THE ROLE OF CAREER GUIDANCE AND COUNSELING SERVICES IN CAREER DECISION-MAKING DIFFICULTIES OF UNIVERSITY STUDENTS

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A thesis submitted in partial fulfillment of the requirements for the degree of

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Approval Sheet

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Declaration

I certify that this research work titled "The Role of Career Guidance and Counseling Services in Career Decision-making Difficulties of University Students" is my own work. The work has not been presented elsewhere for assessment. The material that has been used from other sources, it has been properly acknowledged/referred.

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Language Correctness Certificate

This thesis has been read by an English expert and is free of typing, syntax, semantic, grammatical and spelling mistakes. Thesis is also according to the format given by the university.

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Copyright Statement

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Abstract

This study aims to investigate the role of career guidance and counseling services in career decision-making difficulties of university students. Career guidance and counseling services facilitate individuals in career choice, vocational training, and decision-making process and in career development at any phases of life. Career decision-making difficulties are all the problems and challenges that an individual faces prior to, during and after the career decision-making process. This study was quantitative in nature and compared career decision-making difficulties of undergraduate university students having provision and non-provision of career guidance and counseling services. A comparative research design was employed. Sample of the study was 306 final year undergraduate university students. The sample was selected through simple random sampling from two universities. The assessment measures were Career Decision-making Difficulties Questionnaire (Gati & Saka, 2001) and Career Service Checklist (NACE, 2015). Statistical Package for the Social Sciences (SPSS-XX1) was used to analyze the data. Descriptive statistics (frequencies, kurtosis and skewness) and inferential statistics (*t*-test, one-way analysis of variance and linear regression analysis) were applied to analyze the data. The study findings show that students having non- provision of career guidance and counseling services have high level of career decision-making difficulties as compared to students having non-provision of career guidance and counseling services (t (298) = 4.93). The result also indicated a difference on the subscales, lack of readiness (t (298) = 4.93), lack of information (t (298) = 6.72) and inconsistent information (t (298) = 6.52). Results revealed that career guidance and counseling services were statistically negatively significant predictor of career decision-making difficulties (β= -0.25; p=.000).

Moreover, PCGCS was a statistically significant predictor of CDDQ (β= -0.54; p=0.000). It was found that socio-economic status on the basis of family income *(F (*3,296) =8.43) and parents education (Mother education, *F* (4,295) = 5.57; Father Education, (*F* (4,295) = 9.50) significantly influenced career decision-making difficulties of students. Female students face high level of career decision-making difficulties as compared to male students with *t* (2,298) = 3.41, *p* < .05. Recommendations were made to universities to pay more attention to establish career development centre and hire certified career counselors to mitigate career decision-making difficulties of students.

Keywords: *Career Guidance and Counseling Services, Career Decision-Making, Career Decision-Making Difficulties, Career Services*

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List of Abbreviations

CASVE	Communication, analysis, synthesis, valuing, execution
CDDQ	Career Decision-making Difficulties Questionnaire
CDM	Career Decision-making
CDMD	Career Decision-making Difficulties
CGCS	Career Guidance and Counseling Services
CIP	Cognitive Information Processing
HEC	Higher Education Commission
LL	Lower Limit
M	Mean
NPCGCS	Non-Provision of Career Guidance and Counseling Services
PCGCS	Provision of Career Guidance and Counseling Services
P&NCGCS	Provision and non-provision of Career Guidance and Counseling Services
SD	Standard Deviation
SE	Standard Error
SES	Socio Economic Status
SS	Sum of Squares
UL	Upper Limit

CHAPTER 1

INTRODUCTION

Students perceive career journey as an endless road that leads to several mysterious directions towards an invisible destination. Traditionally, when a college student enters into university and face many challenges like what do you want to be? What is your major course? Many students become overwhelmed by these challenges and find it difficult to search the best career fit (Omari, 2014). At this point, students often think is there any better way to decide a career? What are the factors that are involved in career decision? Few students believe that personal qualities, like interests, aptitudes and value are the key factors of decision-making process.

Practitioners have identified that for an informed career decision, interests and occupation should be aligned that may provide career satisfaction in the future (Soria & Stebleton, 2013). A student who has an interest in math's and enjoys solving mathematical tasks should pursue a math related career like accounting and engineering (Sears & Gordon, 2010). Contrary to the ancient philosophy, congruence of individual interest with a job is not an only factor in career decision-making process (Rashid, 2015). The advent of the post industrial revolution creates a competitive job market that makes career decision a complex and multifaceted task. In the past, it was very common that individuals adopt their family profession e.g. a son of businessman become a businessman. Post industrialization era puts emphasis on skills and knowledge of individuals (Wattles, 2009).

People are living in a digital age, having various occupational paths, availability of various courses, career specializations, various jobs and different type of professional

training (Krumboltz & Levin, 2010). Career decision considered an important element in the social, economic and emotional well-being of individuals so it is essential for individuals to invest efforts on career decision-making (Hartung, 2011). Decision-making is generally considered as a cognitive process. This process takes into account different career options and their alternatives, analyze all the parameters of the selected career options with the intention of selecting one, so as to best fulfill the aims or goals of the decision maker.

Career decision is based on different factors. It is important for a coach or counselor to understand these factors in order to understand the challenges or difficulties that students face while making a career decision (Yates, 2013). Availability of a wide range of career options ; work environment and length of training; uncertainty about the self and labor market; compromises in career decision-making and social barrier either imagined or real are the factors that cause career decision-making difficulties (Kim et al., 2014). Instability in the world of work due to industrial, economical and sociological revolution in the last few decades leading to career decision-making difficulties (Gati, 2013).

Ideal decision makers are those who have awareness of their career decision-making needs and capabilities to make an informed and perfect decision. A deviation from ideal career decision maker model refers to the potential difficulties that impede the process of decision-making. Moreover, career decision-making difficulties (CDMD) are all problems and challenges that an individual face prior to, during and after the career decision making process (Gati, Krausz, & Osipow, 1996).

These difficulties are lack of readiness, lack of information and inconsistent information that individuals might face prior, during or after the career decision-making process. Lack of readiness, further divided into sub-categories of lack of motivation in engaging with career decision-making process, general indecisiveness and dysfunctional myths about the career decision-making process. Lack of information about career decision-making process, self, occupation, and other additional sources for obtaining information. Inconsistent information includes of unreliable information, internal and external conflicts (Gati & Osipow, 2010).

Every student is a responsible agent that contributes in nation building. They are the agents of change who contribute by playing their roles as scientists, engineers, doctors, managers, etc. Many students face difficulties in achieving these roles. The career path is not a linear process. In a techno fast globalized society traditional learning methods are not very sufficient to ensure that university students have skills sets to navigate this multifaceted economic environment. Today's university students may need appropriate programs that integrate academic, industrial employability, technical and career decision-making skills and provide guidance and support to students to achieve their career goals without any difficulties. Unfortunately, university students often have lack of understanding about world of work. They have lack of readiness that leads to lack of career awareness and knowledge **(**Watts & Fretwell, 2004).

Career counseling and guidance have been identified as a significant factor to create productive and efficient young graduates globally. Many institutions of higher education across the globe are actively involved in providing an on campus and automated

academic counseling and guidance to the students that helps them to make a well formed career decision (Talib & Sansgiry, 2012).

Career guidance and counseling defined as formation of information on educational options, labor market, employment opportunities and their availability for individuals at any moment of their lives. Also, individuals can receive professional assistance in crucial areas in order to realize their aspirations, interests, personal traits, qualifications, competencies and abilities to link them with available employment opportunities. Career guidance and counseling services intend to help individuals in decision-making regarding educational issues, career choice, vocational training and career development at any stage of life (OECD, 2004; CICA, 2011). Career guidance and counseling services comprised various activities in which student's level of motivation and initiation of meeting process was considered an essential element. These activities included meeting with a counselor that helps students to get information about choosing major subjects, applying in college or university, educational financial assistance, scholarships, work placements, job shadowing and focus group discussion that prepare them for labor market. These services also included assistance in CV writing, career decision-making process, interviewing skills, labor market information, and career related assessment, job fairs, mentorship, apprenticeship career seminar and workshops, technical and career education program (Post, Borgen, Amundson, & Washburn, 2002; OECD,2004; NACE,2015).

Career guidance and counseling services (CGCS) facilitate students to reduce their career decision-making difficulties. Moreover, career guidance and counseling services at the university level are considered an important avenue that enables students to acquire the potential ability to make a rational career decisions (Gadassi, Gati & Dayan, 2012).

Career centers are established to facilitate university students to reduce career related difficuties. Career practitioners develop career related program, workshops, trainings and maintain a career resources centre that assists students in their career exploration that influence students' career decision-making process (Lichtenstein et al., 2009).

However, a career counselor may have information about CDMD of undergraduate students in order to reduce them. Universities are preparing undergraduate students for the world of work by providing them sufficient exposure to training, career counseling, career talks, internships, placements and job search. These careers related activities are very helpful for students to sharpen their career readiness.

Few university students are aware about career guidance and counseling services offered by career development centre (Gutman & Schoon, 2012).Career guidance and counseling services empower university students to get a clear understanding about their self, attitudes, interests, abilities, ambitions and resources. University students are helped to find out the balance between the dream job and their interest and abilities. These guidance and counseling services, guide them about different entrepreneurial activities, economic situations and opportunities, education, training, advancement in technology for sustainable self-reliance and self-worth that overcome the career decision-making difficulties (Westergaard, 2012).

1.1 Theoretical Framework

The following theories provide a theoretical framework for this study.

- Normative Decision Theory (Edwards, 1961)
- Cognitive Information Processing Approach to Career Decision-making (S ampson, Reardon, Peterson, & Lenz, 2004)

1.1.1. Normative Decision Theory: Normative decision theory was developed by Edwards in 1961. It refers to how decisions should be made. It explains that informed decision is one of the best decisions that helps decision maker to achieve his goals. It assesses a decision by the quality of decision-making process. The core idea of normative decision theory is expected utility. The rational decision maker should select any option with high utility. The perceived gap between decision maker preferences and characteristics of the career alternatives defined the utility of each career option.

The features of career decisions-making include a decision maker, various available career alternatives and comparison and evaluation of different aspects of potential career alternatives. There are four unique features of career decisions making i.e. large number of career alternatives are available (e.g., various occupations, university, major subjects, or possible employment), wide range of information is available for each career alternative, there are different aspects and attributes of career alternatives that should be compared and evaluated in detail, there is an uncertainty about individuals own characteristics and future career alternatives (Gati, 1986). There is not a single difficulty that an individual face while making career decision. Campbell and Cellini (1981) stated four basic components of difficulties, estimated source of difficulties, impact of difficulties, kind of intervention required to reduce career difficulties. Consequently, these findings led Gati, et al. (1996) to develop a taxonomy. The taxonomy comprised of career decision-making difficulties that is a combination of theory and empirical testing with relevance to real life contexts of students pertaining to career decision-making. The CDMD taxonomy classified into three major categories that is a result of undesirable career decisions. This taxonomy also rooted from normative decision theory.

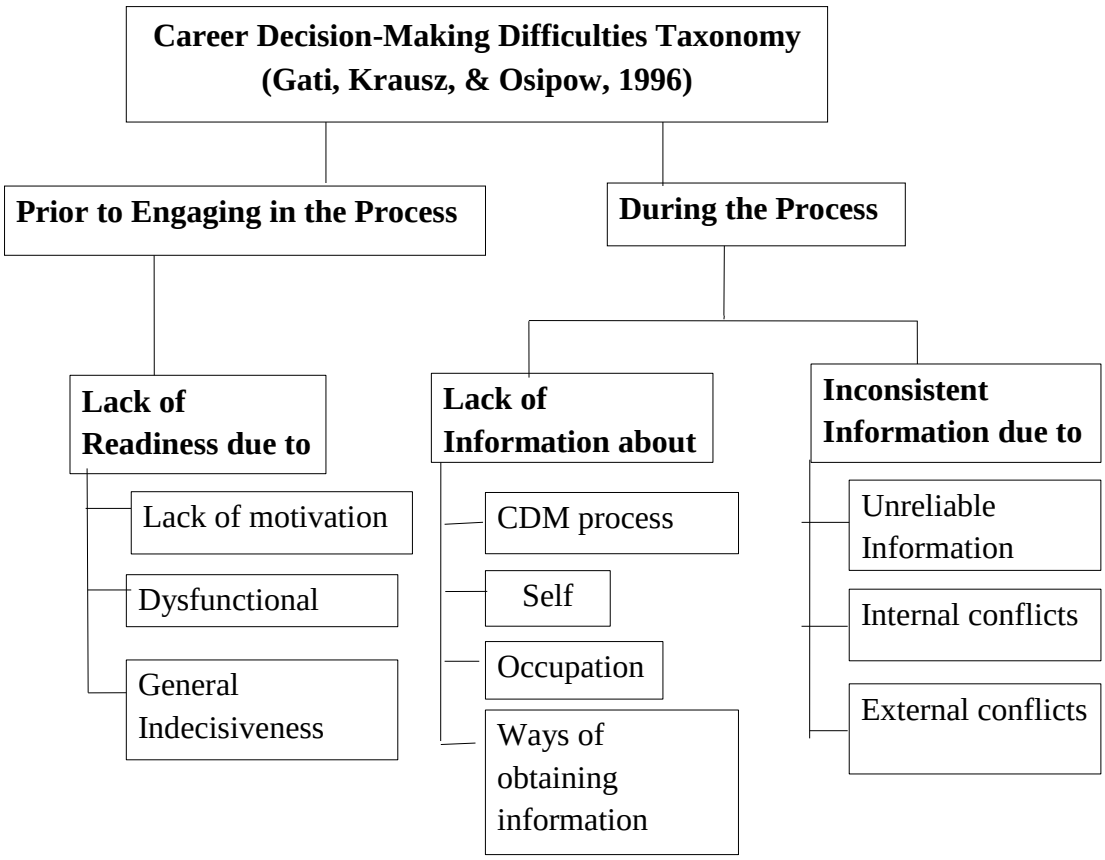

Figure1: Career Decision-Making Difficulties Taxonomy (Gati, Krausz, & Osipow, 1996)

This taxonomy explains three major difficulties that an individual can face while making career decision. They stated for informed career decision a decision maker needs to overcome lack of readiness, lack of information and inconsistent information. They believed that a decision maker should be equipped with different steps of career decision-making process, self, occupation and different ways of obtaining career information. However, career decision-making is not a linear process sometimes a decision maker could have dysfunctional thoughts about specific occupation and felt indecisive to join it

due to inconsistent career information. A decision maker required different skills to overcome career decision-making difficulties (Gati, Krausz, & Osipow, 1996).

1.1.2. Cognitive Information Processing Approach to Career Decision-Making:

Cognitive information processing (CIP) approach to career decision-making was presented by Sampson, Reardon, Peterson and Lenz in 2004. It deals with guidance and counseling services for different population and settings. This approach mainly provides basic tools and skills that are essential for career decisions (Sampson, Reardon, Peterson & Lenz, 2004).

CIP has a pyramid, including three hierarchical tiers i.e. self and occupational knowledge, decision-making process (five information processing skills CASVE i.e. communication, analysis, synthesis, valuing and execution) and executive processing including positive/negative thinking associated with career development process. Students have to achieve all three developmental domains of pyramid for an effective career decision.

Informational process skills CASVE cycle plays an essential role in career decision-making process. CASVE cycle has five steps. Firstly, a 'communication' that involves the ability of students to find out the gap between the current situation (where they are) and future situation (where they would like to go) of career development. Secondly, an 'analysis' that enables students to start thinking about possible career options, career assessment and use of self and occupational knowledge to get information that will help them in making informed career decision. Thirdly, 'synthesis' that refers to narrow down the career options that best fit with the abilities and skills of students. The fourth stage involves 'valuing' that facilitates students to consider the costs and benefits analysis to

choose career option that fits with their personal values. Finally the execution stage refers to the selection of a career that is on the top list of career alternatives. This cycle remains continue until student**s** reach to the one career option (Reardon, Lenz, Sampson, & Peterson, 2006).

When applying CIP to career developmental process, any disturbance in the CASVE cycle may result in reducing individual capability of self-appraisal. This may result in poor assessment and analysis of personal traits, desired career goals, available occupational information leading to career decision-making difficulties. When an individual or a student lacks information about self and occupations, or have redundant or unwanted occupational information, it results in non-readiness towards desired career goals and CDMD.

To conclude, the well-being of an individual demands smooth career transitions during his life span. However, career developmental process is complex and the career transitions are not expected to be smooth and easy. There may exist many difficulties based on personal factors, value set one possesses, educational levels, national and global economic conditions, occupational information and changing trends of the labor market. To encounter these difficulties career counseling and career interventions may be of great help. A professional and well equipped help by any career counselor may result in reducing the obstacles inhibiting the career growth of an individual and help them to make an informed career decision and attain desired career goals.

However, Normative Decision Theory (Edward,1961) and CIP (Sampson, Reardon, Peterson, & Lenz, 2004) provided basis to this study. The construct of CDMD is considered an important indicator for effective career counseling (Masdonati, Massoudi,

& Rossier, 2009;Masdonati, Perdrix, Massoudi, & Rossier, 2014). Initially, individual career counseling considered an effective and important method to deal with CDMD of students that measured through Career Decision-making Difficulties Questionnaire (Gati, Krausz, & Osipow, 1996). The foundation of this questionnaire was Normative Decision Theory (Edward, 1961) and CDMD taxonomy. Individuals are required to find out different tools, techniques, methods and computer-assisted information to make informed career decisions. However, CIP helps an individual to enhance their self and occupational knowledge by different careers services. Moreover, it was conceptualized from both theories that career decision-making difficulties could be overcome by using career guidance and counseling services.

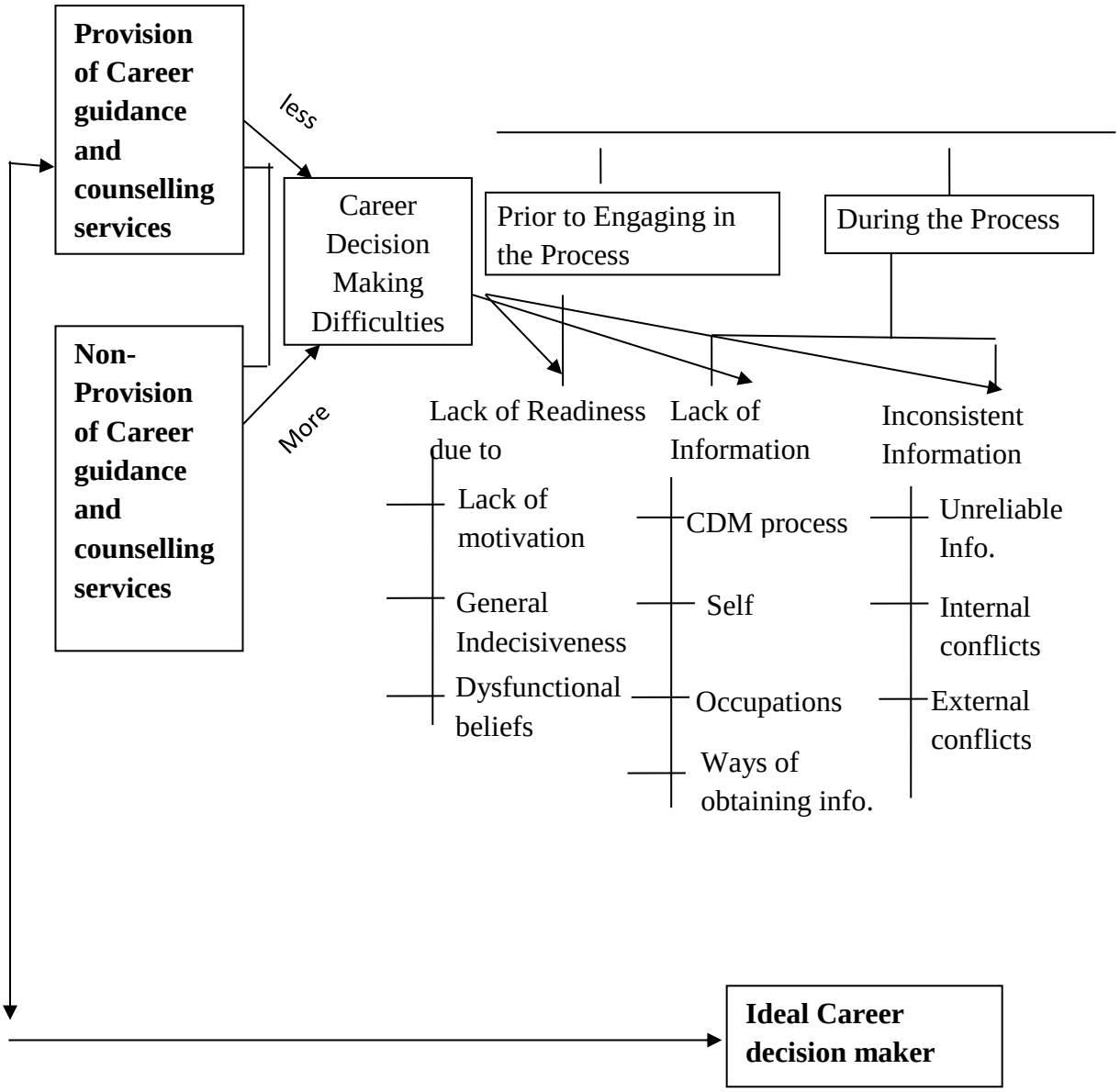

Figure 2: Conceptual Framework of study

1.2 Literature Review

Following is a review of career guidance and counseling and career decision-making difficulties studies that already have been done.

1.2.1 Career Decision-Making Difficulties (CDMD): Vocational psychologists and counselors have devoted much attention to CDMD (Gati, 2013). Career decision-making difficulties sometimes compel student to avoid and slow down the career decision-making process (Lenz, Peterson, Reardon, & Saunders, 2010). CDMD have been studied with various variables including self-efficacy (Sidiropoulou-Dimakakou, Mylonas, Argyropoulou, & Tampouri, 2012), locus of control (Lease, 2004), personality traits (Fabio & Palazzeschi, 2009) and dysfunctional thinking (Sidiropoulou-Dimakakou et al., 2012; Kleiman et al., 2004). The result revealed low levels of self-efficacy was associated with high level of CDMD and dysfunctional thoughts (Sidiropoulou-Dimakakou et al., 2012). Moreover, external locus of control predicted high level of CDMD (Lease, 2004). High level of neuroticism and low levels of extroversion were associated with high level of CDMD (Fabio & Palazzeschi, 2009).

Moreover, CDMD have been associated with increased anxiety that lead to suicide thought and attempts among undergraduate university students (Katz, 2013). First year undergraduate university students faced anxiety about their career concerns, career exploration process, uncertainty about different occupation, self-assessment, unaware about potential abilities, lack of knowledge about the world of work and lack of confidence as compared to final year students. Final year students mostly have crystallized their career options by matching their interests, skills and abilities to labor market (Talib & Tan, 2009**).** Career decision-making difficulties are also studied with

emotional intelligence and personality traits. University students with high emotional intelligence face less career decision-making difficulties in comparison to students with low emotional intelligence (Fabio & Palazzeschi, 2014).

Negative career thoughts cause life stress among university students that leads to career decision-making difficulties. These difficulties, according to CIP framework can be reduced by self-talks and self-awareness, helping the individual to modify their negative career thoughts and assist them in the career decision-making process when they are experience career related stress in their lives (Bullock-Yowell et al., 2011). Vertsberger and Gati (2015) investigated different facets that effect career decision-making of university students. He affirmed university students often have CDMD in the selection of a specific field of study and they are not motivated to take decisions.

Career decision-making difficulties of Hong Kong students were measured. The finding of the study revealed that students had career decision-making difficulties due to lack of career readiness, information and inconsistent information. However, CDMD of Hong Kong students was compared with international studnets of USA, UK, Korea, Italy and Israel. The result of the study revealed students of Hong Kong had a high level of CDMD. They had difficulties in career readiness and consistency of information as compared to students of other countries. However, USA and southeastern students had less career decision-making difficulties as compare to other countries (Leung, 2017)

Career decision-making difficulties have two phases including prior to the beginning process of decision-making and during the career decision-making process.

1.2.1.1 Prior to the Beginning Process of Career Decision-making: University students face lack of career readiness prior to the beginning stage of the career decision-

making process so they have to overcome it for informed career decision-making. Often when students are not ready to make career decisions, it could be due to family influence, less motivation to join traditional occupations, indecisiveness to select among more favorable career or maybe because of developing some negative thoughts related to specific careers (Leung, Hou, Gati, & Li, 2011)**.**

Lack of Readiness: CIP approach (Sampson, Peterson, Reardon & Lenz, 2004) defines career decision-making readiness as individuals' capability to make informed career decisions. Individual personal characteristics, circumstances, self-knowledge, career options, decision-making skills and prior experience of career intervention had an influence on career readiness. The assessment of career readiness assists counselors to provide career related services that are congruent with career decision-making readiness of students (Sampson, McClain, Musch & Reardon, 2013). Galles and Lenz (2013) stated students with low career readiness typically benefit less from career development interventions.

Walker and Peterson (2012) revealed dysfunctional career thoughts leads to career indecision and decision-making difficulties. Students with low readiness often develop dysfunctional thoughts about deciding on particular career that leads to mental health issue among students. Career readiness is also influenced by lack of motivation, indecisiveness and dysfunctional career myths**.** Bullock-Yowell, McConnell and Schedin (2014) stated students who received career related services while making a career decision indicated high level of career readiness. Students feel motivated to decide a career and process rational decision-making steps that will help them reduce indecisiveness and dysfunctional thoughts related to selected career.

Moreover, lack of readiness consists of lack of motivation, general dysfunctional career myths and general indecisiveness. Students need motivation to make an informed career decision; motivation is a force within an individual that initiates a behavior (Britannica, 2012). Students should be self-motivated to explore their desired career, they should have a clear understanding of their own values, goals and career choice (Splaver, 2011).

University students are unwilling to accept their personal responsibility for making their own career decision (Landman, Asulin-Peretz, & Gadassi, 2010). In contrast, students have a lack of motivation to use career related interventions and they are indecisive to make career decisions (Leong, Hardin, & Gupta, 2010). Career indecision is explained as a problem that an individual may experience in career decision-making process (Brown & Rector, 2008) that can be associated with personal characteristics including low self-esteem, high anxiety, low self-efficacy, obsessive compulsive tendencies, neuroticism, perfectionism, and procrastination (Fabio, Palazzeschi, Asulin-Peretz, & Gati, 2013).

Austin, Wagner and Dahl (2003) stated that career indecisiveness could occur due to prejudiced career beliefs and myths, irrational expectations about occupations, which effect an individual's motivation and actions that leads to self-defeating experiences. For instance, students may irrationally attribute facts about their self and over generalize the results of any career assessment. Another student may perceive career options as sufficient or as globally insufficient. These dysfunctional myths create hindrance in career decision-making process and force students to avoid it or transfer the career decision-making responsibility to others. As a result, students experience lack of

satisfaction from their career decisions and develop stress that leads to reduced ability to make career decisions (Krumboltz, 1994). Absence of dysfunctional thoughts benefits students to effectively combine their self-knowledge with occupation (Saunders, Peterson, Sampson & Reardon, 2004).

1.2.1.2 During the Career Decision-making Process: Lack of information and inconsistent information occur during the process of career decision-making. Gati and Levin (2014) explored various career options, uncertainty about the world of work, social and cultural barrier, apprehensions of wrong career decision-making that are few factors that influence career decisions-making of students. In order to make informed career decisions an individual needs to gather essential information about one's own career preferences, abilities, skills, occupational alternatives, education and training to process this information. Individuals face difficulty when they are unable to make a congruent and informed decision. Adeyinka (2011) stated that students must match their career interests with occupations. Khamadi, Bowen and Oladipo (2011) indicated 90% students approached a career counselor in their final educational year that was too late to match their career preferences with their personal characteristics.

***Lack of information*:** Lack of information about self, occupation, career decision making process and way of obtaining career information occur during the career decision-making process. Talib and Tan (2009) identified lack of knowledge about self, occupation, education and career alternative are few difficulties that individuals might face while making career decision. Malaysian students were not ready to take career due to lack of career information (Tan, 2009).

Rogers, Creed, and Praskova (2016) explored career decision-making was often influenced by the degree of level of confidence and occupational information of an individual while making career decision. Gati, Amir and Landman (2010) revealed the perception of career counselors about the severity of CDMD. Career counselor**s** perceived internal or emotional factors cause more severe difficulties in decision-making process than external or cognitive factors.

A study by Manpower Group (2012) revealed that many university students reported lack of information about labor market and do not consider their personal attributes while making career decision. They do not process career-related information in school and college to decide realistic career path**s**. Students also have lack of networks, lack of additional information sources, skills mismatch, lack of information about job opportunities, training and difficulties in handling labor market pressure. Students also have lack of relevant workplace skills because of theoretical knowledge that did not prepare them to face real time job difficulties. The reason behind this is the prevalence of weak academia- industrial linkages.

Inconsistent information: Inconsistent information occurs during the process of career decision-making and consists of unreliable information, internal and external conflicts. Abdullah and Othman (2009) indicated that some students do not initiate to search real career options until after graduation. Before graduation, many students have not explored all career options to make informed career decision. Parents, teachers, career professionals, counselor and mentors facilitate students to make a comprehensive career plan or outline. They usually process unreliable and contradicted information about one's own self and possible careers.

Hewitt (2010) stated the importance of internal and external factors in career decision-making. He contends that collected information about a career can be influenced by internal or external factors that ruin the consistency of information. He said that internal conflict creates confusion between self-values and career characteristics. On the other hand, external conflicts occur when other concerned people give a contradictory view about selected career. He argues many students decide a career that is preferred by their parents while others follow their own career passions and interests regardless of whether they will achieve it or not and a few decide career that has a promising income. Additionally, engineering students are influenced by internal and external factors. Career decisions of female students are influenced by external factors and male students are influenced by internal factors (Gokuladas, 2010).

Amani (2016) examined the reasons of university students of Tanzania for selecting and joining particular occupation after completion of study. Incongruence was found between career choice and intentions of joining same profession. Internal factors were more associated with the intentions of students to join their potential careers than external factor. Students selecting their university degree program on the basis of self and occupational knowledge are likely to select those fields of study providing contentment in their future career. Lack of CGCS affect the career decision of students of joining higher education.

Amani (2014) affirmed career motivation of undergraduate students is mostly influenced by external factors. After the completion of studies, undergraduate students are less likely to join their career of interest. The major reason behind the CDMD difficulties is the lack of career guidance and counseling services in universities. Most of

the times universities do not provide career guidance and counseling services and sometimes university students are unaware about it. Students have lack of information that creates hindrance in making career decisions according to labor market. Students have less knowledge about their own potential abilities, employer expectations and employability skills that lead to a wrong career decision or encountered career decision-making difficulties. Career guidance and counseling services help students in career decision-making process.

1.2.2 Career Decision-making Difficulties in Pakistani Context: In Pakistan graduate and undergraduate students face problems when deciding about a particular field of study to pursue their career in. Dogar, Azeem, Majoka, Mehmood and Latif (2011) assessed the need of career guidance and counseling in Pakistan. They revealed that students were worried about the future career paths because of having limited career information. Students have information about traditional career including engineering, medical and management. They affirmed that the reason behind that they have lack of career guidance system that makes them restricted to same traditional careers. However, findings of the study also revealed a high need of vocational guidance.

Undergraduate university students of engineering often decide their postgraduate plans without self and occupational knowledge. They need career counseling to decide an area of specialization according to their interest, abilities and skills in engineering related careers. 82% undergraduate university students of Management Sciences reported that they need career counseling for choosing a particular field of study as well as it assists them to deal with CDMD (Chandio et al., 2010).

In addition, only 34% students received career counseling at school level and majority of them were from private schools. Majority of students have less information regarding new career advancement and decide their career at university level. 71% students did not receive proper career counseling and indicating inconsistencies between interests and occupation of students. University students were unsatisfied with their career choice and shifted their career path. 87% participants of the study said career guidance and counseling are very helpful in career and vocational choice (Ali & Waheed, 2017).

Moreover, Khan, Khan, Siraj and Hijazi (2011) stated that 68% students decided their career at university and unaware about study programs, its objectives, labor market trends, information regarding industries before joining the university. Ali and Shah (2012) investigated CDMD, environmental mastery and self-esteem among Pakistani students. They revealed that students mostly face difficulty in the career selection process because of parents' pressure and their own personal preferences. Students face difficulty in adjusting in existing environment that leads to low self-esteem.

Kamran and Khalidi (2011) revealed that management students mostly select their career options under the influence of family and peers. Lack of career counseling created a situation in which mostly management students selected their careers unsuited with their interest and aptitudes. The university did not promote all study programs in well manner and students were unaware about it. This is why students were not able to select desired career option. It was suggested that universities should introduced career counseling program that will help students in making informed career-decisions.

Career decision-making of postgraduate students mostly influences by parents specifically fathers within families. Various factors like family support, lack of career guidance and counseling, lack of self and occupational knowledge, lack of knowledge about the labor market trends. Female students are more depended on their families to make their career decisions as compare to male students (Zubair, 2012).

1.2.3 Career guidance and counseling services (CGCS)

In order to reduce CDMD, university students often seek career counseling services. If CDMD of students are not efficiently dealt that eventually leads to the inability to make optimal career decisions (Drake, 2011). Career guidance and counseling services (CGCS) are important for effective career decision-making process. This process consists of guidance and counseling about occupational and self-knowledge including abilities, values, skills, aptitude, and knowledge about the world of work including job information, employability skills and potential career options. Few universities are exercising career guidance and counseling services at a very initial level. Lack of self-awareness, lack of professional career counselors, lack of policy regarding career guidance and counseling services are the major hindrance in the provision of CGCS at the university level (Lam & Santos, 2017).

Sang (2015) investigated the influence of career services on undergraduate university students of the United States. A significant impact of career services on career decision of students was found as those who received career services were persistent on their career decision as compared to those university students who did not receive career services.

Additionally, Amani and Sima (2015) explored the status of provision of CGCS in universities students of Tanzania. The study revealed that knowledge of self and

occupation, job opportunities, requirement and preparation of world of work were requirements of students. However, lack of self-awareness, and counseling services were barriers that cause career decision-making difficulties.

Obis (2015) find out the effectiveness of career counseling for undergraduate university students who were facing career indecision. Students who received career related interventions had significant less career indecision, career instability, uncertainty about finding employment opportunities and insecurity about finance. However, continuous career intervention provided to students showed a decrease in career indecision, anxiety, career uncertainty, and career insecurity. No significant difference was found in the control group. Individual career counseling also helped students to reduce their career indecision**.**

University students who had received career counseling were compared with those students who did not receive career counseling. CDMD were significantly decreased among students who had received career counseling than those students who did not receive it (Masdonati, Massoudi & Rossier, 2009). Moreover, in a follow-up study it was revealed that after 12 month of career counseling session, career decision-making difficulties of university students were significantly decreased (Perdrix, Stauffer, Masdonati, Massoudi, & Rossier, 2012).

Maingi (2007) investigated certainty in career choice among university students of Kenya. The finding of the study revealed while making a career decision most university students reported lack of self and occupational knowledge. University students who had received career guidance reported that they were more confident about their career decision. In addition, they have more clarity about their interests, potentials, abilities,

skills, possess high occupational information and more satisfied with their career development than those students who did not receive career guidance. A study revealed very few students received career guidance in primary school. 50% students received career guidance in High school and 30% in University. Male students were more certain of their career decision than female student. However, female students considered a career choice important, but they had lack of self and occupational knowledge as compared to the male students. Numbers of university students were indecisive. Fourth year university students had low career uncertainty than third year students.

Lack of information and inconsistent information was considered one of the strongest discriminator between provision and non-provision of career guidance and counseling services (Zagoričnik, 2010). Mazaheri (2009) stated career counselors often have limited information about the factors that influence career indecision. Undecided university students have lack of career services that resulted in career indecision.

Career counseling services in university has a significant role in supporting undecided students by executing career counseling interventions and activities according to their needs (Mojgan, Kadir, Noah, & Hassan, 2013). In Nigeria Lasode, Lawal and Ofodile (2017) explored need, awareness, perception and use of career guidance and counseling services of university students. The results revealed 91.1% of university students had an awareness of career guidance and counseling services and 74.6% were using it. However, students reported that career services were very helpful for them in solving academic, personal, social and career issues. Moreover, 93.6% university students were benefited from the career orientation session. The need of career guidance and counseling was different across the disciplines. However, the study revealed that guidance and

counseling services assist university students to cultivate those competencies that are needed to reduce career, academic and personal difficulties.

Nyaga, Oundo and Kamoyo (2014) investigated the effect of guidance and counseling services on development of academic competencies of university students in public and private universities of Kenya. The findings of the study indicated that private university students had better academic competence than students of public universities. However, no gender differences were found in effectiveness of guidance and counseling services on students' development of academic competence in private and public universities.

Few students know about career development centre**s** and use career-related services. The common services used by students were resume review, on campus job fair**s** and job preparation related workshops. Students had lack of information about other career services that's why they did not use it (Fouad et al., 2008). Mann, Kashefpakdel, Rehill, and Huddleston. (2017) reported that 60% of British students aged 19–24 utilized career service of CV review, university application writing and assistance in job interview. However, female students were more interested in these two career services than male students. YouGov (2010) reported that 44% students had taken part in CV writing workshops and 24% in mock interviews. However, students from urban areas utilized CV workshop and mock interviews more than students belongs to rural area. Thomas (2013) found that who had taken part in a mock interview session were able to articulate their skills and achievements with greater clarity as compare to those students who did not attend mock interview session.

Moreover, Damian et al., (2015) found that students who had been engaged in mock interview sessions were found to perform better in job interview led by experienced

professionals as compared to those students who did not utilize it. In longitudinal study Izzo et al., (2000) investigated the impact of career related program on US students with learning disabilities of differing severities. The result of the study indicated 60% of students attend mock interview sessions. However, 95% students took part in employability and career development sessions. Moreover, students who had participated in career related programs had the more employment chance and significantly higher earnings within five years than those students who had not participated.

Furthermore, labor market information is a very important career service for universities and students. Employer visits in universities enhance the labor market information among university students. It also bridges the gap between industry and academia (Watts, 2009). Career services including career guidance interviews, counseling activities, employability skills training enhances skills and abilities of students to enter in labor market without any difficulty .Employability of university students can be enhanced by career guidance and counseling. Career services facilitate university students in the decision-making process and employment search (Martinez-Pellicer, Llamas-Botia, & Garcia-Palma, 2014). Reddan and Rauchle (2012) investigated the perception of students about career development learning. The finding of the study revealed career education workshops helped students to develop better understanding of employability skills, assisted them in resume writing, preparing for job, labor market information, guidance for career-decision-making and career planning. Students use internet as self-help tool to gain information about careers (Klaphake, 2015).

Career fairs are one of the vital career services that facilitate students to learn about industry or company and exploration of job opportunities. Career development centers

provide internship search, is a preparation facility and prepare database of interns. Internship provides hands on experience of workplace (Schaub, 2012). These experiences better prepare students for their next career stage. Career guidance and counseling services help students to pursue further education after bachelor's degree including preparation of university application process, scholarships information, financial assistance and informational fairs of educational programs of universities. These open door fairs help students to get knowledge to make informed career decisions for further education and fuel their confidence to step in higher education (Diepenbrock & Gibson, 2012).

In Australia self-help information, individual and group counseling considered integral part of career services (Smith et al., 2009). Career counseling was the top resource offered and utilized by university students. Career counseling facilitates students with career assessment that help them to identify their career goals. Many students face difficulty in career decision-making due to lack of confidence that leads to the apprehensions of not excelling in particular industry and environment (McGrath ,2002). A study investigated the need of career counseling among undergraduate university students. The result revealed that 52% students were unaware about the usefulness of career related services. Only 42% students considered career counseling services imported factors for academic, social and vocational development (Cojocariu, 2015).

Brown & Rector (2008) reported one to one career counseling is considered most effective career services for students because it can be tailored according to the need of students. Individual career counseling also helps counselors to deal with career related difficulties of university students that occur during the process of career decision-making.

Group career counseling has an influence on the career decision-making abilities of students. Students who received group career counseling had increased their career decision-making abilities and faced CDMD than those who did not receive counseling services (Rowell, Mobley, Kemer, & Giordano, 2014).

Essig and Kelly (2013) investigated the effectiveness of career assessment feedback in decreasing career indecision of university students. Therapeutic assessment and information giving model were compared. The result indicated that individualized feedbacks on career decision can facilitate students to feel confident on selected career options actually fit with their career preferences. However, the feedback of counselor can assist students in formation of a more cohesive sense of self and reduce career indecision.

Overall, career guidance and counseling services like assistance in CV and cover letter writing, assistance in employability skills and job interview, assistance in career decision making process, university application process, career fairs, seminars, workshops, individual and group career counseling help university students to reduce their career decision-making difficulties and take informed transition from academia to academia or academia to industry.

1.2.3.1 Impact of Career Guidance and Counseling Services on Career Decision-Making Difficulties: Career guidance and counseling services including career information, counseling, assessment, career courses, application process etc creates impact on career decision-making of students. Career guidance and counseling services prepare students to assume their responsibilities to make informed career decisions (Kauchak, 2011).

Career counselors or practitioners assist students to make an informed occupational decision, assistance in career planning, provide career information and manage their career. Career counselors provides career development services including career education, career counseling, career coaching, trainings, workshops, internships, job placements, cover and resume writing, career planning, and administration of career test, job hunting strategies and employment services (NACE, 2014, pp. 5-27).

Fouad et al., (2006) examined needs, awareness and usage of career services among university students. The result indicated that those students who had career decisions-making difficulties needs career services to reduce it. The findings of the study also revealed that those students who had CDMD also had high level of psychological distress and low level of psychological well-being. Number of university students had an awareness of career services but few students had used career related services. Students had career decision-making difficulties including lack of readiness, information and inconsistent information. Students were aware of job fair and internships because these services were widely advertised by the career centre. However, students are less aware about career related workshops, seminars, job search and resume assistance.

Vanessa, Freeman, Lenz, Robert and Reardon (2017) investigated the positive impact of career courses on the career decision state of undergraduate students. The findings of the study indicated career courses had a positive influence on the abilities of students to steer the process of career decision-making, particularly increasing their career decision certainty. Students having low motivation and negative career thoughts experience CDMD and were not satisfied with their career decision. However, after the completion of career related courses, university undergraduate students reported a high level of

satisfaction with their career decision and low level of negative career thinking. Moreover, career courses facilitated university students to become more motivated and focused on their career plans.

Birle, Bonchis, Roman, and Crisan (2012) investigated the effect of career development training on CDMD of students. In experimental study ten weeks training on career decision-making was provided to students. The findings indicated that a significant difference of CDMD was found before and after training. Initially, students were facing lack of information and lack of inconsistent information that was reduced by training. Career development programs helping students to reduce their CDMD.

Jain (2017) investigated the impact of career guidance and counseling on the career development of university students and revealed that career guidance and counseling has significant impact on career development of students. The results also shows that engineers, managers, doctors, chartered accountants, architects, interior decorators, dress designers, teachers and lawyers are impacted by career guidance and counseling as they took a career decision after consulting career counselor. However, those students who received career guidance and counseling before joining their career were more satisfied as compared to those who did not receive career guidance and counseling.

Morey, Harvey, Williams, Saldana, and Mena, (2013) examined the impact of career counseling among graduates. Students reported they have lack of information and networking opportunities with employers. They also stated employers were less willing to participate in career fairs at universities that lead to networking difficulties.

Milot-Lapointe, Savard and LeCorff (2018) explored impact of career intervention on CDMD and working alliance of university students. The findings of this study indicated

that career intervention, individualized advices on career decision, information related to occupations and career option and dealing with career obstacles reduced CDMD of students.

Downing (2011) investigated the impact of the career planning seminar on the perception of career barriers, career decision self-efficacy and CDMD of university students. He revealed career related seminars were effective for students in order to decrease their perception of career barriers. It's also lower down the career decision-making difficulties, but did not raise career decision-making self-efficacy. Career related seminars lower lack of readiness, lack of motivation and lack of mentor role.

Beka and Nikoceviq (2011) investigated the impact of career services in preparing students for labor market. The findings of the study revealed that preparation of university students for labor market assists students to gain knowledge about self and occupation that help them to enter into the labor market without any difficulties. Students are not prepared for labor market because of lack of information. The study revealed a high need of career development services offered by university including CV and cover letter writing assistance, assistance in job interview, professional training and workshops and employability skills. Effective internship programs can also reduce the difficulties of students**.**

Moreover, needs of career guidance and career counseling programs for students in the university of Romania were explored. In a mix method research students have been asked about their career path, career decisions, personal abilities, competencies, values and career intentions. The result of the study revealed that students had lack of information about job opportunities. Mismatch between career interests and career

selection of students was found due to lack of self-knowledge. University students do not have coherent career plans that lead to career decision-making difficulties (Crisan, Pavelea & Ghimbulut, 2015).

Moreover, university student usually gets career related information from family, friends, internet and career centers. Sometimes wide information gives advantages and sometimes disadvantages to university students because of lack of training for selecting relevant information for making informed career decision. Number of university students did not receive career assistance from career counselor because some of them are uninformed about career development centre and its services. They don't have information that these counseling and guidance services are free of cost and help them to manage their careers paths. University students are less engaged in job search information and face employment related issues. They usually less participate in job fairs and less networking that helps them in labor market. On the other hand, due to low usage of career related services students usually depends on family and friends to help them in career decision-making.

Lugulu and Kipkoech (2011) indicated that CGCS are not planned and organized in universities of Kenya. Absence of career guidance information creates difficulties in career decision-making process. Students' selection of degree program was influenced by external factors than internal factors. However, sometimes graduating students did not utilize career development center for career related information because they gain it from their courses and on campus faculty members. Faculty members influenced the career decision of students (Hutchinson, Hopkins, & Kyriakides, 2015).

1.2.3.3 Influence of Demographic Factor on Career Decision-making Difficulties:

Career decision-making could be influenced by age, socio-economic status, race, ethnicity, locus of control, work salience, and gender (Talib & Tan, 2009). Parents education level and socio economic status play a significant role in career decision-making process of individuals and in shaping their career aspiration (Tagay, 2015; Fuller, 2009). Educations, professions, skills, knowledge, socio-economic status, cultural backgrounds, financial and moral support of parents are considered important factors in decision-making process of students (Noreen & Khalid, 2012). A study has been conducted to find out the factors that affect career plans of undergraduate university students. The result of the study revealed that personal characteristics, economic status, university career development plans were considered most influential factors that help university students to decide their career. Moreover, family and social factors had less influence on career plans of students. A significant difference between factor affecting career plans of university students on the basis of age, gender, career preference was found (Cavus,Geri & Turgunbayeva, 2015).

Socio-economic status (SES): Socioeconomic status is a vital factor for career decision-making (Stebleton, 2009). Education, occupation, income, wealth and place of residence are the indicators of socio-economic status (Aslam et al., 2013). The SES through income was classified into four classes including low, middle, upper middle and high (Nayab, 2011). Financial status influences on the career decision-making process of students as it determine which school, college and university they can attend. It also has an effect on individual's career preferences, values and occupational expectations. Thus,

a family SES effects career decision-making of students but high motivation and career aspiration aid them to accomplish their career goals (Hooley, 2012).

University students from low SES families had low representation in high ranking courses like medicine and Law. They also reported less confidence in their abilities and skills and find it difficult to decide future career (Centre of the study of Higher Education, 2008). Students from low SES families usually have difficulties in adopting a university lifestyle and many choose low prestigious universities because they think they can easily fit in. Greenbank (2008) reported students from low SES family's needs to work for longer duration in order to fulfill their educational expenses than students from high SES families. They focused on getting high profile degree to feel accomplished. They also had lack of knowledge of career related services.

Doyle (2011) identified career needs of Australian university students having low SES. The needs of career development of students belonging to low SES may be similar or different from high SES university students. Low SES students reported lack of knowledge about university application procedures, course expectations, developing employability skills during studies, and career service and career development process of the university. The findings of the study revealed career needs of low SES university students were different from other university students. The differences in career needs occur due to low cultural capital of university education was compared with high SES university students that affect the transition of low SES university students into academia or Industry. Career education, assistance in career planning, latest labor market information and financial assistance strategies were reported to increase the efficiency of career development of low SES university students.

A study investigated career decision-making difficulty of youth on 88 different institutions of India**.** The results revealed students face CDMD including the difficulties of lack of readiness, lack of information and inconsistent information. However, final year students face more difficulties because of inconsistent information. Low, middle, high SES groups face career decision-making difficulties in the area of lack of information and inconsistent information. Low and middle SES groups experience a high level of career decision difficulty because of lack of information, but the low socio-economic group expressed high level of career decision difficulty because of inconsistent information. Female students face more difficulties than male students. In the upper middle SES groups no significant gender difference was found, both express similar levels of difficulties (Nag-Arulmani, 2012).

Leung (2017) stated that students having high SES had low level of career decision-making difficulties. Students having low SES reported a high need for support on their career transitions than students having high SES backgrounds. Male students had high level of career decision-making difficulties than female students. Students having high family income selected subjects with lower entrance difficulties and students having low income selected subjects with higher difficulties in university (Leitao Guedes, Yamamoto & Lopes, 2013).

Parental Education Level**:** Parents Educational background affects educational decisions of students (Splaver, 2011). Parents can influence career decisions of their children at any phase by sharing occupational information through their experiences about particular occupations (Bandura, 1986). In the process of career decision parents' education is considered strongest motivator for students (Jones & Lake, 2005). Educated

parents' can guide their children in career selection process. Students can easily get career related information from their parents. High educational level of parents had an influence on the career decision-making process of students. Fathers' education had more influence on career decision-making of management students (Monica & Kate, 2005).

Davis-Kean (2005) conducted a longitudinal research in America and the results of the study revealed that parents' education had an influence on the career decision of students as parents modify their career decision according to their economic status. Eccles (2007) reported in America educated parents had great knowledge about educational system so they had provided career related information to their children with greater confidence. They also provided opportunities to their children to explore a career for themselves. They also helped their children to develop intrinsic motivation to get career information and pursue their dream career.

In Nigeria students whose parents were from a high educational background did not face much decision-making difficulty as compare to students whose parents were having low educational background (Mbagwu & Ajaegbu, 2016). Mtemeri (2017) investigated different factors that influence choice of career pathways of students of Zimbabwe. The result of the study indicated that family members had an influence on the career decision of university students. The influence of parents was rated high as compared to other family members. Career guidance activities like career days, geographical location, peer advice and encouragement had positive impact on careers decision of students. Gender did not influence the career decision of students. Parents' education level and SES effects the career selection of individuals. Father's occupation and educational level have

significant impact on career decision-making of female students then than the mother (Saleem, Mian, Saleem, & Rao, 2014).

Educated parents used to encourage their children to take career decision. Few educated parents wanted their children to pursue same career as well. Conversely, parents who are not satisfied with their own career decision may steer their children towards a different career path (Galotti et al., 2006). Many students had pressure from their parents to pursue particular majors that were aligned with their careers, which seem more stable and may yield a high income (Bullock-Yowell et al., 2014).

A study has been conducted in Kenya investigating factors that have an influence on career decision of undergraduate university students. The results indicated that career, education and advice of parents and family members, siblings and uncles/aunties had an influence on career decision-making of students. The pressure of family member had less influence of career decision of students. A study also revealed 77% students were not stratified with their selected career and wanted to change it (Koech et al., 2016). Mau, Ellsworth and Hawley (2008) pointed out the background of the family had a dynamic role in CDM of students. The findings revealed that number of graduate students selected teaching as a profession because their father or mother belongs to same teaching background.

Leung, Hou, Gati and Li (2011) reported in Asian families career choice was not separated from relationship issues. Also, cultural values were associated with a high level of CDMD among Asian university students. Parental expectations had an influence on career decision-making and career development of students. Shamloo (2010) stated career decision-making is a complicated task of university students. In Asian culture

students rely on others for career decision. Students are not independent while making career decision as they have family pressure.

***Gender*:** Javed and Tariq (2016) investigated CDMD of students affected by self-efficacy and self-esteem. Significant gender difference in CDMD and self-efficacy was found. Female students had a high level of CDMD as compared to male students. Students of private educational institutions reported less CDMD as compared to students of government educational institutes. However, no significant difference of self-esteem was found on the basis of gender and educational institutions.

Furthermore, CDMD on the basis of cultural and gender among university students. The results revealed no significant cultural difference in CDMD of the students. However, Chinese students had a high level of lack of readiness as compared to British students(Zhou & Santos, 2007).

British female students reported high level of CDMD as compared to male students. British male students were more ready in making career decisions than female students. British female students face high level of lack of readiness and less motivated to decide career paths due to dysfunctional thoughts and became indecisive about their career paths than male students. British female students reported high level of lack of information about career decision-making process and different ways of obtaining career information as compared to male students. British female students process high level of inconsistent information,unreliable information and external conflicts than male students. British male students had low level of lack of readiness as compare to Chinese male students. Chinese female and British females were more decisive as compared to male students (Zhou & Santos, 2008).

In Malaysia, female students reported low career readiness, indecisiveness and high need for career information than male students (Tan, 2009). Bacanlı (2012) stated that female students reported lower CDMD than male students. In addition, Esici and Ozunlu (2013) revealed female students had less level of CDMD (lack of readiness, lack of information and inconsistent information) than male students.

Overall, students belonging to Eastern and Western had CDMD, but the level of difficulties may vary due to career guidance and counseling services. As undergraduate university students of China had high level of CDMD including lack of career readiness and inconsistent information as compared to students of US,UK, Italy and Korea (Leung, 2017). Israel students had lack of motivation (Vertsberger & Gati, 2015), Asian American had lack of information and American students had lack of readiness (Leong, Hardin, Gupta, 2010). Turkish students had lack of information and inconsistent information (zagoricnik, 2010). USA students were having lack of readiness including lack of motivation and less dysfunctional career thoughts (Vanessa et al., 2017; Bullock-Yowell et al., 2011; Walker, Peterson, 2012). Lack of self and occupation knowledge in Romania (Crisan,Pavelea & Ghimbulut, 2015), Pakistan (Dogar et al., 2011; khan et al., 2011), Southeastern Europe (Beka & Nikoceviq, 2011) and in Kenya (Maingi,2007) was found. Students had a lack of inconsistent information including internal and external conflicts in India (Gokuladas, 2010), Kenya (Lugulu & Kipkoech, 2011), Malaysia (Tan,2009) was found.

The literature revealed that students in UK, USA, Italy, Southern eastern, America had more career- related information including labor market information and awareness about the nature of careers and had less level of lack of information as compared to

students of Tanzania, Romania, Israel, India, Pakistan, Turkey and Kenya. Overall, the literature review indicated that students from western countries had less level of career decision-making difficulties when compare to students of eastern countries.

However, undergraduate students who had received career counseling reported less level of CDMD as compare to those students who did not receive it in US (Sang, 2015; Bullock-Yowell, McConnell & Schedin, 2014)), Southeast Nigeria (obis, 2015), Switzerland (Perdrix, Stauffer, Masdonati, Massoudi, & Rossier, 2012; Kenya (Maingi, 2007); (Masdonati, Massoudi & Rossier, 2009), Iran Mazaheri (2009).

Moreover, students having low family income had high level of CDMD in India (Nag-Arulmani, 2012), Pakistan (Aslam et al, 2013), (Hooley, 2012), lack of knowledge about self and occupation and high need of career decision-making support in Australia (Doyle, 2011)**,** high entrance difficulties in Brazil (Leitao Guedes, Yamamoto & Lopes, 2013) and selection of major subject in China (Leung, 2017) and USA (Stebleton, 2009) was found.

Students whose parents having low educational background face more career decision-making difficulties as compare to students whose parents were having high educational background in Nigeria (Mbagwu & Ajaegbu,2016), Zimbabwe (Mtemeri, 2017); USA (Bullock-Yowell et al., 2014); Mau, Ellsworth and Hawley (2008), Kenya (Koech et al., 2016), China (Leung, Hou, Gati & Li, 2011) and Iran (Shamloo, 2010).

Literature revealed no gender difference in CDMD was found in Nigeria (Mbagwu & Ajaegbu, 2016), Zimbabwe (Mtemeri, 2017), Kenya (Nyaga, Oundo and Kamoyo ,2014), Turkey (Cavus,Geri & Turgunbayeva, 2015). Moreover, female students have high level

of CDMD as compared to male students in Pakistan (Javed & Tariq, 2016), British and China **(**2018), India (Nag-Arulmani, 2012) and China (Leung, 2017).

1.3 Problem Statement and Justification of the Research

Rapid and swift globalization, advancement in technology and fluctuating work place practices demands an efficient competence to make an inform career decision. Escalating work place demands has also given rise to improved and increased career choices, dynamic courses offered after high school, and increased tertiary educational and vocational prospects, career decision-making process multifaceted and intricate, and by itself, more challenging and crucial for the students. Eventually, expectations from personal career choices have changed. Individuals expect both financial security and fulfilling self-identity from their career choices. The complexity and intricacy in CDM process has given rise to CDMD. Majority of the students lack self and occupational knowledge, in addition to experience, to make an informed career decision (Zaman, Choudhary, & Butt, 2014). Consequently, increased dropout rates are reported by the academia. For those, who retain in universities with CDMD, increases the likeliness of having poor grades, adjustment issues on campus and psychological stress. Also, studies reveal that mismatch between individual skills or knowledge to their selected jobs is reported by the employers and the industry (Khosrozadeh, McGinnis, Schnusenberg, & Jones, 2013).

This may result in dissatisfaction pertinent to occupational choice and career uncertainty. This reported career dissatisfaction gives rise to the need of addressing CDMD in university students when on campus and while transiting from academia to industry. The reasons of CDMD could be adolescents do not get the help in gaining the

essential skills for managing their career development efficiently (Mortimer et al., 2002). In particular, providing career guidance and counseling facilitates students to decisively reflect regarding utilization of personal skills and academic qualifications in concord to their career choices. Additionally, career counseling services aids in determining the individual readiness, career certainty, and level of satisfaction of the desired career goals (Varalakshmi & Moly, 2009).

Career decision-making has been studied with various variables like career salience (Hussain & Rafique, 2013), career decision style and self-regulation (Hayee, 2009), career decision-making and emotional intelligence (Afzal, Atta, & Shuja, 2013), career choice, self-awareness, and satisfaction (Uthayakumar, Schimmack, Hartung, & Rogers, 2010). Career decision making largely investigated but difficulties that occur in this process still lacking empirical evidences.

Literature revealed several studies investigated effectiveness of career counseling and career intervention on CDMD individually (Morey, Harvey, Williams, Saldana, and Mena, 2013); (obis, 2015); (Perdrix, Stauffer, Masdonati, Massoudi, & Rossier, 2012); (Downing,2011); (Lam & Santos, 2017); (Lasode, Lawal & Ofodile,2017), but empirical investigation of career guidance and counseling services needed to be explored together. Moreover, Few CGCS were studied with CDMD but career services standards of (NACE,2015) needs to explored together to investigate the impact of career guidance and counseling services on career decision-making difficulties.

In Pakistan, there are 185 public and private universities and having over 1.463 million students including 0.795 million (54%) male and 0.667 million (46%) female students. However, unemployment Rate is 5.90 that are remained unchanged from 2015.

The unemployment rate of youth age ranges from 15- 24 is 10.8% (World Bank, 2017). Over 500,000 graduates are unemployed and only in Islamabad 6,776 graduates are unemployed including 3,819 men and 2,957 women (Shahid, 2018). Moreover, after having graduation degree 50% female and 44% males are looking for job over a year. They considered it difficult to search a job due to lack of job search strategies (Zaidi & Farooq, 2016). 11.3% graduates have irrelevant and 13.8% have slightly related jobs that match with their field of disciplines. Females face job mismatch issues due to labor market discriminations and socio-cultural constraints (Farooq, 2011). 39.10% university students were unsatisfied with their career decision and 26% shifted their career path (Ali & Waheed, 2017).

Moreover, OECD (2014) stated benchmarks to provide career guidance to reduce occupational gender discrimination. Less career related skills, job search and mismatch issues of youth leads to the gap between demand and supply and their inadequate absorption in the labor market. To avoid future socio-economic risks, graduate students needs to have self and occupation information to best utilized their abilities in labor market with greater satisfaction. To overcome unemployment, job mismatch and transitional difficulties it is essential to understand CDMD of university students that give information about prevailing pattern of difficulties in Pakistani context. However, this could be possible by employing career guidance and counseling services. (World Bank, 2017; ILO,2011). It is vital to study the role of career guidance and counseling services in overcoming career decision-making difficulties of university students.

However, Finland, USA, UK and many other developed countries have well developed career development centers at higher education institutions. These centres are

providing career guidance and counseling services to university students and deal with their career concerns and assist them to make informed career decisions (Varalakshmi & Moly 2009). In contrast Watts (2013) stated that less developed countries need more career guidance and counseling services than developed countries.

Likewise, the National Education Policy of Pakistan (2009) puts emphasis on counseling at higher level that should address the career concerns of students and encourage them to match their aptitude with the fields of study. Higher Education Commission of Pakistan demands counseling centers to involve local employers in providing information about employability skills, job openings and requirements of work. The policy puts emphasis on practical exposure of the world of work through job shadowing, internships and placements in order to provide a realistic view about the world of work. However, there is no existing empirical evidence to find out the viability of the policy. No standards of career guidance and counseling are formulated yet. In addition, HEC directed all higher institutes to develop career development centre in universities to meet the career challenges of students.

Despite the fact in Pakistan, career guidance and counseling is considered relatively new and emerging field, few educational institutions are offering career guidance and counseling services to students at university level (Zaman, Choudhary & Butt, 2014). However, out 185 only 45 institutes are providing few career related services (Zaidi & Farooq, 2016). Considering these facts, this study will compare the CDMD of university students on the basis on provision and non-provision of career guidance and counseling services. This study will bridge a gap and provide a comprehensive understanding of career decision-making difficulties of students having provision and non-provision of

career guidance and counseling services. Also, a dire need in Pakistan to identify career decision-making difficulties of students to make comprehensive interventions, strategies and modules of career decision-making to enhance the career decision-making skills of students through career guidance and counseling services.

1.4 Research Questions

Research questions of this study were:

i. Is there any significant difference in career decision-making difficulties among undergraduate university students having provision and non-provision of career guidance and counseling services?

ii. Is there any significant difference on the sub-scale of career decision-making difficulties among undergraduate university students having provision and non-provision of career guidance and counseling services?

iii. Is there any impact of career guidance and counseling services on career decision-making difficulties?

iv. Is there any significant difference in career decisions making difficulties among university students based on socio-economic status (income)?

v. Is there any significant difference in career decisions-making difficulties among university students based on parent's education?

vi. Is there any significant difference in career decisions-making difficulties among university students based on gender?

1.5 Objectives

The objectives of this study were:

i. To compare career decision-making difficulties of undergraduate university students having provision and non-provision of career guidance and counseling services.

ii. To investigate the impact of career guidance and counseling services on career decision-making difficulties of university students.

iii. To compare career decision-making difficulties of undergraduate university students based on their socio-economic status (Income).

iv. To compare career decision-making difficulties of university undergraduate students based on their parents education.

v. To compare career decision-making difficulties of university undergraduate students based on gender.

1.6 Hypotheses

The research hypotheses of the study were;

i. There will be a significant difference in career decision-making difficulties among university students having non-provision and provision career guidance and counseling services (Sang, 2015; Crisan, Pavelea & Ghimbulut,2015).

ii. Students having non-provision of career guidance and counseling services will have high level of lack of readiness than student having provision of career guidance and counseling services (Gati , Amir & Landman, 2010; Amani, 2015; Birle, Bonchis, Roman, & Crisan,2012).

iii. Students having non-provision of career guidance and counseling services will have high level of lack of information than students having provision of career

guidance and counseling services (Amani, 2015; Reardon,2013; Birle, Bonchis, Roman, & Crisan,2012).

iv. Students having non-provision of career guidance and counseling services will have high level of inconsistent information than students having provision of career guidance and counseling services (Amani, 2015; Birle, Bonchis, Roman, & Crisan,2012).

v. There will be a significant impact of career guidance and counseling services on career decision-making difficulties of undergraduate university students (Jain, 2017; Beka & Nikoceviq, 2011; Birle, Bonchis, Roman, & Crisan, 2012; Crisan,Pavelea, & Ghimbulut,2015).

vi. Students having low family income will have high level of career decision-making difficulties than students having high family income (Leung, 2017; Vertsberger & Gati, 2015; Leitao, Guedus, Yamamoto & Lopes, 2013; Nag-Arulmani, 2012; Doyle, 2011).

vii. There will be a significant difference in career decision-making difficulties among undergraduate university students on the basis of parents' education (Koech et al., 2016; Chen & Leiw, 2015; Saleem, Mian, Saleem, & Rao, 2014).

viii. Female students will have a high level of career decision-making difficulties than male students (Mtemeri, 2017; Nayga, Oundo & Komoyo, 2014; Nag-Arulmmani, 2012).

1.7 Significance of the Study

i. The study will inform university administration about the importance of career guidance and counseling services that would help them to appoint career guidance

counselor for university students in order to facilitate them to make informed career decision.

ii. This study will benefit career counselors to understand career decision-making difficulties of university students and devise a program or module on career decision-making skills that will assist students to take informed decisions for the future.

iii. This study will serve to inform Higher Education Commission (HEC) about the development of career guidance and counseling program that will equip university students with different skills that are required to enter in labor market. It also helps curriculum developers to add a chapter in curriculum on career related activities that will assist students to get information about different careers along with their own aptitude, interest, abilities and skills.

iv. This study will help policy makers to gain a better understanding of career guidance and counseling services and reinforce the establishment of career development centers to reduce career decision-making difficulties of university students.

CHAPTER II

METHODOLOGY

2.1 Research Design

This research study was quantitative in nature and investigates career decision-making difficulties among undergraduate university students. Comparative study design was employed (Bloemraad, 2013).

2.2 Population

The target population was 1499 undergraduate final year students of university A and B.

2.2.1 Inclusion Criteria: Initially, list of universities was taken from the website of Higher Education Commission of Pakistan. There are 18 public and private universities of general category in Islamabad. Initially, the websites of the universities were visited in order to identify provision and non-provision of career guidance and counseling services. Alphabetic list of universities having provision and non-provision of career guidance and counseling services was made. 9 out of 18 universities have provision of career guidance and counseling services. Two out of 9 universities have well established career development centers. 7 out of 9 universities have student affairs departments that are providing internship facility only. 9 out of 18 universities did not have provision of career guidance and counseling services. Also, career services checklist (NACE, 2015) was sent to concerning authorities of the universities to in order to identify universities having provision of career guidance and counseling services.

Inclusion criteria of universities;

I. Universities were selected on the basis of availability and non-availability of career guidance and counseling services through the career services checklist (NACE, 2015)

II. University A was selected as it has a well-developed career development centre and providing career guidance and counseling services to students by using career standards (NACE, 2015).

III. The selection of university B was based on non-availability of career development centre and career guidance and counseling services.

IV. Both universities offered spring-fall semesters.

2.3 Sample and Sampling Strategy

All final year undergraduate university students of Computer Sciences (CS), Management Sciences (BBA) and Engineering were selected because these departments were accessible and approachable. An appropriate sample size should lies between 30 and 500 that could be easily generalized (Sekaran, 2003). The sample size was determined by using a Raosoft online sample size calculator (Raosoft, 2004) with margin of error 5%; confidence level 95% that was approximately 306 (20% of 1499) including 156 from university A and 150 from university B.

From university A and B 150 undergraduate final year students of Computer Sciences, Management Sciences and Engineering were selected as 6 students from university A did not return questionnaires. In this study 140 males and 160 females were participated.

2.4 Operational Definitions of the Variables

The operational definitions of variables of the study are given below:

2.4.1 Career Decision-making Difficulties: The score of students on the Career decision-making Difficulties Questionnaire (Gati & Saka, 2001) would determine their difficulty level. High score on the scale revealed high level of career decision-making difficulties among undergraduate university students and vice versa.

2.4.2 Career Guidance and Counseling Services: The score of students on Career Services Checklist would determine provision and non-provision of career guidance and counseling services. High scores indicated the presence of career guidance and counseling services and vice versa.

2.5 Assessment Measures

Following are the measurement instrument that was used in the study;

2.5.1 Career Decision-making Difficulties Questionnaire (CDDQ): Career Decision-making Difficulties Questionnaire (Gati & Saka, 2001) was used for data collection. The questionnaire has likert scale (1=does not describe me well to 9=describe me well). The subscales of questionnaire are lack of readiness, lack of information and inconsistent information that are futher divided into sub-categories. The subcategories of lack of readiness are lack of motivation, indecisiveness, and dysfunctional myths. The subcategories of lack of information are career decision-making process, self, occupations and ways of obtaining information. The subcategories of inconsistent information are unreliable information, internal and external conflicts.

Categories and items of Career Decision Making Questionnaire

Scale	Number of items
Lack of Readiness	
(i) Lack of motivation	1-3
(ii) Indecisiveness	4-6
(iii) Dysfunctional beliefs	8-11
Lack of Information about	
(i) The stages of the CDM process	13-15
(ii) Self	16-19
(iii) Occupation	20-22
(iv) Ways of obtaining additional inform	23-24
Difficulties related to Inconsistent Information	
(i) Unreliable information	25-27
(ii) Internal conflicts	28-32
(iii) External conflicts	33-34
Validity items	7 and 12

It has total 34 items including 10 items in the category of lack of readiness, 12 items of lack of information and 10 items of Inconsistent Information. In the scale item 7 and 12 are validity items. Alpha reliability coefficient of the scale is .91. The concurrent and construct validity of CDDQ (Gati & Saka, 2001) was developed by using the career decision scale (Osipow, Carney, & Barak, 1976) and career decision-making self-efficacy scale (Taylor & Betz, 1983).

The questionnaire has three extra items. 1st item is related to the decidedness of career on a rating scale of Yes or No. 2nd item is related to the level of confidence on decided career ranging from 1=low level of confidence and 9=high level of confidence. 3rd item is given at the end that estimates the overall difficulty in making a decision 1=low level of difficulty and 9=high level of difficulty (Appendix D).

Career Decision Scale (CDS; Osipow, 1987) and CDDQ (Gati & Saka, 2001) were consistently used in previous studies to measure the career indecision and problem that occur in career decision-making process. CDS was intended to identify obstacles of effective career development. It has two sub-scales including Certainty Scale and the Indecision Scale. CDS was not selected because it predicts only behavior of an individual, for example choice of career or not (Hartman & Hartman, 1982). In previous studies the Career Indecision sub-scale of CDS was used as uni-dimensional (Guay, Ratelle, Senecal, Larose, & Deschênes, 2006; Betz & Klein-Voyten, 1997; Constantine, Wallace, & Kindaichi, 2005). The reason of selecting CDDQ was its multi-dimensional nature as it has three sub-scales (lack of readiness, lack of information and inconsistent information) along 10 difficulty categories.

Moreover, the differential effectiveness of CDDQ is apparent as it allows the individual to find out the alternative explanations about CDMD which may have been raised due to uni-dimensional limits of CDS. The CDS yields single score of career indecision of individuals. CDDQ particular focuses on individual's overall scores of career decision-making difficulties. Another rationale behind the selection of CDDQ was its theoretical underpinning as it was developed by using normative decision theory and the career decision-making difficulties taxonomy.

In the previous studies the validity of taxonomy and questionnaire has been empirically tested and supported (Creed & Yin, 2006; Gati et al., 1996; Lancaster, Rudolph, Perkins, & Patten, 1999; Gati, Osipow, Krausz, & Saka, 2000; Kelly & Lee, 2002; Mau, 2001; Osipow & Gati, 1998; Vahedi, Farrokhi, Mahdavi, & Moradi, 2012Tien, 2005).

However, face validity of scale was established through expert panel. There were no concerned expressed regarding language clarity, readability and cultural relevance of CDDQ scale. Therefore, scale was used without any modification.

2.5.2 Career Services Checklist (CSC): Career Services Checklist (CSC) was developed on the basis of career standards for university students (NACE, 2015).These indicators measure the provision and non-provision of career guidance and counseling services. It has dichotomous options (Yes, No). Participants were asked to respond yes if they have received services otherwise no. The responses were coded as yes =1 and No =0 (Appendix E).

Experts and career counselors were approached in order to establish face validity of checklist (Appendix A). The panel provided feedback on the feasibility, language clarity, readability and cultural relevance of scales. Suggestions of panel member were considered and incorporated (Devilles, 2012). This process helped in determining whether the checklist was appropriate for selected population. Pilot testing was done in order to check the relevance of these items for the main study.

2.5.3 Demographic Information Sheet: Demographic information sheet includes age, gender, parents' education level, family income and question related to availability of provision of career guidance and counseling services in university (Appendix D). The quintiles of family income were taken from Household Integrated Economic Surveys (2015-2016).

2.6 Pilot-Testing

Pilot testing is tryout of large study. The number of participants for pilot testing should be 10% of the total sample of large study (Connelly, 2008). In this study pilot testing helped out in order to understand the potential difficulties of conducting research. Pilot testing was done on 36 undergraduate university students. 18 students from each university (A and B) and 6 from each program (Management Sciences, Computer Sciences and Engineering) were taken in pilot testing.

2.7 Procedure

Initially, permission of research was taken from the university administration (Appendix E). Two universities were visited for the data collection with the permission of concerning chairmen of the departments. Participants were informed about the purpose, nature and objectives of research. Written informed consent was taken from participants. Questionnaire was distributed among students with pertinent instructions and confidentiality was ensured. Half an hour was given for the completion of questionnaire. Queries of students were answered.

2.8 Ethical Consideration

Research ethics were followed while conducting a research. Each participant of the study was provided with a research consent form that was prerequisite of data collection.

This consent form comprised of purpose of study and right to participate in the study. In order to maintain the privacy names of participants were not asked. Data was handled with utmost confidentiality. Participants were identified on the basis of institutions and discipline. Digital file was generated by using SPSS and were kept confidential and password protected.

2.9 Data Analysis

Data analysis was started after establishing reliability and validity of questionnaires. Three steps including screening, coding and entering of data into analysis packages was done (Kent, 2001). Data screening was done to evaluate completeness of the filled questionnaires. Out of 306 only 6 questionnaires were not returned and not added into the main analysis because it is less than 5% of sample size as suggested by (Dong & Peng, 2013). In total, 300 questionnaires were considered valid for further analysis and coded and entered into Statistical Package for Social Sciences (XXIII).

Moreover, SPSS files were crossed checked before conducting main analysis to ensure accuracy of entered data. The collected data was tabulated and analyzed. Normality of the data was checked through histogram. *t*- test, linear regression analysis and one way analysis of variance was used for statistical analysis. *t*-test was used to measure the differences of career decision-making difficulties among students having P&NPCGCS (Kanji, 2006). Linear regression analysis was used to measure the impact of career guidance and counseling services on career decision-making difficulties. One-way analysis of variance (ANOVA) was used to measure CDMD on the basis of SES (income) and parents' education (Pagano, 2012).

CHAPTER III

RESULTS AND INTERPRETATION

3.1 Pilot Testing Results

In pilot testing (n=36), reliability was established through Cronbach's alpha coefficient and item-total correlation (Zailinawati, Schattner, & Mazza, 2006). It was suggested that if the value of item is 0.30 then it lies in acceptable range, but for the larger sample size 0.20 value of item correlation also accepted to be reliable. It was suggested that if the value of total item correlation is less than 0.2, it should be deleted before reliability analysis. All items of CDDQ (Appendix B) and CSC (Appendix C) were retained as the values of all items were above 0.20 (Field, 2014). The participants of the pilot testing were not added in the analysis of main study.

3.1.1 Reliability of the Instrument

The Cronbach's alpha coefficient of CDDQ was .92 (Appendix B) and was considered a high reliability. Cronbach's alpha coefficient of CSC was .89 (Appendix C).

3.2 Descriptive Statistics

Table 1

Mean, standard deviation, skewness and kurtosis of all the variables (N = 300)

Variables			*Skewness*		*Kurtosis*	
	M	*SD*	*Statistic*	*SE*	*Statistic*	*SE*
Lack of Readiness	17.17	3.84	-.498	.141	1.051	.281
Lack of Information	13.81	5.36	-.362	.141	-.476	.281
Inconsistent Information	15.21	5.87	-.304	.141	-.525	.281
CDDQ	15.24	4.38	-.470	.141	-.028	.281
CSC	9.24	6.20	.300	.141	-1.092	.281

Note: CDDQ = Career decision-making difficulties questionnaire, SD= standard deviation, SE=standard error

Table 1 illustrates the estimations of mean, standard deviation, skewness and kurtosis of the variables. The normality of the data was tested through kurtosis and skewness. The range estimation of skewness and kurtosis lie between - 2 to +2 should be typically dispersed and is proper for information investigation (Brown, 2016). The skewness of CDDQ was (-.470) and kurtosis was (-.028).

The skewness of CSC was (.300) and kurtosis was (-1.092). The values of variable fall in acceptable range of -2 to +2 that shows data is normally distributed and is fit for further analysis. Histogram curve (Appendix F) was used to determine the normality of the data. Histogram of CDDQ and CSC indicates normal distribution with no prominent skewness.

3.3 Frequencies

Table 2

Frequency distribution of overall sample (N=300)

Respondent's Characteristics		*f*	*(%)*
Gender	Male	140	46.7
	Female	160	53.3
University	A	150	50.0
	B	150	50.0
Semester	7^{th}	144	48.0
	8^{th}	156	52.0
Family Income	-19999	38	12.7
	20000-39999	34	11.3
	40000-59999	63	21.0
	60,000+	165	55.0
Mother' Education	No/Below Primary	8	2.7
	Primary	43	14.3
	High School	44	14.7
	College	88	29.3
	University	117	39.0

	No/Below Primary	13	4.3
	Primary	23	7.7
Father' Education	High School	51	17.0
	College	75	25.0
	University	138	46.0

Note: f=frequency

Table 2 illustrates, there were total 300 students participated in this research including 140 (46.7%) male and 160 (53.3%) female students. In family income, 38 (12.7%) respondents were having 0-19999 monthly family income, 34 (11.3%) respondents were having 20000-39999 monthly family income, 63 (21.0%) respondents were having 40000-59999 monthly family income and 165 (55.0%) respondents were having 60000^{+} monthly family income.

Moreover, 8 (2.7%) mothers of respondents were having No/Below Primary education, 43 (14.3%) having primary education, 44 (14.7%) having high school education, 88 (29.3%) having a college education and 117 (39.0%) having university education. Thus, the education of fathers of respondents were 13 (4.3%) No/Below Primary education, 23 (7.7%) primary education, 51 (17.0%) high school education, 75 (25.0%) college education and 138 (46.0%) were having university education.

Table 3

Frequencies of overall sample on the basis of P&NPCGCS

Respondent's Characteristics		*PCGCS*	*NPGCS*
Gender	Male	83	57
	Female	67	93
Semester	Computer Sciences	54	42
	Management Sciences	51	64
	Engineering	45	44
Family Income	-19999	11	27
	20000-39999	7	27
	40000-59999	25	38
	60,000+	107	58
Mother' Education	No/Below Primary	2	6
	Primary	16	27
	High School	20	24
	College	42	46
	University	70	47
Father' Education	No/Below Primary	1	12
	Primary	5	18
	High School	22	29
	College	43	36
	University	89	55

The above table illustrates that 150 students were having PCGCS and 150 students having NPCGCS. 67 female and 83 male students were having PCGCS. 57 male and 93 female students were having NPCGCS participated in this research.

The frequency of family income based on PCGCS, 11 respondents were having -19999 monthly family incomes, 7 respondents were having 20000-39999 monthly family income, 25 respondents were having 40000-59999 monthly family income and 107 respondents were having 60000^{+} monthly family income. The frequency based on NPCGCS, 27 respondents were having 0-19999 monthly family income, 27 respondents were having 20000-39999 monthly family income, 38 respondents were having 40000-59999 monthly family income and 58 respondents were having 60000^{+} monthly family income.

The frequency of parents education of respondents having PCGCS , 2 mothers of respondents were having No/Below Primary education, 16 having primary education, 20 having high school education, 42 having a college education and 70 having university education. Thus, in father's education, 1 father of respondents having No/Below Primary in education, 5 fathers of respondents having primary education, 22 having high school education, 43 having college education and 89 fathers of respondents having university education. The frequency of parents education of respondents having NPCGCS , mothers 6 of respondents were having No/Below Primary education, 27 having primary education, 24 having high school education, 46 having a college education and 47 having university education. Thus, in father's education, 12 fathers of respondents having No/Below Primary in education, 18 fathers of respondents having primary education, 29

having high school education, 36 having college education and 55 fathers of respondents having university education.

64 students of Management sciences, 44 students of Engineering and 42 students of Computer Sciences having NPCGCS participated in this study. 51 Management sciences students, 45 students of Engineering and 54 students of Computer Sciences having PCGCS participated in this study.

Table 4

Use of career services on the basis of P&NPCGCS

	Career Services Checklist	*NPCGCS*		*PCGCS*	
S.No	*Items*	*No %*	*Yes %*	*No %*	*Yes %*
1	CV Writing	56	44	16.7	83.3
2	Cover Letter Writing	66.7	33.3	15.3	84.7
3	Mock Interview	75.3	24.7	25.3	74.7
4	Interviewing Skills	57.3	42.7	30.7	69.3
5	Computerized Resource Career Information	77.3	22.7	32	68
6	Planning Preparing Employment	74.7	25.3	36	64
7	Labor Market Information	79.3	20.7	35.3	64.7
8	Training Employability Skills	78	22	45.3	65.3
9	Assistant CDMP	82.7	17.3	36	64
10	Work Experience	74	26	38.7	61.3
11	Career Assessment	77.5	22.7	45.3	54.2
12	Subject Selection	70.3	30	41.3	53.7
13	Career Fair	72	28	38.7	61.3

14	Seminar Workshop	80	40	28	72
15	Job Site Visit	73.3	26.7	41.3	58.7
16	Individual Counseling	79.3	29.7	58	42
17	Group Counseling	75.3	24.7	49.3	50.7
18	Application Process	66.3	34.7	43.3	56.7
19	Scholarship Process	63.3	36.7	44	56

The above table revealed students having NPCGCS utilized CV writing (56%) services more than any other service. The least used services by students are assistance in career decision-making process as only 17.3% utilized it. Training on employability and labor market information are least used by students. However, students having PCGCS utilized assistance in cover letter writing (84.7), cv writing (83.3), mock interview (74.7) and career related seminar and workshops. Moreover, 64 students utilized career decision making process.

Item 1: Have you considered what field or occupation you would like to choose?

Table 5

Selected field or occupation

Responses	*F*	*%*
No	50	16.7
Yes	250	83.3
Total	300	100

The above table shows that 83% students have decided what field and occupation they have to choose and 16.7% did not decide it.

Table 6

Career choice on the basis of P&NPCGCS

Responses	*NPCGCS*	*PCGCS*
No	26	24
Yes	124	126
Total	150	150

The above table shows 84% students having PCGCS and 83% students having NPCGCS decided which occupation they have to choose.

Items 2: If so, to what extent are you confident of your choice?

Table 7

Level of confidence on career choice

Responses	*NPCGCS*	*PCGCS*
Low	71	14
Medium	38	58
High	41	78
Total	150	150

The table shows 71 respondents having NPCGCS were less confident on their career choice, 38 respondents were having medium level of confidence and 41 respondents were highly confident on their career choice.

However, 14 respondents having PCGCS reported low confident on their selected career choice, 58 respondents were having medium level of confidence and 78 respondents were highly confident on their career choice.

Item 3: How would you rate the degree of your difficulty in making a career decision?

Table 8

Degree of difficulty in making career decisions

Responses	NPCGCS	PCGCS
Low	14	74
Medium	63	53
High	73	23
Total	150	150

The above table shows 14 respondents having NPCGCS reported fewer difficulties, 63 respondents were having medium level of difficulty and 73 respondents were having high level of career decision-making difficulties. 74 respondents having PCGCS reported fewer difficulties, 53 respondents were having medium level and 23 respondents were having high level of career decision-making difficulties.

3.4 Hypotheses Testing

Following are the results of hypothesis testing;

Table 9

Independent Sample t-test for career decision-making difficulties (n=300)

Scale	NPCGCS (150)		PCGCS (150)				*95% CI*		
	M	*SD*	*M*	*SD*	*t*	*P*	*LL*	*UL*	*Cohen's d*
CDDQ	16.95	3.70	13.53	4.36	4.93**	.000	2.50	4.34	3.42

Note: df= 2, 298, **.p < .01, NPCGCS= Non provision of career guidance and counseling services, PCGCS= Provision of career guidance and counseling services, CDDQ= Career decision making difficulties questionnaire

Table 9 illustrates the difference between the mean score of students having P&NPCGCS on CDDQ scale was significant with NPCGS (*M* = 16.95, *SD* = 3.70) and PCGCS (*M* = 13.53, *SD* =4.36). There was a statistical difference between PCGCS and NPCGCS on CDDQ with *t* (2,298) = 4.93, *p* < .01. The result showed that students having NPCGCS have high level of career decision-making difficulties as compare to students having PCGCS. Hence, H1 was supported.

Table 10

Independent sample t-test for comparison of the sub scales of CDDQ on the basis of P& NPCGCS (n=300)

Sub Scale CDDQ	*NPCGCS(150)*		*PCGCS(150)*				*95%CI*		
	M	*SD*	*M*	*SD*	*t*	*p*	*LL*	*UL*	*Cohen's d*
Lack of Readiness	18.22	3.24	16.12	4.11	4.93**	.000	1.26	2.94	2.01
Lack of Information	15.75	4.66	11.87	5.32	6.72**	.000	2.74	5.01	3.87
Lack of Inconsistent Information	17.28	5.31	13.14	5.68	6.52**	.000	2.88	5.38	4.13

Note: df= 2,298**p < .01, *p < .05, NPCGCS= Non provision of career guidance and counseling services, PCGCS= provision of career guidance and counseling services

Table 10 illustrates the difference between the mean score on CDDQ on the sub-scales of lack of readiness, lack of information and inconsistent on the basis of P&NPCGCS are significant.

It was hypothesized as students having NPCGCS will have high level of lack of readiness than student having PCGCS (H2). The result showed a significant difference on lack of readiness with NPCGS (*M* = 18.22, *SD* = 3.24) and PCGCS (*M* = 16.12, *SD* = 4.11). There was a statistical difference between PCGCS and NPCGCS on lack of

readiness subscale with t (2,298) = 4.93, $p < .01$. The result reveals that students having NPCGCS was less ready to make career decision as compare to students having PCGCS. Hence, H2 was supported.

It was hypothesized as students having NPCGCS will have high level of lack of information than students having PCGCS (H3). The result illustrated a significant difference in mean scores on subscale of lack of information with NPCGS (M = 15.75, SD = 4.66) and PCGCS (M = 11.87, SD = 5.32). There was a statistical difference between PCGCS and NPCGCS on sub scale of CDDQ of lack of information with t (2,298) = 6.72, $p < .01$. The result revealed that students having NPCGCS have high level of lack information to make career decision than students having PCGCS. Hence, H3 was supported.

It was hypothesized as students having NPCGCS will have high level of inconsistent information than students having PCGCS (H4). The result also illustrated a significant difference in mean scores on subscale of inconsistent information with NPCGS (M =17.28; SD = 5.31) and PCGCS (M = 13.64, SD = 5.68). There was a statistical difference between PCGCS and NPCGCS on sub scale of CDDQ of inconsistent information with t (2,298) = 6.52, $p < .01$. Hence, H4 was supported. The result revealed that students having NPCGCS process more inconsistent information to make career decision than students having PCGCS.

Table 11

Linear Regression for Career guidance and counselling services on CDDQ

Model	*Variables*	*B*	*SE*	*β*	*t*	*p*
1	Constant	19.32	.68		28.04	.000
	CGCS	-.17	.04	-.25	-3.93	.000
	PCGCS	-4.74	.56	-.54	-8.43	.000

R^2= 0.197; F= 36.425; p<0.001

The table shows that CSC and PCGCS explains 19.7% of the variance in CDDQ scores (R^2= 0.197). In the model F value is greater than 4 with p< 0.05 which shows fitness of the model. Therefore, the model is statistically significant. Results show that CGCS is a statistically negatively significant predictor of CDDQ (β=-0.25; p=0.000). If a provision of career services is increased by one unit at university level than the students' decision-making difficulties in respect of their careers are decreased by 0.25 units and vice versa. It can be stated that CGCS has significant impact on CDDQ of students, thus H5 was supported. Results also show that PCGCS is a statistically significant predictor of CDDQ (β=-0.54; p=0.000). The results are demonstrated that the co-efficient of this variable is negative and significant. However, negative co-efficient is showing that the students from university having PCGCS are facing less career decision-making difficulties.

Table 12

One way analysis of variance of CDDQ of family income (N=300)

	SS	*MS*	*F*	*p*
Between Groups	452.67	150.89	8.43	.000
Within Groups	5294.29	17.88		
Total	5746.96			

Note: df= 3,296, p<0.01, MS=mean square, SS= sum of squares

Table 12 illustrates the results of socio-economic status of respondents that were measure through family monthly income. The results revealed significant differences of career decision-making difficulties among students on the basis of family income with $F(3,296) = 8.43$, $p < .01$.The results showed mean score of CDMD was significantly higher among respondents of low family income. Students having low family income face high level of career decision-making difficulties as compare to students having high family income. Hence, H6 was supported.

Table 13

Tukey HSD multiple comparisons of monthly family Income of respondents (n=300)

						95% CI	
(I)	*(J)*	*n*	*MD (I-J)*	*SE*	*P*	*LL*	*UL*
-19,999	20,000-39,999	34	1.96	1.00	.21	-.63	4.53
	40,000-59,999	63	1.24	.87	.48	-1.00	3.49
	60,000+	165	3.34*	.76	.00	1.37	5.30
20,000-	-19,999	38	-1.95	1.00	.21	-4.53	.63
39,999	40,000-59,999	63	-.70	.90	.86	-3.03	1.62
	60,000+	165	1.39	.80	.30	-.67	3.45
40,000-	-19,999	38	-1.24	.87	.48	-3.49	1.00
59,999	20,000-39,999	34	.70	.90	.86	-1.62	3.03
	60,000+	165	2.09*	.63	.00	.47	3.71
60,000+	-19,999	38	-3.34*	.76	.00	-5.30	-1.37
	20,000-39,999	34	-1.39	.80	.30	-3.45	.67
	40,000-59,999	63	-2.09*	.63	.00	-3.71	-.47

SE=standard error, LL=lower limit, UL=upper limit

The above table indicates the Tukey HSD for multiple comparisons among family income of respondents. While, the mean of career decision-making difficulties was significantly higher among low family income (monthly income -19999) as compared to high family income (monthly income $60{,}000^{+}$ with the $MD = 3.34$, $p < 0.05$).

Table 14

One way analysis of variance of monthly family income of respondents (n=135)

variables		*SS*	*MS*	*F*	*P*
Lack of Readiness	Between Groups	177.35	88.67	10.57**	.000
	Within Groups	1107.31	8.38		
	Total	1284.66			
Lack of Information	Between Groups	101.52	50.76	2.11	.125
	Within Groups	3176.08	24.06		
	Total	3277.60			
Inconsistent Information	Between Groups	6.94	3.47	.12	.880
	Within Groups	3595.91	27.24		
	Total	3602.86			
Total CDDQ	Between Groups	71.53	35.76	2.72	.069
	Within Groups	1733.32	13.13		
	Total	1804.85			

Note: df= 2,132, *p<0.01, MS=mean square, SS= sum of squares

Table 14 illustrates the results of socio-economic status of respondents that were measure through family monthly income ranges from -19999 to 40000-59999. All respondents having family income 60000+ were excluded in this analysis. The results revealed no statistical significant difference of career decision-making difficulties among students on the basis of family income with F (2,132) = 2.72, p > .05). However, a statistical significant difference of subscale of lack of readiness (F(2,132)=10.57,p>0.01) was found. Moreover, no statistical significant difference on the subscale of lack of

information (F(2,132)=2.11,p>0.05) and inconsistent information (F(2,135)=0.12, p>0.05) was found on the basis of family income. The results indicated after excluding high income group (60000+) no difference of career decision-making difficulties exists between low and high (40000-59999) family income of respondents. However, result indicated that students having low family income have high level of lack of readiness as compare to students having high family income.

Table 15

Tukey HSD multiple comparisons of monthly family income of respondents on the subscale of lack of readiness (N=135)

					95% CI	
(I)	*(J)*	*MD (I-J)*	*SE*	*P*	*LL*	*UL*
-19999	20000-39999	3.03*	.68	.000	1.41	4.65
	40000-59999	2.03*	.59	.002	.63	3.45
20000-39999	-19999	-.99	.61	.242	-2.46	.46
	40000-59999	-2.03*	.59	.002	-3.45	-.63
40000-59999	-19999	3.03*	.68	.000	1.41	4.65
	20000-39999	2.03*	.59	.002	.63	3.45

Note: df= 2,132**p<0.01,*p<0.05SE=standard error, LL=lower limit, UL=upper limit

Table 15 indicates the Tukey HSD for multiple comparisons among family income of respondents. While, lack of career readiness was significantly higher among low family income (monthly income -19999) as compared to high family income (monthly income 20000-39999 with the *MD* = 3.34, $p < 0.01$) of students. Moreover, students having low

family income have high level of lack of career readiness than students having high family income (monthly income 40000-59999 with the *MD* = 2.03, $p < 0.05$.

Table 16

One way analysis of variance of career decision-making difficulties on the basis of mother's education of respondents (n=300)

	SS	*MS*	*F*	*P*
Between Groups	403.66	100.91	5.57	.000
Within Groups	5343.30	18.11		
Total	5746.96			

Note: df=4, 295,** p<0.01,MS=mean square, SS= sum of squares

The above table indicates one-way ANOVA table for multiple comparison among mother's education. The results revealed significant findings with F (4,295) = 5.57, p <.01. The result showed a significant difference in career decision-making difficulties of university students on the basis of mother's education. Hence, H7 was supported.

Table 17

Tukey HSD multiple comparisons of mother's education of respondents (n=300)

					95% CI	
(I)	*(J)*	*MD (I-J)*	*SE*	*P*	*LL*	*UL*
No/Below	Primary	3.37	1.63	.24	-1.13	7.87
Primary	High School	3.02	1.63	.34	-1.47	7.51
	College	3.70	1.57	.12	-.60	8.02
	University	5.34*	1.55	.00	1.08	9.61
Primary	No/Below Primary	-3.37	1.63	.24	-7.87	1.13
	High School	-.34	.91	.99	-2.85	2.16
	College	.33	.79	.99	-1.83	2.51
	University	1.97	.75	.07	-.11	4.06
High School	No/Below Primary	-3.02	1.63	.34	-7.51	1.47
	Primary	.34	.91	.99	-2.16	2.85
	College	.68	.78	.90	-1.47	2.84
	University	2.32*	.75	.01	.26	4.39
College	No/Below Primary	-3.70	1.57	.12	-8.02	.60
	Primary	-.33	.79	.99	-2.51	1.83
	High School	-.68	.78	.90	-2.84	1.47
	University	1.63	.60	.05	-.01	3.29
University	No/Below Primary	-5.34*	1.55	.00	-9.61	-1.08
	Primary	-1.97	.75	.07	-4.06	.11
	High School	-2.32*	.75	.01	-4.39	-.26
	College	-1.63	.60	.05	-3.29	.01

.*p<.05, SE=standard error, LL=lower limit, UL=upper limit

Table 17 indicates the Tukey HSD for multiple comparisons among mother's education of respondents. While, the mean of career decision-making difficulties was significantly higher among no/below primary educated mothers of respondents as compared to mothers having university education with $MD = 3.04$, $p < 0.05$. Moreover, the mean of career decision-making difficulties was significantly higher among high school education of mothers as compared to having with university education in mothers of respondents. The result indicated that those students whose mothers were having less education face high level of career decision-making difficulties as compare to students whose mothers were highly educated.

Table 18

One way analysis of variance of mother's education of respondents (n=183)

variables		*SS*	*MS*	*F*	*P*
Lack of Readiness	Between Groups	187.53	62.51	7.39*	.000
	Within Groups	1512.23	8.44		
	Total	1699.76			
Lack of Information	Between Groups	85.189	28.39	1.07	.363
	Within Groups	4752.56	26.55		
	Total	4837.75			
Inconsistent Information	Between Groups	105.32	35.10	1.08	.356
	Within Groups	5778.23	32.28		
	Total	5883.56			
Total CDDQ	Between Groups	105.46	35.15	2.34	.074
	Within Groups	2683.21	14.99		
	Total	2788.67			

The above table indicates one-way ANOVA table for multiple comparison among mother's education of respondents excluding responses of participants having university education of mothers. The results revealed no significant findings with F (3,179) = .074, p >.05. The result showed non-significant difference in career decision-making difficulties of university students on the basis of mothers education. A statistical difference on the subscale of lack of readiness was found on the basis of mother's

education of respondents among university students. The result indicated that those students whose mothers were having less education face high level of lack of readiness as compare to students whose mothers were highly educated.

Table 19

Tukey HSD multiple comparisons of mother's education of respondents on the subscale of lack of readiness (n=183)

					95% CI	
(I)	*(J)*	*MD (I-J)*	*SE*	*P*	*LL*	*UL*
No/Below Primary	Primary	3.370*	1.119	.016	.47	6.27
	High School/secondary	3.826*	1.117	.004	.93	6.72
	College	4.686*	1.073	.000	1.90	7.47
Primary	No/Below Primary	-3.370*	1.119	.016	-6.27	-.47
	High School/secondary	.456	.623	.885	-1.16	2.07
	College	1.315	.541	.075	-.09	2.72
High school /secondary	No/Below Primary	-3.826*	1.117	.004	-6.72	-.93
	Primary	-.456	.623	.885	-2.07	1.16
	College	.860	.537	.380	-.53	2.25
College	No/Below Primary	-4.686*	1.073	.000	-7.47	-1.90
	Primary	-1.315	.541	.075	-2.72	.09
	High School/secondary	-.860	.537	.380	-2.25	.53

Note: df= 3,179, *p<0.05, MS=mean square, SS= sum of squares

Table 19 indicates the Tukey HSD for multiple comparisons among mother's education of respondents. While, the mean of career decision-making difficulties was

significantly higher among no/below primary educated mother's of respondents as compared to mothers having high school (*MD* = 3.37, p < 0.05), college education *(MD* = 3.82, p < 0.01) and university education (*MD* = 4.86, p < 0.01) on the scale of lack of readiness. Moreover, the mean of career decision-making difficulties was significantly higher among students having no/below primary education of mothers as compared to students having with high school, college and university education of mothers of respondents.

Table 20

One way analysis of variance of father's education of respondents on CDDQ (n=300)

	SS	*MS*	*F*	*P*
Between Groups	656.27	164.07	9.50	.000
Within Groups	5090.69	17.25		
Total	5746.96			

Note: df=4, 295, **p<0.0, MS=mean square, SS= sum of squares

The table 20 indicates one-way ANOVA table for multiple comparison among father's education of respondents. The results revealed significant difference of career decision-making difficulties among university students on the basis of father education with F (4,295) = 9.50, $p < .01$. Hence, H7 was supported. The results revealed that fathers education significantly influence the career decision-making of students.

Table 21

Tukey HSD multiple comparison of father's education of respondents (n=300)

					95% CI	
(I)	(J)	MD (I-J)	SE	P	LL	UL
No/Below Primary	Primary	2.58	1.44	.37	-1.3	6.54
	High School	2.91	1.29	.16	-.63	6.45
	College	4.39*	1.24	.00	.97	7.82
	University	5.65*	1.20	.00	2.34	8.96
Primary	No/Below Primary	-2.58	1.44	.37	-6.54	1.37
	High School	.32	1.04	.99	-2.54	3.19
	College	1.81	.99	.35	-.91	4.53
	University	3.06*	.93	.01	.50	5.63
High school /secondary	No/Below Primary	-2.91	1.29	.16	-6.45	.63
	Primary	-.32	1.04	.99	-3.19	2.54
	College	1.48	.75	.28	-.58	3.56
	University	2.74*	.68	.00	.87	4.61
College	No/Below Primary	-4.39*	1.24	.00	-7.82	-.97
	Primary	-1.81	.99	.35	-4.53	.91
	High School	-1.48	.75	.28	-3.56	.58
	University	1.25	.59	.22	-.38	2.89
University	No/Below Primary	-5.65*	1.20	.00	-8.96	-2.34
	Primary	-3.06*	.93	.01	-5.63	-.50
	High School	-2.74*	.68	.00	-4.61	-.87
	College	-1.25	.59	.22	-2.89	.38

*.p<0.05, SE=standard error, LL=lower limit, UL=upper limit

Table 21 indicates the Tukey HSD for multiple comparisons among father's education of respondents. CDMD are significantly higher among no/below primary educated fathers of respondents as compared to fathers of respondents having university education with *MD* = 5.65, p < 0.05. Moreover, the mean of CDMD was significantly higher among fathers of respondents having primary education as compared to fathers of respondents having university education with *MD* = 3.06, *p* < 0.05. The mean of CDMD was significantly higher among fathers of respondents having no/below primary education as compared to fathers of respondents having university education.

Table 22

One way analysis of variance of father's education of respondents (n=162)

Variables		*SS*	*MS*	*F*	*P*
Lack of Readiness	Between Groups	284.98	94.99	8.63*	.000
	Within Groups	1738.84	11.00		
	Total	2023.82			
Lack of Information	Between Groups	298.32	99.44	3.80*	.011
	Within Groups	4132.79	26.15		
	Total	4431.12			
Inconsistent Information	Between Groups	212.24	70.74	2.29	.080
	Within Groups	4878.39	30.87		
	Total	5090.64			
Total CDDQ	Between Groups	251.44	83.81	5.53*	.001
	Within Groups	2390.96	15.13		
	Total	2642.41			

Note: df= 3,158, *p<0.05, MS=mean square, SS= sum of squares

The results revealed significant difference of CDMD among university students on the basis of father education with F (3,158) = 5.53, $p < .01$. Fathers' education significantly influences on the career decision-making of students. However, significant difference on the subscales of lack of readiness (F (3,158) = 8.63, $p < .05$) and lack of information (F (3,158) = 3.80, $p < .05$) on the basis of fathers of education was found.

Table 23

Tukey HSD multiple comparison of father's education of respondents on the scale of CDDQ (n=162)

						95% CI	
(I)	*n*	*(J)*	*MD (I-J)*	*SE*	*P*	*LL*	*UL*
No/Below Primary	13	Primary	2.587	1.350	.225	-.92	6.09
		High School	2.911	1.209	.080	-.23	6.05
		College	4.399*	1.169	.001	1.36	7.43
Primary	23	No/Below Primary	-2.587	1.350	.225	-6.09	.92
		High School	.324	.977	.987	-2.21	2.86
		College	1.811	.927	.210	-.60	4.22
High school /secondary	51	No/Below Primary	-2.911	1.209	.080	-6.05	.23
		Primary	-.324	.977	.987	-2.86	2.21
		College	1.488	.706	.155	-.35	3.32
College	75	No/Below Primary	-4.399*	1.169	.001	-7.43	-1.36
		Primary	-1.811	.927	.210	-4.22	.60
		High School	-1.488	.706	.155	-3.32	.35

Note: df= 3,161, *p<0.05, MS=mean square, SS= sum of squares

The table 19 indicates Tukey HSD multiple comparison among father's education of respondents excluding respondents having university education of father's. Career decision-making difficulties are significantly higher among no/below primary educated fathers of respondents as compared to fathers having college education of respondents with *MD* = 4.39, p < 0.05. Whereas, the mean of career decision-making difficulties was significantly higher among no/below primary education of fathers as compared to having college education in fathers of respondents.

Table 24

Independent sample t-test of career decision-making difficulties on the basis of gender (n=300)

Variables	*Male (140)*		*Female (160)*				
	M	*SD*	*M*	*SD*	*t*	*P*	*Cohen's d*
Lack of Readiness	16.13	4.12	18.08	3.33	4.51*	.016	1.95
Lack of Information	13.01	5.69	14.51	4.95	2.43*	.006	1.49
Inconsistent Information	14.29	6.34	16.01	6.34	2.56*	.002	1.72
Total CDDQ	14.33	4.73	16.03	3.89	3.41*	.003	2.69

The result illustrated that a significant difference in the mean scores on CDMD among male and female students was found. There was a statistical difference between male (*M* = 14.33, *SD* = 4.73 and female (*M* = 16.03, *SD* = 3.89) respondents with *t* (2,298) = 3.41, *p* < .05. The difference of CDMD on the basis of gender was also found on the subscale of lack of readiness with male (*M* = 16.13, *SD* = 4.12) and female (*M* = 18.08, *SD* = 3.33) with *t* (2,298) = 4.51, *p* < .05. There is a statistical difference of CDMD among university students on the subscale of lack of information with male (*M* =

13.01, *SD* = 5.69) and female (*M* = 14.51, *SD* = 4.95) with *t* (2,298) = 2.43, $p < .05$. There is a statistical difference of career decision-making difficulties among university students on the subscale of inconsistent information as male (*M* = 14.29, *SD* = 6.34) and female (*M* = 16.01, *SD* = 6.34) with *t* (2,298) = 2.56, $p < .05$. Hence, H8 was supported.

The result revealed that female students have a high level of CDMD as compare to male students. Moreover, female students reported high level of lack of readiness, lack information and inconsistent information as compare to male students.

3.5 Summary of Results

1. Students having non-provision of career guidance and counseling services reported high level of CDMD than students having provision of career guidance and counseling services (Sang, 2015; Gati , Amir & Landman, 2010; Amani, 2015; Birle, Bonchis, Roman, & Crisan,2012).
2. Students having non-provision of career guidance and counseling services reported high level of lack of readiness than students having provision of career guidance and counseling services (Sang, 2015; Gati , Amir & Landman, 2010; Amani, 2015; Birle, Bonchis, Roman, & Crisan,2012).
3. Students having non-provision of career guidance and counseling services reported high level of lack of information than students having provision of career guidance and counseling services (Sang, 2015; Gati , Amir & Landman, 2010; Amani, 2015; Birle, Bonchis, Roman, & Crisan,2012).
4. Students having non-provision of career guidance and counseling services reported high level of inconsistent information than students having provision of

career guidance and counseling services (Sang, 2015; Gati , Amir & Landman, 2010; Amani, 2015; Birle, Bonchis, Roman, & Crisan,2012).

5. A negative and significant impact of career guidance and counseling services on career decision-making difficulties was found. CGCS reduces career decision-making difficulties of university students (Jain, 2017; Beka & Nikoceviq, 2011; Birle, Bonchis, Roman, & Crisan, 2012; Crisan,Pavelea, & Ghimbulut,2015; Maingi,2007; Fouad et al., 2006).
6. Socio-economic status (income) play an important role, as students having low family income reported high level of career decision-making difficulties as compare to students having high family income (Leung, 2017; Vertsberger & Gati, 2015; Leitao, Guedus, Yamamoto & Lopes, 2013; Nag-Arulmani, 2012; Doyle, 2011).
7. Parental education influence on career decision-making of students. Students having highly educated parents face less career decision-making difficulties as compare to those students whose parents were having no/below primary and primary education (Koech et al., 2016; Chen & Leiw, 2015; Saleem, Mian, Saleem, & Rao, 2014).
8. Female students face high level of career decision-making difficulties including lack of readiness, lack of information and inconsistent information as compared to male students (Mtemeri, 2017; Nayga, Oundo & Komoyo, 2014; Nag-Arulmmani, 2012).

CHAPTER IV

DISCUSSION

4.1 Discussion

This study investigated the role of career guidance and counseling services in career decision-making difficulties of university students. The result revealed that career guidance and counseling services reduce CDMD of undergraduate university students. Students having non-provision of career guidance and counseling services in university face high level of CDMD including lack of readiness, lack of information and inconsistent information as compare to students having provision of career guidance and counseling services in university. Moreover, students belong to low SES (family income) face high level of CDMD than students having high SES. Parents education also influence on CDMD of students. Female face high levelof CDMD as compare to male students.

The finding of the study revealed that students having NPCGCS had high level of CDMD than students having PCGCS. Students may face career-decision making difficulties because they may not be ready to pursue selected career because of having less career information that are not congruent with their interest. Career decision-making difficulties among university students could occur due to lack of career development centres as well as lack of trained and certified career counselors. Students may have lack of information about study program, its objectives, labor market trends, information regarding industries before joining university that create difficulty to excel in particular careers .The results are consistent with previous studies of Leung (2017); Koech et al., (2016);Leung et al., (2011) ; Dogar et al., (2011); Khan et al., (2011).

Moreover, students of university A were receiving career guidance and counseling services that's why they were more ready to make career decision as they feel motivated and decisive on their selected career. However, career orientation session, career counseling and career information session assist university students to avoid dysfunctional beliefs and make them ready to pursue their selected career as indicated by (Sang,2015; Hurley, 2013; Crisan, Pevelea & Ghiubulut, 2015; Bullock-Yowell, McConnell, & Schedin, 2014).

The findings of this study indicated that students having non-provision of career guidance and counseling are less ready to make a career decision as compare to students having provision of career guidance and counseling services. One reason might be that students already make a career decision before entering in universities that why they do not focus on it. They may have less motivation to make career decision because of parental influence. Students with low readiness usually do not seek career guidance services as indicated by the study of Galles and Lenz (2013). Students often develop dysfunctional career thoughts or myths about an occupation and end up with lack of motivation to accept personal responsibility for making their own career decision, supported by the findings of Landman et al., (2010). In contrast, students have lack of motivation to use career related intervention are indecisive to make career decision (Leung et al., 2010; Gati et al., 2010; Walker and Peterson, 2012).

Moreover, dysfunctional career myths lead to low career readiness. The collectivist society associated certain types of occupation are suitable to either women or men. Men are encouraged to explore wider variety occupations like science, technology and heavy work. On the other hand, women are encouraged to opt for less paid jobs with fewer

opportunities that make them less stressed. Lack of information of career fields leads to occupational dysfunctional thoughts and resulted in low career readiness (Hewitt, 2012; Hooley, 2012; Sear & Gordon, 2009).

Students are not self-motivation to explore about their desired career, goals, interest, abilities, and values that leads to lack of readiness as indicated by (Vertsberger and Gati, 2015; Britannica, 2012 ; Splaver, 2011). Lack of career information creates confusion and uncertainty to take decision. Students who received career related services might feel motivated to take career transitions positively and overall have less negative career thinking. Through career development interventions students may reduce their dysfunctional thoughts about particular career and make informed transitions to the world of work as indicated by Klaphake (2015).

Provision of career guidance and counseling service may enable students to deal with factors that cause low readiness. Career guidance and counseling services help students to foresee their career path and help them to overcome dysfunction career thoughts and myths. Maybe career counseling could enable students to understand their career interest, values and select a career path accordingly (Bullock-Yowell et al., 2014; Cheng and Ho, 2011).

The findings of this study revealed that students having non-provision of career guidance and counseling services face high level of lack of career information as compared to students having provision of career guidance and counseling services. In presence of CDC students get exposure about the world or work. The CDC may provide resume and CV writing, job search skills, employability skills, mock interview session, internship and placement and counseling services that provide heavy information to make

informed career decisions. Beside this CDC provides individual and group counseling services that help students to develop self-awareness, increase vocational understanding, identification of career interest and guides them to make congruence between interest and occupation which is consistent with the study of (Schaub, 2012; Diepenbrock and Gibson, 2012).

Career related seminars and workshops increase the knowledge about the labor market trends as well as skills required by employers. Career fairs helps to get information about the employer and industry that help students to decide how and when they will enter into job market. Career assessment and tools helps students to decide career path that should be aligned with their personality types and interests. These factors help students to get and process accurate information that reduces their career decision-making difficulties. The findings are in line with previous studies of (Fouad, et al., 2009, 2006; Reddan and Rauchle, 2012).

Students having non-provision of career guidance and counseling services may have lack of information pertinent to self and occupation. Students also have lack of relevant workplace skills because of higher level of theoretical knowledge only. This does not prepare university students to face real time job difficulties. Lack of academia-industrial linkages also hinders the development of career related skills in students as they are less aware and have less information of current trends in employability skills (Talib and Tan, 2009; Zagoricnik, 2010).

The finding of this study reveals students having non-provision of career guidance and counseling services process more inconsistent information as compared to students having provision of career guidance and counseling services. Students do not start to

search for real career options until graduation. They usually get information from their parents, teacher, peers and siblings. This information is not reliable because students may decide a career under the influence without processing accurate information. The information may contradict between one's own self and possible careers as suggested by the study of Abdullah and Othman (2009).

Moreover, Intrinsic and extrinsic factors may influence the collected career information that ruin the consistency of information. If students are unable to correlate career information it would create self-occupation mismatch that leads to difficulties as supported by the findings of Koech et al., 2016; Gati et al., 2010 ; Hewitt, 2010; and Gokuladas, 2010).

A negative impact of career decision-making difficulties and career guidance and counseling services was found which means career guidance and counseling services reduces career decision-making difficulties of students. Students with the provision of career guidance and counseling services gain knowledge about self and occupation and try to make coherent career decision. Students having lack of career guidance and counseling services in universities have lack of information that creates hindrance to take smooth transition in labor market. It is because they have less knowledge about their own potential abilities, employer expectations and employability skills that lead to wrong career decision or encounter career decision-making difficulties (Amani, 2014; Lugulu and Kipkoech, 2011; Plant, 2012).

Many students seek out for career related services from career advisor or counselor not only for career counseling and advice, but take advantage of career assessments. These assessments help university students to learn about their self for example about

their interests, strengths, skills and personality (Reitter, 2010). Moreover, the results of this career related assessment usually provides guidance to university students to align their career choice with their interest and skills. However, career guidance and counseling services assist university students to collect particular career information and employment opportunity in order to align their present and future career goals. This information also helps university students to decide which major subject and program they have to select to meet their career goals (CAS, 2008; NACE, 2014).

Overall, Career services including CV writing, career planning seminar and workshops, mock interview sessions, interviewing skills, labor market information and preparation, career fairs, career assessment , assistance in career decision-process, career courses and counseling helped to reduced CDMD including lack of readiness and lack of information and inconsistent information. The findings are consistent with previous studies (Vanessa, Freeman, Lenz, Robert & Reardon, 2017); (Downing, 2011); (Morey, Harvey, Williams, Saldana, and Mena, 2013); (Birle, Bonchis, Roman, & Crisan, 2012), (Milot-Lapointe, Savard & Le Corff, 2018)

Students having high family income with career have less CDMD than students having low family income. The finding of this research illustrated that the income of family determines which school, college and university a student can attend that effect his personal career preferences, values and occupational expectations that is consistent with the study of (Hooley, 2012; Mau and Bikos, 2010). Students who belong to high income status may have more resources and information to decide professional occupation. They may pursue their career aspiration with paying too much attention to money factors as indicated by the findings of Sellers, Satcher and Comas (2009).

Students with low family income need support to fulfill their career aspiration. They may have less information about the financial support and scholarship provided by university. They do not pursue their education in highly paid courses and university that leads them to the state of confusion. This situation ends up as a mismatch between career decision and interests (Gale , 2014; Bolles, 2011; Bok, 2010).

After excluding high family income of respondents it was evident that family have an influence on career readiness of respondents as those who belongs to low family income are less ready to make career decision as compared to those respondents having high family income. The readiness of respondents was influenced by financial conditions. Respondents from high family income decide or select a career without any financial pressure and more ready to join career. On the other hand students from low family income are less ready to the career that is highly paid. Students from low SES required more need of career related services as compared to high SES. Students have lack of readiness due to lack of awareness about getting financial assistance that is creating difficulties (Gale, 2014; Nag-Arulmani, 2012).

Parents' education also plays a vital role in CDMD of university students. Educated parents have more information about specific careers and more exposure of world of work. They make an effort to provide information to their children to excel in their desired career path. The findings of the study were align with the finding of Splaver (2011); Gordon and Sears (2009). Educated parents who belong to stronger social structure may have interaction with different people. Parents gather career and workplace information through the process of socialization and share with their children to assist

them to make informed career decision as indicated by Hooley (2012); Sears and Gordon (2010); Saleem et al., 2014; Chen & Leiw, 2015)

An analysis was carried out after excluding respondents whose mothers having university education. The result reveled respondent whose mothers having below university education face lack of readiness. Students whose mothers are less educated wanted their children to get a good degree from reputed institutions. They wanted their children's to get a job that is reputed in societies and highly paid.

An analysis was carried out after excluding respondents whose fathers were having below university education. The findings revealed that students whose fathers have below university education face high level of career decision-making difficulties including lack of readiness and inconsistent information. However, fathers of respondents having No/Below Primary education, having non-provision of career guidance and counseling services face high level of career decision-making difficulties including lack of readiness and lack of information as compared to fathers of students having a university education. The influence of fathers' education of students was found only on lack of readiness. It could because educated father provides information to their children's and help them to explore different opportunities as indicated by Koech et al.,(2016); Mbagwu and Ajaegbu (2016). Female students face high level of career decision-making difficulties as compare to male university students due to lack of readiness and information (Mtemeri, 2017; Nayga, Oundo & Komoyo, 2014; Nag-Arulmmani, 2012).

4.2 Conclusions

Career paths of students are less predictable and required flexibility (Krumboltz & Levin, 2010). At this time, individuals are struggling for career planning, feeling

overwhelmed with various career choices, and seek assistance from professionals to support them in career decision making (Miller & Rottinghaus, 2014). This situation has a profound influence on graduating students who are suffering through intense employment pressure because of global financial crisis. For graduating students it is a significant responsibility to search a job and different vocation. Graduating students who are engaged in career goals exploration process seems ready for work and increase the confidence to make an informed career decision (Zunker, 2011). For making an informed career decision a students must understand his personal characteristics along occupational characteristics.

However, the study clearly identifies students having provision and non-provision of career guidance and counseling services experience career decision making difficulties. University students having provision of career guidance and counseling services had high level of lack of readiness, lack of information and inconsistent. There was a negative impact of career guidance and counseling services on career decision-making difficulties. It shows the provision of career guidance and counseling services reduces career decision-making difficulties of university students. Moreover, students from low family income experience high level of career decision-making difficulties as compared to students from high family income. Parental education influences career decision-making of students as highly educated parents support their children in decision-making as compared to less educated parents. Female students had high level of career decision-making difficulties than male undergraduate university students.

However, in higher educational institutions, it is essential to establish career development centres that provide career guidance and counseling services that will help

students to gain knowledge and skills that are essential for university students. As well as it would prepare them to enter in labor market without any difficulties. Absence of career guidance and counseling services creates lack of academia and industry readiness skills that would help them in to develop potential employee.

Universities should provide assistance in cv/ resume writing, assistance in cover letter writing, interviewing skills, university helps in planning and preparing for employment, information about labor market, assistance in career decision-making , work experience (internships, placements, job shadowing), career /job fairs, career related seminars and workshop, job-site visits / field trips, individual counseling sessions, group guidance and counseling session, assistance in scholarship process mitigate the difficulties of students and provide assistance in smooth career transition.

4.3 Limitations

The limitations of this study will be;

i. The generalizability of this study will be limited due to geographical locations and public universities. As the result of this study cannot be generalized on private universities and rural locations because the instructional method and provision of services could be varied.

ii. Lack of certified career counselor is one of the limitation of this study.

iii. Sample of this study was undergraduate final year undergraduate university students of management sciences, computer sciences and engineering so the results could not be generalized on all disciplines or all semester students.

4.4 Suggestions

i. Universities may understand the importance of CGCS by developing career development centres in order to facilitate their students to meet the requirement of world of work.

ii. Universities may hire trained and certified career counselors that would better meet the need of students in order to reduce their career related difficulties.

iii. University students may provide career education as a part of study program to minimize their career decision-making difficulties.

iv. Career counselor may use career assessment screening tools in order to identify the career related difficulties before and during graduation program and apply specific career related services to reduce it. It may also help to find out the career readiness of students that would help a counselor to introduce group or individual career counseling to solve career related difficulties of students in order to make informed career decision.

v. Universities may arrange counseling campus, career fairs, career visits, workshops and seminars to motivate students to plan their career paths that eventually reduce career decision-making difficulties. It may also help students to get career related advice, develop career preferences and prepare themselves according to the labor market.

vi. Career guidance and counseling services could be accessible for all university students that would provide them consistent and reliable information. Students may easily pursue these facilities in order to solve their internal and external career related conflicts.

vii. Universities and career development centres may develop database that provide information about scholarship and financial assistance. It may facilitate students to pursue careers preference without any financial difficulties.

viii. Career Development centres may conduct researches on the influence of parents' education on career decision-making of students. They may conduct parents training workshops that can facilitate parents to gain awareness regarding their roles in the career decision process of students.

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APPENDICES

Appendix A

List of Experts

Curriculum Developer and Master Trainer

Pakistan worker Federation

Northern Punjab Region, Pakistan

Head Global Reach International Links and Career Acceleration

Roots International Schools

Islamabad, Pakistan

Head Guidance Counselor

Froebel' International schools

Islamabad, Pakistan

Guidance Counselor

Froebel's International School

Islamabad, Pakistan

Lecturer

COMSATS Institute of Information Technology

Attock , Pakistan

Lecture

Pakistan Institute of Development Economics

Islamabad, Pakistan

Appendix B

Reliability of Career Decision-making Difficulties

Item- total correlation of CDDQ (N=36)

The Cronbach's alpha coefficient of career decision-making difficulties questionnaire **was α =.92**

Item No.	Statements	*R*
1	Lack of motivation	.33
2	Choosing a career	.37*
3	Don't choose a career	.29
4	Decision-making difficulty	.37*
5	Professional support	.44*
6	Afraid of failure	.53**
7	My own way	.65**
8	Solve personal problems	.59**
9	One career suits me	.49**
10	Fulfill career aspirations	.59**
11	Commitment of career choice	.63**
12	Against own will	.60**
13	Steps of CDM	.42*
14	Factors for consideration	.36*
15	Different careers	.65**
16	Occupations interest me	.59**
17	Unsure about career preferences	.68**
18	Lack of information about competencies	.62**
19	Abilities and personality traits	.56**
20	Variety of occupations	.63**
21	Occupations interest me	.54**
22	Future careers	.56**
23	Additional information	.51**
24	Updated information	.70**

25	Change career preferences	.51**
26	Contradiction in abilities	.60**
27	Contradictory particular occupation	.38*
28	Difficult to choose career	.57**
29	Don't like training programs	.45**
30	Occupation interested in	.60**
31	Can't combine one career	.45**
32	Skills/abilities mismatch	.38*
33	Desired career characteristics	.32
34	Recommendations of people	.42*

**.Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

The above table shows item total correlation of CDDQ. All items of CDDQ were retained, as all value of item-total correlation was greater than .2 and acceptable (Field, 2013).

Item- total correlation of Sub Scale Career Decision-making difficulties questionnaire (CDDQ) – Lack of readiness (N=36)

Item No.	Statements	R
1	Lack of motivation	.51**
2	Choosing a career	.35*
3	Don't choose a career	.47**
4	Decision-making difficulty	.35*
5	Professional support	.44**
6	Afraid of failure	.49**
8	Solve personal problems	.26
9	One career suits me	.66**
10	Fulfill career aspirations	.26
11	Commitment of career choice	.41*

*. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)

The above table determines item-total correlation of lack of readiness of subscale of CDDQ. All the values of items of subscale were greater than .2 so all items were retained the values are (Field, 2013).

Item- total correlation of Sub Scale (CDDQ) – Lack of Information (N=36)

Item No.	Statements	*R*
13	Steps of CDM	.31
14	Factors for consideration	.41*
15	Different careers	.78**
16	Occupations interest me	.63**
17	Unsure about career preferences	.65**
18	Lack of information about competencies	.70**
19	Abilities and personality traits	.62**
20	Variety of occupations	.75**
21	Occupations interest me	.71**
22	Future careers	.58**
23	Additional information	.58**
24	Updated information	.78**

*. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)

The above table shows all values of item total correlation were above .2 and all item of subscale were retained (Field, 2013).

Item- total correlation of Sub Scale (CDDQ) –Inconsistent Information (N=36)

Item No.	Statements	*R*
25	Change career preferences	.51**
26	Contradiction in abilities	.60**
27	Contradictory particular occupation	.57**
28	Difficult to choose career	.64**
29	Don’t like training programs	.52**
30	Occupation interested in	.60**
31	Can’t combine one career	.52**

32	Skills/abilities mismatch	.57**
33	Desired career characteristics	.52**
34	Recommendations of people	.63**

*. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)

The above table illustrates item total correlation value of all items were greater of than .2, hence, all the items of subscale were retained (Field, 2013).

Appendix C

Reliability of Career Services Checklist

Item- total correlation of Career Services Checklist (N=36)

The Cronbach's alpha coefficient of career services checklist was α =.89

Item No	Statements	*R*
5	CV/ resume writing	.58**
6	Cover letter writing	.57**
7	Mock Interviews	.80**
8	Interviewing skills	.62**
9	Computerized resources	.71**
10	Planning and preparing for employment	.72**
11	Labor market information	.66**
12	Training on employability skills	.70**
13	Assistance in CDM	.56**
14	Work experience	.52**
15	Career related assessment	.58**
16	Selecting major subject	.34*
17	Career /job fairs	.67**
18	Career seminars and workshop	.27
19	Job-site visits	.55**
20	Individual counseling sessions	.75**
21	Group counseling sessions	.60**
22	University application process	.48**
23	Scholarship process	.31

*. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)

The above table illustrates item total correlation of career services checklist. All items were retained for further analysis(Field, 2013).

Appendix D

Career Decision-Making Difficulties Questionnaire

This questionnaire's aim is to locate possible difficulties and problems related to making career decisions.

Have you considered what field you would like to major in or what occupation you would like to choose? Yes / No

If so, to what extent are you confident of your choice?

Not confident at all 1 2 3 4 5 6 7 8 9 Very confident

Next, you will be presented with a list of statements concerning the career decision-making process. Please rate the degree to which each statement applies to you on the following scale:

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

Circle 1 if the statement does not describe you and 9 if it describes you well. Of course, you may also circle any of the intermediate levels.

Please do not skip any question.

For each statement, please circle the number which best describes you.

1. I know that I have to choose a career, but I don't have the motivation to make the decision now ("I don't feel like it").

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

2. Work is not the most important thing in one's life and therefore the issue of choosing a career doesn't worry me much.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

3. I believe that I do not have to choose a career now because time will lead me to the "right" career choice.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

4. It is usually difficult for me to make decisions.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

5. I usually feel that I need confirmation and support for my decisions from a professional person or somebody else I trust

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

6. I am usually afraid of failure.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

7. I like to do things my own way.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

8. I expect that entering the career I choose will also solve my personal problems.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

9. I believe there is only one career that suits me.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

10. I expect that through the career I choose I will fulfill all my aspirations.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

11. I believe that a career choice is a one-time choice and a life-long commitment.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

12. I always do what I am told to do, even if it goes against my own will.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

13. I find it difficult to make a career decision because I do not know what steps I have to take.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

14. I find it difficult to make a career decision because I do not know what factors to take into consideration.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

15. I find it difficult to make a career decision because I don't know how to combine the information I have about myself with the information I have about the different careers.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

16. I find it difficult to make a career decision because I still do not know which occupations interest me.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

17. I find it difficult to make a career decision because I am not sure about my career preferences yet (for example, what kind of a relationship I want with people, which working environment I prefer).

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

18. I find it difficult to make a career decision because I do not have enough information about my competencies (for example, numerical ability, verbal skills) and/or about my personality traits (for example, persistence, initiative, patience).

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

19. I find it difficult to make a career decision because I do not know what my abilities and/or personality traits will be like in the future.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

20. I find it difficult to make a career decision because I do not have enough information about the variety of occupations or training programs that exist.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

21. I find it difficult to make a career decision because I do not have enough information about the characteristics of the occupations and/or training programs that interest me (for example, the market demand, typical income, possibilities of advancement, or a training program's perquisites).

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

22. I find it difficult to make a career decision because I don't know what careers will look like in the future.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

23. I find it difficult to make a career decision because I do not know how to obtain additional information about myself (for example, about my abilities or my personality traits).

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

24. I find it difficult to make a career decision because I do not know how to obtain accurate and updated information about the existing occupations and training programs, or about their characteristics.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

25. I find it difficult to make a career decision because I constantly change my career preferences (for example, sometimes I want to be self-employed and sometimes I want to be an employee).

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

26. I find it difficult to make a career decision because I have contradictory data about my abilities and/or personality traits (for example, I believe I am patient with other people but others say I am impatient).

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

27. I find it difficult to make a career decision because I have contradictory data about the existence or the characteristics of a particular occupation or training program.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

28. I find it difficult to make a career decision because I'm equally attracted by a number of careers and it is difficult for me to choose among them.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

29. I find it difficult to make a career decision because I do not like any of the occupation or training programs to which I can be admitted.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

30. I find it difficult to make a career decision because the occupation I am interested in involves a certain characteristic that bothers me (for example, I am interested in medicine, but I do not want to study for so many years).

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

31. I find it difficult to make a career decision because my preferences can not be combined in one career, and I do not want to give any of them up (e.g., I'd like to work as a free-lancer, but I also wish to have a steady income).

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

32. I find it difficult to make a career decision because my skills and abilities do not match those required by the occupation I am interested in.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

33. I find it difficult to make a career decision because people who are important to me (such as parents or friends) do not agree with the career options I am considering and/or the career characteristics I desire.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

34. I find it difficult to make a career decision because there are contradictions between the recommendations made by different people who are important to me about the career that suits me or about what career characteristics should guide my decisions.

Does not describe me 1 2 3 4 5 6 7 8 9 Describes me well

Finally, how would you rate the degree of your difficulty in making a career decision?

Low 1 2 3 4 5 6 7 8 9 High

cddq34q.doc

Appendix E

Demographic Information Sheet

Please complete the following information by checking or filling in the appropriate response.

1. Gender: [ ] Male [ ] Female
2. Age: _____
3. Name of Department:_____
4. Semester _____
5. Total family income: [ ] -19999 [ ] 20000-39999
   [ ] 40000-59999 [ ] 60000+
6. What is your mother's highest level of education completed?
   [ ] No/Below Primary [ ] Primary [ ] High School / Secondary
   [ ] College [ ] University
7. What is your father's highest level of education completed?
   [ ] No/Below Primary [ ] Primary [ ] High School/Secondary [ ] College [ ] University
8. Does your University have career development centre? Yes No

Appendix F

Career Services Checklist

Please complete the following information by checking or filling in the appropriate response.

Please mark Yes or No.

Have you ever received following career services?

1. Assistance in CV/ resume writing	Yes	No
2. Assistance in cover letter writing	Yes	No
3. Mock Interviews	Yes	No
4. Interviewing skills	Yes	No
5. Computerized resources for career information	Yes	No
6. University helps in planning and preparing for employment	Yes	No
7. Information about labor market	Yes	No
8. Training on employability skills	Yes	No
9. Assistance in career decision-making	Yes	No
10. Work experience (internships, placements, job shadowing)	Yes	No
11. Career related assessment/testing	Yes	No
12. University helps in selecting major subject	Yes	No
13. Career /job fairs	Yes	No
14. Career related seminars and workshop	Yes	No
15. Job-site visits / field trips	Yes	No
16. Individual counseling sessions	Yes	No
17. Group guidance and counseling sessions	Yes	No
18. Assistance in university application process	Yes	No
19. Assistance in scholarship process	Yes	No

Developed on the basis of NACE Professional Standards for College and University Career Services (2015)

Appendix G

Informed Consent Form

You are invited to participate in the research study that will be conducting as a part of MS Career Counseling and Education. The study will investigate career decision-making difficulties among university students having provision and non-provision of career guidance and counseling services.

The completion of this survey will take approximately 15 minutes. Therefore, your decision to participate in this research study is entirely voluntary.

Ethical consideration:

- Your participation in this research will be kept confidential.
- Your responses in this research will not be shared with your campus administration.
- You have the right to withdrawn your participation in this study at any time without penalty.
- You will not experience any legal, physical and psychological harm from this research study.

If you are interested in participating in this study, please affirmatively complete the informed consent. By signing this form, you agree to voluntarily participate in all aspects of this study, your approval of all findings to be enclosed within the research.

If you have any questions for the research, feel free to contact:
E-Mail: nust201463490mc3a79114f@c3a.nust.edu.pk
Thank you in advance and have a great day,

Participant Date

Researcher Date

Appendix H

Histograms

A Histogram Graph with Normal Curve