SPSS version 24 for analysis. First, data related to solo travel history went through descriptive statistics to understand more about the solo travel characteristics of the sample, which also addressed research question (RQ1). Then, factor analysis and its corresponding reliability test was conducted to develop reliable (or confirm the reliability of) solo travel constraint scale, personal development scale, authentic personality scale, and self-esteem scale for this study. Analysis of variance (ANOVA) was performed to test the influence of solo travel exposure (i.e. frequency of making own solo travel arrangement, frequency of traveling solo per year, and average length of time per solo trip) on perceived solo travel constraints (RQ2); and the influence of perceived solo travel constraint on different levels of personal development scale (RQ3). Lastly, to address research questions RQ4 to RQ6 which investigated the relationship among personal development, authentic personality, and self-esteem, multiple linear regressions were utilized to compare standardized Beta coefficients.

CHAPTER IV

RESULTS

Chapter IV presents the results of the research findings used to answer the six research questions.

A descriptive profile of respondents was generated using frequencies and percentages. Each research question is then addressed separately and a discussion of the results for each question is discussed.

Profile of respondents

A sample of 450 female solo travelers was collected using Prolific Academic. After cleaning the data and taking out invalid or incomplete input, the sample size was reduced to 423 respondents for further analysis. Table 3 and Table 4 summarize the profile of respondents. The sample mostly included young to middle-aged females: almost half of the sample (49.4%) consisted of individuals from Generation Y (those born from 1980-1994); followed by Gen X (25.4%), who are those born from 1965-1979; Gen Z (12.9%) born from 1995-2000; and Baby Boomers (9.2%), who were born from 1944-1964 (Kasasa, 2018).

Regarding the origin of the respondents, the sample was also considerably skewed to Northern and Western regions, specifically the European Union (EU) (70.6%) and North America (14.8%), which accounted for more than 80% of the sample, which is likely due to the make-up of Prolific Academic's respondent database. The other regions included were: Oceania (1.9%), Asia (1.9%), Africa (1.4%), Middle East (0.2%), Eastern Europe (0.2%), and South America (0.2%). Individuals from Central America and the Caribbean were not included in this sample. The race of the respondents was quite unevenly skewed towards white females (81.6%), while other races comprised a relatively small portion in the sample: mixed race (6.6%), Asian (3.5%), Black or African American (2.6%), Hispanic or Latino (1.4%), Middle Eastern (0.7%), and Native Hawaiian or other Pacific Islanders (0.2%). There were no individuals who were Native American or American Indian in this sample. Most respondents had not lived internationally more than a year (%), and those who had lived internationally typically did so in one (%) to two (%) foreign countries in their lifetime.

Table 3. Profile of Respondents

Categories	Frequency (n)	Percentage (%)
Generation		
Gen Z (1995-2000)	55	12.9
Gen Y (1980-1994)	210	49.4
Gen X (1965-1979)	108	25.4
Baby Boomers (1944-1964)	39	9.2
Race		
White	347	81.6
Hispanic or Latino	6	1.4
Black or African American	11	2.6
Asian	15	3.5
Native American or American Indian	0	0.0
Middle Eastern	3	0.7
Native Hawaiian or other Pacific Islanders	1	0.2
Mixed races	28	6.6
Origin by Region		
North America	63	14.8
Central America	0	0.0
South America	1	0.2
The Caribbean	0	0.0
The EU	300	70.6
Eastern Europe	1	0.2
Middle East	1	0.2
Asia	8	1.9
Africa	6	1.4
Oceania (including Australia, New Zealand,	8	1.9
and surrounding islands: Fiji, Papua New		
Guinea, Guam, etc.)		

Table 4. Profile of Respondents (continued)

Categories	Frequency (n)	Percentage (%)
Lived Internationally More Than a Year		··ə· (··/
No	311	75.3
Yes	102	24.7
• 1 country	53	60.0
• 2 countries	33	32.3
 More than 2 countries 	16	7.7
Marital status		
Single	179	42.1
Married/Domestic partnership	195	45.9
Divorced	28	6.6
Widow	7	1.6
Separated	4	0.9
Currently Raising Young Children		
Yes	115	27.1
No	297	69.9
Education Level		
Less than a high school diploma	4	0.9
High school degree or equivalent	51	12.0
Some college, no degree	85	20.0
Associate/technical degree	31	7.3
Bachelor's degree	160	37.6
Advanced degree (e.g. Master, Ph.D., MD)	82	19.3
Employment Status		
Employed full-time	169	39.8
Employed part-time	86	20.2
Self-employed	46	10.8
Unemployed	27	6.4
A homemaker	23	5.4
A student	52	12.2
Retired	9	2.1
Financial Background		
Your family struggled to make ends meet	77	18.1
Your family had enough to consistently have	249	58.1
the basics	,	
Your family had more than enough	89	20.9
Annual Income		
Less than \$20,000	157	36.9
\$20,000 to \$34,999	110	25.9
\$35,000 to \$49,000	68	16.0
\$50,000 to \$74,999	46	10.8
\$75,000 to \$99,999	20	4.7
Over \$100,000	11	2.6
· ,		1 -

Regarding marital status, the sample was relatively distributed evenly between single (42.1%) and married or in a domestic partnership (45.9%). These two marital statuses comprised almost 90% of the sample, while other marital statuses were present yet minimal: divorced (6.6%), widow (1.6%), and separated (0.9%). Additionally, the majority of respondents were not raising any young children (69.9%).

The sample consisted of a high proportion of well-educated individuals, which is likely due to the make-up of Prolific Academic's respondent database. More than 90% of the sample were individuals that had some type of educational diploma/degree, while only 0.9% of the sample had less than a high school education. Furthermore, those that pursued or were pursuing a bachelor's or advanced degree collectively contributed to more than half of the sample (37.6% and 19.3% respectively). Taking up approximately another 40% of the sample had some college and no degree (20%), a high school degree or equivalent (12%), and associate/technical degree (7.3%).

Most respondents (more than 50%) were employed either full time (39.8%) or part time (20.2%), followed by those that were self-employed (10.8%). The remainder of the respondents characterized themselves as students (12.2%), homemakers (5.4%), retired individuals (2.1%), and unemployed (7.5%). Regarding the financial background of respondents, majority were raised in middle-class families, with almost 60% of the respondents stating their families were financially able to provide them with the basics, while other categories (i.e. "your family struggled to make ends meet" and "your family had more than enough") equally contributed to the sample at approximately 19%. In addition, the annual income of respondents was mostly distributed in the low to middle range with almost 90% of the sample earning less than \$50,000 a year. Notably, individuals who made less than \$35,000 accounted for more than 60% of the sample, whereas those who made more than \$75,000 contributed less than 10%. This is also likely attributable to the make-up of Prolific Academic's respondent database.

Characteristics of female solo travelers

This section aims to address research question 1: What are the general characteristics of female solo travelers? Six general characteristics of female solo travelers were developed from this sample based on aspects of their exposure to solo travel: (1) frequency of making own travel arrangements, (2) average number of solo trips per year, (3) average length per solo trip, (4) typical months to travel solo, (5) self-description as a solo traveler, and (6) typical solo travel geographic destination. Table 5 reported the characteristics of female solo travelers found in this study.

Results indicated that most solo travelers (more than 50%) often or always make their own solo travel arrangements. In general, the respondents had same level of involvement in their travel plans (comprising almost 98% of the sample), while only 0.9% of respondents had never made their own solo travel arrangements. The respondents typically took a couple of trips per year or did not travel solo every year, and each trip extended for a relatively short time. According to the sample, more than 60% of respondents took one to four solo trips per year and another 28% do not travel solo annually. Those who took more than five solo trips per year accounted only about 5% in the sample. Moreover, on an average, almost 90% of the respondents committed to their solo trips less than a week (41.6%) to two weeks (45.6%) in duration, with very few people having trips that lasted from two to four weeks (7.8%). The respondents who experienced solo trips of more than a month in duration contributed less than 5%.

Table 5. Characteristics of Female Solo Travelers

Categories	Frequency (n)	Percentage (%)
Frequency of making own solo travel		
arrangements		
Never	4	0.9
Rarely	36	8.5
Occasionally	65	15.4
Sometimes	43	10.1
Frequently	51	12.0
Usually	91	21.4
Always	133	31.3
Average number of solo trips per year		
1 trip	151	35.5
2-4 trips	121	28.5
5-7 trips	17	4.0
8-10 trips	4	0.9
Over 10 trips	1	0.2
I don't travel solo every year	123	28.9
Average length per solo trip		
Less than a week	177	41.6
1-2 weeks	194	45.6
2-4 weeks	33	7.8
1-2 months	7	1.6
2-4 months	7	1.6
4-6 months	0	0.0
More than 6 months	1	0.2
Typical months to travel solo		
January	61	4.3
February	82	5.8
March	95	6.8
April	127	9.0
May	133	9.5
June	157	11.1
July	148	10.5
August	153	10.9
September	165	11.7
October	138	9.8
November	75	5.3
December	72	5.1

In terms of the typical months for solo traveling, the distribution was shown to be more concentrated around summer months, which means female solo travelers tend to choose these months to travel. Specifically, the most traveled months were June to September, which comprised more than 40% of the sample, followed by April, May and October (contributing to another 28.3% of the sample). On the other hand, early spring (January to March) and late winter months (November and December) were least frequent for female solo travelers as all together, these five months contributed only 27%.

Respondents were also asked to indicate how they described themselves as travelers. To answer the question, respondents were given five categories of travelers (adventurer, dreamer, economizer, worrier and indulger) with corresponding descriptions and they were asked to rank these descriptors from most to least representative of how they viewed themselves (Nevett, 1992). Respondents indicated that they most saw themselves as an adventurer ("I value diversity in my travels. I am motivated to seek new experiences. I am constantly seeking new activities, cultures, and people") with almost 40% of the sample having ranked this self-description in the first order. The descriptors that ranked second and third place (tied) were *dreamer* ("I read and talk a lot about traveling, but my travels are simple and relaxation-oriented") and economizer ("I travel primarily because you need a break. I am looking essentially for value"), as both identifications equally contributed more than 60% in the second and third rank. The second to least reflective self-description as a female solo traveler was worrier ("I find travel stressful and have to overcome a considerable amount of anxiety before I can enjoy your trips") accounting for 50% in the fourth place. Lastly, *indulger* ("I like to be pampered while traveling. I am willing to pay more for better service") was ranked at the fifth place and was the only identification that received 100% of agreement from the sample to be the least reflective self-description of themselves as a solo traveler.

Table 6 provides the ranking of the five self-descriptions (i.e. adventurer, worrier, dreamer, economizer, and indulger) as female solo travelers from most reflective to least reflective.

Table 6. Ranking of the Self-Descriptions as Female Solo Travelers from Most Reflective to Least Reflective

	Rankings (1st=Most Reflective; 5th = Least Reflective)										
Self-Descriptions	First		Sec	Second		Third		Fourth		Fifth	
	n	%	n	%	n	%	n	%	n	%	
Adventurer I value diversity in my travels. I am motivated to seek new experiences. I am constantly seeking new activities, cultures, and people.	160	39.3	72	17.7	98	24.1	77	18.9	0	0.0	
Dreamer I read and talk a lot about traveling, but my travels are simple and relaxation-oriented.	83	20.4	138	33.9	117	28.8	69	17.0	0	0.0	
Economizer I travel primarily because you need a break. I am looking essentially for value.	95	23.3	140	34.4	115	28.3	57	14.0	0	0.0	
Worrier I find travel stressful and have to overcome a considerable amount of anxiety before I can enjoy your trips.	69	17.0	57	14.0	77	18.9	204	50.1	0	0.0	
Indulger I like to be pampered while traveling. I am willing to pay more for better service	0	0.0	0	0.0	0	0.0	0	0.0	407	100.0	

Another characteristic of female solo travelers derived from this sample was their typical regions to travel solo based on the ten regions of the world (Table 7). Results indicated that the EU (82.9%) was the most visited region, followed by North America (37.2%) and Eastern Europe (29.4%). In addition, it was found that, on average, female solo travelers mostly traveled to each regions of the world one to four times. Only the European Union and North America have a prominent portion of individuals who traveled more than five times (accounting for 39.8% and 11.9% respectively).

 $Table \ 7. \ Total \ Number \ of \ Times \ Traveling \ Solo \ to \ the \ Ten \ Regions \ of \ the \ World$

		Total Times Traveling Solo										
Regions of the World	1 time		2-4 times		5-10 times		11-20 times		21-50 times		More than 50 times	
	n	%	n	%	n	%	n	%	n	%	n	%
North America	61	14.7	44	10.6	26	6.3	10	2.4	7	1.7	6	1.5
Central America	34	8.5	12	3.0	1	0.3	0	0.0	0	0.0	0	0.0
South America	16	4.0	8	2.0	1	0.3	1	0.3	0	0.0	0	0.0
The Caribbean	31	7.8	12	3.0	5	1.3	0	0.0	0	0.0	0	0.0
European Union	71	17.3	130	31.6	74	18.0	35	8.5	24	5.8	7	1.7
Eastern Europe	58	14.3	41	10.1	11	2.7	6	1.5	2	0.5	1	0.3
Middle East	22	5.4	21	5.2	4	1.0	2	0.5	0	0.0	0	0.0
Asia	50	12.5	20	5.0	10	2.5	0	0.0	0	0.0	0	0.0
Africa	31	7.8	16	4.0	7	1.8	0	0.0	0	0.0	0	0.0
Oceania	29	7.2	18	4.5	3	0.8	0	0.0	0	0.0	1	0.3

Perceived constraints of female solo travelers scale

The perceived constraints of female solo travelers were measured using 17 items which were a priori assigned to four domains: social-cultural, spatial, practical and personal constraints (Wilson & Little, 2005). To identify "the number and nature of common factors needed to account for the pattern of correlations" among these 17 items, an exploratory factor analysis was used (Fabrigar et al., 1999, p. 274). Before conducting the analysis, the suitability to perform a factor analysis was tested. According to Table 8, the Kaiser-Meyer-Olkin (KMO) value was 0.87 which was greater than the recommended value of 0.6 (Kaiser, 1970), and Bartlett's Test of Sphericity achieved statistical significance at p-value <0.05 (Barletta, 1954). The results of the above-mentioned tests supported the factorability of the correlation matrix.

Table 8. KMO and Bartlett's Test of 17 Items Measuring Perceived Constraints of Female Solo Travelers

Kaiser-Meyer-Olkin Measu	re of Sampling Adequacy.	.855
Bartlett's Test of	Approx. Chi-Square	3116.3
Sphericity	df	136
	Sig.	.000

One of the most commonly used factor-retention methods is *Kaiser's greater-than-one rule*, which is also known as K1 (Fabrigar et al., 1999). Despite the simplicity of this method, it is alleged to pose some serious methodological problems such as its questionable validity for exploratory factor analysis, tendency to overextract factors, and high level of inaccuracy due to

arbitrary decisions (e.g. an eigenvalue of 1.01 can be significant, while an eigenvalue of 0.99 can be trivial) (Fabrigar et al., 1999). Numerous researchers have recommended not to use K1 due to its serious limitations (e.g. Hayton et al., 2004; Fabrigar & Wegener, 2012; Zwick & Velicer, 1986; Watkins, 2018). On the other hand, *parallel analysis* has been highly recommended for exploratory factor analysis as it is considered to be the most accurate factor retention approach (e.g. Braeken & Assen, 2017; Fabrigar et al., 1999; Hayton et al., 2004; Henderson & Roberts, 2006; Zwick & Velicer, 1986). Parallel analysis is a sample-based adaptation of the population-based rule by Kaiser (1960) which helps identify the significance of components, variable loadings, and analytical statistics (Franklin et al., 1995; Horn, 1965; Zwick & Velicer, 1986).

The eigenvalues of the items (prior to rotation) are compared with those from a random matrix of identical dimensionality to the research data set (n variables x N respondents). The actual eigenvalues which are greater than their respective eigenvalues from the random data would be retained, and those eigenvalues that are under the parallel analysis eigenvalues threshold are regarded as spurious (Franklin et al., 1995).

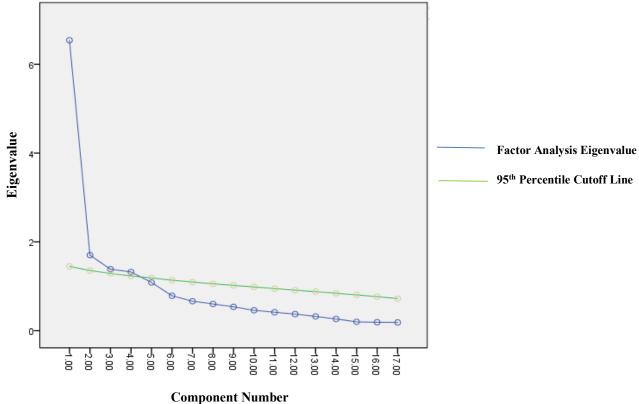
Monte Carlo simulation, which produced the random eigenvalues for parallel analysis, was conducted via a SPSS syntax developed by O'Connor (2000). Table 9 reports the results of the comparison between factor analysis eigenvalues and their respective parallel analysis eigenvalues. The results showed that only four components had the eigenvalues greater than its respective random eigenvalues, which meant that only four components should be retained. Furthermore, an inspection of the *scree plot* (refer to Figure 3) revealed the factor analysis eigenvalue's curve having a clear break after the fourth component. Monte Carlo simulations generated *the 95th percentile cut-off line* (representing the random eigenvalues from parallel analysis) in the scree plot, and the actual eigenvalues that were below this line were disregarded. This supported the decision of retaining four components for the perceived female solo travel constraints scale (Cattell, 1966; Wood, Akloubou Gnonhosou, & Bowling, 2015).

Table 9. Comparison between Factor Analysis Eigenvalue and Parallel Analysis Eigenvalue of 17 Items Measuring Perceived Constraints of Female **Solo Travelers**

Component	Factor Analysis Eigenvalue	Parallel Analysis Eigenvalue
1	6.54	1.45
2	1.70	1.35
3	1.38	1.29
4	1.32	1.23
5	1.08	1.18

Figure 3. Scree Plot of 17 Items Measuring Perceived Constraints of

Female Solo Travelers



The four-component solution explained 63% of the variance with component 1 contributing 36.3%, component 2 contributing 9.8%, component 3 contributing 8.5% and component 4 contributing 8.4% of the scale (refer to Table 10). *Varimax rotation solution* developed by Kaiser (1958) was performed to identify which items had the largest loadings in each of the four factors (Abdi, 2003). Table 10 reports the results from varimax rotation. The rotation showed the presence of a simple structure (Thurstone, 1947) with four components, which showed several strong loadings and most variables loading substantially on one component, apart from two items: "tourism and hospitality businesses were not single-friendly" and "meeting up with other travelers prevented me from truly absorbing my solo travel experiences" on component 4. The loadings for both of these items were not greater than the cut-off value of 0.5; and their communality values were considerably low compared to other items (refer to Table 10). This suggested they were not significant items in the scale. Hence, these two items were taken out from the factor analysis leaving the final scale including four factors and 15 items.

The qualitative work of Wilson and Little (2005) proposed four main themes of perceived female solo travel constraints, and it was initially anticipated that these themes could be explained by 17 items. According to factor analysis results, 15 items were significant in explaining the four themes, and almost all of these items were highly associated with its original qualitative themes except from one item: "I felt stressful". This item was originally associated with practical constraints (refer to Table 2), yet after varimax rotation, it had a strong loading in component 4 along with other strong loading items like "I felt fearful", "I felt unsafe" and "I felt lonely", which fall under the category of personal constraints (Wilson & Little, 2005). Nevertheless, the item "I felt stressful" essentially described another negative feeling that a woman could experience during solo travel, and thus could also be credibly switched to be an item under personal constraints (defined as limitations and restrictions associated with a women's self-perceptions, beliefs and attitudes (Wilson & Little, 2005)). Thus, the final four common factors of

the perceived constraints of female solo travelers remained social-cultural (explained by five items), personal (explained by four items), spatial (explained by three items), and practical (explained by three items). Lastly, a reliability test was done to check the internal consistency of the four factors. Typically, a *Cronbach's alpha* above 0.7 is relatively good (Nunnally, 1978), and in this case, all four factors had acceptable alphas (i.e. factor 1 - social-cultural constraints: 0.85; factor 2 - personal constraints: 0.79; factor 3 - spatial constraints: 0.78; and factor 4 - practical constraints: 0.86). Table 11 provides the final four factors with their respective items and Cronbach's alpha.

Table 10. Initial Results of Factor Analysis of Perceived Female Solo Travel Constraints Items

	Item	Communality	Factor Loadings					
		Communanty	Factor 1	Factor 2	Factor 3	Factor 4		
1.	I received unwanted male attention	.718	.858	.137	.130	.121		
2.	I received male harassment	.625	.787	.172	.166	.083		
3.	I received unwanted local attention	.548	.779	.069	.151	.279		
4.	I felt I was being watched	.535	.662	.270	.194	.137		
5.	The local attitudes were unfavorable to me	.382	.542	.146	.000	.409		
6.	I felt fearful	.481	.366	.745	.170	.055		
7.	I felt lonely	.550	.006	.707	.025	.144		
8.	I felt unsafe	.209	.482	.696	.192	.015		
9.	I felt stressful	.349	.200	.657	.274	.104		
10.	I was restricted to do certain things	.847	.174	.174	.862	.167		
11.	I could not travel to certain places	.723	.148	.159	.842	.178		
12.	I could not travel at certain times of the day	.532	.153	.166	.794	.114		
13.	I lack local languages	.399	.238	.079	.198	.722		
14.	I lack cultural understanding	.625	008	.400	.089	.702		
15.	I lack geographical understanding	.702	.032	.442	.153	.690		
16.	Tourism and hospitality businesses were not single-friendly	.118	.164	118	.266	.498		
17.	Meeting up with other travelers prevented me from truly absorbing my solo travel experiences	.113	.197	022	.004	.483		

Table 11. Final Results of Factor Analysis of Perceived Female Solo Travel Constraints Items

	Item	Factor Loadings	Eigenvalue	Variance Explained (%)	Total Variance Explained (%)	Cronbach's Alpha
	Factor 1: Social-cultural Constraints		6.54	36.3	36.3	0.85
1.	I received unwanted male attention	.858				
2.	I received male harassment	.787				
3.	I received unwanted local attention	.779				
4.	I felt I was being watched	.662				
5.	The local attitudes were unfavorable to me	.542				
	Factor 2: Personal Constraints		1.70	9.8	46.1	0.79
6.	I felt fearful	.745				
7.	I felt lonely	.707				
8.	I felt unsafe	.696				
9.	I felt stressful	.657				
	Factor 3: Spatial Constraints		1.38	8.5	54.6	0.78
10.	I was restricted to do certain things	.862				
11.	I could not travel to certain places	.842				
12.	I could not travel at certain times of the day	.794				
	Factor 4: Practical Constraints		1.32	8.4	63.0	0.86
13.	I lack local languages	.722				
14.	I lack cultural understanding	.702				
15.	I lack geographical understanding	.690				

Personal development scale

The 16 personal development items were a priori assigned to five factors (i.e. worldview, emotion, skill, capability and self-consciousness) based on previous research (Chen et al., 2014). An exploratory factor analysis was conducted on these items for two main reasons. First, two items, which were regarded as unique to female solo travelers, were added to the scale: "I feel empowered" and "I am motivated to encourage others to travel solo". These two items were derived from the qualitative research of Jordan and Gibson (2005) as two sub-themes explaning the theme of *empowerment* as a result of solo traveling. In addition, the scale developed by by Chen et al. (2014) was intended to measure personal development for backpackers and not specifically for female solo travelers. Thus, a factor analysis was ultilized to examine the scale with the addition of the two items to determine if these two items would fit in the previously developed five-factor scale, as well as to test if the scale was valid in a different context (i.e. female solo travelers).

According to Table 12, the 18 items of personal development scale were suitable for factor analysis with KMO value of 0.91 and Bartlett's Test having statistical significance at p-value<0.05 (Barlett, 1954; Kaiser, 1970). Parallel analysis was performed to identify the number of factors to retain. The comparison between actual eigenvalues and its respective eigenvalues from a random set of data in Monte Carlo simulation revealed that there were six significant components (six actual eigenvalues were greater than its respective random eigenvalues) (Table 13). Since the original scale by Chen et al. (2014) proposed five factors and only two additional items were added, the results of parallel analysis caused some suspect. Although parallel analysis is regarded as the most accurate factor-retention method, there is a slight chance of error and 66% of the error cases were found to be related to overfactor (Zwick & Velicer, 1986). The scree plot also showed a vauge indication whether the sixth factor should be retained (refer to Figure 4).

Despite the sixth factor being above the 95th percentile cut-off value, there was almost no distance between the two values infering that the sixth actual eigenvalue was merely higher than its respective random eigenvalue. Furthermore, varimax rotation was computed on a six-factor scale, which revealed that only two items loaded in the sixth component. This denoted that the sixth component component was not significant (Fabrigar & Wegener, 2012; Izquierdo at al., 2014). Thus, varimax rotation was re-computed with the reduction of one factor. This five-factor solution showed a simple and clear structure: each factor had at least three strongly loaded items with no cross-loadings and the additional two items loading substantially on factor 4 (refer to Table 14). Therefore, the decision to retain five factors and 18 items for personal development scale of female solo travelers was made.

Table 12. KMO and Bartlett's Test of 18 Items Measuring Personal Development of Female Solo Travelers

Kaiser-Meyer-Olkin Measu	.91	
Bartlett's Test of	Approx. Chi-Square	4526.7
Sphericity	df	153
	Sig.	.000

Table 13. Comparison between Factor Analysis Eigenvalue and Parallel Analysis Eigenvalue of 18 Items Measuring Personal Development of Female Solo Travelers

Component	Factor Analysis Eigenvalue	Parallel Analysis Eigenvalue
1	7.91	.51
2	1.28	.42
3	.94	.35
4	.68	.29
5	.51	.24
6	.30	.20
7	.14	.15

Figure 4. Scree Plot of 18 Items Measuring Personal Development of

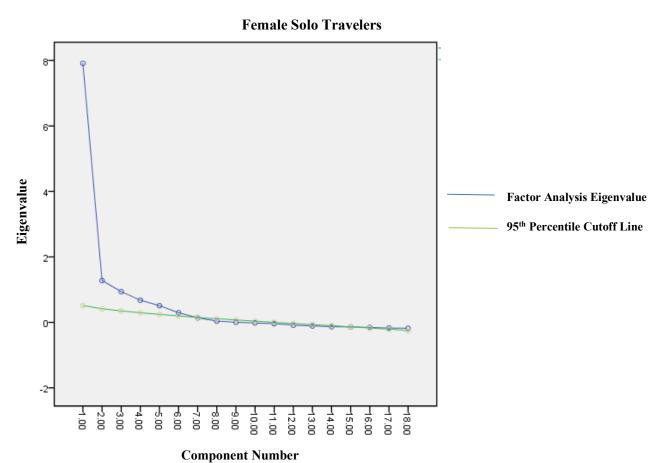


Table 14. Initial Results of Factor Analysis of Personal Development Items

	Items	Communality	Factor loadings					
		Communanty	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	
1.	My view toward life has changed	.801	.844	.127	.153	.217	.290	
2.	My view of value has changed	.629	.684	.251	.160	.195	.269	
3.	My view toward the world has changed	.654	.663	.230	.136	.244	.302	
4.	The view of people around me has changed	.463	.655	.247	.166	.180	.087	
5.	The solo travel experiences have made me feel I am different	.321	.501	.166	.185	.227	.057	
6.	My money management skills have been improved	.857	.163	.902	.126	.138	.104	
7.	My material (e.g., food, daily-use goods) management skills have been improved	.722	.277	.732	.124	.163	.245	
8.	My time management skills have been improved	.525	.305	.584	.160	.166	.203	
9.	My prior frustration has been relieved	.784	.178	.126	.855	.195	.112	
10.	My negative emotions have been relieved	.783	.176	.099	.837	.177	.187	
11.	My anxiety and stress have been relieved	.540	.164	.167	.666	.169	.148	
12.	I feel empowered	.460	.255	.148	.184	.714	.246	
13.	My confidence has increased	.503	.288	.151	.263	.609	.272	
14.	I am motivated to encourage others to travel solo	.391	.268	.187	.216	.591	.144	
15.	My self-discipline and self-control have been consolidated	.565	.329	.434	.218	.455	.223	
16.	My capability to adapt to environments has been improved	.362	.218	.091	.144	.234	.727	
17.	My capability to identify and resolve problems has improved	.441	.233	.291	.174	.193	.667	
18.	My communication capability has improved	.387	.230	.274	.231	.193	.507	

Five-factor solution explained 64.9% of the scale's variance. The addition of the two items in the revised scale improved the overall validity of the scale. The internal consistency of the five-factor personal development scale was also tested for reliability. All factors reported a Cronbach's alpha above 0.7 reflecting the reliability of the scale (factor 1 – viewpoint: 0.88; factor 2 – skill: 0.80; factor 3 – emotion: 0.86; factor 4 – self-improvement: 0.84; factor 5 – capability: 0.88). Table 15 summarized the final factor analysis results of personal development scale.

The five components overall matched rather well with the factors from previous research with few items moving to different factors. Table 16 show the movement and modification of the items between the original and the revised personal development scale. While the factor entitled *emotion, capability and skill* consisted of the same items as compared to Chen et al.'s (2014) scale, the factors entitled *worldview* and *self-consciousness* had modifications.

In particular, the factor initially referred to as "worldview" was retitled to *viewpoint* to be more reflective of the comprising items, and consisted of three orginal items ("my view toward life has changed", "my view of value has changed", "my view toward the world has changed") and two additional items ("the solo travel experience have made me feel different" and "the view of people around me has changed"). Based on Table 16, items "the solo travel experience have made me feel different" and "the view of people around me has changed" did not fit well with the other two items in its orginal factor (*self-consciousness*). Hence, it was statistically suitable to move these items to factor *viewpoint*, in which all items loaded strongly, and was deemed logically appropriate. The five items holistically reflected the change of not only the respodent's perceptions of abstract aspects such as life and value, but also viewpoints towards themselves and the people around them. Therefore, the title "viewpoint" was broad enough for this factor to reflect all its latent variables.

On the other hand, factor *self-improvement* (originally referred to as *self-consciousness*) no longer consisted of the two items: "the solo travel experiences have made me feel different" and "the view of people around me has changed" (as these two items were moved the *viewpoint* factor). However, two other items were added to this factor, which were "I feel empowered" and "I am motivated to encourage others to travel solo". The addition of the two new items originally belonging to the theme *empowerment* had significantly enhanced the loadings of the two items "my confidence has increased" and "my self-discipline and self-control have been consolidated" (refer to Table 16). Conceptually, the items in this factor moved beyond referring tothe self-consciousness of the individuals and now broadly reflected improvements in the inner self encompassing aspects such as motivation, awareness, beliefs and attitudes (Handel, 2011). Therefore, this factor was retitled to "self-improvement".

Table 15. Final Results of Factor Analysis of Personal Development Items

	Item	Factor Loadings	Eigenvalue	Variance Explained (%)	Total Variance Explained (%)	Cronbach' s Alpha
	Factor 1: Viewpoint		7.91	44.2	44.2	0.88
1.	My view toward life has changed	.844				
2.	My view of value has changed	.684				
3.	My view toward the world has changed	.663				
4.	The view of people around me has changed	.655				
5.	The solo travel experiences have made me feel I am different	.501				
	Factor 2: Skill		1.28	7.5	51.7	0.80
6.	My money management skills have been improved	.902				
7.	My material (e.g., food, daily-use goods) management skills have been improved	.732				
8.	My time management skills have been improved	.584				
	Factor 3: Emotion		0.94	5.7	57.4	0.86
9.	My prior frustration has been relieved	.855				
10.	My negative emotions have been relieved	.837				
11.	My anxiety and stress have been relieved	.666				
	Factor 4: Self-improvement		0.68	4.1	61.6	0.84
12.	I feel empowered	.714				
13.	My confidence has increased	.609				
14.	I am motivated to encourage others to travel solo	.591				
15.	My self-discipline and self- control have been consolidated	.455				
	Factor 5: Capability		0.51	3.3	64.9	0.88
16.	My capability to adapt to environments has been improved	.727				
17.	My capability to identify and resolve problems has improved	.667				
18.	My communication capability has improved	.507				

Table 16. Comparison between Original and Revised Personal Development Scale

Original Scale	Factor Loadings	Revised Scale	Factor Loadings
View (Wilson & Little, 2005)	.,	Viewpoint	,,
My view toward life has changed	.809	My view toward life has changed	.844
My view of value has changed	.653	My view of value has changed	.684
My view toward the world has changed	.679	My view toward the world has changed	.663
		(**) The solo travel experiences have	
		made me feel I am different (originally	.655
		in self-consicousness)	
		(**) The view of people around me has	
		changed (originally in self-	.501
C. 16 . ANYL O. L. (41. A005)		consciousness)	
Self-consciousness (Wilson & Little, 2005)	571	Self-improvement	
(**) The solo travel experiences have made me	.571	(*) I feel empowered (originally in	.714
feel I am different (moved to viewpoint)	.756	<i>empowerment</i>)(*) I am motivated to encourage others	
(**) The view of people around me has changed	.730	to travel solo (originally in	.591
(moved to viewpoint)		empowerment)	.391
My confidence has increased	.162	My confidence has increased	.609
My self-discipline and self-control have been		My self-discipline and self-control	
consolidated	.099	have been consolidated	.455
		have been consolidated	
Empowerment (Jordan & Gibson, 2005) (*) I feel empowered	N/A		
(*) I am motivated to encourage others to travel	N/A		
solo	N/A		
3010	14/11		
Emotion (Wilson & Little, 2005)		Emotion	
My prior frustration has been relieved	.856	My prior frustration has been relieved	.855
My negative emotions have been relieved	.851	My negative emotions have been	.837
iviy negative emotions have been reneved		relieved	.037
My anxiety and stress have been relieved	.682	My anxiety and stress have been	.666
		relieved	
Skill (Wilson & Little, 2005)	010	Skill	}
My money management skills have been	.910	My money management skills have	.902
improved	740	been improved My material (e.g., food, daily-use	
My material (e.g., food, daily-use goods)	.748	goods) management skills have been	.732
management skills have been improved		improved	.132
	.586	My time management skills have been	
My time management skills have been improved	.380	improved	.584
Capability (Wilson & Little, 2005)		Capability	
My capability to adapt to environments has been	71.5	My capability to adapt to environments	707
improved	.715	has been improved	.727
My capability to identify and resolve problems	720	My capability to identify and resolve	667
has improved	.720	problems has improved	.667
	.532	My communication capability has	.507
My communication capability has improved	.332	improved	.507

^{(*):} Revised items; (**): Original items that were moved to revised scale

Authentic personality scale

The authentic personality scale used in this study was adopted from the authenticity scale by Wood et al. (2008) and was comprised of 12 items distributed among three factors: self-alienation, authentic living, and external influence. Given the context that the scale was not developed specifically for female solo travel, an exploratory factor analysis was performed with a view to determine if the original scale would be consistent in this study's context. According to Table 17, the 12 items of authentic personality scale were suitable for factor analysis with KMO value of 0.91 and Bartlett's Test having statistical significance at p-value<0.05 (Barlett, 1954; Kaiser, 1970).

Table 17. KMO and Bartlett's Test of 12 Items Measuring Authentic Personality of Female Solo Travelers

Kaiser-Meyer-Olkin Measu	.89	
Bartlett's Test of	Approx. Chi-Square	2563.3
Sphericity	df	66
	Sig.	.000

Parallel analysis was performed to identify the number of factors to retain. The comparison between actual eigenvalues and its respective eigenvalues from a randome set of data in Monte Carlo simulations revealed that there were three significant components (three actual eigenvalues were greater than its respective random eigenvalues) (refer to Table 18). The scree plot (refer to Figure 5) also supported this result, which showed a clear drop after factor three (the eigenvalue curved started leveling out at factor 4); and factor four was clearly below the 95th percentile cutoff line. This meant that three factors should be retained for this scale (Cattell, 1966. Hayton et al., 2004). Varimax rotation for three factors was conducted (Table 19) and the results indicated a clear and simple structure with each factor having at least three strongly loaded items. One item "I think it is better to be yourself, than to be popular" had weak loading on its respective factor (0.332) and the lowest communuality value (0.126) (Table 20). Therfore, this item was regarded as insignificant (Pallant, 2013), and was taken out from the scale leaving the final scale with three factors and 11 items for further investigation.

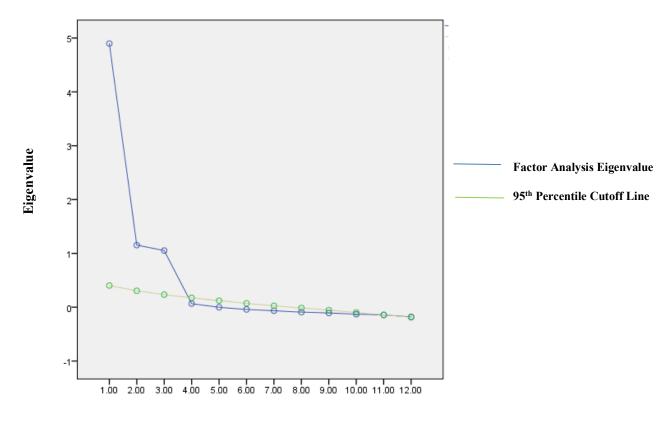
Table 20 provides the final results of factor analysis for 11 items of authentic personality scale. The structure provided by varimax rotation corresponded well with the original scale by Wood et al. (2008) (consisting of three factors). Thus, the authentic personality scale retained the three original factors, which were *self-alienation* (explained by four items), *authentic living* (explained by three items), and *external influence* (explained by four items). The three factors explained 75.3% of the scale's variance with self-alienation contributing 47.6%, authentic living contributing 14.2% and external influence contributing 13.5%. All factors reported a Cronbach's alpha above 0.7 reflecting the reliability of the scale (factor 1 – self-alienation: 0.91; factor 2 – authentic living: 0.80; factor 3 – external influence: 0.89).

Table 18. Comparison between Factor Analysis Eigenvalue and Parallel Analysis Eigenvalue of 12 Items Measuring Authentic Personality of Female Solo Travelers

Component	Factor Analysis Eigenvalue	Parallel Analysis Eigenvalue
1	4.90	.40
2	1.15	.30
3	1.05	.23
4	.07	.17

Figure 5. Scree Plot of 12 Items Measuring Authentic Personality of

Female Solo Travelers



Component Number

Table 19. Initial Results of Factor Analysis of Authentic Personality Items

	Itana	Communality	Factor Loadings			
	Item	Communality	Factor 1	Factor 2	Factor 3	
1.	I feel out of touch with the 'real me'	.768	.839	.170	.187	
2.	I feel as if I don't know myself very well	.708	.776	.245	.214	
3.	I feel alienated from myself	.678	.774	.232	.158	
4.	I don't know how I really feel inside	.687	.769	.289	.112	
5.	I usually do what other people tell me to do	.708	.218	.786	.207	
6.	Other people influence me greatly	.668	.218	.766	.182	
7.	I am strongly influenced by the opinions of others	.717	.298	.756	.240	
8.	I always feel I need to do what others expect me to do	.587	.196	.730	.124	
9.	I am true to myself in most situations	.656	.223	.178	.758	
10.	I always stand by what I believe in	.543	.093	.149	.715	
11.	I live in accordance with my values and beliefs	.522	.135	.100	.703	
12.	I think it is better to be yourself, than to be popular	.126	.066	.106	.332	

Table 20. Final Results of Factor Analysis of Authentic Personality Items

	Item	Factor Loadings	Eigenvalue	Variance Explained (%)	Total Variance Explained (%)	Cronbach's Alpha
	Factor 1: Self-alienation		4.90	47.6	47.6	0.91
1.	I feel out of touch with the 'real me'	.839				
2.	I feel as if I don't know myself very well	.776				
3.	I feel alienated from myself	.774				
4.	I don't know how I really feel inside	.769				
	Factor 2: Authentic Living		1.15	14.2	61.8	0.80
5.	I am true to myself in most situations	.758				
6.	I always stand by what I believe in	.715				
7.	I live in accordance with my values and beliefs	.703				
	Factor 3: External Influence		1.05	13.5	75.3	0.89
8.	I usually do what other people tell me to do	.786				
9.	Other people influence me greatly	.766				
10.	I am strongly influenced by the opinions of others	.756				
11.	I always feel I need to do what others expect me to do	.730				

Self-esteem scale

The last construct ultilized in this study was self-esteem, which was measured using the scale developed by Rosenberg (1965), which consisted of a single-factor scale comprised of 10 items. The self-esteem single-factor scale proposed more than fifty years ago by Rosenberg (1965) has been the most commonly used and credible scales when self-evaluating an individual's self-esteem (e.g. Gil-Or, Levi-Belz, & Turel, 2015; Steiger et al., 2014). Exploratory factor analysis was performed and revealed that all items have high communality values (greater than 0.3) and loaded substantially (greater than 0.5) on one factor. The factor reported an eigenvalue of 6.03 and explained 60.3% of the total variance of self-esteem. This denoted that all items were significant and fit well in the original single-factor scale. In addition, the 10 items had an acceptable Cronbach's alpha value of 0.92. Therefore, it was concluded that the self-esteem single-factor scale by Rosenberg (1965) was reliable to be used in this study. Table 21 provides the factor loadings and reliability results of the self-esteem scale.

Table 21. Factor Loadings and Reliability Results of Self-esteem Single-factor Scale by Rosenberg (1965)

	Item	Communality	Factor Loadings	Eigenvalue	Total Variance	Cronbach's Alpha		
	Single Factor: Self-esteem				Explained (%)			
1.	All in all, I am inclined to feel that I am a failure	.728	.850					
2.	I take a positive attitude toward myself	.652	.806					
3.	At times, I think I am no good at all	.766	.802					
4.	I certainly feel useless at times	.733	.782		60.3	60.3 0.92		
5.	On the whole, I am satisfied with myself	.618	.779					
6.	I feel I do not have much to be proud of	.559	.744	6.03			60.3	0.92
7.	I feel that I have a number of good qualities	.732	.702					
8.	I feel that I'm a person of worth, at least on an equal plane with others	.575	.700					
9.	I wish I could have more respect for myself	.575	.691					
10.	I am able to do things as well as most other people	.533	.659					

Assumptions of parametric tests

Before conducting all parametric tests (i.e. one-way analysis of variance (ANOVA) and linear regression) in this study, all required assumptions suggested by Pallant (2013) were taken into consideration. First, the dependent variables should be measured on a continuours scale. Likert scales are ordinal scales, yet if having more than five points can be treated as "an ordinal approximation of a continuous variable"; and if the sum or mean of two or more ordinal variables are computed, this would produce an "approximately continuous variable" (Johnson & Creech, 1983; Norman, 2010; Sullivan & Artino, 2013). The two above-mentioned methods were incorporated in this study: the dependent variables, including perceived constraints, personal development, authentic personality and self-esteem, were measured using a seven-point Likert scale, and each variable/factor was the sum of its respective items. Therefore, the dependent variables in this study were considered valid for parametric testing (e.g. ANOVA and regression).

Second, the scores were obtained using a random sample (i.e. Prolific Academic platform), and each observation was independent from each other (since respondents were in different locations around the world and completed the survey on their own). Scores of the dependent variables used in this study's parametric studies tests were not normally distributed, which is relatively common in social science studies; but with a sample size larger than 30, the violation of this assumption should not lead to major problems (Pallant, 2013). Additionally, a recent study has confirmed that the F-value from ANOVA is still robustly valid even even if the assumption of normal distribution is highly violated (Blanca et al., 2017). Therefore, in this study, the assumption of normal distribution for parametric testing was disregarded. Apart from that, the assumption of homogeneity of variance (for ANOVA tests) was also investigated, and actions were made accordingly if there were any violations regarding this assumption (e.g. refering to Welch's

ANOVA test instead of the traditional ANOVA). For linear regression, the assumptions of linearity, homoscedasticity, outliers and independence of residuals were checked to ensure the models met all required assumptions (Pallant, 2013). This is discussed in the following sections reporting the results of each specific test.

Change of perceptions of solo travel constraints with more exposure to solo travelling

This section aims to address research question 2: *Do perceptions of solo travel constraints change with more exposure to solo traveling?* Solo travel exposure was conceptualized in this study to contain three elements: (1) frequency of making their own solo travel arrangements, (2) frequency of traveling solo per year, and (3) average length of solo trips. Thus, the following hypotheses were tested:

H1a: There is a decrease in perceived solo travel constraints as female solo travelers make more solo travel arrangements on their own.

H1b: There is a decrease in perceived solo travel constraints as female solo travelers travel more per year.

H1c: There is a decrease in perceived solo travel constraints as the average length of trip increases for female solo travelers.

One-way ANOVA tests were most appropriate to test these hypotheses. Specifically, three one-way ANOVA tests corresponding to three above-mentioned hypotheses were conducted. To facilitate this, each factor of perceived constraints (i.e. social-cultural, personal, spatial and practical constraints) were computed by summing its corresponding items to create total score for each factor. In addition, each dimension under solo travel exposure was collapsed into two to

three-category variables based on their exposure level. The number of categories and number of items included in each variable within solo travel exposure were decided to ensure a relative equal distribution among the responses. Table 22 illustrates the specified the categories and its corresponding items in each variable comprising solo travel exposure. Regarding *the frequency of making own solo travel arrangement*, the distribution of the responses allowed for three levels of exposure with each level accounting for aproximately one-third of the disbibution. This also applied to the second aspect of exposure: *frequency of traveling solo per year*, which had three levels of exposure. On the other hand, for the *average length of time per solo trip*, the distribution of the responses only allowed for two levels of exposure since the item "less than one week" contributed almost half of the distribution.

Table 22. Categories of each Dimension of Solo Travel Exposure

Dimension	Categories	Item	Distribution (%)
Dimension 1: Frequency of making own solo travel	Low	NeverRarelyOccasionallySome times	35.1
arrangement	Medium	FrequentlyUsually	34.0
	High	■ Always	30.9
	Low	I don't travel solo every year	29.1
	Medium	■ 1 trip	36.9
Dimension 2: Frequency of traveling solo per year	High	 2-4 trips 5-7 trips 8-10 trips Over 8 trips 	33.5
	Short	Less than 1 week	42.9
Dimension 3: Average length of time per solo trip	Long	 1-2 weeks 2-4 weeks 1-2 months 2-4 months 4-6 months More than 6 months 	57.1

To test hypothesis H1a - there is a decrease in perceived solo travel constraints as female solo travelers make more solo travel arrangements on their own, an ANOVA test was conducted on the four factors of perceived constraints (i.e. social-cultural, personal, spatial and practical constraints) across the three categories of frequency of making own solo travel arrangement (i.e. low, medium and high). Table 23 reports the results of the ANOVA test. Levene's test for homogeneity of variance revealed that all four factors did not violate the assumption of homogeneity of variance (Levene's test p-value > 0.05). At p-value<0.05 level, practical constraints were significantly different among the three levels of frequency: F(2,397)= 4.550, p=0.011. The effect size using eta squared was 0.02. The other factors of perceived constraints, social-cultural, personal and spatial were not significantly different among the three levels of explosure.

Thereforefore, post hoc test using Tukey's Honestly Significantl Difference (HSD) test was only done for practical constraints (refer to Table 24 for post-hoc test results). Based on the results, individuals who made their own solo travel arrangement at high frequency (M=7.8, SD=4.0) perceived significantly lower practical constraints compared to those who made their own solo travel arrangements at low frequency (M=9.1, SD=3.8). In addition, individuals who made their own solo travel arrangement at high frequency (M=7.8, SD=4.0) perceived significantly lower practical constraints compared to those who made their own solo travel arrangements at medium frequency (M=8.9, SD=3.7). However, there were no significant differences in perceived practical constraints between individuals who made their own solo travel arrangement at low and medium frequency. Since not all factors of perceived constraints showed significant decreases when female solo travelers made more solo travel arrangement on their own, *hypothesis 1a was partially supported*.

Table 23. ANOVA Results of Differences in Perceived Female Solo Travel Constraints across Three Levels of Frequency of Making Own Solo Travel Arrangement

	Levene's				Levels of Exposure						
Factors	test p-value	ANOVA		Low (n=400)		Medium (n=400)		High (n=400)			
		F	df	р	Mean	SD	Mean	SD	Mean	SD	
Personal Constraints	.09	4.112	(2,397)	.289	10.53	4.07	10.15	3.37	9.82	3.94	
2. Social- cultural Constraints	.12	1.172	(2,397)	.567	25.27	5.29	24.80	5.62	25.54	6.14	
3. Spatial Constraints	.42	.344	(2,397)	.684	8.13	4.26	7.80	3.81	7.92	4.46	
4. Practical Constraints	.30	.995	(2,397)	.011*	9.10	3.80	8.97	3.66	7.85	4.04	

*p<0.05; **p<0.01; ***p<0.001

Table 24. Post-hoc Test Results of Perceived Practical Constraints across Three Levels of Frequency of Making Own Solo Travel Arrangement

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
	0.02	Low	Medium	.13	.985
			High	1.25*	.018*
Practical		Medium	Low	13	.985
Constraints			High	1.12*	.031*
		High	Low	-1.25*	.018
			Medium	-1.12*	.031*

Tukey's HSD test was used for the post-hoc test; *p<.05

To test hypothesis H1b - there is a decrease in perceived solo travel constraints as female solo travelers travel more per year, an ANOVA test was conducted using the scores of four factors of perceived constraints (i.e. social-cultural, personal, spatial and practical constraints) among three categories of frequency of traveling solo per year (i.e. low, medium and high). Table 25 provides a summary the results of the ANOVA test. Levene's test for homogeneity of variance indicated that all factors of perceived constraints did not violate the assumption of homogeneity of variance. At p-value<0.05 level, spatial and practical constraints were significantly different across the three levels of frequency. Spatial constraints reported F(2, 395)=5.685, p=0.003 and eta squared of 0.03; and practical constraints reported F(2,395)=5.078, p=0.007 and eta squared of 0.03. The other factors, social-cultural constraints and personal constraints were not statistically significant across the three levels of exposure.

Post hoc test using Tukey's HSD test (Table 26) denoted that respodents who traveled solo at a medium frequency (M=8.9, SD=4.0) perceived spatial constraints significantly different from those traveled solo at a low frequency (M=7.5, SD=4.3); as well as from those that traveled solo at a high frequency (M=7.3, SD = 4.1). There were no significant differences in perceived spatial constraints between those who traveled solo at low and high frequency. In addition, respondents traveling solo at the medium frequency (M=9.4, SD=3.8) perceived significantly greater practical constraints in comparison to those who traveled solo at the high level (M=8.0, SD=3.8) (refer to Table 27). There were no significant differences in perceived practical constraints among travelers who traveled solo at low and medium frequency; or between those who traveled solo at low and high frequency. Since not all factors of perceived constraints showed significant decreases when female solo travelers traveled solo more per year, *hypothesis 1b was partially supported*.

Table 25. ANOVA Results of Differences in Perceived Female Solo Travel Constraints across Three Levels of Frequency of Traveling Solo Per Year

		Levene's					Levels of Exposure					
	Factors	test p-value	ANOVA		Lo (n=3		Medium His (n=398) (n=3					
			F	df	р	Mean	SD	Mean	SD	Mean	SD	
1.	Personal Constraints	.195	2.598	(2,395)	.076	10.39	3.85	10.61	3.99	9.62	3.53	
2.	Social-cultural Constraints	.150	2.208	(2,395)	.111	12.28	5.22	13.41	5.53	12.25	4.93	
3.	Spatial Constraints	.304	5.785	(2,395)	.003**	7.45	4.28	8.85	4.03	7.33	4.11	
4.	Practical Constraints	.636	5.078	(2,395)	.007**	8.49	3.87	9.41	3.78	7.98	3.79	

^{*}p<0.05; **p<0.01; ***p<0.001

Table 26. Post-hoc Test Results of Perceived Spatial Constraints across Three Levels of Frequency of Traveling Solo Per Year

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
		Low	Medium	-1.40 *	.018*
	.03		High	.12	.970
Spatial		Medium	Low	1.40*	.018*
Constraints			High	1.52*	.006*
		High	Low	12	.970
			Medium	-1.52 [*]	.006*

Tukey's HSD test was used for the post-hoc test; *p<.05

Table 27. Post-hoc Test Results of Perceived Practical Constraints across Three Levels of Frequency of Traveling Solo Per Year

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
	.03	Low	Medium	92	.129
			High	.52	.525
Practical		Medium	Low	.92	.129
Constraints			High	1.43*	.005*
		High	Low	52	.525
			Medium	-1.43 [*]	.005*

Tukey's HSD test was used for the post-hoc test; *p<.05

To test hypothesis H1c - there is a decrease in perceived solo travel constraints as the average length of trip increases for female solo travelers, ANOVA test was conducted using the scores of the four factors of perceived constraints (i.e. social-cultural, personal, spatial and practical constraints) among two categories of average length of time per solo trip (i.e. short and long). Table 28 and 29 summarize the results of the ANOVA test. At p-value<0.05 level, personal constraints were shown to be significantly different across the two levels of time length with F(1, 398)=0.107, p=0.007 and eta squared of 0.02. The other three factors (i.e. social cultural, practical and spatial constraints) were not significantly different in the ANOVA test.

Since there were only two categories in the average length of time per solo trip, it was not necessary to perform Tukey's HSD test for post-hoc test. From ANOVA results, it was shown that those who travel for a shorter period of time had significantly higher levels of perceived personal constraints (M=10.8, SD=3.9) than those who traveled for longer periods of time (M=9.7, SD=3.7). Since not all factors of perceived constraints showed significant decreases when female solo travelers stayed longer in each trip, hypothesis *1c* was partially supported.

Table 28. ANOVA Results of Differences in Perceived Female Solo Travel Constraints across
Two Levels of Average Length of Time per Solo Trip

		Levene's					Levels of Exposure					
	Factors	test p-value	ANOVA			Low (n=400)		High (n=400)				
			F	df	р	Mean	SD	Mean	SD			
1.	Personal Constraints	.357	7.295	(1,398)	.007**	10.80	3.91	9.76	3.69			
2.	Social-cultural Constraints	.570	.761	(1,398)	.383	12.39	5.05	12.85	5.38			
3.	Spatial Constraints	.514	1.119	(1,398)	.291	7.66	4.03	8.11	4.26			
4.	Practical Constraints	.119	.107	(1,398)	.744	8.60	4.02	8.73	3.76			

^{*}p<0.05; **p<0.01; ***p<0.001

Table 29. Post-hoc Test Results of Perceived Personal Constraints across Two Levels of Average Length of Time per Solo Trip

Factor	Eta Squared	Exposure Level 1	Exposure Level 2	Mean Difference (1-2)	p-value	
Personal Constraints	.02	Low	High	1.04*	.007*	

^{*}p<.05

Influence of perceptions of solo travel constraints on different levels of personal development

This section addresses research question 3: *Do changes in perceptions of solo travel constraints influence different levels of personal development?* Given the the perceived solo travel constraint scale has four factors (social-cultural, spatial, personal and practical constraints), each of these for factors were collapsed into the three categories (low, medium and high) to signify the level of constraints. Table 30 further illustrates the categorization.

Table 30. Sub-categories of the Factors of Perceived Female Solo Travel Constraints

Factors	Categories	Distribution (%)
	Low	31.6
Perceived Social-cultural Constraint	Medium	34.2
	High	33.7
	Low	34.5
Perceived Spatial Constraint	Medium	34.0
	High	31.3
	Low	34.5
Perceived Personal Constraint	Medium	30.6
	High	33.0
	Low	32.8
Perceived Practical Constraint	Medium	34.5
	High	32.5

The following hypotheses were then tested:

H2a: There is an increase in personal development when female solo travelers experience higher levels of perceived social-cultural constraints.

H2b: There is an increase in personal development when female solo travelers experience higher levels of perceived spatial constraints.

H2c: There is an increase in personal development when female solo travelers experience higher levels of perceived personal constraints.

H2d: There is an increase in personal development when female solo travelers experience higher levels of perceived practical constraints.

Four one-way ANOVA tests corresponding to four above-mentioned hypotheses were conducted. To facilitate this, a score was generated for each factor of personal development (i.e. viewpoint, emotion, capability, skill and self-improvement) by summing its corresponding items to create total score for each factor. Additionally, each factor of perceived constraints (i.e. social-cultural, personal, spatial and practical constraints), which was measured using a seven-point Likert scale score, was transformed into three-level variables: low, medium, and high by virtue of its relatively equal distribution (each category accounted for approximately one-third of the distribution) (refer to Table 30).

To test hypothesis H2a - *there is an increase in personal development when female solo travelers experience higher levels of perceived social-cultural constraints*, an ANOVA test was conducted using the scores of five factors of personal development (i.e. viewpoint, emotion, skill, capability and self-improvement) among three categories of solo travel social-cultural constraints (i.e. low, medium and high). Table 31 provides a summary the results of the ANOVA test. Levene's test for homogeneity of variance revealed that all five factors did not violate the assumption of homogeneity of variance (Levene's test p-value > 0.05). At p-value<0.05 level, viewpoint, skill and capability were found to be significantly different across the three levels of constraints. Viewpoint reported F(2,397)=14.415, p=0.000, and eta squared of 0.07; skill reported F(2,397)=5.928, p=0.003 and eta squared of 0.03; and capability reported F(2,397)=6.678, p=0.001 and eta squared of 0.03. Emotion and self-improvement were not significantly different in the test.

Post hoc test using Tukey's HSD test (Table 32) denoted that respondents who perceived social-cultural constraints at the low level (M=23.0, SD=6.2) experienced significantly lower score of viewpoint compared to those perceived social-cultural constraints at the medium level (M=25.9, SD=5.0) and at the high level (M=26.4, SD = 5.3). However, there were no significant differences in viewpoint score between those who perceived social-cultural constraints at the medium and high level.

The same results were recorded for skill (refer to Table 33): respondents who perceived social-cultural constraints at the low level (M=13.2, SD=4.2) experienced significantly lower score of skill compared to those perceived social-cultural constraints at the medium level (M=14.6, SD=3.6), and at the high level (M=14.7, SD=3.7). There were no significant differences in skill score between those who perceived social-cultural constraints at the medium and high level.

Regarding capability (refer to Table 34), results found that who perceived social-cultural constraints at the low level (M=15.8, SD=2.6) experienced significantly lower score of viewpoint compared to those perceived social-cultural constraints at the high level (M=16.9, SD=2.5). On the other hand, there were no significant differences bewteen those who perceived social-cultural constraints at low and medium level, as well as between those who perceived social-cultural constraints at medium and high level. Since not all factors of personal development showed significant increases when female solo travelers had higher levels of perceived social-cultural constraints, *hypothesis 2a was partially supported*.

Table 31. ANOVA Results of Differences in Personal Development of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Social-cultural Constraints

	Levene's					Levels of Exposure						
Factors	test p-value	ANOVA		Low (n=400)		Medium (n=400)		High (n=400)				
	_	F	df	р	Mean	SD	Mean	SD	Mean	SD		
1. Viewpoint	.177	14.415	(2,397)	.000***	23.03	6.16	25.93	5.02	26.44	5.34		
2. Emotion	.106	.706	(2,397)	.494	13.74	3.63	13.97	3.10	13.49	3.34		
3. Skill	.261	5.928	(2,397)	.003**	13.24	4.19	14.63	3.63	14.69	3.67		
4. Capability	.610	6.678	(2,397)	.001**	15.78	2.61	16.29	2.38	16.91	2.53		
5. Self-improvement	.205	1.319	(2,397)	.269	21.21	3.96	21.88	3.50	21.88	4.01		

^{*}p<0.05; **p<0.01; ***p<0.001

Table 32. Post-hoc Test Results of Viewpoint of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Social-cultural Constraints

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
	.07	Low	Medium	-2.90 [*]	.000*
			High	-3.41*	.000*
17:		Medium	Low	2.90*	.000*
Viewpoint			High	51	.723
		High	Low	3.41*	.000*
			Medium	.51	.723

Tukey's HSD test was used for the post-hoc test; *p<.05

Table 33. Post-hoc Test Results of Skill of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Social-cultural Constraints

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
	02	Low Mediur		-1.39 [*]	.010*
			High	-1.45 [*]	.007*
C1-:11		Medium	Low	1.39*	.010*
Skill	.03		High	058	.991
		High	Low	1.45*	.007*
			Medium	.058	.991

Tukey's HSD test was used for the post-hoc test; *p<.05

Table 34. Post-hoc Test Results of Capability of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Social-cultural Constraints

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
	.03	Low	Medium	51	.221
			High	-1.13 [*]	.001*
Canabilita		Medium	Low	.51	.221
Capability			High	61	.108
		High Low		1.13*	.001*
			Medium	.61	.108

Tukey's HSD test was used for the post-hoc test; *p<.05

To test hypothesis H2b - there is an increase in personal development when female solo travelers experience higher levels of perceived spatial constraints, an ANOVA test was conducted using the scores of the five factors of personal development (i.e. viewpoint, emotion, skill, capability and self-improvement) among three categories of solo travel spatial constraints (i.e. low, medium and high). Table 35 summarizes the results of the ANOVA test. Levene's test for homogeneity of variance revealed that all five factors did not violate the assumption of homogeneity of variance (Levene's test p-value > 0.05). At p-value < 0.05 level, viewpoint, emotion and skill were shown to be significantly different across the three levels of spatial constraints. Viewpoint reported F(2,399)=4.707, p=0.001, and eta squared of 0.02; emotionl reported F(2,399)=3.318, p=0.037 and eta squared of 0.02; and skill reported F(2,399)=3.396, p=0.034 and eta squared of 0.02. Capability and self-improvement were not significantly different in the test.

Post hoc test using Tukey's HSD test (Table 36) denoted that respondents who perceived spatial constraints at the low level (M=24.0, SD=5.9) had a significant difference in viewpoint score compared to those who perceived spatial constraints at the medium level (M=25.9, SD=5.1), and to those who perceived spatial constraints at the high level (M=25.7, SD = 5.8). Yet, those who perceived spatial constraints at the medium and high level were not reported to have significant difference in viewpoint score.

Furthermore, results revealed that respondents who perceived spatial constraints at the low level (M=14.3, SD=3.4) had significantly higher emotion score compared to those who perceived those constraints at the high level M=13.2, SD=3.4) (refer to Table 37). There were no significant differences in emotion scores between individuals perceiving spatial constraints at low and medium level or between those at medium and high level.

Lastly, it was reported that respondents who perceived spatial constraints at the low level (M=13.6, SD=4.0) had significantly lower skill score compared to those who perceived those

constraints at the medium (M=14.8, SD=3.6); whereas there were no significant differences in the skill score between respondents who perceived spatial constraints at the low and high level or between those at medium and high level (refer to Table 38). Since not all factors of personal development showed significant increases when female solo travelers had higher levels of perceived spatial constraints, *hypothesis 2b was partially supported*.

Table 35. ANOVA Results of Differences in Personal Development of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Spatial Constraints

	Levene's					Levels of Exposure						
	Factors	test p-value		Low (n=401)		Medium (n=401)		High (n=401)				
			F	df	р	Mean	SD	Mean	SD	Mean	SD	
1.	Viewpoint	.560	4.707	(2,399)	.010*	23.99	5.90	25.85	5.143	25.73	5.83	
2.	Emotion	.648	3.318	(2,399)	.037*	14.25	3.42	13.74	3.19	13.19	3.44	
3.	Skill	.582	3.396	(2,399)	.034*	13.57	3.99	14.77	3.59	14.29	3.94	
4.	Capability	.663	2.305	(2,399)	.101	15.97	2.50	16.58	2.65	16.49	2.42	
5.	Self-improvement	.521	.792	(2,399)	.454	21.54	3.71	22.01	3.54	21.48	4.26	

*p<0.05; **p<0.01; ***p<0.001

Table 36. Post-hoc Test Results of Viewpoint of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Spatial Constraints

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
Viewpoint	.02	Low	Medium	-1.87*	.017*
			High	-1.74*	.033*
		Medium	Low	1.87 [*]	.017*
			High	.12	.983
		High	Low	1.74*	.033*
			Medium	12	.983

Tukey's HSD test was used for the post-hoc test; *p<.05

Table 37. Post-hoc Test Results of Emotion of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Spatial Constraints

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
Emotion	.02	Low	Medium	.51	.410
			High	1.1*	.028*
		Medium	Low	51	.410
			High	.55	.383
		High	Low	-1.1*	.028*
			Medium	5	.383

Tukey's HSD test was used for the post-hoc test; *p<.05

Table 38. Post-hoc Test Results of Skill of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Spatial Constraints

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
Skill	.02	Low	Medium	-1.20*	.027*
			High	73	.277
		Medium	Low	1.20*	.027*
			High	.47	.580
		High	Low	.73	.277
			Medium	47	.580

Tukey's HSD test was used for the post-hoc test; *p<.05

To test hypothesis H2c - there is an increase in personal development when female solo travelers experience higher levels of perceived personal constraints, an ANOVA test was conducted using the scores of the five factors of personal development (i.e. viewpoint, emotion, skill, capability and self-improvement) among three categories of solo travel personal constraints (i.e. low, medium and high). Table 39 provides a summary the results of the ANOVA test.

Levene's test for homogeneity of variance revealed that factor *viewpoint and capability* did not violate the assumption of homogeneity of variance (Levene's test p-value > 0.05); while the factors *emotion, skill, and self-improvement* violated the assumption of homogeneity of variance (Levene's test p-value < 0.05). Previous studies suggested that traditional ANOVA is the best (in controlling nominal type I error) when data are homogeneous, normal, and balanced/unbalanced; while Welch's ANOVA method performs the best (in controlling nominal type I error) when data are heterogeneous, normal, and balanced/unbalanced (McDonald, 2014; Liu, 2015). Therefore, in this study, viewpoint and capability were subjected to traditional ANOVA, while emotion, skill, and self-improvement were subject to Welch's ANOVA test.

Based on the results of the traditional ANOVA tests, viewpoint and capability scores were not significantly different across the three levels of personal constraints (at p-value <0.05). Welch's ANOVA results (Table 40) revealed that emotion and self-improvement showed significant differences across the three levels of personal constraints. However, skill was not significantly different in the Welch's ANOVA test. Emotion reported F(2, 260)=10.800, p=0.000, and an effect size calculated by adjusted omega squared of 0.05; and self-improvement reported F(2,258)=11.654, p=0.000, and adjusted omega squared of 0.05.

For Welch's ANOVA's post-hoc test, Games-Howell test was used (Table 41 and Table 42). The results indicated that individuals who perceived personal constraints at the low level (M=14.7, SD=3.6) had a significantly higher score of emotion compared to individuals who perceived

personal constraints at the medium level (M=13.6, SD=2.8), as well as to those at the high level (M=12.8 SD = 3.4). Nonetheless, there were no significant differences in emotion between female travelers who perceived personal constraints at the medium and high level. In addition, individuals who perceived personal constraits at the low level (M=22.9, SD=3.7) had a significantly higher score of self-improvement compared to those who perceived personal constraints at the medium (M=21.5, SD=3.1) and high level (M=20.6, SD=4.3). Since not all factors of personal development showed significant increases when female solo travelers had higher levels of perceived personal constraints, *hypothesis 2c was partially supported*.

Table 39. ANOVA Results of Differences in Personal Development of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Personal Constraints

	Levene's		Levels of Exposure								
	Factors	test p-value	ANOVA		ANOVA Low (n=395)			Medium (n=395)		High (n=395)	
		_	F	df	р	Mean	SD	Mean	SD	Mean	SD
1.	Viewpoint	.635	1.958	(2,394)	.143	25.90	5.91	24.56	5.40	24.97	5.66
2.	Emotion	.006	12.122	(2,394)	.000	14.73	3.56	13.56	2.82	12.78	3.37
3.	Skill	.002	.312	(2,394)	.732	14.39	4.27	14.02	3.45	14.16	3.80
4.	Capability	.509	2.208	(2,394)	.111	16.73	2.66	16.16	2.41	16.17	2.54
5.	Self-improvement	.033	12.922	(2,394)	.000	22.88	3.74	21.47	3.06	20.61	4.25

^{*}p<0.05; **p<0.01; ***p<0.001

Table 40. Welch's ANOVA Results of Differences in Personal Development of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Personal Constraints

	Factors	p-value	W	elch's ANOVA	
		•	F	df1	df2
1.	Viewpoint	.148	1.924	2	261.042
2.	Emotion	.000***	10.800	2	260.924
3.	Skill	.737	.306	2	261.261
4.	Capability	.123	2.114	2	261.102
5.	Self-improvement	.000***	11.654	2	258.737

Table 41. Post-hoc Test Results of Emotion of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Personal Constraints

Factor	Adjust Omega Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
		Low	Medium	1.17*	.009*
			High	1.95*	.000*
Emation	0.5	Medium	Low	-1.17*	.009*
Emotion	.05		High	.78	.114
		High	Low	-1.95*	.000*
			Medium	78	.114

Games-Howell test was used for the post-hoc test; *p<.05

Table 42. Post-hoc Test Results of Self-improvement of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Personal Constraints

Factor	Adjust Omega Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
		Low	Medium	1.42*	.002*
			High	2.28*	.000*
Self-	0.5	Medium	Low	-1.42 [*]	.002*
improvement	.05		High	.86	.150
		High	Low	-2.28*	.000*
			Medium	86	.150

Games-Howell test was used for the post-hoc test; *p<.05

To test hypothesis H2d - *there is an increase in personal development when female solo travelers experience higher levels of perceived practical constraints,* an ANOVA test was conducted using the scores of five factors of personal development (i.e. viewpoint, emotion, skill, capability and self-improvement) among three categories of solo travel practical constraints (i.e. low, medium and high). Table 43 provides a summary the results of the ANOVA test.

Levene's test for homogeneity of variance revealed that all five factors did not violate the assumption of homogeneity of variance (Levene's test p-value > 0.05). At p-value < 0.05 level, viewpoint and self-improvement were found to be significantly different across the three levels of practical constraints. Viewpoint reported F(2,398)=3.066, p=0.048, and eta squared of 0.07; while self-improvement had F(2,398)=4.394, p=0.013 and eta squared of 0.03. Emotion, skill and capability scores were not significantly different in the test.

Post hoc test was performed using Tukey's HSD test (Table 44 and Table 45). Results denoted that female travelers who perceived practical constraints at the low level (M=24.4, SD=6.1) experienced significantly lower viewpoint score compared to those who perceived practical constraints at the medium level (M=26.1, SD=5.2). There were no significant differences in viewpoint score between respondents who perceived practical constraints at the low level and high level or between those at the medium and high level.

Additionally, it was shown that female travelers who perceived practical constraints at the medium level (M=22.1, SD=3.5) had a significantly lower score of self-improvement in comparison to female travelers who perceived practical constraints at the high level (M=20.9, SD=4.0), as well as at the low level (M=22.0; SD=3.7). Self-improvement scores between respondents who perceived practical constraints at the low and medium level did not show any significant differences. Since all factors of personal development did not significantly increase

when female solo travelers had higher levels of perceived practical constraints, *hypothesis 2d was* partially supported.

Table 43. ANOVA Results of Differences in Personal Development of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Practical Constraints

	Factors							Levels of	Exposure		
			ANOVA		Lo (n=4			lium 401)	Hi ₂ (n=4	_	
			F	df	р	Mean	SD	Mean	SD	Mean	SD
1.	Viewpoint	.488	3.066	(2,398)	.048*	24.41	6.07	26.08	5.17	25.02	5.71
2.	Emotion	.179	1.770	(2,398)	.172	14.08	3.59	13.83	3.25	13.31	3.24
3.	Skill	.202	.831	(2,398)	.436	14.18	4.13	14.52	3.60	13.91	3.87
4.	Capability	.204	1.122	(2,398)	.327	16.45	2.75	16.49	2.54	16.06	2.31
5.	Self-improvement	.480	4.394	(2,398)	.013*	21.99	3.86	22.13	3.53	20.86	4.03

^{*}p<0.05; **p<0.01; ***p<0.001

Table 44. Post-hoc Test Results of Viewpoint of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Practical Constraints

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value
		Low	Medium	-1.67 *	.040*
			High	62	.652
Vioumoint	02	Medium	Low	1.67*	.040*
Viewpoint	.02		High	1.06	.279
		High	Low	.617	.652
			Medium	-1.06	.279

Tukey's HSD test was used for the post-hoc test; *p<.05

Table 45. Post-hoc Test Results of Self-improvement of Female Solo Travelers across Three Levels of Perceived Female Solo Travel Practical Constraints

Factor	Eta Squared	Exposure Level 1	Exposure Level 2 & 3	Mean Difference (1-2) or (1-3)	p-value	
		Low	Medium	14	.953	
				High	1.13*	.044*
Self-	02	Medium	Low	.14	.953	
improvement	.02		High	1.27*	.018*	
		High	Low	-1.13 [*]	.044*	
			Medium	-1.27*	.018*	

Tukey's HSD test was used for the post-hoc test; *p < .05

Key personal development factors that contribute to perceptions of authentic personality

This section aims to address research question 4: What are the key personal development factors that contribute to respondents' perceptions of their authentic personality

To address this research question, linear regression was performed. The total score for each factor of personal development and total score for authentic personality were computed by summing the scores of the corresponding items for further analysis. Before investigating the model, the assumptions of normality, linearity, homoscedasticity, outliers and independence of residuals were checked (using primarily the normal propability plot (P-P) of the regression standards and scatterplot generated by SPSS): The normal P-P plot represented a reasonably straigh diagonal line from bottom left to top right. In the scatterplot, the residuals were roughly rectangularly distributed with most scores concentrated in the centre and very few more than 3.3 or less than -3.3. met all required assumptions (Pallant, 2013). This suggested that all assumptions were met for regression test.

Table 46 provides a summary the regression results. At p-value<0.05, regression results revealed the personal development model significantly influenced authentic personality with F(5,383)=10.478, p=0.000 with an adjusted R-square of 0.109 The personal development model including the five factors of personal development accounted for 10.9% of the total variance in authentic personality. Results indicated the factors of skill and self-improvement were the most important personal development factors in explaining authentic personality. Specifically, skill was negatively and significantly related to authentic personality at p-value<0.05; whereas self-improvement was positively and significantly related to authentic personality at p-value<0.001. According to the Beta score, self-improvement was more powerful in predicting authentuc personality compared to skill. The Beta scores for each individual regression estimate shows the

relative importance of the independent variables in explaining the effect of the personal development factors on authentic personality. In other words, the higher the Beta scores are, the more important the independent variables are in predicting the model.

Table 46. Results of Multiple Regression: Influence of Personal Development Model on Authentic Personality

Independent variables	Beta	t	p-value
Viewpoint	.039	.299	.765
Emotion	117	628	.531
Skill	414	-2.350*	.019*
Capability	.372	1.346	.179
Self-improvement	1.030	5.066***	.000***

Adjusted R-square= .109; F(5,385)=10.478; *p<.05; **p<.01; ***p<.001

Key personal development factors that contribute to self-esteem

This section aims to address research question: What are the key personal development factors that contribute to respondent's self-esteem?

To address this research question, linear regression was performed. The total score for each factor of personal development and total score of self-esteem were computed by summing the scores of the corresponding items for further analysis. From the results of normal propability plot (P-P) and scatter plot, all assumptions of normality, linearity, homoscedasticity, outliers and independence of residuals were met (Pallant, 2013).

Table 47 reports the results of the resgression test. At p-value <0.05, the personal development model was found to have a significant influence on self-esteem with F(5,382)=11.485, p=0.000. The adjusted R-squared value was 0.119 indicating that the personal development model explained 11.9% of the total variance of self-esteem. The regression analysis also revealed that factor self-consciousness was the best predictor of authentic personality. Although not all factors of personal development model significantly influenced self-esteem, the overall model had a significant influence on authentic personality.

Table 47. Results of Multiple Regression: Influence of Personal Development Model on Self-esteem

Independent variables	Beta	t	p-value
View	057	376	.707
Emotion	.257	1.203	.230
Skill	269	-1.348	.179
Capability	.425	1.356	.176
Self-improvement	1.060	4.470***	.000***

Adjusted R-square= .119; F(5,382)=11.485; *p<.05; **p<.01; ***p<.001

Key authentic personality factors that contribute to self-esteem

This section aims to address research question 6: What are the key authentic personality factors that contribute to respondent's self-esteem?

To address this research question, , linear regression was performed. The total score for each factor of authentic personality and total score of self-esteem were computed by summing the scores of the corresponding items for further analysis. The results of normal propability plot (P-P) (representing a reasonably straigh diagonal line from bottom left to top right) and scatter plot

(residuals were roughly rectangularly distributed with most scores concentrated in the centre) confirmed that all requirements of normality, linearity, homoscedasticity, outliers and independence of residuals were met (Pallant, 2013).

Table 48 provides the results of regression test. At p-value <0.05, the authentic personality model was found to have a significant influence on self-esteem with F(5,383)=121.758, p=0.000. The adjusted R-squared value was 0.484 indicating that the authentic personality model explained 48.4% of the total variance of self-esteem. The regressional analysis also revealed that all factors of authentic personality (i.e. self alienation, authentic living and external influence) were positively and significantly related to self-esteem. Beta scores identified self-alienation had the highest predicting power at p-value<0.001, followed by authentic living at p-value<0.01 and then external influence at p-value<0.05.

Table 48. Results of Multiple Regression: Influence of Authentic Personality

Model on Self-esteem

Independent variables	Beta	t	p-value
Self-alienation	.585	13.492***	.000***
Authentic Living	.107	2.637**	.009**
External Influence	.113	2.578*	.010*

Adjusted R-square= .484; F(5,383)=121.758; *p<.05; **p<.01; ***p<.001

Summary of results

In brief, this study's findings have provided information on the unique characteristics of female solo travelers. In addition, the results have confirmed the influence of different levels of solo travel exposure on different aspects of perceived constraints of female solo travelers as well as the influence of different levels of perceived constraints on different aspects of personal development. Apart from that, the relationships among personal development, authentic personality and self-esteem were confirmed and key elements of each independent variable contributing to its respective dependent variables were revealed. Therefore, all research questions were answered and all hypotheses were at least partially supported in this study. A summary of the objectives, research questions, hypotheses of this study, along with the key findings are presented in Table 49

Table 49. Summary of Study's Findings

Study Objectives	Research Questions (RQ)	Hypotheses (H)	Results
(1) To investigate the general characteristics of female solo travelers;	RQ1: What are the general characteristics of female solo travelers?	N/A	 Majority made their own solo travel arrangements. Majority infrequently travelled solo and took short solo trips. "Adventurer" was ranked as the best descriptor by the respondents, followed by either "economizer" or "dreamer"; then "worrier" and lastly "indulger". Majority travelled in the summer. Majority travelled in the EU and North America, which was mostly near to their home countries.
			Partially supported:
(2) To investigate the influence of solo travel exposure on females'	RQ2: Do perceptions of solo travel constraints	H1a: There is a decrease in perceived solo travel constraints as female solo travelers make more solo travel arrangements on their own.	 Individuals who made their own solo travel arrangement at high frequency perceived significantly lower practical constraints compared to those who made their own solo travel arrangements at low frequency. Individuals who made their own solo travel arrangement at high frequency perceived significantly lower practical constraints compared to those who made their own solo travel arrangements at medium frequency.
perceptions of solo travel constraints;	change with more exposure to solo traveling?	H1b: There is a decrease in	Partially supported:
	uavening?	perceived solo travel constraints as female solo travelers travel more per year.	 Respodents who traveled solo at a medium frequency perceived significantly greater spatial constraints compared to those traveled solo at a low frequency as well as to those that traveled solo at a high frequency. Respondents traveling solo at the medium frequency perceived significantly greater practical constraints in comparison to those who traveled solo at the high level.

		H1c: There is a decrease in perceived solo travel constraints as the average length of trip increases for female solo travelers.	 Partially supported: Individuals who traveled for a shorter period of time had significantly higher levels of perceived personal constraints than those who traveled for longer periods of time .
(3) To investigate the influence of perceived constraints on the personal development. RQ3: Do changes in perceptions of solo travel constraints	H2a: There is an increase in personal development when female solo travelers experience higher levels of perceived social-cultural constraints.	 Respondents who perceived social-cultural constraints at the low level were reported significantly lower score of viewpoint compared to those perceived social-cultural constraints at the medium level, and at the high level. Respondents who perceived social-cultural constraints at the low level had significantly lower score of skill compared to those perceived social-cultural constraints at the medium level and at the high level. 	
personal development of female solo travelers;	influence different levels of personal development?	H2b: There is an increase in personal development when female solo travelers experience higher levels of perceived spatial constraints.	 Respondents who perceived spatial constraints at the low level had a significantly lower score of viewpoint compared to those who perceived spatial constraints at the medium level, and to those who perceived spatial constraints at the high level. Respondents who perceived spatial constraints at the low level had significantly higher emotion score compared to those who perceived those constraints at the high level. Respondents who perceived spatial constraints at the low level had significantly lower skill score compared to those who perceived those constraints at the medium level.

		H2c: There is an increase in personal development when female solo travelers experience higher levels of perceived personal constraints.	 Partially supported: Individuals who perceived personal constraints at the low level had a significantly higher score of emotion compared to individuals who perceived personal constraints at the medium level, as well as to those at the high level. Individuals who perceived personal constraints at the low level had a significantly higher score of self-improvement compared to those who perceived personal constraints at the medium level and high level.
			Partially supported:
		H2d: There is an increase in personal development when female solo travelers experience higher levels of perceived practical constraints.	 Female travelers who perceived practical constraints at the low level had a significantly lower viewpoint score compared to those who perceived practical constraints at the medium level. Female travelers who perceived practical constraints at the medium level had a significantly higher score of self-improvement in comparison to female travelers who perceived practical constraints at the high level, as well as at the low level.
(4) To investigate the relationships among personal development, authentic personality and self-esteem.	RQ4: What are the key personal development factors that contribute to respondent's perceptions of their authentic personality?	N/A	 The self-improvement factor of personal development strongly and postively influenced authentic personality. The skill factor of personal development negatively influenced authentic personality. Self-improvement had the highest predicting power on authentic personality.
	RQ5: What are the key personal development factors that contribute to respondent's selfesteem?	N/A	 The self-improvement factor of personal development strongly and positively influenced self-esteem.

RQ6: What are the key authentic personality factors that contribute to self-esteem?	N/A	 All factors of authentic personality (i.e. self-alienation, authentic living, and external influence) positively influenced self-esteem. Self-alienation had the highest predicting power of self-esteem followed by authentic living and external influence.
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CHAPTER V

DISCUSSION AND CONCLUSION

This chapter discusses the findings in relation to past literature. Then, theoretical and practical implications of the findings are presented. The study concludes by addressing limitations and suggesting topics for future studies.

Discussion of results

Solo travel has become increasingly popular among females as a way to enhance their self-growth and to escape from the social spaces of everyday life that typically restrict them from learning about themselves (Chiang & Jogaratnam, 2006; Wilson & Harris, 2006). There have been few studies examining how solo travel experiences could facilitate the achievement of these goals. Therefore, this study contributes to the body of literature on female solo travel by adapting quantitative tools to better understand the solo travel experiences of women (both solo travel exposure and perceptions of solo travel constraints). This study also contributes to the literature by investigating the contribution of solo travel experiences, conceptualized as solo travel exposure and perceived solo travel constraints on personal development, authentic personality and self-esteem of female solo travelers.

Discussion of general characteristics of female solo travelers (Research question RQ1)

From the study, information on the unique characteristics of female solo travelers was discovered addressing research question 1: What are the general characteristics of female solo travelers?

One of the first key findings is that female solo travelers typically made their own solo travel arrangements, reflecting a noticeable level of activeness and immersion in their experiences. The level of activeness and immersion in the traveling experiences would result in more profound learning outcomes. According to Pine and Gilmore (1999), when travelers are "active" and "absorbing" in their experiences, they are in the "educational realm" of the experience. Falk, et al (2012) further elaborated that an active traveler would gain much more knowledge, skills and wisdom out of their experiences. However, most of the respondents did not frequently travel solo and each trip was rather short (majority not more than 2-4 weeks), which were the other two key aspects of solo travel exposure in this study. Their limited exposure time to solo traveling might affect their ability to fully learn from the experiences.

Regarding female solo traveler's self-identification, it was found that respondents mostly saw themselves as "adventurers" and wanted to actively explore new experiences and cultures during their solo trips. It should also be noted that female solo travelers also frequently saw themselves as "economizers" and "dreamers." This suggests this travel segment tends to be more conscious of travel spending and keeps their travel plans stress-free (which could possibly be the reason why they did not see themselves as a 'worrier' while travelling solo). Interestingly, none of the respondents saw themselves as an "indulger" during their solo trips. This may be because these women typically travel solo to learn and grow, and thus being pampered would not be their priority during solo trips. The findings reflect previous literature on female solo travel motivation,

including notably adventure-seeking, relaxation, independence, self-growth and self-identification (Chiang & Jogaratnam, 2006; Wilson & Harris, 2006). Thus, the worthwhile aspect of this finding was that there was a distinct and specific ranking as to what types of experiences female solo travelers value or seek the most and the least, which would have prominent practical implications for tourism practitioners.

Furthermore, the results showed that most respondents were traveling to countries that were within or close to their regions of origin. They also typically took short trips and infrequently travel solo throughout the year. This might be associated with the "precedent solo travel constraints" (constraints demotivating females to start traveling solo) mentioned in previous studies such as lack of time, lack of money, fear of socio-cultural differences, or fear of being a solo traveler which deter them from traveling more often and further from where they came from (Wilson & Little, 2005). Past studies have also found that the solo travel constraints of females are amplified when they travel abroad (Carr, 2001; Jordan & Gibson, 2000; Wilson & Little, 2008), which could explain why the female solo travelers in this study traveled in close proximity of their home countries.

Discussion of change of perceptions of solo travel constraints with more exposure to solo traveling (Research question R2 – Hypotheses H1a-H1c)

From the study, information on the influence of solo travel exposure (i.e. frequency of making own solo travel arrangements, frequency of traveling solo per year, and average length of time per solo trip) on the perceptions of solo travel constraints (i.e. perceived socio-cultural, personal, spatial and practical constraints) was discovered addressing research question 2: *Do perceptions of solo travel constraints change with more exposure to solo traveling?*

The research question resulted in three hypotheses:

- H1a: There is a decrease in perceived solo travel constraints as female solo travelers
 make more solo travel arrangements on their own.
- H1b: There is a decrease in perceived solo travel constraints as female solo travelers travel more per year.
- H1c: There is a decrease in perceived solo travel constraints as the average length of trip
 increases for female solo travelers.

From ANOVA tests, there are three key findings:

- Individuals who frequently made their own solo travel arrangements had lower level of practical constraints;
- Individuals who frequently travel solo had lower levels of spatial and practical constraints;
- Individuals who stayed longer on each solo trip had had lower levels of personal constraints.

This corresponded well with past studies (Pine & Gilmore, 1999; Falk et al., 2012), which purported that the level of solo travel exposure would make a difference in the solo travel experiences of the respondents, particularly their perceived constraints or challenges. In other words, it was expected that those who were more exposed to solo travel experiences would be less concerned by perceived constraints.

Particularly, travelers who frequently made their own travel arrangement were minimally concerned with their practical constraints such as lack of time and money, lack of local knowledge, lack of guidance, and stress and fatigue compared to those who were not often involved in their trip planning. This finding supported by past research conducted by Wilson and Little (2005). Thus, the more actively involved one is in their trip planning process, the more confident they will be in their travels. By being actively involved in the planning process, the travelers were likely able to plan their budget well, better understand the local destination, both geographically and culturally, as well as be better prepared for any unexpected incidents.

Furthermore, travelers who took longer solo trips were shown to have less concern for personal constraints, which are constraints related to personal limitations and restrictions based on self-perceptions, beliefs, and attitudes (Wilson & Little, 2005). A longer trip length could allow a greater chance of absorption in the experience where they can more fully "escape" from attitudes and beliefs conforming to social norms and became totally liberated from their personal restrictions (Jordan & Gibson, 2005; Pine & Gilmore, 1999).

Lastly, those who often traveled solo demonstrated less concern for both spatial constraints (i.e. restricting the freedoms and movements of solo women within tourist settings) and practical constraints (i.e. challenges such as lack of time and money, lack of local knowledge, lack of guidance, and the stress and fatigue of being a female solo traveler). Being less concerned on these challenges essentially reflected traveler's capability of managing the solo travel experiences

to ensure a safe, cost-effecttive and enjoyable experience. This could be because only by traveling often, female solo travelers were enabled to become both "active" and have "absorptive/immersion" in their experiences (Falk et al., 2012), which over time helped them to more deeply understand the scope of solo travel and become experienced in dealing with the numerous challenges that could possibly occur during their trips.

Discussion of influence of perceptions of solo travel constraints on different levels of personal development (Research question RQ3 – Hypotheses H2a-H2d)

From the study, the influence of perceptions of solo travel constraints (i.e. perceived socio-cultural, personal, spatial and practical constraints) on different levels of personal development (including viewpoint, emotion, skill, capability and self-improvement factor) was discovered addressing research question 3: *Do changes in perceptions of solo travel constraints influence different levels of personal development?*

The research question resulted in four hypotheses:

- H2a: There is an increase in personal development when female solo travelers experience higher levels of perceived social-cultural constraints.
- H2b: There is an increase in personal development when female solo travelers experience higher levels of perceived spatial constraints.
- H2c: There is an increase in personal development when female solo travelers experience higher levels of perceived personal constraints.
- H2d: There is an increase in personal development when female solo travelers experience higher levels of perceived practical constraints.

The key findings are interpreted as:

- Individuals who were less concerned with socio-cultural constraints had lower score in in viewpoint, skill and capability;
- Individuals who were less concerned with spatial constraints had lower score in viewpoint and skill, but individuals who were more concerned with spatial constraints had lower score in emotion;
- Individuals who were more concerned with personal constraints had greater score in emotion and self-improvement;
- Individuals who were less concerned with practical constraints had greater score in viewpoint, whereas individuals who were more concerned wth practical constraints had lower score in self-improvement.

According to the findings, the level of personal development attained from solo traveling was significantly different among travelers who experienced low, medium and high levels of perceived constraints. Specifically, female solo travelers who were more aware of social-cultural, and spatial constraints attained higher levels of personal development in relation to their viewpoint (e.g. self-view, worldview, life view, people view etc.) and improvement in their skills (e.g. money, time and material management skills) and/or their capability (e.g. communication, adaptability and solving problem capability). Social-cultural and spatial constraints shared the common ground of being an "external constraint" that is highly influenced by the local destination. Social-cultural constraints are related to the social challenges of a woman traveling in a local destination (e.g. male attention, local attention, and host attitude), and spatial constraints are related to challenges that restrict women's movement in tourism areas (e.g. limited traveling

time or limited traveling areas). These constraints appear to be influenced by the local destinations, which possibly explains the reason why these constraints or challenges could significantly impact respondents' views towards their self and the world around them. In other words, by facing the challenges occurring in the local destination (which they would not often experience in their normal life), such as local scrutiny, or time or location restrictions due to being a woman, the travelers were able to learn more about the world around them. In addition, by overcoming these challenges, the travelers had the opportunity to understand more about their own self, such as their self-worth, as well as attaining more skills and capability in handling challenging situations in the local areas.

The most influential constraint with regards to changes in personal development in this study was found to be personal constraints, which are restrictions or limitations resulting from the woman's belief or attitude. These constraints are likely to be "internal constraints" as opposed to external constraints like social-cultural, spatial and practical constraints. The results indicated relatively noteworthy findings that in contrast to the external constraints, a higher level of internal constraints, like personal constraints, would result in less change in personal development factors including emotion and self-improvement. The internal constraints, such as feelings of fear and unsafety would be likely to restrict female solo travelers from completely escaping from their normal lives and fully absorbing into the solo travel experiences, and thus presumably resulted in lower levels of personal development. This finding aligns well with past literature which affirmed the need for total escape from social norms and becoming fully absorbed in the solo travel experience in order to have prominent growth in personal development (Ballantyne, Packer, & Sutherland, 2010; Falk et al., 2012; Jordan & Gibson, 2005; Pine & Gilmore, 1999; Wearing, 1998).

It should also be noted that the emotion factor of personal development (related to the improvement in the individual's frustration, negative emotions and anxiety) had more change

among respodents who were less concerned with personal constraints, but among those who were more concerned with spatial constraints. In other words, individuals who had less internal fear, yet faced more external challenges (those related to their restricted movement due to being a female solo traveler) experienced more improvement in their emotional component of personal development. This could also be rationalized by the difference between the influence of internal and external constraints in which higher level of internal constraints would hinder personal development, while higher level of external constraints would enhance personal development (Jordan & Gibson, 2005; Wearing, 1998; Wilson & Harris, 2007).

Another notable finding of this study was that when individuals were highly concerned with practical constraints such as lack of local languages, lack of geographical understanding and lack of cultural understanding, they gained higher level of change in their viewpoint, yet they had less positive change in their self-improvement. This is likely because practical constraints are external constraints and by being more concerned about them, travelers were able to have different viewpoints of the external environment. However, having too many practical constraints could possibly result in traveler's inability to immerse in the local destination and totally escape from their normal lives, which were the key factors that help faciliate self-transformation or self-improvement in female solo travelers (Lett, 1983; Turner, 1974; Wearing & Wearing, 1996).

Discussion of the relationship among personal development, authentic personality, and selfesteem (Research questions 4-6)

From the study, the relationship among personal development, authentic personality and self-esteem was addressed through (1) research question 4: What are the key personal development factors that contribute to respondent's perceptions of their authentic personality? (2) research question 5: What are the key personal development factors that contribute to respondent's self-esteem? and (3) research question 6: What are the key authentic personality factors that contribute to self-esteem?

The key findings are:

- The self-improvement factor of personal development strongly and postively influenced authentic personality.
- The skill factor of personal development negatively influenced authentic personality.
- Self-improvement had the highest predictive power on authentic personality.
- The self-improvement factor of personal development strongly and positively influenced selfesteem.
- All factors of authentic personality (i.e. self-alienation, authentic living, and external influence) positively influenced self-esteem.
- Self-alienation had the highest predictive power on self-esteem, followed by authentic living and external influence.

First, the results of this study successfully confirmed a significant relationship between personal development and authentic personality. Two factors of personal development, namely self-improvement and skill, were found to be the strongest predictors of authentic personality. While self-improvement was positively related to authentic personality, skill was negatively related to

authentic personality. The negative relationship between skill and authentic personality was an unexpected finding in this study. Since "skill", defined as "learnt and acquired technique through training and repeated practice to carry out predetermined tasks" such as time, money or material management skills (Chen et al., 2014, p.529), the act of "repeated practice" could hinder the authenticity and spontaneity of the self. Findings on solo travel motivations also emphasized on the importance of spontaneity and freedom (Mehmetoglu et al., 2001). This might not be achieved in the trade-off for successfully managing external factors (reflected in the skill factor in this study). As such, travelers were not able to live freely while traveling according to their values and beliefs due to the influence of external factors like time, money and material which tended to urge them to do the "right" thing rather than things that reflect their true self. On the other hand, self-improvement, which was identified to be the strongest predictor of authentic personality, was found to be positively correlated with authentic personality. This supported previous research that emphasized on the important role of being aware of and confident in one's true-self in determining the level of authenticity (Kernis, 2003; Wood et al., 2008).

In addition, the significant relationship between personal development and self-esteem was also proven in this study. The self-improvement factor of personal development was the best predictor of self-esteem and they were positively related to each other. It could be explained that the aspect of self-liking, self-acceptance and self-worth, which were key factors reflecting self-esteem, were primarily cultivated from being conscious of one's self worth and having a positive attitude towards the self (Becker-Phelps, 2011; Kernis, 2003; Ray, 2017).

Another relationship was found significantly positive in this study was the one between authentic personality and self-esteem. In addition, all three factors within the authentic personality scale (i.e. self-alienation, authentic living, and external influence) were significantly and positively related to self-esteem. Self-alienation had the most explanatory power, followed by authentic living and external influence. One of the primary indicators of low self-esteem has been reported

to be low self-concept (internal inconsistency and instability) (Baumeister, Tice, and Hutton, 1989). Thus, the self-alienation factor of authentic personality, which consisted of the incongruence between the conscious awareness and the true self (Wood et al., 2008), share similar notions with low self-concept. Thus, having a disparity between the true self and conscious awareness could be the main culprit in low level of self-esteem, which elucidated the highest predistive power of self-alienation in explaining self-esteem. The aspect of authentic living emphasized the consistency between external expression and internal thought processing that was true to the self (Wood et al., 2008). Individuals who live authentically would act according to their true values and beliefs. This would presumably facilitate the generation of both conscious and non-conscious feelings of self-acceptance and self-worth that are critical to achieve optimal self-esteem (Kernis, 2003). Lastly, external influence indicates how influential other people are on the perspectives of individuals, and thus denoting that individuals who were easily influenced by others would result in instable levels of self-perception including self-esteem.

The "tripartite person-centered view of authenticity" of Wood et al. (2008) posited that authenticy started with the thought processing within the self, followed by authentic living and external influence, which matched well with the ranks of the factors based on their explanatory power of self-esteem. This could denote that self-alienation level is not only the most critical factor reflecting authenticity but any change in it would also result in the biggest difference in self-esteem.

Theoretical and managerial implications

This study contributed to academic literature on solo travel in various ways. Perceived constraints was tested in its relationship to personal development, authentic personality, and self-esteem, which confirmed the significant impact of solo traveling on the self-growth and self-perceptions of females on a larger scale, which had not yet been explored in the literature (Harris & Wilson, 2007; Jordan & Gibson, 2005; Wearing & Wearing, 1996; Wilson & Harris, 2006). Specifically, while past literature mostly proposed constraints that hinder the participation of females in solo traveling, this study took a different perspective and the results suggest that solo travel constraints can induce positive benefits for the personal growth of females (Jordan & Gibson, 2005; Wilson & Little, 2005). It complimented the feminist framework of Jordan and Gibson (2005) which suggested that by overcoming solo travel constraints, female travelers would become more empowered.

Furthermore, since past studies proposed that women are motivated to travel solo to learn and grow (Chiang & Jogaratnam, 2006; Wilson & Harris, 2006), this study advanced the literature by asserting that solo travel experiences enable women to meet those goals. Specifically, results of the study has confirmed the positive influence of solo travel exposure on personal development as well as the positive influence of personal development on authentic personality and self-esteem. Additionally, the results suggest the critical role of self-improvement as the key element involved in connecting the self with its true identity as well as bolstering their self-esteem.

From a practical standpoint, this study also contributes to the tourism industry, especially for travel agencies, tour operators, or destination managers that target female solo travelers. The self-description of female solo travelers based on their solo travel history could be relatively helpful information for the industry to better understand their travel preferences. For instance, this study revealed that female solo travelers mostly identified themselves as adventurers and preferred to

keep their trips simple and economical. In addition, the majority of them were often involved in making their own travel arrangements and took relatively short solo travels (i.e. less than a week to no more than two weeks). Therefore, to attract this travel segment, results from this study suggest that travel packages be designed to provide opportunities for women to be highly involved and interactive in the planning process and to provide the opportunity to experience new cultures and adventures during their trip. The packages should also be simple and cost-effective. Moreover, as summer months are the peak times of solo traveling for females, travel agencies and destination managers should focus most of their marketing efforts during this season.

As the perceived constraints of solo travel were shown to have different impacts on females, tourism practitioners should take this into consideration when designing their packages. Specifically, since external constraints in local destinations, such as lack of local languages and cultural understanding, or restricted movement in the tourism areas, would eventually help female solo travelers learn and grow more, destination managers should not interfere with the local areas or "turn it into another tourist attraction." This would help create the most organic environment for travelers to attain the most impactful learning outcomes. Conversely, internal constraints such as fear of safety and the feeling of loneliness could hinder personal development. Thus, it is suggested that travel companies to minimize these constraints though actions such as 24/7 assistance services (e.g. online instantaneous chat boxes or local representatives of the tourism areas), providing training classes (e.g. self-defense classes), and offering options to meet trustworthy travel 'buddies'. Furthermore, travel plans that encourage travelers to be more active and engaged in their experiences could possibly suppress these perceived constraints. Findings from this study suggest self-improvement as part of personal development both significantly influence the authentic personality and self-esteem of travelers. As such, solo travel packages that could help female solo travelers improve their inner self (confidence, motivation and attitude) could result in more positive personal development. For instance, adventurous experiences (e.g.

trekking, zip-lining, trying exotic food, learning local languages) offered by local destination where female travelers can challenge themselves in a safe environment could significantly boost their self-confidence.

Limitations and future studies

The study had some limitations that should be addressed in future studies. First, the sample size was relatively small (N=423) and the respodents were all recruited via the Prolific Academic platform which posed the issue of biased responses and generalizability. Prolific Academic is a platform developed in Europe and thus most of the respodents were from European countries reflecting a low level of diversity in terms of their origins. In addition, this platform provides a revenue stream for the respodents, which meant that most of the respodents in this study had low to medium levels of income, but did not neccessarily represent the true population of female solo travelers.

Furthermore, since the prescreening did not ensure the sample to include both frequent and infrequent solo travelers, the sample resulted in having mostly infrequent female solo travelers who might not be engaged in the experience long enough to see the change in their personal devleopment, authentic personality and self-esteem. This could contribute to why many impacts or relationships studied in this research had minimal effect size or did not have any significant impact at all. The low frequency of solo traveling in this sample suggested the respodents were not overly passionate about solo traveling and did not identify themselves as a female solo traveler. Thus, the sample consisted of females who had traveled solo, but not necessarily females who identified as solo travelers. Considering this, the significant positive benefits of more extensive solo traveling may have been missed in this study.

Therefore, future studies should refer to other recruiting approaches that ensure a more diverse sample. In addition, the sample size could be enhanced to improve the generazability of the study results. Future research is recommended to compare females who have different levels of exposure and diverse socio-demographic profiles; between females who travel solo and those who do not; between females and males, and should include also include other self-identified genders to identify if there are any significant gendered differences in terms of their self-growth and self-perceptions. Furthermore, since this study has confirmed the role of solo travel exposure and perceived constraints on the personal development of females, research specifically examining the optimal solo travel exposure level and perceived constraints level to achieve self-growth could be meaningful contributions to this topic.

This study used one-way ANOVA to test the difference in perceived constraints based on exposure level and to test the difference in personal development based on perceived constraints level. The use of one-way ANOVA instead of multivariate ANOVA (or MANOVA) did not capture the correlation effect among the dependent variables in each test. For example, the four factors of perceived constraints (i.e. social-cultural, spatial, personal and practical constraints) were all part of perceived constraints and thus would be likely to be correlated with each other. As a result, future studies should adopt MANOVA instead of ANOVA to test these relationships to generate more profound findings. In general, this study was able to provide preliminary findings and can be used as a foundation for future efforts in research on female solo travelers or leisure for females as a whole.

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APPENDICES

Survey Questionnaire

Consent Form

Principle Investigator: Hong Ngoc (Ruby) Nguyen

Purpose: The purpose of this study is to examine the impact of solo travel experiences on women, specifically their personal development, authentic personality and self-esteem.

Types of data collected: In this survey you will be asked a series of questions on your past experiences in solo traveling, your self-development and self-perceptions as a result of those experiences, as well as your demographic characteristics. Please note this survey will ask about your racial and ethnic origins. It should take approximately 10 minutes to complete the survey.

** Note: This study explores solo trips that are taken for leisure or vacation purposes and do NOT include business trips. Solo trips are those that involve you traveling and spending your time mostly by yourself, and are not accompanied by anyone that you know (e.g. family members, friends, spouses, partners, etc.) prior to departure.

Risks: There are no risks associated with this project which are expected to be greater than those ordinarily encountered in daily life.

Compensation: By answering all questions in the survey, you will be rewarded by Prolific an amount of \$1.10 USD. No exceptions will be made for those who do not complete the survey nor those who do not meet our requirements **Requirements: (1) you must be an adult female (aged 18 or older) AND (2) you have travelled solo for leisure or vacation purposes.

Your Rights: Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time by closing the tab that contains the survey.

Confidentiality: Your name, e-mail address, or any other identifying information will not be associated in any way with your survey responses. Only the researchers will have access to the information you give on the questionnaire and only a summary of the overall results will be shared in possible future presentations and/or publications of the survey data. The website that hosts the survey is on a secure server. All data will be securely stored on a password-protected computer and in a locked cabinet in a secure research office for one year as per ethical process.

Note that Qualtrics has specific privacy policies of their own. You should be aware that this web service may be able to link your responses to your ID in ways that are not bound by this consent form and the data confidentiality procedures used in this study, and if you have concerns you should consult this service directly. Qualtrics' privacy statement is provided at: http://qualtrics.com/privacy-statement.

Future studies: Results of this study will only be used for master thesis and publication of the same study and will not be used for future studies under any circumstances.

Contacts: You may contact me at the following email address: **ngoc.h.nguyen@okstate.edu**, should you desire to discuss your participation in the study and/or request information about the results of the study. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, (+1)-405-744-3377 or irb@okstate.edu.

If you choose to participate: Please click the " \rightarrow " key below. By clicking " \rightarrow " key, you are indicating that you have read and fully understand the terms and voluntarily agree to participate in this study and you also acknowledge that you are at least 18 years of age.

*It is recommended that you print a copy of this consent page for your records before you begin the study by clicking the button.

Questionnaire

travel a	ravel agencies and/or tour operators)?					
\bigcirc	Never					
\bigcirc	Rarely (10% of the time)					
\bigcirc	Occasionally (30% of the time)					
\bigcirc	Sometimes (50% of the time)					
\bigcirc	Frequently (70% of the time)					
\bigcirc	Usually (90% of the time)					
\bigcirc	Always					

How frequently do you make your solo travel arrangements by yourself (without the assistance of

Please specify the number of times you have travelled solo to each region of the world:

	0 times	1 time	2-4 times	5- 10 times	11- 20 times	21- 50 times	More than 50 times
North America	\circ	\circ	\circ	\circ	\circ	\circ	\circ
Central America	\circ	\circ	\circ	\circ	\bigcirc	\circ	\circ
South America	\circ	\bigcirc	\circ	\circ	\bigcirc	\bigcirc	\circ
The Caribbean	\circ	\circ	\circ	\circ	\bigcirc	\bigcirc	\bigcirc
European Union	\circ	\bigcirc	\circ	\circ	\bigcirc	\bigcirc	\bigcirc
Eastern Europe	\circ	\circ	\circ	\circ	\bigcirc	\bigcirc	\circ
Middle East	0	\circ	\circ	\circ	\circ	\circ	\circ
Asia	0	\circ	\circ	\circ	\circ	\circ	\circ
Africa	\circ	\bigcirc	\circ	\circ	\bigcirc	\bigcirc	\bigcirc
Oceania (including Australia, New Zealand, and surrounding islands: Fiji, Papua New Guinea, Guam, etc.)	0	\circ	\circ	0	\circ	\circ	0

What months o	f the year do you typically travel solo? (Mark all that apply)
	January
	February
	March
	April
	May
	June
	July
	August
	September
	October

	November
	December
On ave	rage, how many solo trips do you take per year?
\bigcirc	1 trip
\bigcirc	2-4 trips
\bigcirc	5-7 trips
0	8-10 trips
\bigcirc	Over 10 trips
\bigcirc	I don't solo travel every year

\bigcirc	Less than 1 week
\bigcirc	1-2 weeks
\bigcirc	2-4 weeks
\bigcirc	1-2 months
\bigcirc	2-4 months
\bigcirc	4- 6 months
\bigcirc	More than 6 months

On average, what is the length of your typical solo trip?

The following set of items are **COMMON CHALLENGES** women face as solo travelers. Please think back to your own experiences, and <u>rate how often</u> <u>you felt concerned with these</u> challenges on your solo trip(s):

	Never	Rarely (10% of the time)	Occasionally (30% of the time)	Sometimes (50% of the time)	Frequently (70% of the time)	Usually (90% of the time)	Always
The local attitudes were unfavorable to me	0	0	0	0	0	0	0
I received unwanted local attention	0	\circ	\circ	\circ	\circ	\circ	0
I received unwanted male attention	0	\circ	\circ	\circ	\circ	\circ	\circ
I received male harassment	0	\circ	\circ	\circ	\circ	\circ	\circ
I felt I was being watched	0	\circ	\circ	\circ	0	\circ	\circ

The following set of items are COMMON CHALLENGES women face as solo travelers. Please think back to your own experiences, and rate how often you felt concerned with these challenges on your solo trip(s):

	Never	Rarely (10% of the time)	Occasionally (30% of the time)	Sometimes (50% of the time)	Frequently (70% of the time)	Usually (90% of the time)	Always
I felt fearful	0	0	0	0	0	0	0
I felt unsafe	0	0	0	0	0	0	\circ
I felt lonely	\circ	\circ	\circ	\circ	\circ	\circ	\circ
I felt stressful	\circ	\bigcirc	\bigcirc	\bigcirc	\circ	\circ	\circ

The following set of items are **COMMON CHALLENGES** women face as solo travelers. Please think back to your own experiences, and <u>rate</u> <u>how often you felt concerned with these challenges</u> on your solo trip(s):

	Rarely (10% of the time)	Occasionally (30% of the time)	Sometimes (50% of the time)	Frequently (70% of the time)	Usually (90% of the time)	Always
Meeting up with other travelers prevented me from truly absorbing my solo travel experiences	0	0	0	0	0	0
Tourism and hospitality businesses were not single-friendly	0	\circ	0	0	0	\circ
I lack local language(s)	0	\circ	0	0	\circ	\circ
I lack geographical understanding	0	\circ	0	\circ	0	\circ
I lack cultural understanding	0	0	0	0	\circ	\circ

The following set of items are COMMON CHALLENGES women face as solo travelers. Please think back to your own experiences, and rate how often you felt concerned with these challenges on your solo trip(s):

	Never	Rarely (10% of the time)	Occasionally (30% of the time)	Sometimes (50% of the time)	Frequently (70% of the time)	Usually (90% of the time)	Always
I could not travel to certain places	0	0	0	0	0	0	0
I was restricted to do certain things	0	\circ	0	0	0	0	0
I could not travel at certain times of the day	0	\circ	0	0	0	0	0

	Strongl y disagree	Disagre e	Somewha t disagree	Neither agree nor disagre e	Somewha t agree	Agre e	Strongl y agree
My capability to adapt to environments has been improved	0	0	0	0	0	0	0
My capability to identify and resolve problems has improved		0	0	0	\circ	0	0
My communicatio n capability has improved	\circ	0	\circ	\circ	\circ	0	\circ
My anxiety and stress have been relieved	\bigcirc	\circ	\circ	\circ	\circ	\circ	\circ
My prior frustration has been relieved	\bigcirc	0	\circ	\circ	\circ	\circ	\circ
My negative emotions have been relieved	\circ	\circ	\circ	\circ	\circ	\circ	\circ

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
My view toward the world has changed	0	0	0	0	0	0	0
My view toward life has changed	\circ	\circ	\circ	\circ	\circ	\circ	\circ
My view of value has changed	0	0	0	0	0	0	0
The solo travel experiences have made me feel I am different	\circ	0	0	0	0	0	0
The view of people around me has changed	0	\circ	0	0	0	0	0

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
My time management skills have been improved	0	0	0	0	0	0	0
My money management skills have been improved	0	0	0	0	0	0	0
My material (e.g. food, daily-use goods) management skills have been improved	0	0	0	0	0	0	0

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
My confidence has increased	0	0	0	0	0	0	0
My self- discipline and self-control have been consolidated	0	0	\circ		0	0	\circ
I feel empowered	0	\circ	\circ	0	0	0	\circ
I feel motivated to encourage others to travel solo	0	0	0	0	0	0	0

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I think it is better to be yourself, than to be popular	0	0	0	0	0	0	0
I don't know how I really feel inside	\circ	\circ	\circ	\circ	\circ	\circ	\circ
I am strongly influenced by the opinions of others	0	0	0	0	0	0	\circ
I usually do what other people tell me to do	0	0	0	0	0	0	\circ
I always feel I need to do what others expect me to do	0	0	0	0	0	0	0
Other people influence me greatly	0	\circ	0	0	0	0	\circ

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I feel as if I don't know myself very well	0	0	0	0	0	0	0
I always stand by what I believe in	0	0	0	0	0	0	0
I am true to myself in most situations	\circ	0	0	0	0	0	\circ
I feel out of touch with the 'real' me	\circ	\circ	\circ	\circ	\circ	\circ	\circ
I live in accordance with my values and beliefs	0	0	0	0	0	0	0
I feel alienated from myself	0	0	0	0	0	0	0

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
On the whole, I am satisfied with myself	0	0	0	0	0	0	0
At times, I think I am no good at all	\circ	0	0	\circ	0	\circ	\circ
I feel that I have a number of good qualities	\circ	\circ	\circ	\circ	\circ	\circ	\circ
I am able to do things as well as most other people	\circ	0	0	0	0	0	\circ
I feel I do not have much to be proud of	0	0	0	0	0	0	\circ

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I certainly feel useless at times	0	0	0	0	0	0	0
I feel that I'm a person of worth	\circ	0	0	0	0	0	\circ
I wish I could have more respect for myself	\circ	0	0	0	0	0	\circ
All in all, I am inclined to feel that I am a failure	0	0	0	0	0	0	\circ
I take a positive attitude toward myself	0	0	0	0	0	0	0

Have y	ou lived in any other countries (for more than a year) besides your birth country?
	O Yes
	O No
IF YES	S, Please specify the NUMBER OF COUNTRIES you have lived in (more than a year):
	▼ 1 200
What y	rear were you born?
	▼ 1918 2000
Where	were you born?
	▼ Afghanistan Zimbabwe

Which race category best describes you? (Mark all that apply) White Hispanic or Latino Black or African American Asian Native American or American Indian Middle Eastern Native Hawaiian or other Pacific Islanders Other race(s). Please specify:

What is your m	parital status?
\circ	Single
0	Married/Domestic partnership
0	Divorced
0	Widow
\circ	Separated
Are you curren	tly raising any children (aged below 18)?
\circ	Yes
\circ	No
What is the hig	hest education level you have pursued?
\circ	Less than a high school diploma
0	High school degree or equivalent
\circ	Some college, no degree
\circ	Associate/technical degree
\circ	Bachelor's degree
\circ	Advanced degree (e.g. MS, PhD, MD)

What is your e	mployment status?
\circ	Employed full-time
\circ	Employed part-time
\circ	Self-employed
\circ	Unemployed
\circ	A homemaker
\circ	A student
\circ	Retired
Economically,	you grew up in a home where:
\circ	Your family struggled to make ends meet; made many sacrifices to survive.
\circ	Your family had enough financially to consistently have the basics.
\circ	Your family had more than enough; you enjoyed some privileges as a result of your family's economic situation.

" " " " " " " " " " " " " " " " " " "	What	is	vour	annual	income?
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- Less than \$20,000
- \$20,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- Over \$100,000

VITA

Hong Ngoc Nguyen

Candidate for the Degree of

Master of Science

Thesis: AN INVESTIGATION INTO FEMALE SOLO TRAVELERS: SOLO TRAVEL EXPOSURE AND PERCEIVED CONSTRAINTS, PERSONAL DEVELOPMENT, AUTHENTIC PERSONALITY AND SELF-ESTEEM

Major Field: Hospitality Administration

Biographical:

Education:

Completed the requirements for the Master of Science in Hospitality Administration at Oklahoma State University, Stillwater, Oklahoma in December, 2018.

Completed the requirements for the Bachelor of Science in International Hospitality Management at Sunway University, Sunway City, Selangor, Malaysia in 2016.

Experience:

- School of HTM, Oklahoma State University, OK (01/2017 Present)
 - Teaching Assistant
 - Chef Event's Front of the House Manager (Signature scholarship benefit event organized by HTM)
- Grand Geneva Resort & Spa, WI (05/2018 08/2018)
 - Food and Beverage Supervisory Intern
- Caravelle Saigon Hotel, Vietnam (12/2015 02/2016)
 - Sales, Marketing and Event Planning Intern
- Sunway Hotels Resorts & Spa, Malaysia (12/2014 03/2015)
 - Cost Control Intern
 - Banquet Administration Intern
 - Lobby Lounge Service Intern