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# **FACTORS AFFECTING STUDENTS' CAREER CHOICE IN NEW ZEALAND**

A thesis

submitted in partial fulfilment

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of

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by

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## **Abstract**

The aim of this study was to identify the factors influencing career decisions of tertiary students in New Zealand. The relationship between the factors and cultural values held by students was also ascertained. In addition, the career decision self-efficacy (CDSE) was used to assess if perceived significant others' influence increased their degree of belief as to whether they are able to successfully complete tasks necessary to make career decisions. Finally, the relatedness between students' career choice and fields of study were examined.

Participants of this study were full-time students, who were in the final academic year of their qualification. They were recruited, via e-mail invitations, to complete an online questionnaire, measuring four constructs – factors affecting career decision, cultural/personal values, perceived significant others' influence, and CDSE. The final sample consisted of 151 respondents.

Results showed that collectivistic values correlated significantly with extrinsic and altruistic factors while individualistic values correlated significantly with intrinsic values. Cultural values had no significant impact on perceived significant others' influence. There were no gender differences in relation to perceiving the influence of significant others and both genders preferred seeking career advice from their mothers/stepmothers compared to their fathers/stepfathers. Only supportive relationships (a form of perceived significant others' influence) correlated significantly with CDSE. Finally, relatedness between career decision and field of study increased with age and was higher in students enrolled in a field of study developing specific skills and in students pursuing post-graduate qualifications.

Although no causal inferences may be drawn from the results of this study, this research has further contributed to the limited number of studies focusing on career decision making among students in New Zealand. It is hoped

that the findings are able to provide some critical information to tertiary institutions, organisations, and career counsellors.

# Acknowledgements

I have never boxed or watched a boxing match before. However, for the last 12 months (rounds), I have certainly felt like I was involved in a great match. My opponent? A 90-point thesis, which gathers its strength from an impending deadline and the difficulty involved in completing a thesis.

The first round was almost an immediate knockout for me as I found it difficult to punch in a topic let alone deliver anything convincing in the form of a thesis proposal. However, in my corner stood my coaches, Dr Donald Cable and Professor Michael O'Driscoll. Their advice, guidance, and patience carried me through to the end.

In the next few rounds, I felt the pressure mounting on me as time after time I failed to deliver good punches (chapters). So in between rounds, when I looked to the first row of the crowd, I saw my father, mother, and brother cheering me on the loudest. They never stopped believing that I can defeat this difficult opponent. In the second row, I see my friends, especially Yen Pin, who gave me unfailing support and patience (in listening to my complaints) as well as Jessica and Amanda, my sparring partners (proof-readers).

By round seven, the fatigue has set in, and I experienced the lack of motivation to carry on. My legs have grown heavy and I faced another near loss. As I tried to gather my strength during the short break, I looked up to the heavens and saw my creator and those who left this world before me, my beloved grandmother and Amanda. They smiled down, told me not to worry, and that I will win this battle

At last, in round 12, I delivered the killer punch (the last full stop in Chapter 4) and I have won my battle! Thus, I have reached the end of my match in which I could not have ended it a victor if not for the guidance, support, and belief given by those mentioned above. Words alone can never justify my gratitude to all of you.

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# Chapter One - Introduction

This chapter describes the theories and concepts used to build this study. The research models upon which the study is based on is also included. Additionally, research objectives are discussed. Lastly, hypotheses are also described backed with sound rationale.

'Career' is defined as "being in relationship with identity and providing a residual trace of the individual's relationship with work" (Coupland, 2004, p. 515). The term is also used to refer to an occupation or job held for a significant period of time in an individual's life and it may present him or her with opportunities to progress (Oxford Dictionaries, 2014). The definitions demonstrate the importance and significance of the role of a career to an individual and the first step in acquiring a career is to choose one. This step may be daunting as choosing the wrong career may negatively affect other aspects of an individual's life such as health, relationships, and home life (Pavlina, 2007). Although the pursuit of money is usually cited as the main cause for selecting a wrong career, it is often an excuse to mask deeper issues (Young V. , 2013). They include turning other people's dreams into an individual's own dreams and not wanting to waste a pursued degree. Based on the above discussion, it can be concluded that it is important to study how individuals go about making a career decision.

The purpose of this study was to investigate New Zealand tertiary students' career intentions upon completing their studies and the factors influencing their decisions. The four main aims were to (1) investigate if students seek employment which relates to their fields of study, (2) ascertain the relationship between factors students rely on when deciding on their careers and cultural values, (3) explore if students identified perceived significant others' influence when deciding on their careers, and (4) investigate if perceived significant others' influence is beneficial to students. These objectives are explained further in the subsequent section of this chapter.

Choosing a career involves a matching process (Gokuladas, 2010). That is, an individual matches his or her personal needs, attributes, interests, strengths, and weaknesses with the field or career that fits him or her best. Additionally, choosing a career involves going through three stages (Young B. , 1995). The first is called the “fantasy” stage (from early childhood to age 11). The second is called the “tentative” stage (between ages 11 and 17). The third and final stage is known as the “realistic” stage (between age 17 and young adulthood) and it is in the last stage, that the career decision is made. By this point, many individuals have developed their self-identities (e.g. strengths, weaknesses, interests, and abilities), thus are able to match their attributes with available career alternatives. According to Myers (1996), self-identity refers to a person’s self-concept which includes the answer to the question “who am I?”. Hence, it includes aspects such as gender roles, sexuality, racial identity, and academic performance (Myers, 1996).

Another theory on career development was proposed by Super (1980), which he called Life-Long Career Rainbow. According to Super (1980), an individual’s career is part of his or her self-concept. Self-concepts change over time and develop because of experience, hence, it is concluded that career development is lifelong (Careers New Zealand, 2012; Super, 1980). Based on the Life-Long Career Rainbow theory, there are five stages of career development. They are “growth”, “exploration”, “establishment”, “maintenance”, and “decline”. In the first stage (from birth to age 14), an individual develops his or her self-concept, attitudes, needs, and general world of work. Between the ages of 15-24, the “exploration” stage occurs during which one explores classes, work experiences, and hobbies. What also occurs during this stage is that the individual makes a tentative career choice. Upon entering the “establishment” stage, the individual establishes oneself by building stability through work experience. This stage occurs between the ages of 25 and 44. From the age of 45-64, the individual’s focus is that of maintenance, to continue improving his or her position at work. Finally, from the age of 65, the individual reduces his or her input at work as he or she prepares for retirement. The Life-Long Career Rainbow

theory also applies to what Super called a “maxi cycle” of career progression. He also stated that some individuals would experience “mini cycles”, which are interim re-evaluations and adjustments that follow the same pattern in miniature (Meindl, 2009).

Today, however, Super’s theory may no longer be relevant for everyone as job-hopping is common (Smith, 2013). Job-hopping is defined as moving from one organisation to another for a lateral move or promotion and appeal more to members of Gen X or Gen Y (Smith, 2013). These labels apply to different groups of individuals according to when they were born. Gen X is comprised of people born between 1965 and 1979 while Gen Y is applied to those born between 1980 and 1994 (McCrindle Research, 2012). The financial values held by individuals in Gen X and Gen Y are medium-term goals and short-term wants respectively (McCrindle Research, 2012), thus making them more likely to job hop in comparison to the Baby Boomer generational grouping. According to McCrindle Research (2012), the Baby Boomers generation includes individuals born between the years of 1946 and 1964. The financial values of individuals in this category are focussed on long-term needs. Smith (2013) added that while the Baby Boomers’ principles when working are stoic, long-term oriented, and collectivistic, Gen X and Gen Y employees are more prone to instant self-gratification and individualism.

Due to the differences in financial values held by the different generations, some individuals today view job-hopping as climbing the corporate ladder instead of Super’s (1980) theory of staying with a single organisation for one’s whole career. Among the advantages of job-hopping are the opportunities to acquire valuable knowledge in various environments and culture, building a large and resourceful network, and earning more money (Smith, 2013). On the down side, job-hopping may cause job dissatisfaction, future employers may be hesitant to employ those who frequently job hop, and there is the risk of damaging relationships when leaving an organisation (Smith, 2013).

Considering these opposing theories, individuals today are still facing the need to make career decisions and, based on the theories discussed, it could be seen that making a career choice is a complex and multifaceted phenomenon. Thus, it is difficult to predict or understand why students make particular decisions in regards to their career paths. Nevertheless, it is understood that making a career decision involves an interplay between an individual's characteristics and the contextual factors of structure and culture, which enhances or constructs his or her social world (Sibson, 2011).

There are many theoretical approaches in the field of career decisions. Some of these theories focus on the individual making the decision alone. In contrast to this, the opposing views are those that focus on the organisation's considerations and constraints (Sibson, 2011). Other perspectives addressing career decision making also include additional factors such as cultural norms and the influence of caregivers (Gokuladas, 2010). Regardless of the additional influences that may or may not be helpful to an individual reaching a decision, and based on the research reviewed, all individuals are believed to consider the following factors (Dockery & Barns, 2005; Jaw, Wang, Ling, & Chang, 2006; Marini, Fan, Finley, & Beutel, 1996; Schwartz, 1999; Sibson, 2011; Yong, 1995; Young B. , 1995):

a) Extrinsic factors

This category includes aspects that focus on instrumental resources that are separable from the meaning of work. In this study, they were defined as a good starting salary, good future earnings potential, good career opportunities, variety of career opportunities, high status of future career, standard and flexible hours of work, opportunities for promotion and travel, transferability of work skills, pleasant working conditions, job security, and availability of jobs. These resources are also known as safety resources as they enable individuals to fulfil their basic needs such as hunger and shelter.

b) Intrinsic factors

This category of factors is linked directly to the job itself. Individuals who place higher importance on intrinsic factors will value work for its inherent interest and importance. In this present study, they included interesting work, opportunities for creativity and originality, enjoyable work, responsibility level involved in the job, and challenging work.

c) Altruistic factors

The final category contains factors relating to service themes, that is, jobs that allow individuals to help society. In this study, they included opportunities to work closely with people and to influence others as well as the ability to contribute to society.

The relationships between the above factors and students' career decision are shown in Figure 1, which illustrates the research model underpinning this study.

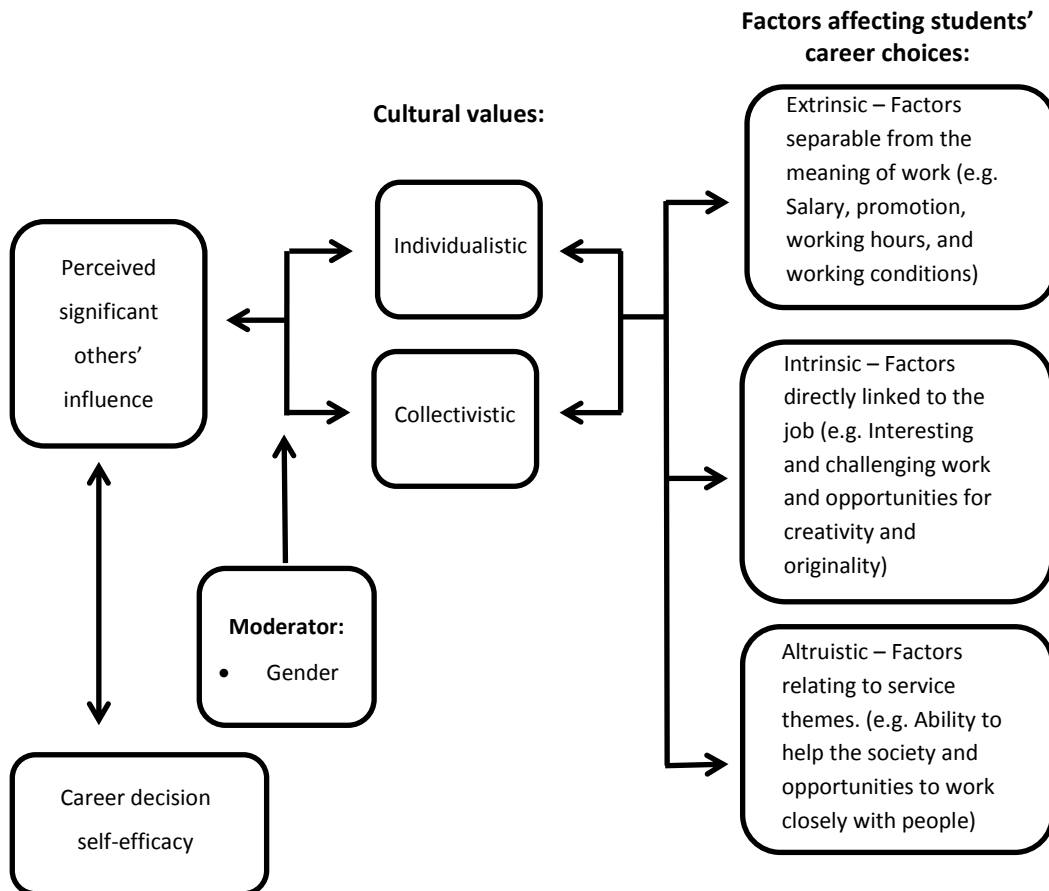


Figure 1. Factors influencing students' career decision.

Based on Figure 1, individuals will contemplate on extrinsic, intrinsic, and altruistic factors when deciding on their careers (Dockery & Barns, 2005; Jaw et al., 2006; Marini et al., 1996; Schwartz, 1999; Sibson, 2011; Yong, 1995; Young B., 1995). Other factors such as cultural values (Jaw et al., 2006; Oishi, Diener, Lucas, & Suh, 1999; Schneider & Barsoux, 2003) and the influence of significant others (Hinkelman & Luzzo, 2007; Keller & Whiston, 2008; Roach, 2010) can affect how students decide on their careers.

Tertiary students may also rely on these factors to arrive at a career decision (Dockery & Barns, 2005; Gokuladas, 2010; Ma & Yeh, 2005; Sibson, 2011). For them, deciding on their careers is a very important matter as it is a key element of their identity development (Roach, 2010). In addition, the student population is unique because many of them are living on their own for the first time while dealing with many coinciding issues and concerns. For this group of students, attending university would be the first time many of them are separated from their families (Roach, 2010). Thus, these students are required to be independent as their families may not be around to discuss some critical issues with them. Besides having to deal with the separation, they also want to perform well academically, fit in with their peers, and make friends as well as determine a career path that fits them best (King & Howard-Hamilton, 2000).

In addition, some external factors may also influence career decision-making. These include a tight job market and underemployment. Due to current economic conditions, the job market is tight and therefore some students will have the element of 'choice' removed when seeking employment upon graduation, instead they will be forced to settle for any employment (Livingstone, 2004). Secondly, some students will be facing underemployment after completing their studies, meaning they will not be able to secure a full-time job or will only be able to acquire a job that they are overqualified to perform (over-qualification or over-education) (Livingstone, 2004). Livingstone (2004) also noted that over the past decade, many high school and college graduates faced underemployment. Besides economic reasons, they are underemployed because many organisations have undergone extensive restructuring, which eliminates

many middle-level positions. This causes many graduates to compete in the entry-level labour market (Livingstone, 2004).

A report of underemployment published recently in New Zealand, revealed that 11% of the population were underemployed (Statistics New Zealand, 2013). Additionally, it was also reported that more women experienced higher levels of underemployment compared to men primarily because there were more women working in part-time jobs. Statistics New Zealand (2013) also stated that youth (between the ages of 15 and 24 years old) were most likely to be underemployed (26.9%) and that many of them were only able to secure part-time jobs. In addition, it was revealed that New Zealand Europeans had the lowest percentage (4.0%) of underemployment, followed by Asians (4.6%) and Pacific Peoples were ranked third with 5.1%. The ethnic group with the highest rates of underemployment were Maori, recorded at 7.0%. With regards to underemployment and industry, the highest rates are within the retail industry and accommodation services (Statistics New Zealand, 2013).

As previously mentioned, one of the objectives of this study was to investigate if students' career decisions are related to their fields of study. Figure 2 illustrates factors affecting relatedness. Based on previous studies, the factors included in this study were field of study, qualification, and age (Boudarbat & Chernoff, 2012; Robst, 2007).

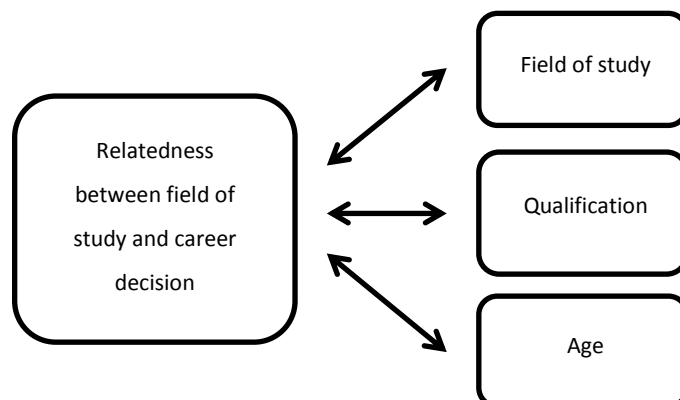


Figure 2. Factors affecting relatedness between field of study and career decision.

## 1.1 Research Purpose

There were four main objectives in this study. One of the objectives was to investigate if students would seek employment related to the qualifications they obtained from their tertiary institution. Secondly, the study also examined the factors that affect students' decisions when choosing a career upon completing their studies as completing a tertiary education qualification today is expensive. Therefore, it was important to investigate if students would seek to make a return on their investment by looking for a job based on extrinsic factors such as salary and other benefits. Conversely, some students will be driven by intrinsic factors, that is, they would look for a job that is challenging and meaningful to them. A third group of students will be influenced by altruistic factors, which relate to service themes. In addition, some students may decide based on a combination of these factors. These factors were categorised as such based on many related previous studies that adopted the same approach (Dockery & Barns, 2005; Jaw et al., 2006; Marini et al., 1996; Schwartz, 1999; Sibson, 2011, Yong, 1995; Young B., 1995).

The next research aim was to ascertain if other social elements would influence the factors affecting students' career choices. In previous research, findings has shown that social aspects such as culture (Jaw et al., 2006; Oishi et al., 1999; Schneider & Barsoux, 2003) and significant others' influence (Hinkelman & Luzzo, 2007; Keller & Whiston, 2008; Roach, 2010) dictate which factors that students rely on when making a decision. Significant others may include students' parents, foster parents, or any other caregivers. Moreover, these two particular factors were chosen because students at university often come from many different countries and cultures and therefore it was important to include culture. Many previous studies have also found that students from different cultures place differing significance levels to different aspects in comparison to those from a culture different to their own when deciding on their careers. Significant others' influence was identified as a key factor to research as it has been found that primary caregivers have an effect on much of their child's

development, including what field of study to pursue when starting their tertiary studies (Hahs-Vaughn, 2004; Hinkelman & Luzzo, 2007; Luyckx, Soenens, Gooseens, & Vansteenkiste, 2007; Roach, 2010). Because of such findings, it was important to identify if caregivers still have influence on students in relation to making career decisions. The final research aim was to investigate students' self-efficacy in making a career decision. This was especially important to establish if significant others' influence is beneficial to students.

## **1.2 Culture**

The use of the term 'culture' in this study refers to the individualistic and collectivistic values held by participants in this study. Since most universities today attract students from different countries, it was interesting and important to explore how students who hold different cultural values decide on their careers. This is because individuals from different cultures place different levels of importance on different values when deciding on their careers (Jaw et al., 2006). For example, the relative importance of money, status, or vacation time differs across cultures and ethnicities (Schneider & Barsoux, 2003). Schneider and Barsoux (2003) also stated that the rewards employees seek from work, both financial and non-financial incentives, vary across cultures. Similarly, culture plays a major role in distinguishing work values and their priorities, dependent on whether they are members of collectivist or individualist cultures (Holden, 2002; Pelled & Xin, 1997).

According to Ng, Burke, and Fiksenbaum (2008), individuals who hold collectivistic values place more emphasis on helping others (altruistic factors). Similar results were found in other studies (Jaw et al., 2006; Marini et al., 1996). Marini et al. (1996) added that ethnic minorities value altruistic rewards highly because they are more likely to empathise with others in disadvantaged positions.

Safety resources have been found to be a significant predictor of life satisfaction in both individualistic and collectivistic cultures (Oishi et al., 1999). Oishi et al. (1999) stated that safety resources include financial needs. Hence, in this study, safety resources were classified as an extrinsic factor. Oishi et al. (1999) also found that people who hold individualistic cultural values tended to weigh satisfaction with esteem needs (self-respect and power to make decisions) more heavily than did people with collectivistic values. In other words, it was found that while members of both individualistic and collectivistic cultures would rate extrinsic factors to be important, the former would also rate intrinsic factors more highly.

Markus and Kitayama (1991) suggested that the achievement motive is very important among individuals with collectivistic values. The authors further stated that in an analysis of Chinese children's stories, the most common behaviour was achievement-oriented in nature, followed by altruism. They also indicated that achievement is related to familism and filial piety, that is, students who hold collectivistic values would rate prestige highly to enhance the social standing of their families. Filial piety can be defined as "to respect one's parents and to care for one's parents" (Sung, 1995, p. 240). All of these factors were categorised as extrinsic factors in this study.

Moreover, individuals with collectivistic values were found to appreciate factors such as spending time with their families and time off work (Stone, Johnson, Stone-Romero, & Hartman, 2005). By highly valuing such factors, it can be asserted that they may prefer jobs that provide them with opportunities to spend time with their families. On the other hand, Stone et al. (2005) drew comparison with those who hold individualistic values that they would more likely prefer jobs that would allow them to compete to gain fulfilment through a sense of achievement. It was also indicated that they prefer jobs that allow them to express themselves as individuals or in an independent capacity. Stone et al.'s (2005) research found that Hispanic Americans preferred jobs with flexible hours, thus allowing them to spend time with their families. This finding was based on the assumption that most Hispanic Americans hold collectivistic values due to

membership of collective cultures. As collectivistic cultures also endorse high power distance, Hispanic Americans were found to want jobs with higher promotion prospects. Lastly, the study found that Hispanic Americans also preferred jobs that provide them with opportunities to form relationships with their co-workers and supervisors. All of these factors were categorised as extrinsic factors.

To conclude, individuals from different cultures place varying emphasis on various factors that influence their decision making process when deciding on their career pathway. Based on previous research results, it can be said that individuals who hold collectivistic values place more importance on helping others (altruistic factor), spending time with their families (thus emphasise on a job with standard working hours – extrinsic factor), and achievement or prestige (which relates to familism and filial piety – extrinsic factor). On the contrary, individuals with individualistic values tended to emphasise more on esteem needs such as self-respect and power to make decisions (intrinsic factors).

Based on the preceding discussion, the following hypotheses were developed:

H1 – Collectivistic values will correlate more strongly with extrinsic factors than will individualistic values.

H2 – Individualistic values will correlate more strongly with intrinsic factors than will collectivistic values.

H3 – Collectivistic values will correlate more strongly with altruistic factors than will individualistic values.

### **1.3 Significant Others' Influence**

The term 'significant others' in this study is used to refer to biological parents as well as foster parents and other caregivers. Their influence in this

study is applicable to two situations. The first is when parents/caregivers take actions that will influence their children's career decisions including helping their child to choose a field of study or asking a child to enter a career that they would prefer to see their child pursue. The second situation is when students refer to their parents/caregivers for guidance when making a career decision. For instance, asking parents/caregivers for advice when choosing a career. The influence of significant others in this study was assessed by the students' perception of the level of this influence.

For many students, prior to attending university or college, the majority of their time is spent with their families (Roach, 2010). Therefore, their parents/caregivers have considerable influence on their development throughout those formative years. Additionally, although many students have increased freedom and independence while pursuing tertiary studies, as well as reduced amount of time spent with their families, it would still seem likely that parents/caregivers would have an impact on their development (Hinkelman & Luzzo, 2007).

Many parent-related variables including parenting styles, parental attachment, and parental regulations have been found to be associated with university students' psychosocial development. These factors have been found to have an influence on students' identity formation, self-esteem, academic performance, and social competence (Hahs-Vaughn, 2004; Luyckx et al., 2007; Roach, 2010).

Students' career decisions are given similar attention, as parents/caregivers regularly encounter events that influence a child's career choices (Young R. , 1994). For example, they may encourage their child to undertake some activity in high school. In their minds, this may have important long-term consequences although this long-term vision may not be clear to the child and they are not interested in the rationale behind his or her parents/caregivers' actions. Additionally, they may also intervene on the behalf of their child when the child would prefer his or her parents/caregivers not to,

thus reaching the conclusion that the actions of significant others influence their child's career decision.

Studies carried out in India and the United States of America (USA) found that parental behaviours were related to the career development of middle school students (Gokuladas, 2010; Keller & Whiston, 2008). Keller and Whiston (2008) further asserted that parental behaviours tended to align more with career decision self-efficacy (CDSE) than with career maturity. However, the authors also mentioned that parents' influence might be more potent during high school compared to college or university. Other studies have found similar results (Blustein, Walbridge, Friedlander, & Palladino, 1991; Lucas, 1997; O'Brien, Friedman, Tipton, & Linn, 2000).

Otto's (2000) study of high school students in the USA found that from the students' perspective, there is compatibility between parents' and youth's values, aspirations, and plans. (Otto, 2000) explained that when asked '*How closely do your ideas agree or disagree with your parents' ideas about what you should do with your life*', 81.0% of the respondents said that their ideas were similar to their parents'. Additionally, 46.0% of students stated that their ideas were congruent with their parents' when asked '*How closely do your ideas agree or disagree with your parents' ideas about what kind of occupation you should enter*'. Furthermore, in other studies it was found that college students perceived their family to be a significant influence in their career decisions (Bright, Pryor, Wilkenfield, & Earl, 2005). Bright et al., (2005) asserted that "father, mother, and university information were the most frequently indicated major influences on students' career decision-making" (p.25).

### **1.3.1 Significant Others' Influence and Culture**

According to Ma and Yeh (2005), for many Chinese American youths, deciding on a career can be a daunting task. This is because they are faced with

the need to balance their own interests with what is acceptable to their parents/caregivers. Additionally, career decision-making is especially challenging for students if their immigrant parents/caregivers believe that only certain careers will lead their children to success (Ma & Yeh, 2005). These careers are usually in the fields of medicine, law, and engineering. The same can be applied to students who hold collectivistic values. This is because there is a strong emphasis on family involvement in all aspects of life (Leong & Hardin, 2002).

In collectivistic societies, the self is more attached to the group (Triandis, Brislin, & Hui, 1988). Therefore, individuals from collective societies prefer (and are expected) to subordinate their personal goals to in-group goals. Because of this worldview, there is a tendency to be more concerned with the consequences of one's behaviour. Additionally, collectivists place importance on values of harmony, family security, and cooperation. In comparison, in an individualistic culture, the self is more autonomous and separate, thus resulting in personal goals being prioritised over in-group goals. Additionally, more importance or value is placed on asserting their individuality. Individuals with individualistic values are also more content with personal accomplishments. Upon reflection on the comparison, families are seen to have a larger and integral role in the process of career development among students with collectivistic values than for those from individualist cultures (Ma & Yeh, 2005).

Likewise, Ng et al. (2008) reported that factors such as national culture and values had definite influence over career choice and career expectations of students. The authors stated that the career exploration process for some individuals might include their families, depending on their cultures. Based on this, Ng et al. (2008) explained that an individual with collectivistic values may view making a career decision to be a family matter and would therefore consult their family members when making a decision.

Many previous studies also found similar results. Tang, Fouad, and Smith (1999) found that family involvement and feedback in career planning had a strong impact on Asian American college students' career choices. In another

study, it was ascertained that Asian Americans were more likely to follow their parents/caregivers' advice on career choice when compared to European Americans (Leong & Serafica, 1995). The authors added that the reason for this was likely due to Asian cultural values that emphasised respect and obedience toward authority and older individuals.

Comparable results were also found among other ethnic minorities in the USA. Parents/caregivers were also reported to have an impact on the career development of African American and Mexican American college students (Fisher & Padmawidjaja, 1999). In Puerto Rico, it was ascertained that career path choices must not only be good for one's self but also positive for the family and community as well (Hernandez, 1995). Research in Australia indicated that parents/caregivers and teachers' influences had greater impact on career choices for Hong Kong and Taiwanese students when compared to Australian students (Auyeong & Sands, 1997). Hong Kong and Taiwan were classified as collectivistic countries and Australia as an individualistic one (Auyeong & Sands, 1997; Hofstede, 1983).

Similar results could be found in New Zealand. Based on the preceding findings, it was presumed that New Zealand European students will be more individualistic when compared to students from other ethnicities such as Maori, Pacific Peoples, and Asians. At the same time, it is important to note that not all Maori, Pacific Peoples, and Asians will be collectivistic. This is because these students from collectivistic cultures may have adopted Western values such as self-determination, independence, and separation from one's family in order to pursue personal interests (Ying, Coombs, & Lee, 1999). Likewise, New Zealand European students may also adopt a collectivistic culture. Consequently, it was important in this study to measure each student's levels of collectivism and individualism when looking at how significant others influenced their career decisions to acquire results that were more accurate.

To support the above assumption, Podsiadlowski and Fox (2011) conducted a study on collectivist value orientations among four ethnic groups

(New Zealand Europeans, Maori, Chinese, and Pacific Peoples) in New Zealand and found New Zealand Europeans to have the least collective preferences while Pacific Peoples ranked the highest in collectivism. It was also indicated that Maori and Chinese held collectivistic values (Podsiadlowski & Fox, 2011). Additionally, another study indicated Maori to be more collectivistic compared to New Zealand Europeans (Harrington & Liu, 2002).

Based on the discussion above, the following hypothesis was made:

H4 – Collectivistic values will correlate more strongly with perceived significant others' influence when making a career decision than will individualistic values.

### **1.3.2 Significant Others' Influence and Gender**

According to Otto (2000), both males and females discuss their career decisions with their families. However, females report having more discussions than males. For instance, one particular item in his study was *'During the past year, how often did you discuss occupational career plans with your parent'*. More females (54.0%) agreed to the item compared to only 41.0% of the males questioned. However, it was not mentioned if the difference found was statistically significant. It was also found in this context that mothers were preferred to talk to over fathers, due to the fact that mothers were deemed to be more helpful, nurturing, and understanding (Otto, 2000). Otto (2000) further asserted that 81.0% of the respondents indicated that they talked about what careers they wanted to enter with their mothers while 62% discussed the same issue with their fathers. Otto's (2000) research also found that mothers were more aware of their children's career interests and abilities (54.0%) than the fathers were. Finally, respondents also indicated that mothers (75.0%) were the most helpful when discussing career plans. Hence, it was not surprising that they preferred discussing their career plans with their mothers (55.0%) to their fathers (48.0%) (Otto, 2000).

Based on the preceding argument, the following hypotheses were made:

H5 – Female students will perceive having more significant others' influence when deciding on their careers compared to male students.

H6 – Students of both genders will prefer asking their mothers/stepmothers than fathers/stepfathers for career advice.

## **1.4 Career Decision Self-Efficacy (CDSE)**

Career decision self-efficacy (CDSE) was included in this study to investigate if significant others' influence benefited students or otherwise. CDSE in this study was assessed as perceived by students. Self-efficacy is defined as an individual's beliefs in his or her ability to perform a task or behaviour successfully (Bandura, 1978). Bandura (1978) also stated that self-efficacy could be acquired and modified through four specified sources of information. They include performance accomplishments from executing the task or behaviour in question, vicarious learning or modelling, verbal persuasion such as support, praise, and encouragement from others, and lower levels of emotional arousal such as anxiety in relation with the task or behaviour. The same can be said in regards to self-efficacy in making career decisions (Betz & Hackett, 1986; Betz & Luzzo, 1996). Hence, CDSE is referred to as "self-efficacy expectancies in relation to the wide range of behaviours necessary to the career choice and adjustment process" (Betz & Luzzo, 1996, p. 280).

Several studies have investigated the relationship between the influence of significant others and CDSE of students. Keller and Whiston (2008) found parents/caregivers' support to be an important predictor of young adolescents' CDSE in the USA. They added that young adolescents' self-efficacy increases when their parents/caregivers are interested in them as individuals, believe in their abilities, trust them to make good decisions, and are proud of them. Hence, they concluded that students with higher CDSE have parents/caregivers who

appear to value them and their needs, opinions, and goals. Similarly, it was also ascertained that young adolescents believe in their own career decision-making abilities only to the degree to which they perceive their significant others believe in them (Gecas & Seff, 1990). O'Brien et al. (2000) found that being attached to parents/caregivers may lead to the development of confidence in pursuing career-related tasks. Moreover, it was found that perceived significant others' influences related to college students' career development (Bright et al., 2005; Hinkelman & Luzzo, 2007; Roach, 2010). Additionally, it was found that significant others' influence was related to overall self-esteem of adolescents (Bush, 2008).

Thus, the following hypothesis was made:

H7 – Significant others' influence will be positively related to career decision self-efficacy.

## **1.5 Career Decision and Relatedness to Field of Study**

According to Robst (2007), students further their studies in tertiary institutions to succeed in the labour market. Because of this, one component of labour market success is the ability to utilise the investment students have made in college or university in future employment. He added that individuals select a field of study based on a variety of factors including expected earnings, patterns of labour force participation, uncertainty, and the likelihood of graduation. The fact that students have significant knowledge about the wages in the fields they have chosen to study in suggests that they are selecting a field with the anticipation of working in a job related to their field of study (Betts, 1996).

On the contrary, when students select a field of study that contributes to the acquisition of general skills instead of specific skill, the likelihood of them switching to a different field when choosing a career increases (Dolton & Kidd, 1998). This is because the acquisition of general skills enables a person to be

occupationally mobile as the skills are transferable. According to Robst (2007), “general skills transfer to jobs in other fields, while only a portion of occupation specific skills are likely to transfer” (p. 400). Examples of fields of study developing specific set of skills include engineering and computer science. On the other hand, fields of liberal arts and English are more likely to provide relatively general skills. Additionally, the cost of changing fields is lower for students pursuing a degree offering general skills compared to students who have already invested their time, money, and effort in a more specific field of study.

Research in the USA found that 54.8% of individuals reported that their fields of study and careers were closely related while another 25.1% claimed that they were somewhat related (Robst, 2007). Additionally, graduates from fields offering general skills were found to switch careers more often. Among the fields that showed low prevalence rates of careers switch were computer science, health professions, library science, engineering, engineering technology, architecture, and business management as was asserted by Dolton and Kidd (1998). It was also reported that individuals with a master, professional, or doctoral degree were less likely to be mismatched than those with a bachelor degree (Boudarbat & Chernoff, 2012; Robst, 2007). This finding was also congruent with Dolton and Kidd (1998) as the cost of switching careers after completing a master or doctoral degree is very much higher. Lastly, Robst (2007) also found that relatedness between students’ fields of study and career decisions decreased with age.

Similarly, a study conducted in Canada found graduates who acquired a general set of skills reported higher levels of mismatch (Boudarbat & Chernoff, 2012). They added that relatedness was reported highest among graduates in the fields of health sciences and education. The fields with the least relatedness were arts and humanities.

Hence, the following hypotheses were made:

H8 – Relatedness between field of study and career decision will be higher among students who are enrolled in fields of study developing specific

occupation skills compared to students who are enrolled in fields of study developing general skills.

H9 – Relatedness between field of study and career decision will be higher in students who are enrolled in a master, professional, or doctoral degree programme compared to students enrolled in a bachelor programme.

H10 – Relatedness between field of study and career decision decreases with age.

## **1.6 Summary of Hypotheses**

This section recaps all the hypotheses investigated in this study. They are:

### **A. Culture**

H1 – Collectivistic values will correlate more strongly with extrinsic factor than will individualistic values.

H2 – Individualistic values will correlate more strongly with intrinsic factor than will collectivistic values.

H3 – Collectivistic values will correlate more strongly with altruistic factors than will individualistic values.

### **B. Significant others' influence, culture, and gender**

H4 – Collectivistic values will correlate more strongly with perceived significant others' influence when making a career decision than will individualistic values.

H5 – Female students will perceive having more significant others' influence when deciding on their careers compared to male students.

H6 – Students of both genders will prefer asking their mothers/stepmothers than fathers/stepfathers for career advices.

### **C. Significant Others' Influence and CDSE**

H7 – Significant others' influence will be positively related to CDSE

D. Career decision and relatedness to field of study

H8 – Relatedness between field of study and career decision is more likely among students who are enrolled in fields of study developing specific occupation skills compared to students who are enrolled in fields of study developing general skills.

H9 – Relatedness between field of study and career decision will be higher in students who are enrolled in a master, professional, or doctoral degree programme compared to students enrolled in a bachelor programme.

H10 – Relatedness between field of study and career decision decreases with age.

## **1.7 Summary**

This chapter provides an overview of current literature relevant to this research. It has provided information on how students go about deciding on their careers and the factors that may influence their decisions. In addition, this chapter provides the study's objectives, theoretical models upon which this study is based, and hypotheses of this study. Sound rationale and reasoning behind each hypothesis is included. The following chapter describes the method adopted in this research.

## **Chapter Two – Method**

This chapter describes the method of this study. It is divided into several sections. The first explains the criteria used to select participants and their demographic characteristics. Secondly, the participant recruitment procedure is described. Measures and their validity and reliability are also discussed. Lastly, this chapter provides details on missing data substitution technique, data transformation, and methods used to analyse the results of this study.

### **2.1 Participants**

This study was open to full-time final year students studying at the University of Waikato, regardless of their fields of study and qualifications. The term ‘full-time students’ referred to students who were pursuing their qualification on a full-time basis. At the University of Waikato, a full-time student has a maximum workload of 120 points each academic year (University of Waikato, 2014). The term ‘final year students’ was defined as students who would complete their current qualification in the 2014 academic year.

Two hundred and two individuals opened the electronic link of the survey. However, only 154 completed it, resulting in an initial response rate of 76.2%. A further three (1.4%) responses were removed due to the participants not completing one or more scales in the survey. Hence, the final sample consisted of 151 participants, giving the study a final response rate of 74.8%.

The final sample comprised of 115 females (76.2%) and 36 males (23.8%). The mean age was 27.60 with a standard deviation of 8.01, with three participants (2.0%) not indicating their age. The range was 19 years old to 54 years old. The most prevalent ethnicity was New Zealand European (n = 72, 47.7%), followed by European (n = 25, 16.6%) and Asian (n = 21, 13.9%). The

remainder of the sample included Maori (n = 16, 10.6%), Pacific Peoples (n = 6, 4.0%), and other (n = 6, 4.0%). Five respondents (3.3%) did not specify their ethnicity.

Participants were also asked to indicate the qualification they were studying for and their field of study. Most of the respondents were studying towards obtaining a bachelor degree (n = 78, 51.7%), followed by master degree (n = 50, 33.1%). The remaining respondents indicated postgraduate diploma (n = 13, 8.6%) and doctoral degree (PhD; n = 10, 6.6%). Many participants (n = 58, 38.4%) were pursuing qualifications offered by the Faculty of Arts and Social Sciences (FASS), followed by the Faculty of Education (n = 33, 21.9%) and Waikato Management School (WMS; n = 22, 14.6%). The remaining respondents were attached to the Faculty of Computing and Mathematical Science (n = 21, 13.9%), Faculty of Science and Engineering (n = 9, 6.0%), and Faculty of Law (n = 8, 5.3%).

## **2.2 Procedure**

Data was collected via online questionnaire as it has many advantages. Firstly, an online questionnaire has the ability to reach out to participants who are geographically dispersed (Evans & Mathur, 2005). This strength was crucial to this study as students were recruited during the university summer break, when many of them were no longer required to be on campus. Additionally, an online questionnaire is able to preserve participants' anonymity and is time efficient for both the researcher and participants (Evans & Mathur, 2005). For the researcher, using an online survey minimises the time taken to get a questionnaire into the field for data collection. For participants ease, an online questionnaire allows them to complete it at their own time and pace. Finally, another crucial advantage for deploying an online questionnaire is the ease of data entry and analysis (Evans & Mathur, 2005).

Participants for this study were recruited via e-mail and social media websites such as Facebook. Invitations through e-mails were initially sent via the University of Waikato's Faculty of Arts and Social Sciences (FASS) administration department. Low response rates prompted the need to acquire help from the University of Waikato's Student and Academic Services Division (SASD) to distribute the e-mail invitations to a larger platform. On both occasions, similar invitation e-mails were sent out (Appendix A, p. 71). The invitation e-mail contained the criteria to participate in this study, its objectives, an estimated amount of time needed to complete the survey, information about the nature of participation in this study, and a link to the online questionnaire hosted by Qualtrics (Appendix B, p. 72). Recruitment was also done via social media, specifically Facebook, by posting a short description detailing the main aim of this study, criteria to participate, and a link to the online questionnaire. The posts were posted on several Facebook pages including University of Waikato's page. They were posted approximately once a week for one and a half months.

By clicking on the link, potential participants were first presented with an information page informing them of the objectives of this study, estimated amount of time needed to complete the questionnaire, criteria to participate, giving consent to participate, confidentiality, and permission to withdraw from this study (Appendix C, p. 79). Potential participants could then decide if they would like to carry on and participate in this study. Upon completing the survey, participants were then presented with a 'thank you' page, which thanked them for their participation and provided them with information on how to obtain a summary of the findings if they were interested in the results from this study (Appendix D, p. 80).

## **2.3 Measures**

The questionnaire consisted of 99 self-report items (Appendix B, p. 72). These items were divided into five different sections, each measuring different

constructs needed to fulfil the objectives of this study. Each of the scales is explained in the subsequent parts of this chapter.

### **2.3.1 Factors Influencing Career Decision**

The first section contained 21 items, adapted with permission from Sibson (2011) (Appendix B, p. 73). These items were used to identify the factors (extrinsic, intrinsic, and/or altruistic) participants regarded as important when making a career decision. Participants were asked to indicate the importance of the factors when making a career decision based on a 5-point scale, in which 1 = very unimportant, 2 = unimportant, 3 = neither important nor unimportant, 4 = important, and 5 = very important. Sample items included *“Good graduate/starting salary”*, *“Interesting work”*, *“Opportunities to work closely with other people”*, and *“Opportunities to influence other people”*.

### **2.3.2 Cultural/Personal Values**

The cultural and personal values scale was adapted with permission from Shulruf, Hattie, and Dixon (2007) (Appendix B, p. 74). The scale contained 26 items measuring participants' own cultural values – individualistic or collectivistic. Participants were asked to indicate how often they would behave or think as described in all 26 of the items based on a 6-point scale, where 1 = never or almost never, 2 = rarely, 3 = occasionally, 4 = often, 5 = very often, and 6 = always. Examples of the items are *“I define myself as a competitive person”*, *“Before taking a major trip, I consult with my friends”*, and *“I ask the advice of my friends before making career related decisions”*.

According to Shulruf, Hattie, and Dixon (2007), items in the scale can be categorised into two main groups, which are individualistic (15 items) and

collectivistic (11 items). Their factor analysis indicated that the items could be further grouped into sub-categories, which are competitiveness, unique, and responsibility for individualistic as well as advice and harmony for collectivistic (Shulruf et al., 2007).

### **2.3.3 Career Behaviour Checklist**

Items in the third scale were used to indicate whether respondents perceived having influence from their significant others when making a career decision. The scale contained 23 items adapted with permission from Keller and Whiston (2008) (Appendix B, p. 75). As mentioned earlier, the term 'significant others' includes biological parents, foster parents, and other caregivers. Participants were asked to indicate if they perceived having influence based on a 5-point scale, in which 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = very often. Examples of items in the scale are *"Expresses interest in various issues that are important to me"*, *"Has shown me where to find information about universities or careers in the library or bookstore"*, and *"Helps me feel better when I tell him/her I am worried or concerned about choosing a career"*. According to Keller and Whiston (2008), the items can be divided into two sub-scales – psychosocial support (13 items) and career action items (10 items).

### **2.3.4 Career Decision Self-Efficacy Short Form (CDSE-SF)**

The CDSE-SF was adapted with permission from Betz, Hammond, and Multon (2005) and Betz and Klien (1996) (Appendix B, p. 76). The short version was used as the long version contained too many items (50). Additionally, items in the short version were adequate to achieve the objectives for this study. The scale contained 25 items measuring "participants' degree of belief that they can successfully complete tasks necessary to making career decisions" (Betz & Taylor,

2006, p. 6). Participants were instructed to indicate their perceived self-efficacy in making a career decision based on a 5-point scale, where 1 = no confidence at all, 2 = very little confidence, 3 = moderate confidence, 4 = much confidence, and 5 = complete confidence. Sample items include *“Use the internet to find information about occupations that interest me”*, *“Make a plan of my goals for the next five years”*, and *“Persistently work at my major or career goal even when I get frustrated”*. Items in the scale can be divided into five sub-scales, each with 5 items (Betz et al., 2005; Betz & Klein, 1996). They are self-appraisal, occupational information, goal selection, planning, and problem solving.

### **2.3.5 Preferred Significant Other**

To test Hypothesis 6 (Summary of Hypotheses, p. 20), the third section of the questionnaire also featured an additional item asking participants to indicate which person they would prefer to seek advice from in relation to making a career decision (Appendix B, p. 75). Participants were given three choices – mother/stepmother, father/stepfather, or other caregiver.

### **2.3.6 Career Decision and Relatedness to Field of Study**

To test Hypotheses 8, 9, and 10 (Summary of Hypotheses, p. 20), a fifth section was added into the questionnaire (Appendix B, p. 77). The section contained four items. The first required participants to indicate their field of study. The second ascertained the qualification participants were studying for. The third item asked respondents if they had made a decision on the career they would be interested in pursuing once they have completed their studies. Respondents who indicated that they had indeed made a decision were shown the fourth item, which asked if the career decision/career they have decided on is related to their field of study.

## 2.4 Integrity of Measures

The integrity of the scales was measured using exploratory factor analysis (Statistical Package for the Social Sciences (SPSS) version 21). Exploratory factor analysis (EFA) was conducted using principal axis factoring and direct oblimin rotation as the items were assumed to be correlated. Kaiser-Meyer Olkin (KMO) measure of sampling adequacy value of 0.60 and above was used as an indication that the data was suitable for factor analysis (George & Mallery, 2011). Factor loading of 0.40 and above was accepted as the index of a significant loading (George & Mallery, 2011). Reliability analysis was also conducted. Cronbach's alpha value of 0.70 and above was used as an indication that the scale was reliable (George & Mallery, 2011).

### 2.4.1 Factors Influencing Career Decision

EFA was conducted on items in the Factors Influencing Career Decision scale to determine if they grouped into three factors – extrinsic, intrinsic, and altruistic. This is in accordance to the way the original author had used the scale in her study (Sibson, 2011).

Initially, all 21 items in the scale were included in EFA and the scale was revealed to have a KMO measure of sampling adequacy of 0.81. Bartlett's test of sphericity was significant ( $p < 0.01$ ). These findings suggested that it was appropriate to continue. Five factors with eigenvalues greater than one were extracted. The scree plot also suggested retaining five factors for rotation (Appendix F – Scree Plot (Initial), p. 82). The five factors retained explained 62.35% of the total variance. After the rotation, the factor loadings were inspected and five factors loaded on all items except (5) *Range/variety of career opportunities*, (8) *Flexible hours of work*, (11) *Opportunities for promotion/*

*advancement*, and (20) *Availability of jobs*. These four items that failed to load were excluded from further analysis in this study.

EFA was conducted again on the remaining 17 items. The scale obtained KMO measure of sampling adequacy of 0.80 and Bartlett's test of sphericity was significant ( $p < 0.01$ ). Five factors with eigenvalues greater than one were extracted. The scree plot also suggested a five-factor solution. The five factors retained explained 69.06% of the total variance. Upon rotation, two items failed to load, thus were excluded from further analysis. They were items (4) *Good career opportunities* and (14) *Pleasant working conditions*.

A third round of EFA was conducted on the remaining 15 items. The KMO measure verified the sampling adequacy for the analysis (KMO = 0.78) and Bartlett's test of sphericity was significant ( $p < 0.01$ ). Once again, five factors with eigenvalues greater than one were extracted. The scree plot also suggested the same. The five factors explained 71.84% of the total variance. After rotation, factor loadings were inspected and all items loaded. However, Factor 5 loaded on one item only. Hence, this item was deleted and dropped from subsequent analysis in this study. This item was (6) *Professional prestige/high status of future career*.

EFA was conducted for a fourth time and the KMO measure verified the sampling adequacy for the analysis (KMO = 0.78). Bartlett's test of sphericity was significant ( $p < 0.01$ ). Four factors with eigenvalues greater than one were extracted. The scree plot also suggested a four-factor solution (Appendix F – Scree Plot (Final), p. 82). The four factors retained explained 68.31% of the total variance. After rotation, the four factors loaded cleanly onto all items. However, the two items in Factor 3 were dropped as they do not seem to belong to the same category. Additionally, their meanings were ambiguous, thus undermining what the underlying items would mean. These items were (12) *Opportunities for travel* and (13) *Transferability of work skills*. Additionally, item (21) *Ability to make a contribution to society* was also deleted from Factor 1 because it did not seem to belong with the other items. Based on previous research, item 21 should

belong to an altruistic group of items as it relates to service themes. However, all the other items in Factor 1 apart from item 21 are related to intrinsic theme.

To summarise, 11 items were retained for further analysis in this study. Three factors loaded cleanly onto the items. They are as follows:

- a) Factor 1 – Intrinsic factors
  - 3. Interesting work
  - 15. Opportunities for creativity and originality
  - 16. Enjoyable work
  - 17. Responsibility involved in job
  - 18. Challenging job
- b) Factor 2 – Extrinsic factors
  - 1. Good graduate/starting salary
  - 2. Good future earnings potential
  - 7. Standard hours of work (i.e. 9 to 5)
  - 19. Job security
- c) Factor 3 – Altruistic factors
  - 9. Opportunities to work closely with other people
  - 10. Opportunities to influence other people

In the original study, Sibson (2011) did not provide the sub-scales reliability values. In this current study, the extrinsic, intrinsic, and altruistic sub-scales attained Cronbach's alpha values of 0.71, 0.85, and 0.84 respectively.

## **2.4.2 Cultural/Personal Values**

EFA was conducted on items in the Cultural/Personal Values scale to determine if they grouped into two factors – individualistic and collectivistic. This is to conform to the way the items were classified by the original authors of the scale (Shulruf et al., 2007).

In the first round of EFA, the KMO measure verified the sampling adequacy for the analysis (KMO = 0.79) and Bartlett's test of sphericity was significant ( $p < 0.01$ ). These results showed that it was appropriate to continue EFA. Seven factors were extracted based on eigenvalues greater than one. The scree plot also suggested a seven-factor solution (Appendix G – Scree Plot (Initial), p. 83). The seven factors retained accounted for 69.91% of the total variance explained. After rotation, factor loadings were inspected and the seven factors loaded cleanly onto all items. However, three factors had only three items each. Hence, these nine items were deleted and dropped from subsequent analysis. These nine items were items number 23, 25, 30, 32, 33, 37, 40, 41, and 42 (Appendix B, p. 74).

A second round of EFA was conducted with the remaining 17 items. The scale was revealed to have a KMO measure of sampling adequacy value of 0.81. Bartlett's test of sphericity was significant ( $p < 0.01$ ). Four factors were extracted based on eigenvalues greater than one. The scree plot also suggested the same (Appendix G – Scree Plot (Final), p. 83). The four factors retained explained 68.59% of the total variance explained. Upon rotation, the four factors retained loaded cleanly onto all items. When inspecting the pattern matrix, it was evident that two of the factors contained individualistic items while the other two held collectivistic items. Hence, a two-factor solution was forced. As predicted, the factors combined accordingly upon rotation. Therefore, the two-factor solution was justified. However, several items failed to load. They were items (38) *It is important for me to act as an independent person*, (43) *My personal identity independent of others is very important to me*, and (47) *I see myself as "my own person"*. These items were excluded from further analysis in this study.

To conclude, 14 items were retained in the Cultural/Personal Values scale. Two factors loaded cleanly onto the items. They are as follows:

- a) Factor 1 – Individualistic values
  - 22. I define myself as a competitive person
  - 27. I believe that competition is a law of nature

28. I prefer competitive rather than non-competitive recreational activities

35. Without competition, I believe, it is not possible to have a good society

44. I enjoy working in situations involving competitions with others

46. Winning is very important to me

b) Factor 2 – Collectivistic values

24. Before I make a major decision, I seek advice from people close to me

26. I consult with superiors on work-related matter

29. Before taking a major trip, I consult with my friends

31. I consider my friends' opinions before taking important actions

34. It is important to consult close friends and get their ideas before making a decision

36. I ask the advice of my friends before making career-related decision

39. I discuss job or study-related problems with my parents/partner

45. I consult my family before making an important decision

The individualistic and collectivistic sub-scales yielded 0.89 and 0.85 Cronbach's alpha values respectively. Reliability values were not reported by Shulruf et al. (2007).

### **2.4.3 Career Behaviour Checklist**

EFA was conducted on all items in the Career Behaviour Checklist with the aim of ensuring the validity of the measure. Initial EFA involving all 23 items indicated the scale to have a KMO measure of sampling adequacy value of 0.86. Bartlett's test of sphericity was significant ( $p < 0.01$ ). These findings suggested that it was appropriate to continue EFA. Five factors with eigenvalues greater than one were extracted. The scree plot also suggested a five-factor solution (Appendix H – Scree Plot (Initial), p. 84). The five factors retained explained

67.71% of the total variance. After rotation, the factor loadings were inspected. Two distinctive factors (supportive relationships and resources) loaded onto all but one item. This item, which failed to load, was item (59) *Has talked to me about the steps involved in making difficult decisions*. This item was excluded from further analysis.

The remaining 22 items were subjected to further EFA. The KMO measure verified the sampling adequacy for the analysis (KMO = 0.85) and Bartlett's test of sphericity was significant ( $p < 0.01$ ). Five factors with eigenvalues one and above were extracted. The scree plot suggested the same. The five factors retained accounted for 69.02% of the total variance explained. Upon rotation, the five factors retained loaded on all items apart from item (53) *Has encouraged me to consider many different educational and career options*. Item 53 was deleted from further analysis.

A third round of EFA was conducted on remaining 21 items and obtained a KMO measure of sampling adequacy of 0.86. Bartlett's test of sphericity was significant ( $p < 0.01$ ). Four factors with eigenvalues greater than one were extracted and retained. This decision was supported by the scree plot as well. The factors retained accounted for 65.31% of the total variance explained. Upon rotation, factor loadings were inspected and the four factors loaded on all items. However, Factor 4 loaded onto two items only. They were items (52) *Tells me he/she has high expectations for my career* and (67) *Asks what careers I am considering for my future*. These items were dropped from further analysis.

EFA was conducted again on the remaining items. The KMO measure verified the sampling adequacy (KMO = 0.87) and Bartlett's test of sphericity was significant ( $p < 0.01$ ). Three factors with eigenvalues greater than one were extracted. The scree plot suggested retaining three factors for rotation as well (Appendix H – Scree Plot (Final), p. 84). The three factors retained accounted for 62.56% of the total variance explained. After rotation, the three factors loaded cleanly onto all items. However, after examining the pattern matrix closely, items from Factor 3 were excluded because they resembled a combination of items in

Factor 1 and 2. In other words, the four items did not seem to belong together under one similar factor. These items were (61) *Has encouraged me to be involved in extra-curricular activities (sports, music, church)*, (62) *Encourages me to ask questions about different jobs*, (65) *Encourages me to try new things*, and (66) *Encourages me to talk to him/her about my career plans*. These items were excluded from further analysis in this study.

To conclude, 15 items were retained in the Career Behaviour Checklist scale. Two factors loaded cleanly onto the items. They are as follows:

a) Factor 1 – Supportive relationships

- 48. Expresses interest in various issues that are important to me.
- 51. Encourages me to make my own decisions.
- 55. Helps me feel better when I tell him/her I am worried or concerned about choosing a career.
- 56. Really tries to understand my thoughts, feelings, and opinions about various topics.
- 63. Tells me he/she loves me.
- 68. Encourages me to choose whatever career I want.
- 69. Tells me he/she is proud of me.
- 70. Has supported me when I have told him/her that I am interested in a specific career.

b) Factor 2 – Resources

- 49. Has shown me where to find information about universities or careers in the library or bookstore.
- 50. Has encouraged me to take interest assessments or career tests offered by my school.
- 54. Tells me about specific careers.
- 57. Has given me written material about specific careers.
- 58. Has given me written material about specific universities.
- 60. Has participated with me in a structured career development workshop offered by my school, church, etc.

64. Has helped me understand results from career tests or interest assessment I have taken.

The Cronbach's alpha for the psychosocial support sub-scale obtained 0.90 while the career action sub-scale attained 0.89 (Keller & Whiston, 2008). In this study, the sub-scales recorded 0.88 for supportive relationships and 0.90 for resources. Items in the psychosocial support and supportive relationships sub-scales were similar. Items in both the career action and resources sub-scales were also similar.

#### **2.4.4 Career Decision Self-Efficacy Short Form (CDSE-SF)**

EFA was conducted on all items in the CDSE-SF with the aim of ensuring the validity of the measure. The KMO measure verified the sampling adequacy for the analysis (KMO = 0.91) and Bartlett's test of sphericity was significant ( $p < 0.01$ ). These results showed that it was appropriate to continue the analysis. Four factors were extracted based on eigenvalues above one. However, the scree plot clearly suggested that only one factor should be retained for rotation (Appendix I – Scree Plot, p. 85). Furthermore, the eigenvalues difference between the first and second factor was 9.74. The factor retained accounted for 45.06% of the total variance explained.

As only one factor was retained, rotation was not an option. As such, the same single factor loaded onto all items with factors loadings of 0.40 and above. No items were deleted from the scale as all of them had significant loadings.

The CDSE-SF was reported to have a Cronbach's alpha value of 0.93 for the total scale (Betz & Taylor, 2006). In this current study, the CDSE-SF obtained a Cronbach's alpha value of 0.95 for the total scale.

## **2.5 Missing Data Substitution and Data Transformation**

Fourteen respondents had missing data in which no single participant had more than 2.0% missing. To fill in the missing data, within-person mean substitution was adopted (Roth, Switzer, & Switzer, 1999). Additionally, descriptive statistics of the measures were analysed for skewness and kurtosis values. As suggested by Kline (2011), data transformation is only required when the skewness value is greater than three and the kurtosis value is greater than eight. As none of the measures violated this general rule, no data transformation was needed in this study.

## **2.6 Data Analyses for Results**

To test Hypotheses 1, 2, 3, 4, and 7, Pearson's correlation analysis was used (Summary of Hypotheses, p. 20). Additionally, to test Hypotheses 5 and 10, independent-samples *t* test analysis was conducted to check if mean differences were significant. Lastly, Pearson's chi-square analysis was adequate to test Hypotheses 6, 8, and 9.

## **2.7 Summary**

This chapter presents an overview of the participants' selection criteria as well as the method used in recruiting them. Additionally, it also explains the measures used to collect data for this study. Exploratory factor analysis (EFA) and reliability analysis results were included to show the integrity of the scales deployed. Lastly, mean substitution, data transformation, and data analysis for results methods were discussed. The following chapter provides the results of this study.

## Chapter Three – Results

The first two sections of this chapter outline the descriptive statistics and correlations between all scales. The following sections describe the results relating to factors influencing career decision, significant others' influence, career decision self-efficacy (CDSE), and relatedness between field of study and career decision. The analysis methods used to test the hypotheses are provided. Supplementary findings are also reported. Finally, a brief summary of results is presented at the end of this chapter.

### 3.1 Descriptive Statistics

Table 1 reports the means, standard deviations, skewness and kurtosis values of the measures used in this study.

Table 1  
*Means, Standard Deviations, Skewness, and Kurtosis of Measures*

	Mean	Std. Deviation	Skewness	Kurtosis
Extrinsic factors <sup>a</sup>	3.82	0.64	-0.91	2.14
Intrinsic factors <sup>a</sup>	4.18	0.67	-1.47	3.60
Altruistic factors <sup>a</sup>	3.63	0.93	-0.32	-0.47
Individualistic values <sup>b</sup>	3.26	1.09	0.38	-0.33
Collectivistic values <sup>b</sup>	3.71	0.89	-0.02	-0.27
Supportive relationships <sup>a</sup>	3.99	0.78	-0.66	-0.41
Resources <sup>a</sup>	2.31	0.99	0.56	-0.47
CDSE <sup>a</sup>	3.80	0.64	-0.14	-0.48

Response scales: <sup>a</sup>1-5 <sup>b</sup>1-6

CDSE: Career decision self-efficacy

Overall, participants reported higher levels of extrinsic ( $M = 3.82$ ) and intrinsic ( $M = 4.18$ ) factors compared to altruistic factors ( $M = 3.63$ ). To restate, extrinsic factors include aspects that focus on instrumental resources, which are

separable from the meaning of work whereas intrinsic factors are aspects that are linked directly to the job itself. Altruistic factors, on the contrary, are aspects relating to service themes. The mean difference between extrinsic and altruistic factors was significant ( $t(150) = 2.29, p < 0.05$ ). The mean difference between intrinsic and altruistic factors was also significant ( $t(150) = 8.36, p < 0.01$ ). Finally, the mean difference between extrinsic and intrinsic factors was also significant ( $t(150) = -5.31, p < 0.01$ ).

Respondents also reported higher collectivistic values ( $M = 3.71$ ) in comparison to individualistic values ( $M = 3.26$ ). The mean difference was significant ( $t(150) = -4.32, p < 0.01$ ). In terms of perceived significant others' influence, participants indicated that they had more supportive relationships ( $M = 3.99$ ) as opposed to resources ( $M = 2.31$ ). To re-establish, supportive relationships are defined as having encouraging and supportive relationships with participants' significant others. Resources, on the other hand, are defined as help received from significant others to make career decisions. The mean difference between supportive relationships and resources was significant ( $t(150) = 18.03, p < 0.01$ ). Respondents also reported moderate to high levels of career decision self-efficacy ( $M = 3.80$ ), which suggested they believed they are able to successfully complete tasks necessary to make career decisions.

Relatively low to moderate standard deviation values for all scales indicated that the scores were close to the mean values. Finally, as mentioned in Chapter 2, according to Kline (2011) data transformation is only needed when skewness value is greater than three and kurtosis value is greater than eight. Therefore, based on Table 1, data transformation was not needed in this study.

### **3.2 Correlations and Cronbach's Alpha Values of Measures**

Correlations between all scales used in this study were conducted using Pearson's correlation analysis. Results are presented in Table 2.

Table 2  
Correlations of Measures

	Extrinsic factors	Intrinsic factors	Altruistic factors	Individualistic values	Collectivistic values	Supportive relationships	Resources	CDSE
Extrinsic factors	0.71							
Intrinsic factors	0.15	0.85						
Altruistic factors	0.23**	0.52**	0.84					
Individualistic values	0.01	0.17*	0.11	0.89				
Collectivistic values	0.25**	-0.07	0.29**	0.19*	0.85			
Supportive relationships	0.14	0.19*	0.21**	0.06	0.16	0.88		
Resources	0.15	-0.11	0.07	0.33**	0.21*	0.19*	0.90	
CDSE	-0.01	0.40**	0.13	0.13	-0.10	0.25**	0.07	0.95

Significant levels: \*  $p < 0.05$ , \*\*  $p < 0.01$

CDSE: Career decision self-efficacy

Cronbach's alpha values on the diagonal

Overall, correlation values ranged from moderate to high, with the lowest being 0.17 (relationship between individualistic values and intrinsic factors) and the highest being 0.52 (relationship between altruistic and intrinsic factors). Also presented in Table 2 are Cronbach's alpha values for each scale. According to George and Mallery (2011), an alpha value of 0.70 and above indicates that a scale is reliable to use. As shown in Table 2, all the scales in this study obtained Cronbach's alpha values greater than 0.70.

### 3.3 Factors Influencing Career Decision and Cultural Values

Three hypotheses were tested using Pearson's correlation analysis. Hypothesis 1 (H1) predicted that collectivistic values would correlate more

strongly with extrinsic factors than would individualistic values. It was found that collectivistic values correlated significantly with extrinsic factors ( $r = 0.25$ ,  $p < 0.01$ ) while individualistic values did not ( $r = 0.01$ ). H1 was therefore supported, which indicates that factors such as good starting salary, potential future salary, and job security are deemed important to those with collectivistic values.

As a result of this research, Hypothesis 2 (H2) was supported, that individualistic values would correlate more strongly with intrinsic factors than would collectivistic values. Pearson's correlation analysis indicated that individualistic values had a significant relationship with intrinsic factors ( $r = 0.17$ ,  $p < 0.05$ ). However, there was no significant relationship between collectivistic values and intrinsic factors ( $r = -0.07$ ). These results suggest the importance of job-related factors to individuals with individualistic values. Job-related factors include interesting, challenging, and enjoyable work as well as opportunities for creativity and originality.

Finally, Hypothesis 3 (H3) proposed that collectivistic values would correlate more strongly with altruistic factors than would individualistic values. H3 was also supported, with collectivistic values correlating significantly with altruistic factors ( $r = 0.29$ ,  $p < 0.01$ ), while individualistic values and altruistic factors did not correlate significantly ( $r = 0.11$ ). These results imply that in collectivistic societies where the self is more attached to the group, individuals have a tendency to be more concerned with other members in their societies. Hence, they regard factors such as the opportunities to influence others more highly.

### **3.4 Significant Others' Influence, Culture, and Gender**

Three hypotheses were tested in this section. EFA conducted on the scale measuring perceived influence of significant others' revealed two separate

factors – supportive relationships (items investigating if participants perceived having encouraging and supportive relationships with their significant others) and resources (items investigating if participants perceived acquiring resources from their significant others to help make their career decisions). All analyses involving perceived significant others' influence were done twice according to the two factors. Hypothesis 4 (H4) was tested using Pearson's correlation while Hypothesis 5 (H5) was tested using independent-samples *t* test analyses. Hypothesis 6 (H6) was tested with Pearson's chi-square analysis.

H4 predicted that collectivistic values would correlate more strongly with perceived significant others' influence when making a career decision than would individualistic values. H4 was not accepted, as there was no significant relationship between both cultural values and supportive relationships. Additionally, the difference between the correlations of both cultural values and resources was non-significant. To explain further, collectivistic values and supportive relationships did not correlate significantly ( $r = 0.16$ ). There was also no significant relationship between individualistic values and supportive relationships ( $r = 0.06$ ). On the other hand, both collectivistic ( $r = 0.21, p < 0.05$ ) and individualistic ( $r = 0.33, p < 0.01$ ) values correlated significantly with resources. The  $r$  values indicated individualistic values to correlate more strongly with resources than collectivistic values. However, Hotelling's *t* test ( $t = 1.20$ ) revealed that there was no significant difference between the correlations. These results imply that students, regardless of the cultural values they may hold, will seek help and advice from their significant others when making a career decision.

H5 proposed that female students would perceive having more significant others' influence when deciding on their careers compared to male students. As mentioned earlier, H5 was tested using independent-samples *t* test. It is also important to note that equal variances were not assumed when analysing the *t* test results and as a result, degrees of freedom values had decimal places. Based on the results of this study, H5 was partially supported as females perceived having more supportive relationships than males but the opposite was found for resources. To explain further, for supportive relationships, female respondents

perceived having more significant others' influence ( $M = 4.06$ ,  $SD = 0.81$ ) than male participants ( $M = 3.78$ ,  $SD = 0.64$ ). The gender difference was significant ( $t(73.69) = -2.08$ ,  $p < 0.05$ ). For resources, male respondents perceived having more resources ( $M = 2.58$ ,  $SD = 0.85$ ) than their female counterparts ( $M = 2.23$ ,  $SD = 1.02$ ). This gender difference was also significant ( $t(69.60) = 2.05$ ,  $p < 0.05$ ). These results suggest that females do not necessarily perceive acquiring more advice when making a career decision.

Finally, H6 proposed that students of both genders would prefer to ask their mothers/stepmothers than fathers/stepfathers for career advice. Frequency analysis revealed that 95 respondents (62.9%) indicated that they preferred referring to their mothers/stepmothers for career advice. Only 35 participants (23.2%) preferred their fathers/stepfathers. Another 19 respondents (12.6%) reported referring to another type of caregiver, while two respondents (1.3%) did not state who they preferred. To check for differences between genders, Pearson's chi-square analysis was conducted. No differences were found, as both male ( $n = 20$ , 57.1%) and female ( $n = 75$ , 65.8%) respondents preferred seeking advice from their mothers/stepmothers. Additionally, Pearson's chi-square analysis indicated the difference between the genders was non-significant ( $\chi^2(2) = 3.21$ ). Based on these results, H6 was supported, which suggests that mothers/stepmothers were preferred over fathers/stepfathers when seeking career advice.

### **3.5 Significant Others' Influence and Career Decision Self-Efficacy (CDSE)**

Only one hypothesis was tested in this section. As mentioned earlier, analyses involving perceived significant others' influence were done twice, based on two separate factors – supportive relationships and resources. Hypothesis 7 (H7) predicted that significant others' influence would be positively related to CDSE and was only partially supported. The hypothesis was tested using

Pearson's correlation analysis. Only the supportive relationships factor correlated significantly with CDSE ( $r = 0.25, p < 0.01$ ). The other factor, resources, did not ( $r = 0.07$ ). These results indicate that factors such as significant others expressing their interest in issues important to students, as well as encouraging and supporting students to make their own decisions, help develop students' CDSE. As previously stated, CDSE in this study refers to "participants' degree of belief that they can successfully complete tasks necessary to making career decisions" (Betz & Taylor, 2006, p. 6). Therefore, it is logical that students believe in their abilities more strongly when they have the support, belief, and encouragement from their significant others.

### **3.6 Relatedness between Field of Study and Career Decision**

Three hypotheses were tested in this section. Hypothesis 8 (H8) and Hypothesis 9 (H9) were tested using Pearson's chi-square analysis. Hypothesis 10 (H10) was tested using independent-samples  $t$  test. H8 proposed that relatedness between field of study and career decision was more likely among students who were enrolled in fields of study developing specific occupation skills compared to students who were enrolled in fields of study developing general skills. Pearson's chi square analysis revealed that 22 participants (48.9%) enrolled in fields of study developing general skills indicated their career decision to be related to their field of study and 23 (51.1%) said their career decision was not related to their field of study. This indicated that the numbers of students in general fields of study who responded 'yes' and 'no' were very similar. On the other hand, of the 71 participants who were enrolled in fields of study developing specific skills, 69 (97.2%) indicated that their career decision was related to their field of study. These results suggest that perceptions of relatedness were higher in fields of study developing specific skills. Moreover, Pearson's chi square analysis indicated the difference between general field of study and specific field of study was significant,  $\chi^2 (1) = 38.00, p < 0.01$ . Based on

these findings, H8 was supported. These findings suggest the possibility that the acquisition of general skills allows an individual to be more occupationally mobile as the skills he or she obtained are transferable.

H9, that relatedness between field of study and career decision would be higher in students who were enrolled in a master, professional, or doctoral degree programme compared to students enrolled in a bachelor programme, was also supported. Pearson's chi square analysis found that 32 students (58.2%) enrolled in a bachelor programme indicated that their career decision was related to their field of study. Twenty-three students enrolled in a bachelor programme (41.8%) indicated otherwise. This indicated that the numbers of students indicating 'yes' and 'no' were very similar. In contrast, it was found that a majority of students undertaking post-graduate programmes (which includes master, professional, and doctoral degree programmes) indicated their career decision to be related to their field of study ( $n = 59, 96.7\%$ ). Only two respondents (3.3%) indicated otherwise. This highlighted that a greater number of students would pursue careers that were related to their fields of study when they are enrolled in higher qualifications. Additionally, Pearson's chi-square analysis revealed that the difference between students in bachelor programmes and post-graduate programmes was significant,  $\chi^2 (3) = 25.60, p < 0.01$ . These results suggest the possibility that as individuals pursue higher degrees in one field, the chances of them seeking a career in the same field increase. This is reasonable, as the individual would have spent a lot of effort, time, and money acquiring knowledge in the particular field.

Finally, H10, that relatedness between field of study and career decision would decrease with age, was not supported. As noted in H5, equal variances were not assumed when analysing  $t$  test results, thus degrees of freedom values had decimal places. Students who indicated their career decision to be related with their field of study were older ( $M = 29.51, SD = 8.63$ ) compared to students who indicated otherwise ( $M = 25.16, SD = 6.71$ ). This difference in mean age was found to be significant ( $t (48.86) = 2.67, p < 0.05$ ). These results imply that older students are more likely to seek a career in a field similar to their field of study.

Furthermore, older students were more likely to enrol in post-graduate programmes and, as mentioned earlier, students in post-graduate programmes were more likely to seek a career in the same field.

### 3.7 Supplementary Findings

This section describes results that are supplementary to the hypotheses tested in this study. These results were undertaken to examine further relationships relevant to this research and may be of interest to other researchers.

#### a) Relationships between factors influencing career decision

Altruistic factors correlated significantly with both extrinsic ( $r = 0.23$ ,  $p < 0.01$ ) and intrinsic ( $r = 0.52$ ,  $p < 0.01$ ) factors. Hotelling's  $t$  test ( $t = 2.74$ ,  $p < 0.01$ ) revealed that there was a significant difference between the correlations. The results indicated that altruistic factors correlated more strongly with extrinsic factors than with intrinsic factors. However, the relationship between extrinsic and intrinsic factors was non-significant ( $r = 0.15$ ). These results imply that individuals, who have strong values in one area, may have strong values in another area as well.

#### b) Relationship between cultural values

Pearson's correlation analysis revealed a significant relationship between individualistic and collectivistic values ( $r = 0.19$ ,  $p < 0.05$ ). This result suggests the possibility that individuals do not just develop individualistic or collectivistic values alone.

#### c) Relationships between cultural values and career decision self-efficacy (CDSE)

There was no significant relationship between individualistic values and CDSE ( $r = 0.13$ ). Additionally, collectivistic values and CDSE also did not correlate significantly ( $r = -0.10$ ). These findings suggest that cultural values do not affect students' self-efficacy in making career decisions.

d) Relationship between perceived significant others' influence

As mentioned previously, two separate factors loaded onto the items measuring perceived significant others' influence. They were supportive relationships and resources. Pearson's correlation analysis indicated a significant relationship between the two ( $r = 0.19, p < 0.05$ ). The result implies that students who perceived having supportive relationships with their significant others may also perceive getting resources from them to help make their career decisions.

### 3.8 Summary

To summarise the results, collectivistic values correlated significantly with both extrinsic and altruistic factors. Individualistic values correlated significantly with intrinsic factors. Additionally, both cultural values did not correlate with supportive relationships. They correlated with resources but there was no significant difference between the correlations. Female participants perceived having higher levels of encouraging and supportive relationships with their significant others than did male respondents. On the contrary, male respondents believed they received more resources from their significant others when making a career decision than did their female counterparts. Independent-samples *t* test analysis revealed the mean differences between genders on both supportive relationships and resources to be significant.

Furthermore, it was found that participants preferred seeking career advice from their mothers/stepmothers compared to their fathers/stepfathers. It was also found that only supportive relationships correlated significantly with career decision self-efficacy (CDSE). Finally, relatedness between career decision and field of study increased with age and was higher in students enrolled in a field of study developing specific skills and in students pursuing post-graduate qualifications. The following chapter provides further discussion of the results reported in this chapter.

## **Chapter Four – Discussion**

This study investigated students' career intentions upon completing their studies and there were four main objectives. The first was to ascertain if students seek careers related to their field of study. Secondly, this research investigated the relationship between factors students relied upon when deciding on their careers and cultural values. Specifically to this objective, three groups of factors were included in this study – extrinsic (factors that focused on instrumental resources that are separable from the meaning of work), intrinsic (aspects linked directly to the job itself), and altruistic (aspects related to service themes). In relation to cultural values, this study included both individualistic and collectivistic values. Thirdly, this study investigated if students perceived receiving significant others' influence when making a career decision. Within this objective, two factors emerged in the scale measuring perceived significant others' influence – supportive relationships and resources. Finally, this study also ascertained if perceived significant others' influence helped build students' self-efficacy in making career decisions.

To collect the data needed for this study, an online survey was employed and invitations to participate were sent out to full-time students who were in the final year of study to complete their qualification. This chapter revisits the main findings of this study before discussing practical implications relating to the findings. The strengths and limitations of this study are presented, followed by suggestions for future research in the same field. Finally, a conclusion will summarise the study and its findings.

### **4.1 Main Findings and Implications**

This study proposed and tested 10 hypotheses. Of the 10, six were fully supported, two hypotheses were partially supported and the remaining two

hypotheses were unsupported. The next sections discuss the main findings of this study as well as their implications.

#### **4.1.1 Factors Influencing Career Decision and Cultural Values**

Many previous studies have found similar results to this present study in relation to factors affecting students' career decisions (Auyeong & Sands, 1997; Jaw et al., 2006; Marini et al., 1996; Markus & Kitayama, 1991; Ng et al., 2008; Oishi et al., 1999; Stone et al., 2005). This study proposed three hypotheses concerning factors affecting students' career decisions. Hypotheses 1 (H1) and 3 (H3) predicted that collectivistic values would correlate more strongly with extrinsic and altruistic factors than would individualistic values respectively. Hypothesis 2 (H2) proposed that individualistic values would correlate more strongly with intrinsic factors than would collectivistic values. All three hypotheses were supported, as only collectivistic values correlated significantly with both extrinsic and altruistic factors. Only individualistic values correlated significantly with intrinsic factors.

The results from H1 and H3 suggest that aspects such as good starting salary, potential future salary, standard hours of work, and job security (extrinsic factors) as well as the opportunity to work closely with others and opportunity to influence other people (altruistic factors) to be important to individuals with collectivistic values. On the contrary, the findings of H2 indicate the importance of job-related factors to individuals with individualistic values, which include interesting, enjoyable, and challenging work as well as opportunities for creativity, originality, and responsibility at work.

According to Markus and Kitayama (1991), the achievement motive is very important for individuals with collectivistic values and it relates to filial piety. To restate, filial piety can be defined as "to respect one's parents and to care for one's parents" (Sung, 1995, p. 240). The achievement motive can be fulfilled by

gaining prestige at work, which includes earning a good salary. By doing so, individuals are able to enhance the social standing of their families, thus fulfilling one aspect of their filial piety responsibilities. Similarly, Auyeung and Sands (1997) found that students in Hong Kong and Taiwan universities obtained higher mean scores for availability of employment, prestige, and social status compared to students in Australian universities. In their study, students in Hong Kong and Taiwan universities were classified as individuals with collectivistic values whereas Australian students were classified as individuals with individualistic values. Stone et al. (2005) found that individuals who hold collectivistic values regard factors such as spending time with their families and time off work highly, thus they prefer jobs with standard hours of work. The authors added that collectivistic values correlate with familism. Familism is defined as “a value characterised by strong identification and attachment to the family and strong feelings of loyalty, reciprocity, and solidarity with family members” (Stone et al., 2005, p. 10). Thus, in Stone et al. (2005), it was found that individuals who hold collectivistic values prefer jobs that offer a balance between family and work life. Moreover, research on work-family balance found that individuals from collectivistic countries are more likely to believe that their family takes precedence over their work roles (Aryee, Srinivas, & Tan, 2005).

With regards to the significant relationship between collectivistic values and altruistic factors, Markus and Kitayama (1991) noted that Hispanic Americans (a society thought to hold collectivistic values), described the significance and importance of ‘simpatico’ highly. The term ‘simpatico’ refers to the ability to share and respect other individuals’ feelings. They further stated that the same applies to individuals from countries such as the Phillipines, Thailand, and Japan. Markus and Kitayama (1991) asserted that due to being interdependent, these individuals are more likely to sympathise with others. Similar findings were reported by Marini et al. (1996) and Ng et al. (2008). The findings of the studies, including this one, suggest that altruistic factors are important to people with collectivistic values because they are more likely to

feel sensitive to the needs of others, which develops the motivation to help others or contribute to society.

As stated previously, only individualistic values correlated significantly with intrinsic factors. Oishi et al. (1999) explained that people who hold values of individualism are more likely to weigh satisfaction with esteem needs such as power to make decisions and self-respect. Furthermore, Stone et al. (2005) noted that individuals with individualistic values are more likely to prefer jobs that would allow them to compete with others competitively to gain achievement.

#### **4.1.2 Significant Others' Influence, Culture, and Gender**

Three hypotheses are discussed in this section. The first is Hypothesis 4 (H4), that collectivistic values would correlate more strongly with perceived significant others' influence when making a career decision than would individualistic values, was not accepted. As mentioned earlier, perceived significant others' influence contained two factors – supportive relationships and resources. The relationships between both cultural values and supportive relationships were non-significant. In contrast, both cultural values were significantly correlated with resources. However, there was no significant difference between the correlations. These results were dissimilar to the results reported in previous studies by Leong and Hardin (2002), Leong and Serafica (1995), Ma and Yeh (2005), and Tang et al., (1999).

According to Leong and Hardin (2002), students in collectivistic societies place and experience high levels of family involvement when making career decisions. They further stated that significant others' usually believe that only certain careers would lead their dependents to achieve success. The careers are usually in the fields of medicine, law, and engineering. Ma and Yeh (2005) noted similar results in Chinese American youths. It was also found that individuals in

collectivistic societies are more attached to the group compared to individuals in individualistic societies. Triandis et al. (1988) provided a similar argument. According to their perspective, individuals in collectivistic societies prefer to subordinate their personal goals to in-group goals as opposed to those in individualistic societies in which the self is more autonomous and separate. Additionally, it was found that family involvement and feedback in career planning have a strong impact on Asian American college students (Tang et al., 1999). Leong and Serafica (1995) also found that there is stronger significant others' influence in Asian American families in comparison to European American families.

Based on the preceding arguments, it was concluded that collectivistic values would increase the perception of significant others' influence, however, the results of this study did not support this notion. The findings suggest the possibility that students, regardless of their cultural values, will seek help and advice from their significant others when making a career decision due to the nature of the process. A process which can be very daunting and challenging, as choosing the wrong career may negatively affect other aspects of a person's life, which includes home life, health, and relationships (Pavlina, 2007). Furthermore, making a career decision is a very important decision for students, due to it occurring at a stage in their life, which is significant in their identity development (Roach, 2010).

Hypothesis 5 (H5) proposed that female students would perceive having more significant others' influence when deciding on their careers compared to male students. This hypothesis was partially accepted, as only females perceived having more supportive relationships with significant others' while male participants perceived having more resources. The results of this current study differed from the findings of Otto (2000). In his research, it was found that females reported having more discussions about their career decisions with their families than males. Findings of this current study, however, suggest that females do not necessarily perceive having more significant others' influence when making a career decision, and as discussed earlier, the process of deciding

on a career is a difficult one. On that basis, perhaps both genders perceived having influence from their significant others. In addition, more in-depth analyses (paired-samples *t* test between genders, supportive relationships, and resources) revealed that both genders perceived having more supportive relationships than resources.

Finally, Hypothesis 6 (H6) predicted that students of both genders would prefer asking their mothers/stepmothers than fathers/stepfathers for career advice and was supported. This finding corresponds with the results of Otto (2000), who also indicated that mothers are more helpful when discussing career plans. Otto (2000) argued that of the two, mothers were found to be more understanding and nurturing towards their children compared to fathers. This result was not particularly surprising, as Carlson and Knoester (2011) reported that “mothers are typically the primary caregivers and socialising agents in a variety of family structures” (p. 711).

#### **4.1.3 Significant Others’ Influence and Career Decision Self-Efficacy (CDSE)**

Career decision self-efficacy (CDSE) refers to “self-efficacy expectancies in relation to the wide range of behaviours necessary to the career choice and adjustment process” (Betz & Luzzo, 1996, p. 280). The inclusion of CDSE in this study was to determine if significant others’ influence would benefit students. The term self-efficacy refers to a person’s belief in his or her capability to perform a task or behaviour successfully (Bandura, 1978). Bandura (1978) also stated that an individual’s self-efficacy can be modified through verbal persuasion such as receiving encouragement and support from others. Hence, Hypothesis 7 (H7) predicted that significant others’ influence would be positively related to CDSE. However, in these findings it was only partially supported, as only supportive relationships correlated significantly with CDSE. Nonetheless, the

findings of this study were still congruent with results found by Gecas and Seff (1990), Keller and Whiston (2008), and O'Brien et al. (2000).

The authors of the scale used to measure perceived significant others' influence in this study, Keller and Whiston (2008), found that both supportive relationships and resources correlated significantly with CDSE. However, they also indicated that based on the strengths of the correlations and size of the beta weights, supportive relationships could have been more important than resources. Similarly, Gecas and Seff (1990) reported that young adolescents believe in their own career decision-making abilities only to the degree to which they deemed their significant others believe in them. Additionally, being attached to caregivers led to increased confidence in career-related tasks (O'Brien et al., 2000).

The findings of this research and the preceding studies are not surprising as it is a logical argument that individuals will believe in their abilities more strongly when they receive the encouragement and support from their significant others. Moreover, it was argued that young adolescents' self-efficacy increases when their caregivers believe in their abilities, show interest in them as individuals, and trust them to make good decisions (Keller & Whiston, 2008). Furthermore, the concept of significant others' having an important impact on their dependents' CDSE has been demonstrated empirically in literature (Bright et al., 2005; Hinkleman & Luzzo, 2007; Palmer, 1988; Peterson, Stivers, & Peters, 1986; Roach, 2010; Sebold, 1989). Finally, Bush (2008) indicated that significant others' influence is related to the overall self-esteem of adolescence.

#### **4.1.4 Relatedness between Field of Study and Career Decision**

This section addresses three hypotheses; two of them were supported while the third was not. Hypothesis 8 (H8) proposed that relatedness between field of study and career decision was more likely among students who were

enrolled in fields of study developing specific occupation skills compared to students who were enrolled in fields of study developing general skills. Findings in this study confirmed H8, as a majority of students enrolled in fields developing specific skills indicated their career decisions to be related to their field of study. Fields of study covered in this research pertaining to the development of specific skills included law, education, and computer graphic design. On the other hand, the numbers of students in general fields of study who indicated 'yes' and 'no' were similar. General fields of study included in this research were sports and leisure, tourism, psychology, and social sciences. These results duplicated the findings from Boudarbat and Chernoff (2012), Dolton and Kidd (1998), and Robst (2007). When students select a field of study that contributes to the attainment of general skills, instead of specific skills, the chances of them switching to a different field when choosing a career increases (Dolton & Kidd, 1998). According to Robst (2007), students switch because the acquisition of general skills enables them to be occupationally mobile as the skills are transferable. He added that "general skills transfer to jobs in other fields; while only a portion of occupation specific skills are likely to transfer" (p. 400). Robst (2007) also argued that the cost of changing fields is lower for students in general fields of study.

Hypothesis 9 (H9) predicted that relatedness between the field of study and career decision would be higher in students who were enrolled in a master, professional, or doctoral degree programme when compared to students enrolled in a bachelor programme. The aforementioned degree programmes were categorised as post-graduate qualifications and it was found that all but two students pursuing post-graduate qualifications indicated that their career decisions were related to their fields of study. The numbers of students in bachelor programmes who indicated 'yes' and 'no' were very similar. These results suggest the possibility that as individuals progress further into a particular field, the likelihood of them seeking employment in the similar field increases. This is reasonable given that they would have spent a lot of time, effort, and money acquiring knowledge in a particular field. Similar findings were found by Boudarbat and Chernoff (2012), Dolton and Kidd (1988) and Robst (2007). They

too argued that because the cost of switching fields after completing a post-graduate qualification is higher, the likelihood of relatedness increases. Based on the preceding argument, H9 was supported.

The final hypothesis, Hypothesis 10 (H10), which proposed that relatedness between field of study and career decision would decrease with age, was not supported. It was found that students who indicated their career decisions to be related to their fields of study were older compared to students who indicated otherwise. This finding differed from the results obtained by Robst (2007). However, the results obtained in this study are not entirely surprising as older students are more likely to be in a post-graduate programme and, as mentioned earlier, students pursuing post-graduate qualifications reported higher levels of relatedness due to effort, time, and money spent.

## **4.2 Strengths**

The major strength of this research is that it seems to be one of the few studies which did not limit its participants to a certain field of study. Many previous studies investigated only a single field of study, for example, Kyriacou and Coulthard (2000), Yong (1995), and Young, B. (1995). These studies focussed their research on teacher trainees in the United Kingdom (UK), Brunei Darussalam, and the USA respectively. Other studies, such as those of Dockery and Barns (2005) and Lawrence and Poole (2001) researched nursing and medical students. Some other instances include Shaw (2005), who investigated students in mortuary science, Gokuladas (2009), who researched career decision-making processes of students pursuing the field of engineering, and Sibson (2011), who did her study with undergraduates enrolled in event, sport, and recreation management programmes. The inclusion of students from different fields of study contributed to the ability of this current study to examine factors affecting career choices of students in various fields. It also allowed this current study to explore the relatedness between field of study and career decision.

Additionally, many previous studies focused solely on factors (extrinsic, intrinsic, and altruistic) influencing students' career decision-making alone whereas this current study included further elements. These elements included the investigation of the relationship between cultural values and the factors affecting students' career decisions and the impact of perceived significant others' influence on students' career decision self-efficacy (CDSE). This allowed this study to ascertain if cultural values affected students' career decision as well as identify the relationship between influence of significant others and students' confidence and ability in making a career decision. A further point of difference to the above studies is that the focus of this study was on tertiary students in New Zealand. This may address the shortage of studies on factors affecting students' career choices in New Zealand as many other studies have focused on students in the USA, UK, Australia, and Asian countries. To my knowledge, there are only two articles investigating career decision-making among students in New Zealand (Lawrence & Poole, 2001; Lawrence, Poole, & Diener, 2003).

In relation to the strengths of the measures used in this study, all measures used obtained sound psychometric properties including high reliability values. To conclude, this study restricted participation to full-time students, who were in their final year. By restricting participation to full-time students only, the study was able to collect data from students who do not already have a career. Hence, their responses were not affected by experiences in established careers. By limiting participation to students in their final year of study, the researched managed to acquire responses from students who were more certain with making a career decision.

### **4.3 Limitations**

One methodological limitation involved the use of self-report measures for all constructs, which can result in common method variance (CMV) (Breakwell, Smith, & Wright, 2012; Lindell & Whitney, 2001). Lindell and Whitney

(2001) added that self-report measures can cause CMV due to participants' magnified ratings especially in scales targeting performance and ability. Hence, this limitation could be specifically applied to the CDSE-SF scale. In spite of that, this issue is sometimes overestimated (Lindell & Whitney, 2001; Spector, 2006). Additionally, CMV could not explain the data entirely because the measures in this study confirmed a wide range of correlation values.

Recruiting respondents also posed several challenges as data collection was carried out during the university summer break, with the possibility that many students were on holiday. A larger response rate might have strengthened the validity of this study as well as increased the generalisability of the results. The results of this study may not have equally represented the New Zealand population as the final sample of this study consisted of 76.2% females and 23.8% males. The participation rate pertaining to ethnicity does not accurately represent the New Zealand population with 10.6% of participants identifying as Maori and 13.9% as Asian. According to Statistics New Zealand (2014), the New Zealand population indicates that 14.9% of people identify as Maori and 11.8% identify as Asian. Finally, this study was based on a cross-sectional research design. Hence, the findings cannot be used to determine causal directions between the variables.

#### **4.4 Future Research**

Future studies can investigate the factors influencing students' career decisions in different countries and compare the results to ascertain the similarities and differences. The results can also be compared to each country's national culture to see identify if there is a relationship between factors influencing students' career decisions and national culture.

Further research could also take a longitudinal approach to ascertain if relatedness between field of study and career decision is indeed higher in

students pursuing specific fields of study compared to students enrolled in a field of study developing general skills. A longitudinal approach can also provide more concrete evidence if relatedness is truly higher in students enrolled in post-graduate programmes (master, professional, or doctoral) in contrast to students in bachelor programmes. Furthermore, a longitudinal study would be able to investigate the trend of job-hopping in students from different fields of study. Future studies could also include more fields of study such as human resource, medicine, and nursing.

Finally, future research could also take a cross-generational approach to investigate if students in the Gen Y and Gen X generations decide on their careers based on similar or different factors. Acar (2014) found that there were no differences in extrinsic and intrinsic motivation between Gen X and Gen Y employees in a Turkish bank. On the other hand, Smola and Sutton (2002) found that work values change as employees' age increased, which suggests that there would be differences between individuals of Gen Y and Gen X generations.

#### **4.5 Implications for Tertiary Institutions and Organisations**

From a tertiary institution's point of view, the results from this study provide some insight as to how students decide on their career paths. Although the results may not be generalised to the entire population, knowing the factors that influence students' career choices can still enable the institution to focus on tailoring their teaching to meet the needs and wants of the students. At an organisational level, this study also allows organisations to learn about the factors that are important to their future employees. This information can then be used in their recruitment programmes. Finally, results of this study can also benefit career counsellors as the findings revealed factors that are important to students when deciding on their careers. With this knowledge, career counsellors may be able to use these factors as part of the criteria they use to provide better advice and guidance to their clients.

## 4.6 Conclusion

This study investigated New Zealand tertiary students' career intentions upon completing their studies and the factors influencing their decisions. The first objective was to investigate if students would seek employment relating to their fields of study. It was found that relatedness was higher in students enrolled in fields of study developing specific skills and in students pursuing post-graduate qualifications. It was also revealed that relatedness increased with age. The second objective ascertained the relationship between factors students relied on when making a decision about their choice of career and the role of cultural values. It was found that collectivistic values correlated with extrinsic and altruistic factors while individualistic values correlated with intrinsic factors. Thirdly, the study investigated if students perceived receiving significant others' influence when deciding on their careers. It was ascertained that cultural values had no significant impact on perceived significant others' influence. It was also revealed that there were no gender differences in relation to the perception of influence from significant others. In addition to this, when seeking career advice, both genders preferred their mothers/stepmothers over fathers/stepfathers. The final aim of the study investigated the relationship between perceived significant others' influence and career decision self-efficacy. It was found that only supportive relationships increased students' career decision self-efficacy.

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# Appendices

## Appendix A – Invitation E-mail

### Career Decision Making

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Are you studying full-time? Are you in your final year?

If yes, I need your support! 😊

I am Natalia Pang, currently pursuing Master in Applied Psychology (Organisational Psychology) with the Faculty of Arts and Social Science (FASS). As part of my qualification, I am conducting research, which is being supervised by Dr Donald Cable ([dcable@waikato.ac.nz](mailto:dcable@waikato.ac.nz)) and Professor Michael O'Driscoll ([psyc0181@waikato.ac.nz](mailto:psyc0181@waikato.ac.nz)).

The objectives of my study are:

- a) To examine the factors that affect students' decision when choosing a career upon completing their studies;
- b) To identify if other factors influence the above;
- c) To investigate if perceived significant other influences increase students' self-efficacy in making a career decision; and
- d) To examine if students have made a career decision and if the decision is related to their field of study.

Hence, your participation in this research will be very valuable in acquiring the needed information on the topic and is much appreciated. The questionnaire will take approximately 10 minutes to complete. Participation in this research is voluntary. Information that you will provide will be treated with complete confidentiality.

To participate, please click the following link provided:

<http://psychology.waikato.ac.nz/FactorsAffectingCareers.html>

Thank you.

Natalia Pang

+64 21 0225 8311

[nataliapang@live.com](mailto:nataliapang@live.com)

# Appendix B – Hardcopy of Questionnaire

## Factors Affecting Students' Career Decision

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Dear Participant,

I am Natalia Pang, currently pursuing Master in Applied Psychology (Organisational Psychology) with the Faculty of Arts and Social Science (FASS). As part of my qualification, I am conducting research, which is being supervised by Dr Donald Cable ([dcable@waikato.ac.nz](mailto:dcable@waikato.ac.nz)) and Professor Michael O'Driscoll ([psyc0181@waikato.ac.nz](mailto:psyc0181@waikato.ac.nz)).

The objectives of my study are:

- a) To examine the factors that affect students' decision when choosing a career upon completing their studies;
- b) To identify if other factors influence the above;
- c) To investigate if perceived significant other's influences increase students' self-efficacy in making a career decision; and
- d) To examine if students have made a career decision and if the decision is related to their field of study.

Hence, your participation in this research will be very valuable in acquiring the needed information on the topic and is much appreciated. The items in this questionnaire will revolve around both groups of factors, students' career decision self-efficacy, and students' career decision and will take approximately 10 minutes to complete.

The study is open to final year students who are pursuing their studies at the University of Waikato on a full-time basis regardless of the field of study and qualification. The reasons for this is because final year students are more likely to have given a thought about their careers and full-time students do not already hold a career that may bias their responses to this research.

Participation in this research is voluntary. Information that you will provide will be treated with complete confidentiality. You are permitted to drop out of the research at any participation stage. However, once you have submitted and exited this questionnaire, it will not be possible to identify your questionnaire. Hence, you will not be able to withdraw after submitting your responses. By completing this survey, you are giving your consent to participate in this study.

This research has the approval of the Research and Ethics Committee at the School of Psychology, FASS, University of Waikato. For further enquiries, please contact Deputy Chair Dr Nicola Starkey on +64 7 838 4032 (extension: 6472) or via e-mail at [nstarkey@waikato.ac.nz](mailto:nstarkey@waikato.ac.nz).

If you have any queries, I am available at +64 21 0225 8311 or [nataliapang@live.com](mailto:nataliapang@live.com).

Thank you.

Natalia Pang

## Factors Influencing Career Decision

The following items are factors that may influence your career decision. Please indicate how important they are to you by ticking the appropriate responses according to the scale below.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Very Unimportant	Unimportant	Neither Important nor Unimportant	Important	Very Important

How important is it to you to have...?

Factor	1	2	3	4	5
1. Good graduate/starting salary					
2. Good future earnings potential					
3. Interesting work					
4. Good career opportunities					
5. Range/variety of career opportunities					
6. Professional prestige/high status of future career					
7. Standard hours of work (i.e. 9 to 5)					
8. Flexible hours of work					
9. Opportunities to work closely with other people					
10. Opportunities to influence other people					
11. Opportunities for promotion/advancement					
12. Opportunities for travel					
13. Transferability of work skills					
14. Pleasant working conditions					
15. Opportunities for creativity and originality					
16. Enjoyable work					
17. Responsibility involved in job					
18. Challenging job					
19. Job security					
20. Availability of jobs					
21. Ability to make a contribution to society					

## Cultural/Personal Values

The belief is that our cultural values influence the approach we take to career decision-making. The following items are designed to measure how you view your own cultural values and will allow me to assess this proposition. Please indicate how often you would behave or think as described in the following items by ticking the appropriate responses according to the scale below.

1	2	3	4	5	6
Never or Almost Never	Rarely	Occasionally	Often	Very Often	Always

How often do you behave or think as follows?

Item	1	2	3	4	5	6
22. I define myself as a competitive person.						
23. I enjoy being unique and different from others.						
24. Before I make a major decision, I seek advice from people close to me.						
25. Even when I strongly disagree with my group members, I avoid an argument.						
26. I consult with superiors on work-related matters.						
27. I believe that competition is a law of nature.						
28. I prefer competitive rather than non-competitive recreational activities.						
29. Before taking a major trip, I consult with my friends.						
30. I sacrifice my self-interest for the benefit of my group.						
31. I consider my friends' opinions before taking important actions.						
32. I like to be accurate when I communicate.						
33. I consider myself as a unique person separate from others.						
34. It is important to consult close friends and get their ideas before making a decision.						
35. Without competition, I believe, it is not possible to have a good society.						
36. I ask the advice of my friends before making career-related decisions.						
37. I prefer using indirect language rather than upsetting my friends by telling them directly what they may not like to hear.						
38. It is important for me to act as an independent person.						
39. I discuss job or study-related problems with my parents/partner.						
40. I take responsibility for my own actions.						
41. I do not reveal my thoughts when it might initiate a dispute.						
42. I try to achieve better grades than my peers.						
43. My personal identity independent of others is very important to me.						
44. I enjoy working in situations involving competitions with others.						
45. I consult my family before making an important decision.						
46. Winning is very important to me.						
47. I see myself as "my own person".						

## Career Behaviour Checklist

The following items will indicate if you perceive having influence when deciding on your career based on **the person you will identify in Q1.**

**Q1.** Please indicate which person you would prefer to seek advice from by checking one of the following boxes.

Mother/Stepmother

Father/Stepfather

Other Caregiver

**Q2.** Please indicate the degree to which each statement applies to the person you have identified in Q1 as perceived by you by indicating the appropriate responses according to the scale below.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Never	Rarely	Sometimes	Often	Very Often

The person I identified in Question 1...

Factor	1	2	3	4	5
48. Expresses interest in various issues that are important to me.					
49. Has shown me where to find information about universities or careers in the library or bookstore.					
50. Has encouraged me to take interest assessments or career tests offered by my school.					
51. Encourages me to make my own decisions.					
52. Tells me he/she has high expectations for my career.					
53. Has encouraged me to consider many different educational and career options.					
54. Tells me about specific careers.					
55. Helps me feel better when I tell him/her I am worried or concerned about choosing a career.					
56. Really tries to understand my thoughts, feelings, and opinions about various topics.					
57. Has given me written material about specific careers.					
58. Has given me written material about specific universities.					
59. Has talked to me about the steps involved in making difficult decisions.					
60. Has participated with me in a structured career development workshop offered by my school, church, etc.					
61. Has encouraged me to be involved in extra-curricular activities (sports, music, church).					
62. Encourages me to ask questions about different jobs.					
63. Tells me he/she loves me.					
64. Has helped me understand results from career tests or interest assessment I have taken.					
65. Encourages me to try new things.					
66. Encourages me to talk to him/her about my career plans.					
67. Asks what careers I am considering for my future.					
68. Encourages me to choose whatever career I want.					
69. Tells me he/she is proud of me.					
70. Has supported me when I have told him/her that I am interested in a specific career.					

## Career Decision Self-Efficacy

The following items are designed to measure your perceived self-efficacy on making a career decision. Please indicate how much confidence you have in accomplishing the tasks mentioned in the items according to the scale below.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
No Confidence At All	Very Little Confidence	Moderate Confidence	Much Confidence	Complete Confidence

How much confidence do you have to...?

Factor	1	2	3	4	5
71. Use the internet to find information about occupations that interest me.					
72. Select one major from a list of potential majors I am considering					
73. Make a plan of my goals for the next five years.					
74. Determine the steps to take if I am having academic trouble with an aspect of my chosen major.					
75. Accurately assess my abilities.					
76. Select one occupation from a list of potential occupations I am considering.					
77. Determine the steps I need to take to successfully complete my chosen major.					
78. Persistently work at my major or career goal even when I get frustrated.					
79. Determine what my ideal job would be.					
80. Find out the employment trends for an occupation over the next ten years.					
81. Choose a career that will fit my preferred lifestyle.					
82. Prepare a good resume.					
83. Change majors if I did not like my first choice.					
84. Decide what I value most in an occupation.					
85. Find out about the average yearly earnings of people in an occupation.					
86. Make a career decision and then not worry whether it was right or wrong.					
87. Change occupations if I am not satisfied with the one I enter.					
88. Figure out what I am and am not ready to sacrifice to achieve my career goals.					
89. Talk with a person already employed in a field I am interested in.					
90. Choose a major or career that will fit my interests.					
91. Identify employers, firms, and institutions relevant to my career possibilities.					
92. Define the type of lifestyle I would like to live.					
93. Find information about graduate or professional schools.					
94. Successfully manage the job interview process.					
95. Identify some reasonable major or career alternatives if I am unable to get my first choice.					

## Career Decision and Relatedness to Field of Study

Please indicate your responses to the items below by filling in the blanks and ticking the appropriate boxes.

96. What is your field of study?

---

97. What qualification are you studying for?

---

98. Have you made a decision on the career you will be interested in pursuing once completing your studies?

Yes.

No. Please proceed to the demographic section.

99. If yes, is the career decision related to your field of study?

Yes

No

## Demographic Information

Please note that the demographic information within this section is to enable me to describe the general nature of the participants for the benefit of those who may review my research. No analysis of the responses to this survey will be conducted based on these demographics. I remind you that you are free to answer or not answer these questions, as you choose.

What is your gender? Male

Female

How do you describe your ethnicity, i.e. what ethnic group do you affiliate/associate with?

---

What is your age?

---

Would you like a short report on the findings of this study? If yes, please send me an e-mail ([nataliapang@live.com](mailto:nataliapang@live.com)) with the subject title "Summary of Career Research Results" and a summary will be e-mailed to you when the study is complete.

Thank you for participating in this research.

## Appendix C – Information Page

### Career Decision Making

Dear Participant,

I am Natalia Pang, currently pursuing Masters in Applied Psychology (Organisational Psychology) with the Faculty of Arts and Social Science (FASS). As part of my qualification, I am conducting research, which is being supervised by Dr Donald Cable ([dcable@waikato.ac.nz](mailto:dcable@waikato.ac.nz)) and Professor Michael O'Driscoll ([psyc0181@waikato.ac.nz](mailto:psyc0181@waikato.ac.nz)).

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If you have any queries, I am available at +64 21 0225 8311 or [nataliapang@live.com](mailto:nataliapang@live.com).

Thank you.

Natalia Pang

Next

## Appendix D – Acknowledgement and Summary of Results

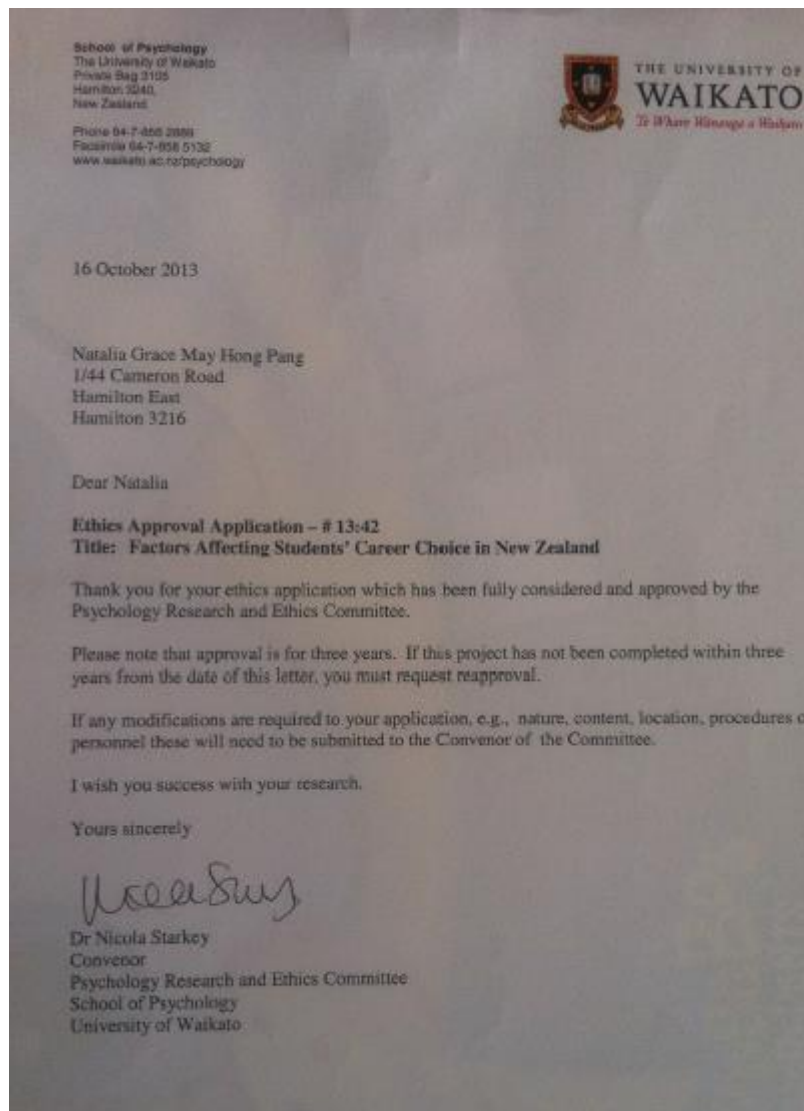
### Page

Your responses have been recorded.

Thank you for your participation.

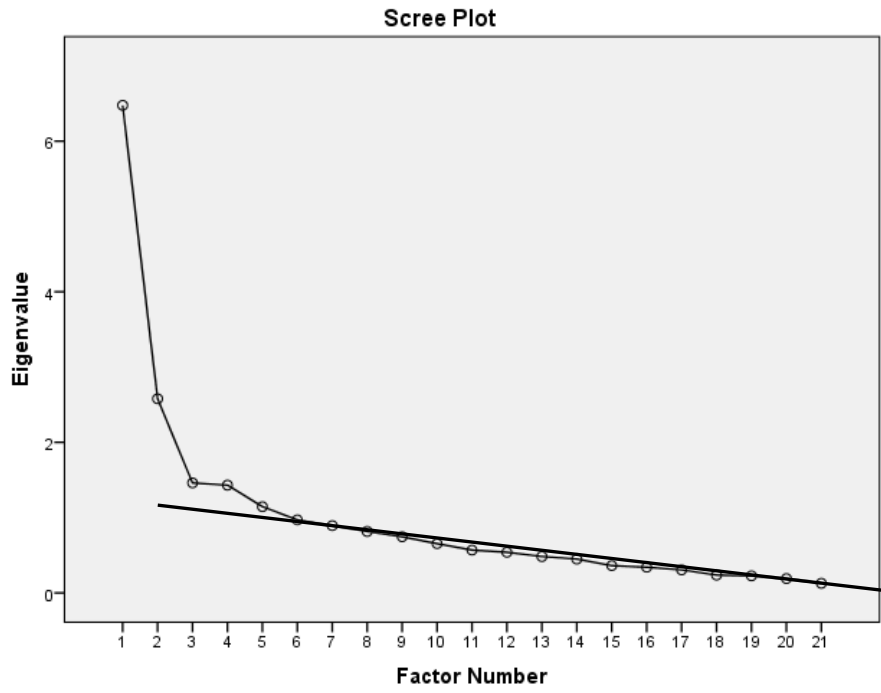
If you would like a short report on the findings of this study, please send me an email ([nataliapang@live.com](mailto:nataliapang@live.com)) with the subject title "Summary of Career Research Results". A summary will be emailed to you when the study is complete.

## Appendix E – Ethics Approval Letter

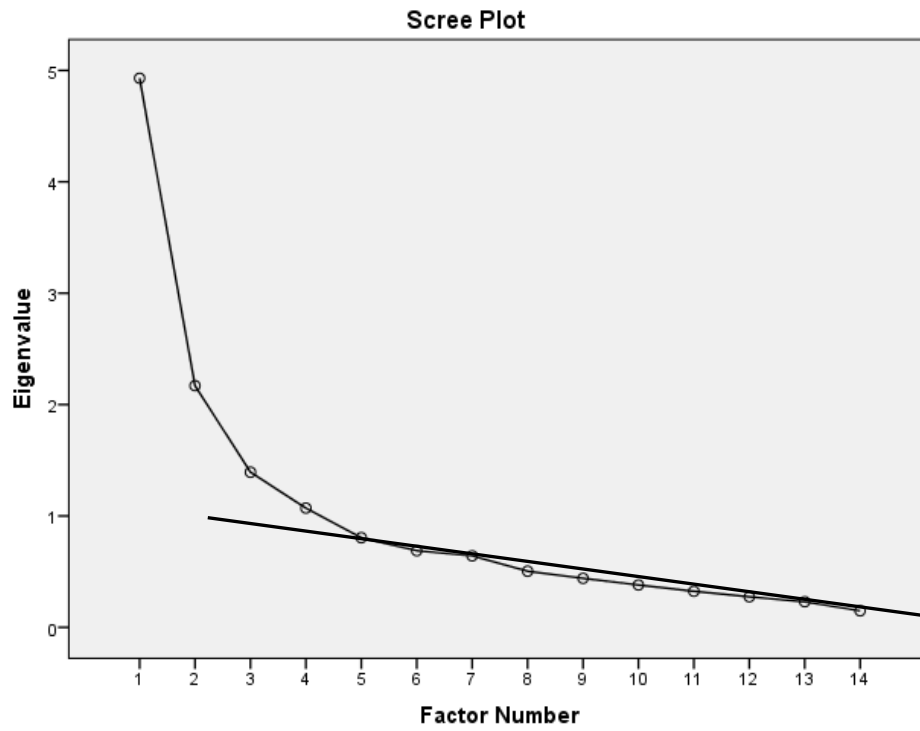


## Appendix F – Scree Plot (Factors Influencing Career Decision)

### Scree Plot (Initial)

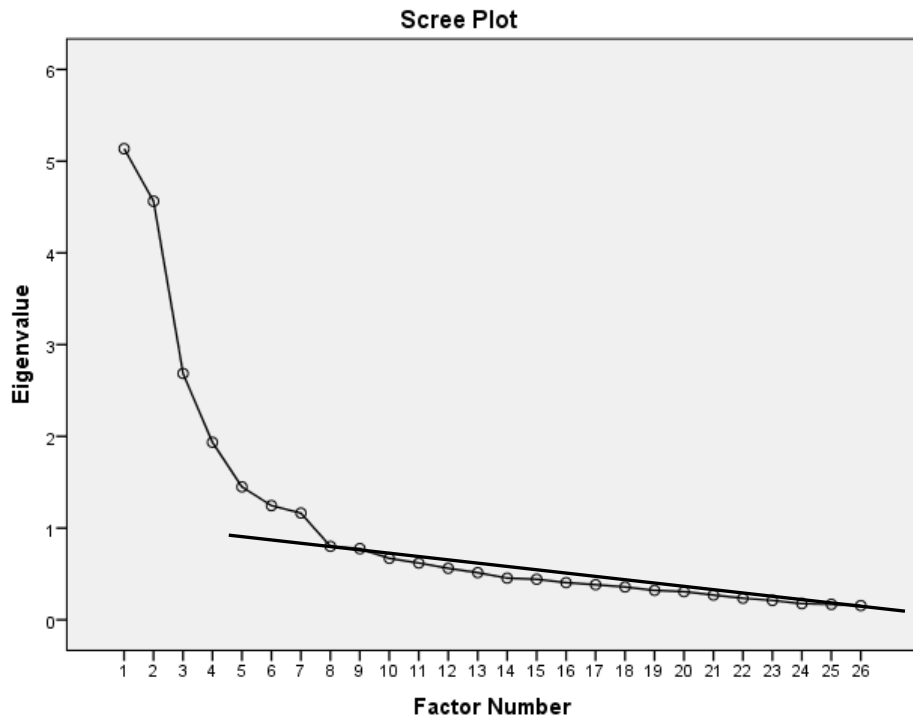


### Scree Plot (Final)

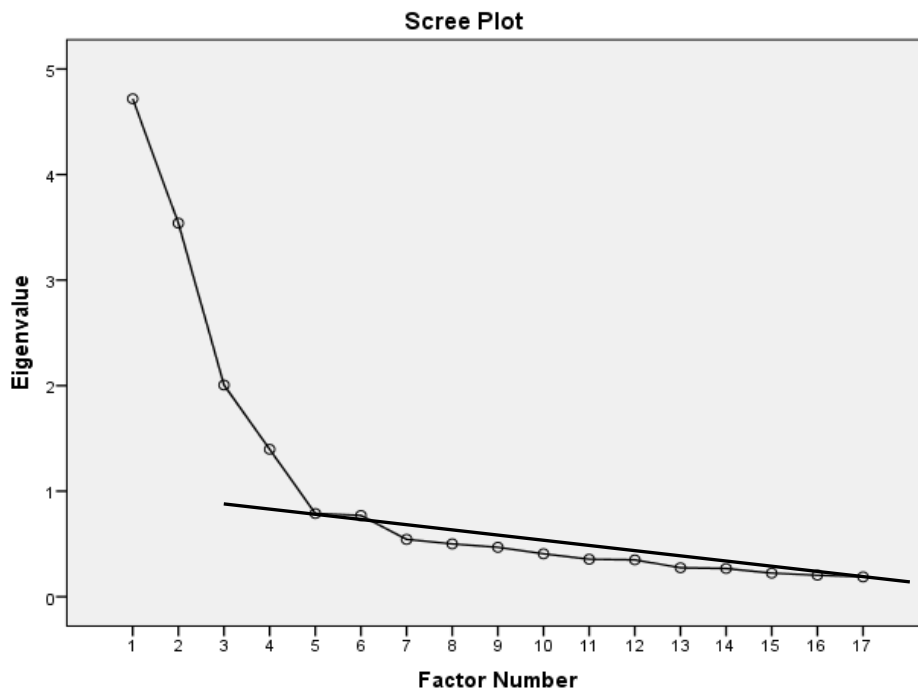


## Appendix G – Scree Plot (Cultural/Personal Values)

### Scree Plot (Initial)

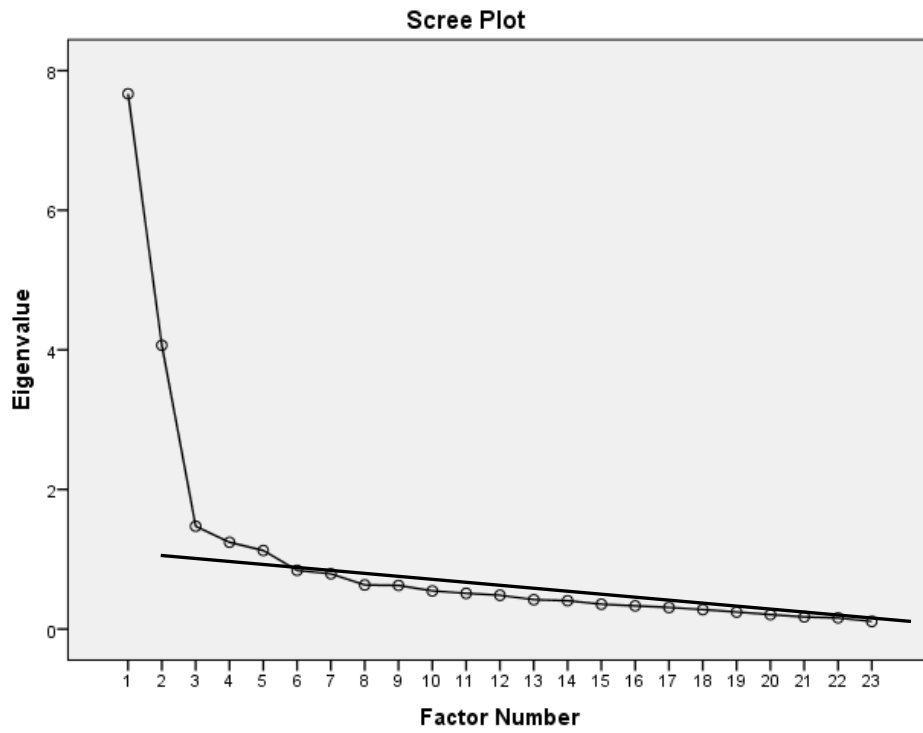


### Scree Plot (Final)

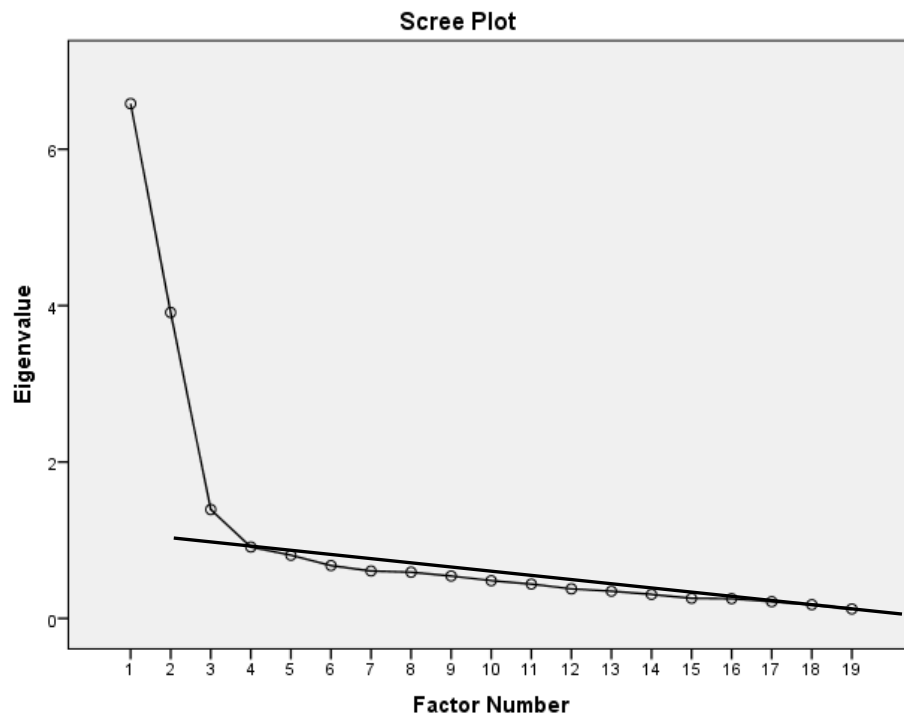


## Appendix H – Scree Plot (Career Behaviour Checklist)

### Scree Plot (Initial)



### Scree Plot (Final)



# Appendix I - Scree Plot (Career Decision Self-Efficacy Short Form)

## Scree Plot

