Chapter I

Introduction
In the current era of dynamic change in the world of work, choice of courses and career are the most important decisions that an adolescent has to take. Various theoretical perspectives in career development (Super, 1957) suggest that the career decision-making process for late adolescents and young adults involves a shift from a point of being undecided to a state of being ready to commit to and implement a career choice.

The dictionary meaning of the term *Decision* is the act of reaching conclusions or making up one’s mind. According to normative theory of decision-making, the best decision is the one that best helps to achieve the decision-maker’s goals. These goals are represented by the individual’s preferences with respect to the various attributes of the alternatives under consideration. The term career decision-making refers to decision of a career from amongst several choices available to the individual concerned. Career decision-making is related to an individual’s lifestyle as well as personal and professional satisfaction (Betz & Taylor, 2006; Lounsbury, Tatum, Chambers, Owens, & Gibson, 1999; Lucas, 1992). An individual who has made a decision means that he has made up his mind to do a certain action which he has no doubt that he wants to do. It means that the individual has taken career decision of his own liking. A rational career decision maker should choose the alternative with the highest utility, where the utility of each alternative is a function of the perceived gap between the individual’s preferences and the alternative’s characteristics in each of the attributes.

Gati, Krausz, and Osipow (1996) emphasize that the career decision-making process has the same characteristics as any other decision-making process, which means that (a) the process involves an individual who (b) chooses what he/she feels is the most appropriate from various career possibilities (c) based on comparison and evaluation of alternatives, mindful of the fact that these comparison and evaluation processes are influenced both by the characteristics of the educational program/profession and the individual. Moreover, the career decision-making process has some specific features, e.g. an individual makes a decision from a wide range of career possibilities, for each career alternative, a huge wealth of information is available and the fact that various aspects of the profession should be taken into consideration viz. duration of the educational process, independence in work etc.
Due to the complexity of the decision-making on further education/study, adolescents have to use various skills in the process of selection of courses. There are large differences in the decision-making process among adolescents. Some adolescents are able to make this decision easily and quickly, while others face many difficulties with it (Campbell & Hansen, 1981; Rounds & Tinsley, 1984; Gati et al., 1996). Many students lack essential elements which are necessary to make right decision. They may lack a clear self-concept, have insufficient or conflicting information about the world of work, have fewer life experiences, limited interests and/or abilities, and might be affected by a number of interpersonal, social and environmental factors. Nowadays, more students appear to be entering school undecided on a major (ACT, 2002), and at least half of all students who decide on a major change their mind at some point in their academic career (Tinto, 1993). Ever-evolving technology, changes in the job market, and the transition in the global economy are some of the probable reasons for the increasing complexity of making career decisions (Smith & Gast, 1998). Also, now more is expected of careers than financial security. Careers should provide meaning and function as an extension of our identity (Wuthnow, 2003).

There are also students who are clearly decided about their career. Career decisiveness is defined as an individual’s certainty about his/her career decision (Osipow, Carney, Winer, Yanico, & Koschier, 1987) where certainty relates to the extent an individual is convinced that he/she can make a career decision. Contrary to this concept is Career indecisiveness, which refers to an individual’s inability to make a decision about the profession that he/she is striving for. Chartrand, Rose, Elliot, Marmarosh, and Caldwell, (1993); Gati et al., (1996); Leong and Chervinko, (1996) also broadly define career indecisiveness as difficulties that an individual has in career decision-making. Career indecisiveness refers to every problem or obstacle that appear in the career decision-making process (Fuqua, Blum, & Hartman, 1988).

Such difficulties, if not adequately dealt with, may prevent the individual from making the decision or lead a less-than-optimal choice. The negative consequences may particularly affect young adults who have little previous experience in decision making. Thus, locating individual’s career decision-making difficulties is among the first step in providing them the help they need.
Definitions of Terms Used

Career

The traditional concept of career is concerned with progression of an ordered hierarchy within an organization or profession. The term career was associated with paid employment and referred to a single occupation. In today's world of work the term career is seen as a continuous process of learning and development. It is the interaction of work roles and other life roles over a person's lifespan including both paid and unpaid work in an individual's life. People create career patterns as they make decisions about education, work, family and other life roles.

Super (1976) states that the term career as the sequence of major positions occupied by a person throughout his pre-occupational, occupational and post-occupational life. It includes work-related roles such as those of student, employee and pensioner together with complementary vocational, familial and civil roles (p.20).

According to the National Career Development Association (Sears, 1982) career is the totality of work and leisure in which a person is involved in his or her whole life. A more concise definition, that of Arthur, Hall, and Lawrence (1989) describes career as the evolving sequence of a person's work experiences over time (p.8).

The Department of Education and Science (1989) defined career as the variety of occupational roles which individuals will undertake throughout life. It includes paid and self-employment; different occupations which a person may have over the years and periods of unemployment; and unpaid occupations such as that of student, voluntary worker or parent (p2).

Patton and Mcmahon (1999) defined career as the pattern of influences that co-exist in an individual's life over time (p, 170).

Savickas (2000) defines career not only as a quest for meaning but as a quest for self, requiring continual introspection and effort. Miller-Tiedeman (2008) views the process as an internal journey requiring the use of a life-career compass (personal experience, intelligence and intuition) to find one's way.

Career is defined by the Oxford English Dictionary as an individual's course or progress through life (or a distinct portion of life). It is usually considered to pertain to remunerative work (and sometimes also formal education).
There are three distinct definitions of career used in theory and research for vocational psychology: (i) the sequence of jobs or other work experiences in an individual’s life; (ii) a sequence in an individual’s life that fall within the same occupation or within a closely related sequence of occupations; (iii) a sequence of jobs or other work experiences in an individual’s life that fall within the same occupation or within a closely related sequence of occupations, having the property that the sequence of jobs and work experiences tend to increase in status over time.

**Career Development**

Career development is the total constellation of psychological, sociological, educational, physical, economic, and chance factors that combine and influence the nature and significance of work throughout the life span (Sears, 1982, p.139).

Brown and Brooks (1990b) described career development as being, for most people a life long process of getting ready to choose, choosing, and typically continuing to make choices from among the many occupations available in our society. The concept of career development was first advanced by Ginzberg, Ginsburg, Axelrad, and Herma (1951) felt that occupational choice is developmental process that occurs over a number of years. Their original theory, which assumed that the process was completed in early adulthood, was later revised to recognize occupational choice as a life long process of decision making (Ginzberg, 1972, 1984).

Career development is the process of managing life, learning and work over the lifespan. Career development is a developmental learning process that evolves throughout our lives (McDaniels & Gysbers, 1992). Schmidt (2001) defined career development as an involvement in the life-long process of exploring and investigating self, interests and career resources.

A number of authors have identified the social and cultural shifts which have an impact on work life (Amundson, 2005; Savickas, 2000a; Storey, 2000). As such the notion of career development is also undergoing a significant paradigm shift (Hartung 2002; Jarvis, 2002) from talking about career development to development through work and other life roles.

The inseparability of work and life and the ongoing interrelationships between career and life has been recognized. Wolfe and Kolb (1980) presented a still relevant definition of career development.
Career development involves one’s whole life, not just occupation. As such, it concerns the whole person...more than that; it concerns him or her in the ever-changing contexts of his or her life. The environmental pressures and constraints, the bonds that tie him or her to significant others, responsibilities towards children and aging parents, the total structure of one’s circumstances are also factors that must be understood and reckoned with. In these terms, career development and personal development converges self and circumstances-evolving, changing, unfolding in mutual interaction-constitute the focus and drama of career development. (Wolf & Kolb, 1980, pp. 1-2)

Career Choice

Career choice is a process that fulfills needs, values, and interests of individual and hence influences the quality of life. It is a considered choice of the individual actually entering the occupation.

Super (1953) stated that choice had different meaning at different stage or age levels. He reasons that decisions made at younger age level are not highly related to reality as compared to the decisions reached at older age levels. A mature vocational choice involves sufficient self-understanding to correctly match up personal interests and resources to the perceived requirement and conditions obtained in a specific vocation or profession.

Crites (1969) defined vocational choice as an intention of an individual to enter a particular occupation. He suggested three necessary conditions for finalizing a vocational choice:

- **Choice supply:** There must be two or more occupations from which one has to choose. The individual must have an option. If there is no option, a vocational choice is impossible.

- **Incentive to make a choice:** The individual must be motivated to choose an occupation. The social expectation that every person must work, is the most important incentive in this regard.

- **Freedom of choice:** The individual must be free to exercise his/her option in the choice of an occupation. If he is restrained from doing so, he cannot make a vocational choice.
Career Indecision

Career indecision is one of the central issues in vocational psychology (Osipow et al., 1976; Mitchell & Krumboltz, 1984; Osipow, 1999; Savickas et al., 1992; Slaney, 1988; Tinsley, 1992)

Career indecision refers to the phenomenon where individuals especially students are unable to make decisions about the careers they wish to adopt. Career indecision has been a major concern of career psychologists for many years. We now see indecision as a developmental phase through which individuals may pass on their way to reaching a decision (Osipow, 1999)

Generally, career indecision is defined as an inability to make decision about the vocation one wishes to pursue (Guay, Senecal, Gauthier, & Fernet, 2003). Thus, career indecision, in return reflects student’s career readiness or maturity as students who are undecided about their career have trouble with decision making (Hagstrom, Skovholt, & Rivers, 1997; Lucas & Epperson, 1988). Thus, career indecision can be described as a developmental phase through which individuals may pass on their way to reaching a decision. Career indecision may also effect on other career issues such as choosing a major, making career choice or even unemployment.

Slaney (1988) noted that career indecision has been used to refer to the problems individuals may have when making career decisions. Guay et al. (2003) postulated that career indecision is one major career-related problem which students have to contend with and has been a major focus of vocational research over the last few decades. Swanson and D’Achiardi (2005) added that this includes the antecedents that may influence or delay the decision on making a career choice. Individuals who are undecided often delay the process of making career-related decisions while they acquire additional information about themselves, occupations and the world of work, or the decision-making process.

Therefore, knowledge of student’s career indecision will help to predict whether they are considered as decided or undecided on their career choices. In line with this, Callanan (2006) suggested that information on student’s career indecision helps personnel dealing with students and educators to understand factors that might explain student’s inability to choose an occupation or major field of study.
Jones and Chenery (1980) proposed a career indecision model that theorized career indecision in a three-dimensional construct. The decidedness dimension relates to how committed individuals are to their choice of a career. The comfort dimension connotes the level of satisfaction individuals feel over their career decision status. On the other hand, the last dimension relates to the explanation of why a person could be undecided. These were identified as lack of self-clarity, lack of occupational, educational information, indecisiveness, and career choice salience.

Vondracek, Hostetler, Schulenberg, and Shimizu (1990) identified four types of career indecision among 465 junior and senior high school students who completed the Career Decision Scale (CDS) by Osipow et al. (1976):

- Students who experience confusion and lack of experience in career decision-making.
- Students who need support in decision-making,
- Students who found several career alternatives attractive.
- Students who experienced external barriers and lacked interest in decision-making.

Osipow (1999) drew attention to the difference between indecision, classified as a normal developmental phase within the career decision-making process, and indecisiveness, which he depicted as a personal trait impinging on many decision making situations.

Career indecision can be divided into two categories: developmental and chronic indecision. The former is generally viewed as a developmentally normal problem resulting from lack of information on the self and on the world of work, whereas the latter is defined as a pervasive inability to make a decision about one’s career (Dysinger 1950; Crites 1969; Tyler 1969; Guay et al., 2006).

**Career Decision-Making**

The term career decision making has been defined as the process by which a person chooses his/her career. Career decision-making is a complex process, by which the decision makers are required to process information about themselves and information about the world of work (Jepsen, 1984). Career decision-making is the process by which an individual's actual education and career alternatives are chosen.
It continues throughout the life span (Hartung, Porfeli, & Vondracek, 2005), although much more is known about career decisions made by middle and late adolescents (Savickas, 1997) and adults (Vondracek & Kawasaki, 1995) than younger adolescents and pre-adolescents. Career decisions can also have long-term repercussions, as they can commit a student to a particular career path that can involve long periods of education and training before actually resulting in employment.

Career decision making is a dynamic and ongoing process where knowledge of self, values, interests, temperament, financial needs, physical work requirements or limitations as well as the effects of past experiences, new information, and changes in life situation and environment intervene and play an important role.

Choosing one’s career depends on what one wants to do. It is not an easy task due to the complex and fluid character of the world of work. It involves not one decision, but a large number of decisions over a considerable period of time. Hence, a person’s life may be seen as a string of career decisions, reflecting individual’s grouping for an ideal fit between self and work (Bordin, 1984).

**Categories of Career Decision-Making**

Here, it would be pertinent to mention some levels or categories of decision-making. These are:-

- **Decided**
- **Tentative**
- **Undecided**

**Decided**: The dictionary meaning of decided is definite i.e. having no doubt about a choice. Whereas decisiveness means the extent to which an individual is definite about making a career choice.

Lancaster, Rudolph, Perkins, and Patten (1999) found that decided students have a tendency to present themselves as having less difficulty in decision making than undecided students. Wanberg and Muchinsky (1992) clustered 390 college students into four groups on the basis of decidedness and student’s concerns: confident decided, anxious undecided, concerned decided and indifferent undecided.
**Tentative:** The dictionary meaning of tentative, stresses as one not having sure knowledge, subject to change or hesitant as the characteristics of being tentative or uncertain. The condition of being in doubt or lack of certainty is defined as uncertainty.

**Undecided:** An individual who is undecided means he is not yet determined or settled or not having reached a decision. Indecision represents an individual’s inability to make a particular decision at a required time, whereas, indecisiveness represents a characteristic which the individual display frequently in the course of making required decisions.

J.L. Holland and Holland (1977) explained that the career undecided students might be conceptualized as a heterogeneous group consisting of multiple subtypes of undecided students:

- those students who felt no particular pressure to make a decision at that time;
- those who are slightly or moderately immature interpersonally incompetent, anxious and alienated;
- those who are moderately to severely immature, interpersonally incompetent, anxious and alienated.

Larson, Heppner, Ham, and Dugan (1988) employed cluster analysis to identify subtypes among 87 undecided college students. They labeled these four groups as:

- Plan less avoiders
- Informed indecisive
- Confident but uninformed
- Uninformed

Osipow and Gati (1998) examine the construct validity of the career decision-making difficulties questionnaire and found that undecided students had significantly higher scores on the career decision-making difficulties.

**Theoretical Background**

In the past hundred years, a range of theories have developed in the area of career decision-making. They are trait and factor theories; developmental theories; learning theories; socio-economic theories; and recent theoretical statements (Isaacson & Brown, 2000). However, these particular theories have the greatest impact on research and practice today (Isaacson & Brown, 2000).
Career development theories help make sense of experiences. A theory is, in effect, a rationalized set of assumptions or hypotheses that allows you to explain the past and predict the future. As such, theories may provide direction; and as theories are tested and prove true, they may be said to expand knowledge.

Career decision-making theories provide guidelines for collection, processing, and utilization of information in order to improve decision-making (Gati, 1990, p.508). A brief description of various theories is being presented in a chronological order:

**Parson’s trait and factor theory (1909)**

Parson is the founder of vocational guidance and his work has a profound influence on career theory and practice. He identified three elements of career selection, (i) a clear understanding of yourself, aptitudes, abilities, interests, resources, limitations and other qualities; (ii) knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities and prospects in different lines of work and (iii) true reasoning on the relations of these two groups of facts (Parson, 1909, p.5)

Each of these three elements represents a major contribution to career theory and practice. Parson developed first comprehensive conceptual framework and observed that vocational choice consists of self-understanding, knowledge of occupations and true reasoning. His idea was to help people create a good match between self and occupation.

**Ginzberg, Ginsburg, Axelrad, and Herma theory of career development (1951)**

Ginzberg et al. (1951) recognized that vocational choice is influenced by four factors: the reality factor, the influence of the educational process, the emotional factor and individual values. This theory proposes that it is a development path that leads to career choice. Starting in pre-teen and ending in young adulthood, individuals pass through three stages: fantasy stage (childhood before age 11), the child is free to pursue any occupational choice, tentative (ages 11 to 17), the individual becomes more aware of work requirements, of his or her own abilities, and makes decisions regarding likes, and dislikes, capacity and values of an occupational choice and realistic stage (ages 17 to young adult), spanning from mid-adolescence through young adulthood, has three sub-stages: exploration, crystallization and specification for making occupational choice.
Super’s theory of vocational choice (1954)

Super (1954) has generated a life span vocational choice theory that has six life and career development stages i.e. (i) Crystallization stage, ages 14-18; (ii) Specification stage, ages 18-21; (iii) Implementation stage, ages 21-24; (iv) The stabilization stage, ages 24-35; (v) Consolidation stage, age 35; and (vi) Readiness for retirement, age 55.

Super’s theory is considered developmental as he suggested that there are five stages of career development: growth (childhood), exploration (adolescence), establishment (early adulthood), maintenance (middle adulthood) and decline (later adulthood) and suggested developmentally appropriate tasks for each stage. He viewed career as the sum total of all the roles we play in our lives.

Roe’s theory (1956)

Roe (1956) accepted Maslow’s hierarchy as originally proposed, though exchanged the need for importance, respect, self-esteem, independence (number four in Maslow’s original hierarchy) with the need for self-actualisation (the eighth need in the original version). Two of her key propositions were that, first, occupation is potentially the most powerful source of individual satisfaction at all levels of need; and second, that social and economic status depend more on the occupation of an individual than upon anything else (Roe. 1957, p.213).

Holland’s theory of vocational choice (1959)

Holland’s theory is based on model personal orientation or a developmental process established through heredity and the individual’s life history of reacting to environmental demands. More simply put, individuals are attracted to a particular occupation that meets their personal needs and provides them satisfaction.

A hexagonal model was developed to illustrate the relationship between personality and occupational environment and suggested that this relationship in the long term, facilitate achievement and tenure in a career.

Much research supports Holland’s typology. The strongest criticism is based on gender bias because females tend to score in three personality types (artistic, social and conventional). Holland attributes this to our society that channels females into female-dominated occupations.
Krumboltz’s social learning theory/social learning theory of career decision-making (1979)

Krumboltz stated that the learning process leads to beliefs such as self-efficacy and interests and how these impact the career decision making process. It incorporates four factors, each of which has a different impact on the person in his or her career decision-making. These are:

- Genetic endowment and special abilities (gender, race, disabilities, innate talents);
- Environmental conditions and events (cultural norms, economy, job opportunities);
- Past learning experiences; and
- Task approach skills (attitudes involving work values, work habits, perceptual and cognitive processes, mental sets and emotional responses).

Krumboltz’s theory believed that individuals are born in the world with certain genetic characteristics and as they encounter environmental, economic, social, and cultural events in the world they learn and change from their experiences. Combinations of the above four factors interact in different ways to produce different career decisions. In this theory, individuals are seen in a position of continually encountering learning experiences.

Gottfredson’s theory of compromise and circumscription (1981)

Gottfredson postulated that career aspirations are circumscribed from early childhood based on gender-stereotyped notions of what careers are appropriate. If these stereotyped ideas remain unchallenged and unchanged as the child reaches maturity, then they will continue to impact career decision making.

Luzzo (1995, 1996) and others (Swanson and Tokar, 1991a, 1991b) suggested that the perception of career related barriers need not necessarily be viewed as negative for the individual, and that some individuals may view barriers as challenging rather than defeating.
Multiple career decision-making theory by Gati (1986); Gati and Tikotzki (1989)

Gati contended that all career decision-making theories can be described in terms of three major models: a) Expected utility model b) Sequential elimination model and c) Conjunctive model, where occupational alternatives are given consideration only when they meet basic occupational requirements.

This model has played an important role in the understanding of the career decision-making process (Brown, 1990; Gati, 1986; Mitchell & Krumboltz, 1984; Neimeyer, 1988; Osipow, 1987; Osipow & Fitzgerald, 1996; Phillips, 1994; Walsh & Osipow, 1988).

Lent, Brown and Hackett’s social cognitive career theory (1987)

The Social Cognition Career Theory (SCCT) has grown out of Bandura’s social cognitive theory and attempts to address issues of culture, gender, genetic endowment, social context and unexpected life events that may interact with and supersede the effects of career-related choices. Through an evolutionary process beginning in early childhood and continuing throughout adulthood, one narrows the scope to successful endeavors to focus on and form a career goal/choice.

Through a process of intervening learning experiences that shape further one’s abilities and impacts self-efficacy and outcome beliefs, one’s vocational interests, choices and performances are shaped and reshaped.

Seven stages of decision-making cycle (Carney & Wells, 1995)

Clarke and Wells (1995) gave a seven stage Career decision-making cycle. These seven steps are:

![Figure 1.1 Seven stages of decision-making cycle (Carney & Wells, 1995)](image-url)
• **Awareness**: Feeling of a change and taking decision becoming eminent.

• **Self-assessment**: Consideration of vocational options for decision-making must be weighted against how they fit personal needs and desires.

• **Exploration**: The process of gathering accurate, comprehensive and relevant information. This information relates both to the world of work information and understanding of self.

• **Integration**: The assessment about occupational criteria and personal criteria and how that will meet our needs and desires.

• **Commitment**: After making considered choice about career there is a need for commitment.

• **Implementation**: Springs out from commitment to devise plan for proceeding further.

• **Revaluation**: Revaluating our decisions allows us to make adjustments and to see if our desired outcomes are being achieved.

**Brown’s values based theory (1996)**

This values-based theory (Brown, 1996) of career development is an emerging theory which reflects current state of career development and move towards holistic approach. It has two components, (i) values and the role they play in career choice, and (ii) focusing on career counseling. Brown asserts that values are the bases on which individual decides which outcomes are more important than others. The other segment of the theory is career counseling for which he outlined five assumptions related to values.

**Patton and McMahon’s systems theory of career development (1999)**

Patton and McMahon highlight the importance of society and the environment along with individual differences such as gender, values, sexual orientation, ability, disability, interests, skills, age, world-of-work knowledge, physical attributes, aptitudes, ethnicity, self-concept, personality, beliefs and health (p.157). They discuss the interaction of the individual with the social system including educational institutions, peers, family, media, community groups, and the workplace (p.159).
Seven step career decision-making model (Career Services, Rutgers University, New Brunswick, 2000)

The following 7-step Career decision-making model provides an insight into the process of Career decision-making (Career services, Rutgers University, New Brunswick, 2000):

Step 1: Identify the decision to be made.
Step 2: Know yourself (self assessment).
Step 3: Begin identifying options (career exploration).
Step 4: Gather information and data.
Step 5: Evaluate options.
Step 6: Select one of the options,
Step 7: Make a plan and implement the decision.

Cognitive Information Processing (CIP) theory (Sampson, Reardon, Peterson, & Lenz, 2004; Peterson, Sampson, & Reardon, 1991)

Career decision-making is based on cognitive information processing. This theory (CIP) is an emergent career theory, designed to examine how individuals engage themselves in career problem solving and decision-making. It is based on a pyramid, with self knowledge and occupational knowledge forming the base. These constitute the knowledge domain. Above it is the decision making skills domain, comprising of five information processing skills known as CASVE:

- **Communication**: awareness process for identifying gap between where one is and where one would like to be.
- **Analysis**: understanding the gap, gaining knowledge and analyzing relationship between self and the world of work.
- **Synthesis**: involves expanding and then narrowing options to three to five possible alternatives.
- **Valuing**: evaluating costs and benefits of each option.
- **Executing**: formulating a plan to implement the career choice.
Six steps of career decision-making (Bureau of Labour Statistics Occupational Outlook Handbook, 2005)

Making a decision about selecting a career direction can be a challenging and sometimes confusing process. Accurate self knowledge informed and nurtured by thorough exploration leads to informed career decisions. Bureau of Labour Statistics Occupational Outlook Handbook, (2005) described six steps of career decision-making process as:

Step 1: Explore capabilities and interests,
Step 2: Understand the world of work and education,
Step 3: Understand and develop decision-making skills,
Step 4: Learn how stereotyping, bias and discrimination limit choices opportunities and achievement,
Step 5: Develop a career plan,
Step 6: Develop employability skills.

Critical Analysis of Career Theories

Each theorist viewed career choice and development from a different perspective and focused heavily on specific selected aspects. For example, Super and Ginzberg (1954) look at the process of career development very comprehensively, studying and describing it across the entire lifespan and multiple life roles; Holland (1959) confines his focus to the understanding of occupational choices at a given point in time; Krumboltz (1979) focuses on the learning process and how it affects vocational choice and change etc. Each theorist has focused on specific pieces of the career choice or development process; not even one theorist presents a comprehensive picture. While these key theories, along with many other informative perspectives have elucidated a variety of factors that impact upon career development, the accrual of a deeply synthesized knowledge base has been protracted (Prideaux, 2003). A fully integrated career theory has yet to be defined and according to Vodracek (2001), vocational psychology has not yet realized its potential as a developmental science (p.252). Thus, in the realm of scientific investigation, career development theorizing is an area of research that is in a relatively early stage of advancement (Brown, 1990; Brown & Brooks, 1996; Savickas, 2001).
Currently the generally accepted theoretical understandings of career theory are that:

- No single theory is adequate to explain the complexity of career development.
- Traditional theories are being refined, and new theories are emerging.
- All theories contribute to our understanding of career development.
- Increasing emphasis has been placed on the process of career development, holism and interconnectedness.
- Individual’s career cannot be understood independently of his/her context.

The present study drew upon the various theories mentioned above to understand the varied influences on career decision making and formulate the difficulties of career decision-making.

**Career Decision-Making Difficulties**

Career decision-making difficulties, also called as barriers or career choice problems, have been described as factors that thwart the achievement of career goals (Crites, 1969).

Career decision-making difficulty is a problem or group of problems that may contribute to an inability to make a career decision, or an incorrect career decision (Gati et al., 1996).

Difficulties in making decisions could occur if decision makers do not possess relevant information, have conflicting information, or do not know how to process the information (Gati, 1986). Difficulties could also arise when the psychological characteristics of the individual interfere with decisions tasks (Crites, 1969). These difficulties are traced either before or during the decision-making process, are divided into cognitive or emotional difficulties and hinder the decision-making process (Osipow, Carney, & Barak, 1976). Many students struggle with the decisions they have to make about a college and school to work transition. (Chartrand, Rose, Elliot, Marmarosh, & Caldwell, 1993; Gati et al., 1996; Leong & Chervinko, 1996), also broadly define career indecisiveness as difficulties that an individual has in career decision-making. Career indecisiveness refers to every problem or obstacle that appears in the career decision-making process (Fuqua et al., 1988).
Hence, the empirical studies on the construct of career indecision provided us with a vehicle to realize the difficulties our clients might encounter opined Gati et al. (1996) and they presented taxonomy to explain career difficulties people might encounter. The taxonomy is based on a meta-analytical study. Gati et al. (1996) emphasized the need for a new phrase of reference that would relate theories to empirical studies. They, therefore, developed a theoretical model called the taxonomy of career decision making difficulties.

This taxonomy is based on a normative decision-making theory which depicts that an individual observes a problem, explained as a gap between the current situation and the expected outcome, and explores possible alternatives (Lancaster et al., 1999). The ideal decision maker, who serves as a benchmark in this taxonomy, is an individual who is (a) aware of the need to make the decision, (b) ready to make the decision and (c) capable of making the right decision i.e., a decision that is based on an appropriate process and is compatible with the individual’s goals (Gati et al., 1996; Powell & Luzzo, 1998).

Mau (2001) examined the relationships between career decision-making difficulties and career indecision in relation to its cultural groups. American and Taiwanese university students. Structural equation modeling (SEM) shows that the taxonomy of career decision-making difficulties can be reliably measured for American college students. However, the data based on the Taiwanese students has a relatively poor fit of the factorial model. Compared to the American students, Taiwanese students report more difficulties in career decision making and tend to be more indecisive in their career decision making.

Lease (2004) explored racial and academic type group differences on career locus of control, career-related mentoring, and work related knowledge. African American students reported greater work knowledge but a more external locus of control than White students did. Race and type of academic institution did not moderate the relationships between locus of control, work knowledge, and career decision-making difficulties. An external career locus of control was associated with decision-making difficulties; however, White students reported greater career decision-making difficulties.
Harun (2006) investigated the difficulties in career decision making differs according to different demographic factors. The demographic factors involved are ethnicity, level of education, parent’s background occupation choice and confidence level. The results were analyzed by using an independent samples t-test, one-way ANOVA and Pearson’s correlation with career decision making difficulties. Overall, respondents face moderate difficulty in career decision making. Among the three dimensions that measure career decision-making difficulties, lack of information was the main factors that most of the students encounter in career decision making.

Kesic, Hamrata, and Arslan (2008) determined whether the parental attitudes and guidance needs are the important signs or not of the career decision making difficulties. The study group of the research consists of 574 eighth grade students attending to the elementary school. In order to analyze the data of the research Pearson’s moments correlation coefficient and stepwise regression analysis techniques have been used. The results indicated insignificant correlation between the decision-making difficulties and parental attitudes is found. Positively significant correlation between decision making difficulties and personal/social guidance needs ($r=.346$, $p<0.05$) and educational guidance needs ($r=.294$, $p<.05$) and career guidance needs ($r=.189$; $p<.05$) were found. The personal, social and educational guidance needs of the elementary school students have been found to be important signs of career decision making difficulties.

Brosseau, Domene, and Dutka (2010) explored the connections between romantic partner involvement and career decision-making difficulties. Eligible participants ($N = 105$) were between the ages of 20 and 40 and currently involved in a committed romantic relationship of at least one year in duration. Hierarchical multiple regression revealed that, after accounting for gender, age and school status, level of partner involvement was a small but significant predictor of career decision-making difficulties.

Slaten (2011) examined hypothesized model predicting the relationships between career decision making difficulties and family belongingness, a form of relatedness. Participants included 436 college students at an urban university, who completed measures of belongingness, psychological distress, academic motivation, and career decision-making difficulties. The results of this study imply that the hypothesized model is a good fit and accounts for a large portion of the variance. The results of this investigation indicate that family belongingness specifically has a powerful relationship with career decision-making difficulties and had a significant relationship with all other variables that were measured.
Koumoundourou, Tsaousis, and Kounenou (2011) examined the mediating role of core self-evaluations (CSE) on the relationship between family and parental variables and adolescent’s career decision-making difficulties. Using a sample of 289 Greek students, it was found that for male students the permissive and authoritarian parenting styles and the family cohesion contributed significantly to the prediction of career decision-making difficulties. Males’ decision-making difficulties were not influenced by CSE. Contrary to males, CSE fully mediated the relationship between the authoritarian style and females’ decision-making difficulties.

Taber (2013) examined the relations among past, present, and future time perspectives and career decision-making difficulties in a sample of 195 adults seeking career counseling services. Participants completed the Zimbardo Time Perspective Inventory (ZTPI) and the Career Decision-Making Difficulties Questionnaire (CDDQ). Results from canonical correlation analysis produced three significant canonical variates. The results indicate that different patterns in time perspective are associated with different types of career decision-making difficulties.

Research on career decision-making problems has been largely focused on career indecision and has been investigated without much effort toward integrating theories and empirical evidence (Osipow, 1999). The Career Decision-Making Difficulty Questionnaire (CDDQ; Gati, Krausz, & Osipow, 1996) was created to address concerns related to a lack of theoretical focus and multidimensionality in the current instruments.

**Taxonomy of career decision-making difficulties**

The taxonomy of difficulties in career decision making developed by Gati et al. (1996) which stems from a decision-theory viewpoint (Gati, 1986; Katz, 1966; Mitchell & Krumboltz, 1984; Pitz & Harren, 1980) and is based on previous theoretical discussions and empirical research regarding the characteristics, dimensions, and sources of vocational indecision (Savickas, Carden, Toman, & Jarjoura, 1992; Shimizu, Vondracek, & Shulenberg, 1994).

The difficulties in this taxonomy are defined as a deviation from the model of *the person that makes career decisions perfectly*. Each deviation from the model of such person is regarded as a potential difficulty, which can influence an individual’s decision-making process in such a way that it can hinder or impede the individual in his/her decision-making process, or the individual makes a decision that is not optimal (Gati et al., 1996).
The taxonomy of career decision-making difficulties include three major difficulty categories that are further divided into ten subcategories presented as under:

**Lack of Readiness** includes three sub-categories of difficulties:

(a) *Lack of motivation* to engage in the career decision-making process,
(b) *General indecisiveness* concerning all types of decisions, and
(c) *Dysfunctional myths*, including irrational expectations about the career decision-making process.

**Lack of Information** includes four sub-categories of difficulties:

(a) *Lack of knowledge about the steps* involved in the process.
(b) *Lack of information about the self*,
(c) *Lack of information about various alternatives* and
(d) *Lack of information about the ways of obtaining additional information.*
Inconsistent information includes three sub-categories:

(a) **Unreliable information**, that is difficulties related to unreliable or contradictory information.

(b) **Internal conflicts**, which are conflicts within the individual as opposing preferences of difficulties related to the need to compromise and;

(c) **External conflicts** (that is, conflicts involving the influence of significant others).

A detailed overview of three major difficulty categories and the ten sub-categories is being presented as under:

**Lack of Readiness**

**Lack of motivation**

Motivation is the combination of a person's desire and energy directed at achieving a goal. It is the cause of action. Influencing people's motivation means getting them to do what you know must be done (Military Leadership, 1993). It is about having energy, drive and enthusiasm and it is often most evident when it is absent.

A lack of motivation changes the outlook of a person. It works in different ways for different people, it impacts on the quality of the work, results start suffering and in careers, as we are measured on our results. If we are not motivated, it can impact our ability to make the right decision. Where an individual is motivated to succeed, it gives him/her a guiding principle around to make decisions. There is a goal in sight which can greatly consolidate our decision-making skills.

Chartrand and Nutter (1994); Larson et al. (1988) suggested that students could be termed vocationally immature and not ready to begin the career planning process which may be due to lack of motivation.

Gaffner and Hazzler (2002) stated three major factors that were, according to them, important in preventing students from being ready to make a career decision. These three factors are 1) lack of motivation, 2) dysfunctional myths and 3) lack of knowledge about the process of decision-making. They said that lack of motivation may indicate an attitude problem.
Larson and Majors (1998) suggested that affective distress associated with career decision making among adolescents may be adaptive because it increases the motivation to seek help, thus decreasing the chances of uninformed decisions. (Luzzo, 1995, 1996; Swanson & Tokar, 1991; Creed, Patton, & Bartrum, 2004) have suggested that perceptions of barriers might motivate increased career-related activity.

Patricia (2007) conducted regression analysis on career indecision and the lack of motivation; scores from the motivation profile indicated a statistical relationship between career indecision and the lack of motivation to persist.

General indecisiveness

In the literature, the concept of general indecisiveness is used to explain being undecided in a broad range of decisions (Germeijis & De Boeck, 2002). To measure general indecisiveness, people had to indicate to which extent they faced each of these problems when making decisions in general.

General indecisiveness is a personality characteristic that slows down the decision process and that it is already present before the process starts (Gati et al., 1996). From the characteristics of general indecisiveness, it is expected that people who are general indecisive will encounter many problems in decision making. Therefore, general indecisiveness may be expected to contribute significantly to career indecision (Cooper & Gene, 1984).

A number of authors viz. Holland and Holland (1977); Salomone (1982); Van Matre and Cooper (1984) have suggested that practitioners look at indecisiveness as a trait while treating undecidedness as a state. Indecisiveness as a trait has been identified with such personal characteristics as anxiety, self doubt, perceiving barriers to preferred choices and a lack of clear sense of personal identity.

Herr, Rayman, and Garis (1993) pointed out that career indecisive students exist in significant number and experience different problems, requiring different interventions.

According to Sampson, Reardon, Peterson, and Lenz (2004), the indecisive career decision maker faces a host of challenges like gaps in self and occupational knowledge combined with decision making deficits which limit the effectiveness of career choice. They suggested that the difference that distinguishes indecisiveness from indecision pertains to executive processing. Indecisive individuals may demonstrate excessive negative self-talk, attention confused thought processes. These cognitive information processing difficulties significantly impair the career choice process.
Creed, Prideaux, and Patton (2005) remarked that there are different types of career indecision and those who suffer from chronic indecision may be worse than others who are developmentally indecisive.

**Dysfunctional myths/beliefs**

Dysfunctional myths/beliefs reflect a distorted perception of the decision making process and includes irrational beliefs and expectations from career decisions.

Holland and Holland (1977); Salomone (1982) defined that the certainty of those who are simply indecisive about their occupational choice is due to limited information about themselves and/or the world of work, while indecisive persons bring dysfunctional beliefs or behaviours to career planning. These attitudes make indecisive individuals unable to use rational decision-making strategies.

According to Amundson (1997); Mitchell and Krumboltz (1996) people’s beliefs about themselves and the world of work influence their approach to learning new skills, developing new interests, setting goals, making career decisions, and taking actions toward career goals. Zunker (2002) defined indecisive as clients beliefs about careers, career decision making styles, identity issues, maladaptive behaviors, degrees of anxiety, fear of failure, and reasons why people are undecided (p.212). According to Amundson, (1997) career myths are incorrect assumptions and generalizations about the career counseling and decision-making process. These myths are common beliefs internalized from family emanating from social environment in which they live.

Stead, Watson, and Foxcroft (1993) reported a relation between career indecision and irrational career beliefs. Saunders, Peterson, Sampson, and Reardon (2000) investigated the relationships between depression, dysfunctional career thinking and career indecision in undergraduate university students and suggested that dysfunctional career thinking was a significant predictor of career indecision.

**Lack of Information**

*Lack of knowledge about career decision-making process*

The decision-making processes adolescents employ in their career planning range varies from the complex to very simple. However, regardless of the decision-making process used, information from some source, even if only from adolescent’s own head, must be obtained and organized. De Boeck (1999) found that in the early stages of the choice process both the information and valuation factors correlated with indecision.
Larson et al. (1988) suggest that some students are not ready to make decisions due to lack of information about the career planning process. Chartrand et al. (1994) found a similar need for information about the process in their developmentally undecided cluster.

Undecided individuals do not experience a great deal of pressure to make career related decisions and delay the process while they acquire additional information about themselves, occupations and the world of work or the decision-making process (Salomone 1982).

Downing and D’Andrea (1994) reported that although parents feel they are actively involved in their children’s career decision making, they also feel that they are uninformed about the process and unable to provide competent help.

Brown and Brooks (1996) noted that that a variety of individual characteristics can hinder the career decision making process and that some students may have too few interests, have unrealistic or self-limiting aspirations, or are resistant to career counseling.

According to Gaffner and Hazler (2002) inadequate knowledge about the career development process inhibits students from making decisions, and hence, may impact indecisiveness.

**Lack of information about self**

Self knowledge covers a broad array of information and lack of information about the self is related to value unclarity, uncertainty about one’s capability to bring a choice to a good end and inability to understand his or her strengths, weaknesses, interests and personality.

Pilato and Myers (1975) found that giving student’s accuracy of self-knowledge feedback as well as training in an occupational classification scheme was superior to either one separately for improving the appropriateness of occupational preference level.

Callahan and Greenhaus (1990) developed a model and scale of career indecision and tested them with a sample of 397 managers and professionals. Analysis indicated that four major factors were sources of career indecision among this adult sample: a) lack of self information, b) lack of information, c) decision-making fear and anxiety, and d) situational constraints.
According to Gaffner and Hazler (2002) progress in career development becomes blocked when there is a lack of information about self.

According to Julien (1999) information used by adolescents in making decisions about their future career includes attitudes and beliefs acquired during childhood, including specific information provided by a number of sources, including parents, siblings, other family members, family friends, peers, guidance counselors, teachers, school and public library resources, the mass media and government career centers.

Jurgens (2000) stated that self-knowledge can be developed through assessment results and according to Austin, Wagner, and Dahl (2004) gaps in self and occupational knowledge combined with decision making difficulties limit the effectiveness of career choice.

**Lack of information about occupational information**

Occupational information reflects lack of information regarding the existing array of career options, what alternatives exist and/or what are the characteristics of each alternative.

Information used by adolescents in making decisions about their future work-lives include attitudes and beliefs instilled during socialization and in school, and specific information provided by any number of sources: Parents, siblings, other family members, family friends, peers, guidance counselors, teachers, school and public library resources, the mass media, and government career centers.

Information can be imparted purposefully by particular sources, as is occasionally done by guidance counselors and parents, or it can be identified by the information seeker who attends, on both unconscious and conscious levels, to the stimuli and behavioral models in her or his environment. Most important, perhaps, is that the value of such information lies not in its volume (Jepsen, 1989), but in its usefulness to career decision makers.

Westbrook (1972) found that career counseling groups incorporating explicit presentations of occupational information led to greater and longer retention of such information. Several researchers have studied the impact of the method of presenting occupational information on the amount and accuracy of information obtained.
Waas (1984) observed that providing occupational information alone was insufficient to increase the cognitive differentiation among careers and suggested that personality information should be also be provided in addition to occupational information.

According to Holland (1985) those who have an adequate amount of self-information and occupational knowledge will make better decisions whereas those without this information will make poor decisions.

According to Larson et al. (1988) students who lack career information may enter college and quickly find that their career goals are unobtainable or unsuitable.

Research by Oliver and Spokane, (1988); McAuliffe and Fredrickson, (1990); Savickas, (1990) and McAuliffe, (1991) showed that career courses increased occupational information seeking.

Jones (1989) in his career decision profile used to differentiate individuals according to four reasons they may have for being undecided:

- Lack of self clarity.
- Lack of knowledge about occupation.
- Indecisiveness.
- Career choice importance.

**Lack of information about ways of obtaining additional information**

Career indecision is a developmentally appropriate experience. It may fluctuate depending on a variety of situational factors (Osipow, 1999) and is likely to resolve with the assistance of appropriate interventions, including access to appropriate career-related information and assistance with clarifying values and goals (Gordon, 1981).

Osipow (1997) suggested that all students, regardless of social background, personality and past experiences, would improve their future career decision making process by having a solid high school educational program and knowledge about how to access career information.

Gaffner and Hazler (2002) stated that progress in career development may become blocked when there is a lack of information about the world of work (occupational information) and ways of obtaining information.
Taylor, Harris, and Taylor (2004) emphasized the need to prioritize the provision of career information to parents and suggest that this should include information on various careers, how to use career resources, and helping parents understand the influence they have on their children’s career decision making.

**Inconsistent Information**

**Unreliable information**

It depicts difficulties related to unreliable or contradictory information. A basic distinction has been made between students regarded as situational undecided because of informational defects and students who are undecided because of character deficits (Salomone 1982).

Parents are often not adequately informed about how to help their adolescent children in their career decision making (Jeffrey, Lehr, Hache, & Campbell. 1992; Young, 1994).

Julien (1999) surveyed Canadian adolescents about their information seeking for career decision-making. The results revealed that 40% of the adolescents of the study did not know where to go for help in their decision-making and 38% felt that they needed to go to so many different places for the information they required. The respondents also shared that the trustworthiness of the information sources was critical to the ultimate usefulness of the help that they received.

Sirois-LeBlanc and Landine (2006) found a significant reduction in the unreliable information and internal conflicts subcategories of career decision making difficulties measured by career decision-difficulties questionnairie following a series of workshops titled *taking the fear out of career choice*.

**Internal barriers/conflicts:**

Internal conflicts are conflicts within the individual as opposing preferences and difficulties related to the need to compromise.

Osipow, Carney, and Barak (1976) presented a different approach to understanding the career process when they directed their focus to looking at barriers preventing people from making career decisions.

Greene-Black (1988) stated that perceived barriers are almost uniformly considered instrumental in eroding student’s self-confidence and complicating the career planning process.
Recent research suggests that college students perceive a substantial number of barriers to their career goals (Luzzo, 1993; Luzzo & McWhirter, 2001; Swanson & Tokar, 1991). Financial concerns, role conflicts, and family influences are some examples of contextual variables that can be perceived as barriers to certain career choices, which therefore affect individual’s career decision (Lent et al., 2003).

Patton, Creed, and Watson (2003) found that perceived work barriers were related to less career certainty and more career indecision in their sample of Australian and South African adolescents.

Constantine, Wallace, and Kindaichi (2005) examined the extent to which perceived occupational barriers and perceived parental support predicted career certainty and career indecision in a sample of African American adolescents. Perceived occupational barriers were positively predictive of career indecision, and perceived parental support was positively associated with career certainty.

**External barriers/conflicts**

External conflicts are conflicts involving the influence of significant others. This indicates a gap between an individual’s preferences and between the preferences voiced by others who are significant to him/her.

Barak and Friedkes (1981) reported that clients who perceive external barriers and who experienced personal conflict gained the least from a standard counseling process.

Vondracek et al. (1990) identified career indecision that those students who experienced external barriers and lacked interest in decision-making found career undecided.

According to Middleton and Loughead (1993), parental influence may have a less beneficial impact on adolescent’s career exploration and decision making when it is characterized by non-involvement, indifference or negative involvement. This creates barriers for adolescents who are attempting to achieve their own career goals.

Brown and Brooks (1996) noted that external barriers, such as pressure to make a prestigious decision, conflict with parents, lack of financial resources, prejudice and stereotyping make career decision-making more difficult.

According to Lent, Brown, and Hackett (2000), a career decision-making task requires the person who is making the decision to interact with many individuals who might hinder or support his or her choices. Such individuals include parents, teachers, peers, and friends, all of whom may either create barriers or facilitate the formulation and achievement of the person's objectives.
The career decision-making difficulties addressed in the present study are operationally defined as the career decision-making difficulties faced by adolescents based on taxonomy proposed by Gati et al. (1996) and measured by career decision-making difficulties questionnaire (CDDQ)

**Factors Affecting Career Decision-Making Difficulties**

Career decision-making difficulties are influenced by a range of factors and issues, including personal and motivational factors i.e. parents and other relatives, friends and peer groups, career specialists, subject teachers, contact with employers and direct experiences of employment and individual interests and values.

Based on research evidence Luzzo, 1993, 1995; McWhirter, 1997; Petrone, 2000; Patton and Creed, 2001; Gaffner and Hazier (2002); Pecjak and Kosir (2006), the investigator had made an attempt to further categorize various factors affecting the career decision-making difficulties as Personality and Motivational Factors in Fig. 1.3

![Figure 1.3 Factors affecting career decision-making difficulties](image-url)

Figure 1.3 Factors affecting career decision-making difficulties
Recent studies revealed that a significant proportion of students are undecided about their career paths (Lee, 2005) and that career indecision is related to various factors. Given below is a brief overview of personological and motivational factors affecting career decision-making difficulties.

**Personological Factors Affecting Career Decision-Making Difficulties**

**Knowledge**

Knowledge is one of the broad ability areas identified in factorial studies of intelligence. It is also probably the single most important of the broad ability factors for overall adult vocational success.

Dungy (1984) found that students with limited self-knowledge, occupational knowledge, confidence, willingness to assume responsibility and willingness to use resources, were correspondingly less successful and more uncertain in making career decisions.

Austin, Wagner, and Dahl (2004) gaps in self and occupational knowledge combined with decision making difficulties limit the effectiveness of career choice. Much has been made of the degree to which knowledge is relevant to one occupation can transfer to be useful in performance of work in another occupation.

**Abilities**

The concept of abilities can be defined as describing what the person can do now, or will be potentially be able to do in the future (Betz, Fitzgerald, & Hill, 1989).

Ryan-Krane and Tirre (2005) reported that ability assessments are used to help individuals identify job possibilities in which success is increased. This is done by assessing abilities that can be immediately transferred into job-related skills and by testing aptitudes to predict areas of potential that could be tapped in the future to maximize occupational success.

**Values**

In Brown’s theory, values serve a variety of purposes, including standards against which to judge actions, serve as the basis for setting goals (and therefore aid decision-making), and support rationalizing behaviour. Brown assumes that value affects career development through the operation of a values system.

Lent et al. (1996) found that if clients do not have realistic perspective on their abilities, skills, interests, and values they may strive to reach unattainable goals but experience failure and discouragement.
Fukuyama et al. (1988) used a pre-test post-test design to assess the values and found significant increases in the career decision making self-efficacy of students.

**Interest**

Career interests are usually expressed as behaviours or actions, and are a means by which people attain their values and meet their needs (Super, 1995). There is some evidence that people with different interests approach career decision-making in distinctively different ways and with varying degrees of success. Holland and Nichols (1964) found that students with creative interests appeared to exhibit high degrees of career indecision, as did students with characteristics conducive to achievement.

Patton and McMahon (1999) stated that careers are influenced by parents, social and environmental context and economic climate, interests, ability, geography, and many other events. Handbook of Career Counseling, UNESCO (2002), outlines the reasons why individuals enter particular occupations which vary according to the amount of importance placed on personal preferences, such as interests, or external influences, such as labour market trends or parental expectations.

**Depression**

Depression is a state of low mood and aversion to activity that can affect a person's thoughts, behaviour, feelings and physical well-being. Depressed people may lose interest in activities that once were pleasurable, or problems concentrating, remembering details or making decisions.

Saunders et al. (2000) investigated significant relationships between depression, dysfunctional career thinking and career indecision in undergraduate university students.

Lucas (1993, p.444) found that the most indecisive group is more nervous, less self-confident and more depressed than the other three groups identified.

**Age**

Peterson (1993) calls for identifying the importance of career decision-making self-efficacy and how it varies based on student’s background characteristics, specifically age, for the purpose of identifying the implications for the role that educators might have in the career development of these students.

Patton and Creed (2001) found girls in their large sample to have higher indecision scores than boys. A fluctuating pattern of career indecision according to age was also revealed by these authors who concluded that decisiveness was affected by external pressures within the school system (p. 348).
Mau (2004) compared difficulties experienced by university students with those experienced by high school students. He found that university students reported considerably fewer difficulties in career decision-making than high school students, regardless of race and ethnicity, and suggested that this was a result of career maturity.

**Aptitudes**

Aptitudes are strong predictors of both educational and job performance. Bennett, Seashore and Wesman (1982) define aptitude as a condition or set of characteristics regarded as symptomatic of an individual’s ability to acquire with training some (usually specified) knowledge, skill, or set of responses, such as the ability to speak a language (or) to produce music. Walsh and Betz (1985) states an aptitude is the capacity to learn.

Adams (1997) defined career readiness as a level of maturity to acquire specific information on career options; to identify interests, values, and aptitudes; to use this information in career planning and course selection; and to change plans when pertinent information is presented.

**Emotional stability**

Emotional stability is the strongest predictor for career decision making difficulties. This implies that a career decision making process is a demanding, responsible and stressful task for a student. This is one of the most important decisions the students make. Students who are more emotionally stable and can better cope with stress are more efficient also in coping with dilemmas related to the further education.

Students who are emotionally stable (can cope with stressors, are relaxed and can stay calm in tense situations), extraverted, and feel competent, have fewer career decision making difficulties. A similar conclusion was also reported by Morera, Maydeu-Olivers, Nygren, White, Fernandez, and Skewes (2006).

Sampson et al. (1996) reported that client’s who experience negative emotions associated with the career decision making process may perceive themselves as less able to cope with stress.

**Beliefs**

Vocational choice is influenced by the beliefs the individuals develops and refines through four major sources: a) personal performance accomplishments, b) vicarious learning, c) social persuasion and d) physiological states and reactions. The career decision-making process reinforces one’s self-efficacy or belief in future continued success in the use of this ability/expertise.
According to Lewis and Gilhousen (1981) raising awareness of beliefs is as important as knowing one’s interests, aptitudes, and values since this information is of little value if a client cannot put them into realistic perspective.

**Life style**

Lifestyle is the individual’s style of perceiving, thinking, desiring, and acting which together create a unique personality configuration. The lifestyle is essentially the core schema of a person, in much the same way that a kernel program can serve as the core of a larger software system; it affects and is reflected by everything the individual does, thinks, and perceives.

Sutera (1977) used the Career Decision Scale (CDS) to gauge the impact of a residential career planning program. There is a significant change in pre- and post-test scores of career indecision which includes personal meaning of work, work values and personal lifestyles, concepts of effective decision-making, career development as a lifelong process, the structure of the world of work, assessment of personal characteristics, gathering occupational information, and job search strategies.

Carney (1977b) used the Career Decision Scale to monitor the pre-and post-changes during a career development workshop conducted with college students who were exposed to activities designed to help them exploit chance factors operating in their lives, life experiences, life style preferences, their personal values, aptitudes and abilities, interests and information about the world of work.

**Anxiety**

Several individuals have suggested that making an effective career choice may also be stressful, causing the individual confusion and anxiety (Peterson et al., 1991; Sampson et al., 1996, 1998).

Many research studies have shown that anxiety is related to career decision-making difficulties (Betz & Taylor, 2006; Larson et al., 1994; Lucas, 1992; Hartman, Fuqua, & Blum, 1985; Cohen et al., 1995; Kelly & Lee, 2002) and reported conflicting results.

Wanberg and Muchinsky (1992) in their analyses have shown that indecision is associated with high levels of anxiety and choice anxiety has also been identified as one of the factors affecting career decision-making (Kelly & Lee, 2002). Career indecision has been linked to high rates of anxiety and depression, (Saunders et al., 2004).
Larson et al. (1994) explain that anxiety represents an emotional obstacle that decelerates the career decision-making process or impedes it.

**Decision-making style**

Decision-making style has been defined as a habitual pattern individuals use in decision making (Driver, 1979) or individual’s characteristic model of perceiving and responding to decision-making tasks (Harren, 1979).

The relation between an individual’s predominant decision-making style and his/her efficiency in the career decision-making process are also frequently examined in empirical studies. A rational decision-making style has been found to be associated with career maturity (Blustein, 1987; Dilley, 1965), planning and information gathering (Jepsen, 1974), ego identity (Blustein & Phillips, 1990), career decisiveness (Lunneborg, 1978; Mau, 1995) and problem solving efficacy (Heppner, 1978; Phillips, Pazienza, & Ferrin, 1984a).

**Personality**

The word personality is often used to describe person’s physical appearance, form of speech or manner or the amount of glamour he/she possesses. To some people, personality is that which an individual is born with, which is unaffected by environmental influences, and which permeates all his actions. Others regard an individual’s personality as the person himself, and they use two terms, personality and person interchangeably.

The relationship between personality and career decision-making behavior of an individual has been investigated by many researchers (Bordin, Nachmann, & Segal, 1963; Holland, 1962, 1966a, 1966b; Roe, 1957). Although the personality characteristics of career-wise decisive and indecisive subjects have been studied by a number of researchers, such as Sabourin and Coallier (1991), Reynolds and Gerstein (1991), it has been pointed out by Tiedman (1992) that no systematic effort has yet been made to employ a paradigmatic approach to find out the relationship between personality dimensions and career decision making.

**Optimism**

Powell and Luzzo, (1998); Petrone, (2000); Creed et al. (2002) found that students who endorsed higher levels of optimism showed greater career planning and exploration and were more decided about their careers and had more career goals, while those high in pessimism reported less career knowledge, were more indecisive and achieved more poorly academically.
**Decision-making skills**

Peterson et al. (1996) constructs decision-making skills transform knowledge of self and occupation into problem recognition and implementation of a solution.

According to Swanson and Achiardi (2005) career decision making skill is an important variable to assess the career counseling process because not all clients are similarly skilled, or confident about making a career choice even after exploring their interests, skills/abilities, and values.

Ware (1980) indicated that career decision making skills mediate the influence of models and direct reinforcement on career preference.

**Attitudes**

Schmeiding and Jenson (1968) in an attempt to change attitude and impressions regarding work, of eleventh and twelfth graders, observed a trend in the positive direction due to an occupational unit course of sessions.

DeRidder (1990); Penick and Jepsen (1992) children are influenced by their family’s work values, attitudes, and behaviors.

Powell and Luzzo (1998) found that those who had more personal control over their career decisions had more positive attitudes towards career decision making and were more career aware. While Julien (1999) states that the information used by adolescents in making decisions about their future career includes attitudes and beliefs.

**Fear of commitment**

Work commitment is defined as the relative importance of work to one’s sense of self (Losocco, 1989). The concept of work commitment has received growing attention from researchers and practitioners, covering specific commitment facets such as the organization, work group, occupation, and one’s job (Cohen, 1999, 2000; Morrow, 1993; Randall & Cote, 1991)

Serling and Betz (1990) found that the construct or fear of commitment and its associated measure are intended to tap the indecisiveness component of decisional difficulties, as opposed to indecision based primarily on lack of information or knowledge of how to make a career decision.

Leong and Chervinko (1996) reported that the indecisive type of individual has a fear of commitment which is associated with high levels of career indecision.
**Race/Ethnicity**

Smith (1983) defines race as a subgroup of individuals who share a particular combination of physical characteristics and genetic origin. Ethnicity refers to a group’s shared sense of history and values and is more cultural than physiological.

Luzzo and McWhirter’s (2001) study demonstrated that female and ethnic minorities anticipated significantly more career-related barriers than did male and European American undergraduates, and exhibited lower self-efficacy for coping with these perceived barriers.

Mau (2004) also investigated racial and ethnic differences in career decision-making difficulties and found that Asian American students perceived significantly more difficulties than other groups, while white American students perceived the fewest difficulties. In addition, women in Asian countries are believed to have lower social status and often occupy lower hierarchical decision-making ranks, and hence are more likely to feel inadequate when making their own career decisions (Mau, 2000).

**Socio economic status**

Social class, or socioeconomic status (SES), has been acknowledged as a powerful determinate of vocational behavior since the inception of the discipline.

Glasgow (1980) describes the underclass as already earmarked for failure – they are undereducated, jobless, without social skills or the social credentials to gain access to mainstream life.

According to Splete and Freeman-George (1985), the major determinants of children’s career development can be categorized as: geographic location, genetic inheritance, family background, socio-economic status, family composition, parenting style and parental attitudes towards work.

Whiston and Keller (2004) found that very few family structure factors like for example, race or ethnicity, socio-economic status, parent’s occupational or educational background and family size, directly influenced career outcomes.

**Identity status**

General self and identity-related variables such as personal and vocational identity variables (Blustein, Devenis, & Kidney, 1989), self-esteem (Kishor, 1981; Santos, 2001; Wulff & Steitz, 1999), and trait anxiety (Brown, 1987; Santos, 2001) were found to be correlated with career indecision.
Vondracek, Schulenberg, Skorikov, and Gillespie (1995) examined the relationship between identity statuses and different kinds of career decisions. The findings showed that membership in a specific identity status group were significantly related to the nature and amount of career indecision. Achievement responders had significantly lower career indecision scores than respondents in other three status groups.

**Cultural differences**

Cultural factors are important contextual determinants when making career-related decisions (Lent et al., 1996). People in western cultures tend to be more individually oriented, with a focus on personal rights, well-being of the self and immediate family, and personal autonomy and accomplishments.

Zhou and Santos (2007) found significant cultural differences on the subcategories of the career decision-making difficulties questionnaire (e.g. Chinese participants were significantly less ready than British participants to make career decisions) and some significant gender differences (e.g. male participants generally experienced fewer difficulties than female participants in career decision-making) were identified.

Luzzo and McWhirter’s (2001) study demonstrated that female and ethnic minorities anticipated significantly more career-related barriers than did male and European American undergraduates.

Research studies found contradictory results in relation to career decision-making difficulties with cultural differences (Hardin et al., 2001; Mau, 2000; Tang et al., 1999; Lent et al., 1996).

**Vocational identity**

Vocational identity refers to the integration and crystallization of an individual’s energy, aptitudes and opportunities into a consistent sense of the uniqueness of himself or herself and fit into the vocational world (Turner & Lapan, 2005).

According to Holland (1997) vocational identity describes the clear and stable picture of one’s goals, interests, and talents (p. 5). Research shows that vocational identity development corresponds to overall progress in the career decision-making process (Savickas, 1985). In contrast, low identity was found to be connected with undecidenedness (Lucas, Gysbers, Buescher, & Heppner, 1988) or even more fundamental personality problems such as low emotional stability (Saunders et al., 2000).
Motivational Factors Affecting Career Decision-Making Difficulties

**Career guidance**

The roots of career guidance can be found as far back as the ancient Chinese Empire with the repeated accounts of the system civil service examinations (Anastasia & Urbania, 1997). However, the contemporary form of career guidance in this country evolved in the late nineteenth and early twentieth centuries (Gray & Herr, 1998). The industrial revolution had a great influence on the emerging processes of vocational guidance, now career guidance (Gray & Herr, 1998, p. 215). The 1980s and 1990s brought about a series of significant legislations that continued to reinforce the importance of career guidance, defined its elements, and affirmed its essential role in vocational education (Gray & Herr, 1998, p. 222).

Gray and Herr (1998) indicate that the terminology career development is more likely to be used in the college and university setting than career guidance. Career guidance is more frequently associated with educational institutions serving kindergarten to grade 12.

One of the elements that will drive the structure of career development program in a higher education institution is the nature of the student body.

**Self-esteem**

Self-esteem has been understood to be positive feelings of self-regard. Self-esteem is likely to have a strong impact on job satisfaction, job tenure, effort and performance at work, and quality of relations with co-workers. Vocational self-esteem may be considered to be positive self-regard as it relates to one’s value as a worker, or at least one’s self-worth as a worker.

Wanberg and Muchinsky (1992) analysis have shown that indecision is associated with poor self-awareness, low knowledge of academic vocational reality, high levels of anxiety, low self-esteem, and external locus of control.

Blustein (1989) feels that some factors that account for this variability include self-esteem, ego-strength, openness and decision-making style.

**Locus of control**

Locus of control defined as the degree to which an individual believes he/she is in control of personal outcomes is yet another construct essential to the understanding of career decision-making.
Locus of control has been found to be related to a variety of choices people make in their lives including vocational and career decisions (Maddux, 1991) and found positive relationship with career decision-making difficulties by Blustein and Phillips, (1988); Hartman and Fuqua, (1983); Lent et al., (2000) and negative relationship by Taylor and Popma, (1990).

Lucas and Epperson (1988) in their research study indicated that students with external locus of control will be delayed in career decision making. Locus of control has also been shown to be associated with career decision-making (Denga, 1984).

**Career services**

Factors that may influence an individual’s career decision-making difficulty include career services (Fouad, 2006). If a link exists between any of the services offered by University Career Services and student’s ability to make a career decision, career services practitioners could use this information to better market their services (Di Fabio & Bernaud, 2008), and in the development and implementation of new services, or extending and improving existing ones.

If academic advisors and career counselors know which students are facing career decision-making difficulty, and what services are available to them which can alleviate or minimize that difficulty, then they target those students with specific information (Nagle & Bohovich, 2000).

**Career decision-making self-efficacy**

Career decision-making self-efficacy involves a generative capability in which component cognitive, social and behavioral skills must be organized into integrated courses of action to serve innumerable purposes (Bandura, 1982, p.122). The role of self-efficacy as a fundamental influence on career indecision has been stressed by empirical research in the past decade. The construct of self-efficacy, which was introduced by Bandura (1997), relates to judgments on the skills a person engages to successfully complete a task.

Research findings have largely supported the usefulness of career decision-making self-efficacy in predicting career indecision (Betz, Klein, & Taylor, 1996; Betz & Luzzo, 1996; Gianakos, 1999).
Career decision-making self-efficacy, derived directly from Bandura’s self-efficacy theory (Taylor & Betz, 1983), relates specifically to a person’s belief that he or she can successfully accomplish the tasks and behaviors associated with making career decisions. A person’s self-efficacy is important for choice of career and major because it has been observed to play a large factor in selecting work environments (Bandura, 1997).

**Family**

Researchers have identified associations between career indecision and family interaction patterns (Whiston, 1996) and students’ perceptions of the parental relationship and career decision making (Guerra & Braungart-Rieker, 1999).

Early family influences on the development of vocational preferences and interests have been posited in several major career choice theories, including those of Bordin, Nachmann, and Segal (1963); Roe (1956). Super’s theory (Super, 1957; Super, Starishevsky, Matlin, & Jordaan, 1963) also suggests that important relationships, such as those with family and peers, can influence career development by facilitating the development and implementation of one’s self-concept.

More recently, there has been renewed interest in the role of the family, including increasing speculation that family dynamics and other attachment relationships make an important contribution to various aspects of career development (Blustein, 1994; Blustein et al., 1995; Lopez & Andrews, 1987).

Parental and family expectations are more salient factors in the career decision-making process in China (Mau, 2000; Oyserman et al., 2002).

**Life satisfaction**

Life Satisfaction includes many aspects as health, career, job, personal, economic, mental as well as social. A dissatisfied person is always surrounded by various troubles, obstacles and he faces hurdles in the performance of his duties assigned to him. One’s occupation is the watershed down which one’s life flows. Hence, it is quite possible that a person dissatisfied in his life may carry over his dissatisfaction to his occupation and vice-versa. As such a person, who is dissatisfied in his life, may be dissatisfied with the job for no reason related to the job.

Pecjak and Kosir (2006) found positive relation between career decisiveness and satisfaction with life.
Career and life satisfaction being important indicators of well-being in the work domain (Lent & Brown, 2008) and found significant association between career decision status, personality traits and life satisfaction measured from the Index of Well Being. Lounsbury et al. (1999) also reported the significant relationship between career decision-making difficulties and life satisfaction.

**Self concept**

Super (1990) refers to occupational self-concept as being analogous to Holland’s (1997) congruence concept. Super describes it as the understanding of the self that arises from an individual’s comparison (or matching) between their own attributes and those required by an occupation and it also involves consideration of the self in the opportunity structure.

**Peers**

Developmental psychologists recognize that peers and friends have a strong influence on individual’s development and social adjustment (Harter, 1999; Hartup & Stevens, 1997; Hymel, Comfort, Schonert, & McDougall, 1996; Rubin, Bukowski, & Parker, 1998).

Holland (1997) also concluded that members of the same vocation have similar personalities, further illustrating the potential influence of friends and person with career related decisions and vocational choices.

Indeed, teenagers spend 29% of their waking hours with their friends (Hartup & Stevens, 1997). Consequently, they may be more prone to talk about their career options with their close friends than with their parents. The context of friendships may therefore offer some support in coping with anxiety, provoking developmental challenges, such as career decisions, that confront students (Berndt, 1996). We have identified one study testing the role of peers in career indecision. Felsman and Blustein (1999) revealed that adolescents who report greater attachment to peers were more likely to explore their career environment and to make greater progress in committing themselves in making career choices.

**Gender differences**

Earlier this century, career patterns and aspirations of men and women were more notable for their differences than their similarities. Careers were primarily the domain of men, while women were socialised to see their role as homemakers (Zunker, 1998).
Albion (2000) investigated career decision-making difficulties questionnaire (Gati et al., 1996) found gender differences in career decision making difficulties faced by young people, boys reported a higher level of career knowledge, and girls indicated that they were more motivated and more flexible with regard to careers. Type of school attended had little impact on the outcomes measured in this study, with the only difference being that students at single-gender schools were more undecided than students from coeducational schools.

However, over the past few decades, social, technological, medical, and legislative changes have brought about significant changes in women’s participation in the workforce (Astin, 1984). Women are increasingly considering paid work as a lifelong career.

Researchers found contradictory results of career decision-making difficulties with gender differences (Luzon and McWhirter’s, 2001).

Gender differences were found to account for 21 percent of the variance in career decision-making problems, with males perceiving greater problems than females (Rojewski & Hill, 1998). In contrast, Patton and Creed (2001) found girls in their large sample to have higher indecision scores than boys.

Parents

There is a general consensus that parents are the single most influential factor in the career development and choice of their children.

Several researchers (Roe, 1966; Young, 1994; Young, Friedson, & Dillabough, 1991) have reported on the importance and potential influence of parent’s role in career related decisions. Gray and Herr (1995) concur that parents exert a great deal of influence when it comes to career related decisions. Parents influence adolescents’ occupational aspirations and attainment, and the range of choices considered (O’Neil, Ohlde, Tollefson, Barke, Piggott, & Watts, 1980).

According to Birk and Blimline (1984); Schulenberg et al. (1984), parents have the greatest influence on their children’s self concept, cultural norms, beliefs and goals; all of which affect their career development and decisions.
Parents have been cited as a strong influential factor acting as either a facilitator or a barrier in their children’s career decision-making (Sebald, 1989; Middleton & Loughead, 1993). According to Santrock (1993) parents are among the most important socio-cultural factors influencing career development, especially in areas such as expectations for achievement and teaching about the world of work through their own occupations.

Tang, Fouad and Smith (1999) suggested that the strong parental influence is associated with more traditionally acceptable career choices, such as engineering, medicine, and computer science, for Asians.

**Career exploration**

Career exploration can be defined as those activities directed toward enhancing information about the self and the environment to assist in career decision-making and development (Blustein, 1989a; Taviera, Silva, & Rodriguez, 1998). Career exploration is especially important during late adolescence as it fosters the growth in self-awareness and occupational knowledge needed to commit to a vocational choice (Blustein, 1989b).

In addition, exploration early in one’s development has been linked to increased likelihood of seeking out information in later stages of career development (Jordaan & Heyde, 1979). Career exploration is especially effective in helping young adults make career decisions (Blustein, 1997; Savickas, 2005; Super, 1957).

**Academic achievement**

Academic achievement is usually linked with intelligent individuals who pursue their occupational goals through college. Vocational goals of bright individuals are usually well defined within the realm of their abilities, interests and capacity to succeed. They usually aspire for more prestigious occupational choices as they know their ability level and try to taper the occupational goals they hold into a realistic educational plan (Bregman & Killen, 1999).

According to the National Career Development Guidelines (NOICC, 1992) career interventions can help high school students become more self knowledgeable, understand the connection between educational achievement and career planning and develop solid career planning and decision making skills.
Hall and Kelly (1995); Strage et al. (2002) found positive relationship between career decision-making and academic achievement.

**Career maturity**

Career maturity is another key construct used in career development research. Super and Jordaan (1973) viewed one aspect of career maturity as being the ability to make socially required career decisions (p. 4). Consequently, career indecision is viewed as a developmental problem within the career maturation process that results from a lack of information about self or the world of work (Chartrand et al., 1994, p. 55).

Barr (1983) reported a significant difference between the pre-test and post-test scores on the career Maturity Inventory after a career decision-making course.

Powell and Luzzo (1998) examined the career maturity and found that those who had more personal control over their career decisions had more positive attitudes toward career decision-making and were more career aware.

Patton and Creed (2001) investigated adolescent career maturity and career decision-making and their findings corroborated a developmental progression in career maturity and, on the whole, found gender differences in levels of indecision, with males more certain of their career choices than females. Younger students were found to be more certain than older students in their career decision-making.

**Computer programs**

Computer programs and programmed material have been found to assist the acquisition of basic occupational information (Maola & Kane, 1976; Cairo, 1983; Fukuyama, Probert, Neimeyer, Nevill, & Metzler, 1988; Peterson et al., 1991).

Glaize and Myrick (1984) compared the effectiveness of a computer assisted guidance program (DISCOVER), a small group guidance intervention (Vocational Exploration Group), and a combined approach on career maturity and decidedness in 120 high school students. All three interventions were significantly helpful to students.

**Media and information sources**

Electronic mass media includes television, radio, and interest exposure to information that might help student in career decision-making. Maxwell et al. found electronic media to have very little effect on vocational choice, but the degree to which television and radio are present in modern culture their potential as an influence factor is difficult to ignore.
Of those studies comparing methodologies for presenting occupational information (Sellman, 1970; Yungman, 1971; Jepsen, 1972; Laramore, 1972; Johnson, Korn, & Dunn, 1975) compared media (e.g., computer, video- or audio presented materials) with written materials. All of these studies found that the media-presented format or media plus written format resulted in greater effect than the written presentation alone in terms of the accuracy and amount of information students obtained from them.

**Social influence**

Social influence is when the actions or thoughts of individual(s) are changed by other individual(s). This is the effect of other people on a person's behaviour.

Nick (1942) found that information about local employment opportunities given through school assemblies, group, and individual conferences brought the occupational plans of eleventh and twelfth graders to closer harmony.

Caffner and Hazler (2002) reported that career indecision has been a major concern of practitioners, researchers and educators for many years and may now be even of greater concern because current societal trends push people to revise their career decisions over their life spans.

A large number of factors thus influence career decision making difficulties. Although the investigator wanted to study the influence of all these factors on career decision-making difficulties of adolescents, but due to paucity of time and resources, out of various variables influencing career decision-making difficulties, the investigator had identified the variables of career decision-making self-efficacy, personality and decision-making style to see how they account for career decision-making difficulties among adolescents.

**Self-Efficacy**

Self-efficacy is distinct from other conceptions of self, such as self-concept, self-worth, and self-esteem; it is specific to a particular task. Self-esteem usually is considered to be a trait reflecting an individual’s characteristic affective evaluation of self (feelings of self-worth or self-liking). By contrast, self-efficacy is a judgment about task capability that is not inherently evaluative (Gist & Mitchell, 1992, p. 185).
Bandura (1977) defined self-efficacy as individual’s beliefs regarding their ability to successfully accomplish certain tasks. These beliefs influence how much effort people put forth, how long they will persist in the face of obstacles, their resilience in dealing with failures, and how much stress or depression they experience in coping with demanding situations.

Bandura’s social cognitive theory and his construct of self-efficacy, as initially described in his 1977 article, *Self-efficacy: Toward a unifying theory of behavioral change*, he defined perceived self-efficacy as beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments (p. 3). Self-efficacy beliefs influence thought patterns and emotions that enable actions in which people expand substantial effort in pursuit of goals, persist in the face of adversity, rebound from temporary setbacks, and exercise some control over events that affect their lives (Bandura, 1986, 1993, 1996, 1997).

Self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Self-efficacy perceptions influence the development of interests and goal setting, both of which serve as the bases of the general career decision processes and the process of committing to a vocational choice in particular (Betz & Voyten, 1997).

Self efficacy is future-oriented, a context-specific assessment of competence to perform a specific task (Pajares, 1997, p.15). It focuses on the ability to successfully accomplish a particular task with no need for comparisons- the question is whether you can do it or not whether others would be successful (Marsh, Walker, & Denis, 1991).

In the present study, the investigator studied self-efficacy related to career decision-making i.e. career decision-making self-efficacy among adolescents.

**Career Decision-Making Self-Efficacy**

Krumboltz (1979); Krumboltz, Mitchell, and Jones (1976); Mitchell and Krumboltz (1996); Lent et al. (1995, 1996) believed that because many of the circumstances surrounding career choice and adjustments are learnt, their theories need to take into account the learning processes that lead to the acquisition of self-efficacy beliefs and behaviors that are critical to the career development process.
Hackett and Betz (1981) were the first to apply Bandura’s (1977) propositions about self-efficacy to career behavior, hypothesizing, consistent with self-efficacy theory, that a person’s task-specific level of self-efficacy would determine corresponding outcomes, such as career orientation, involvement, planning, exploration, self-appraisal and decision-making. They demonstrated that career decisions, achievements and adjustment behaviors were subject to the influence of self-efficacy beliefs in both men and women. In this conceptualization, career decision-making self-efficacy is viewed as a causal antecedent to making a career decision, that is, a causal antecedent to being career decided or undecided.

Following Bandura’s (1986) development of social-cognitive theory, Lent, Brown and Hackett (1994) proposed a social-cognitive career theory, in which self-efficacy was a direct causal antecedent to career choice goals and actions, including career decision making, and an indirect causal antecedent to these outcomes mediated by outcome expectations and interests. Self efficacy has been presumed to be a causal antecedent to career indecision, and in the case of self-efficacy theory, an immediate proximal causal antecedent.

Career decision-making self-efficacy has been defined as the confidence a young person has in his/her capacity to carry out tasks associated with career exploration and selection (Solberg, Good, & Nord, 1994).

One factor that may affect individual’s inclination to seek help in making a career decision is his/her perceived career decision-making self-efficacy, that is, individual’s beliefs regarding his/her ability to successfully accomplish certain tasks connected with career choice (Betz et al., 1996).

Career decision-making self-efficacy (Taylor & Betz, 1983) has been defined as the expectation of success for specific career decision-making tasks, such as collecting relevant information, goal setting, defining preferences, planning, and implementing the decision (Betz & Luzzo, 1996; Taylor & Betz 1983).

Low self-efficacy in a certain domain may lead to avoiding dealing with tasks and challenges in that domain. For example, in career decision-making one may avoid collecting relevant information, clarifying preferences, planning, or implementing the decision. Taylor and Betz (1983) developed the Career Decision-Making Self-Efficacy (CDMSE) scale to measure these self-efficacy expectations, in terms of goal selection, occupational information, problem solving, planning, and self-appraisal. In the process, Taylor and Betz (1983) demonstrated that participants with lower levels of efficacy for decision-making were also more undecided.
Career decision-making self-efficacy (CDMSE) identifies the extent to which students have confidence about their ability to engage in educational and occupational information gathering, goal-planning, and decision making (Peterson, 1993).

Osipow (1999) also highlighted the difficulties associated with measuring these two entities, as they often look alike. He endorsed the career decision-making self-efficacy scale as being helpful in identifying aspects of the career decision-making process itself in which clients may be deficient (p. 152).

Guay, Senecal, Gauthier, and Fernet (2003) used a self-determination theory perspective (Deci & Ryan, 1985) to test the predictors of career indecision, including career decision-making self-efficacy. Self-determination theory hypothesizes that levels of autonomy, competence and relatedness are motivational antecedents to behaviours, and that individuals who are intrinsically motivated, confident and receive support from others have, in this example, less career indecision.

Meta-analyses have supported the importance of self-efficacy as a predictor of academic functioning and achievements as well as the tendency to take the initiative in the career-decision-making process (Betz & Voyten, 1997; Hackett & Lent, 1992; Lent et al., 1994) and have shown that lack of self-efficacy leads to career indecision (Betz & Voyten, 1997; Osipow & Gati, 1998; Taylor & Betz, 1983; Wulff & Steitz, 1999).

In the present study, career decision-making self-efficacy has operationally been defined as the adolescents beliefs about his/her capabilities to produce designated levels of performance in making career decisions and as measured by career decision-making self-efficacy scale (Taylor & Betz, 1983).

**Career Decision-Making Difficulties and Career Decision Self-Efficacy**

In their social cognitive career theory, Lent et al., (1996) proposed that an important variable related to career decision making and career development is career self-efficacy (Lent et al., 1996; Lent & Hackett, 1987).

Many of the findings (Bergeron & Romano, 1994; Betz & Hackett, 1981; Foss & Slaney, 1986; Peterson, 1993) indicate that self-efficacy beliefs influence the choice of courses and career decisions of college students. Undergraduates choose college majors and careers in areas in which they feel most competent and avoid those in which they believe themselves less competent or less able to compete (Pajares, 1997, Continuing Research on Self-efficacy and Career Choice section)
The career decision-making self-efficacy (CDMSE) scale has five theoretically defined scales, corresponding to the five career competencies suggested by Crites (1973): self-appraisal, occupational information, goal selection, planning and problem solving. Using the CDMSE, Taylor and Betz (2006) found that career decision-making self-efficacy contributes significantly to the prediction of career indecision.

Career decision-making self-efficacy has also been shown to be associated with a wide range of other career related constructs, including occupational interests (Feehan & Johnston, 1999; Lapan, Boggs, & Morrill, 1989), vocational identity (Robbins, 1985), career exploration (Blustein, 1989), career traditionality (Neville & Schlecker, 1988), career barriers (McWhirter, Rasheed, & Crothers, 2000), and career maturity (Patton & Creed, 2001).

Taylor and Popma (1990) found a moderate negative relationship between career decision-making self-efficacy and career indecision and found career decision-making self-efficacy to be the only variable to make a significant contribution to the prediction of career indecision (other variables in the study were occupational saliency, occupational self-efficacy and locus of control), while Betz and Voyten (1997) identified career decision-making self-efficacy as the best predictor of career indecision (other variables in this study were academic outcome expectations and career outcome expectations).

Abdalla (1995) in his study indicated that among men and women instrumental attributes had a considerably stronger positive relationship with career decision making self-efficacy than the other independent variables and that while the interactive effect of internality and instrumentality on career decision making was significant, the interactions of internality and self-esteem and instrumentality and self-esteem were not significant.

Betz and Luzzo (1996) overviewed the theories underlying the development of the career decision-making self-efficacy scale, specifically Bandura’s self-efficacy theory and Crites’ career maturity theory. Research on the correlates and consequences of career decision-making self-efficacy is reviewed, especially that showing the strong relationships of career self-efficacy to career indecision and other indices of problems in career decision making. This article also reviewed the uses of the career decision-making self-efficacy scale in the design and evaluation of educational and counseling interventions designed to increase perceptions of self-efficacy in relationship to the process of career decision-making.
Cox (1996) looked at the effectiveness of a career-planning course designed to enhance the career decision-making self-efficacy of college students. This 10-week career-planning course was designed to assist the participants in the career decision-making and planning process (Cox, 1996, p. 79). Measurement of career self-efficacy was defined with the score on the Career Decision Self-Efficacy Scale (Taylor & Betz, 1983). Results from this study indicated that those students who participated in a career-planning course demonstrated significant gains in career self-efficacy.

Hiroki (1997) investigated the relationship between career decision-making self-efficacy and career decision-making behavior in undergraduates. 371 undergraduates were administrated the career decision-making self-efficacy (CDMSE) of Taylor and Betz (1983) and 10 items of the career decision-making behavior. Results indicate the significant relationships between the career decision-making self-efficacy and career decision-making behaviors.

Anderson and Brown (1997) found that career development attitude was able to predict career decision-making self-efficacy for both rural and urban students. Larson and Majors (1998) used factor and cluster analysis of several career-planning measures, including the CDMSE scale, to identify career indecision subtypes in 16-17 year old high school students.

Osipow and Gati (1998) found a moderate correlation between career decision making self-efficacy and career indecision. They recommended the career decision making difficulties questionnaire as a suitable adjunct to the career decision scale (CDS) as it enables assessment of systematic categories of difficulties some of which are represented in the CDS only indirectly (p.361).

Luzzo, Hasper, Albert, Bibby, and Martinelli (1999) evaluated the effects of both, performance accomplishment and vicarious learning experiences on the math/science self-efficacy and career interests, goals and career choice actions of career undecided college students. Pre and post treatment assessments revealed significant effects of the performance accomplishment and vicarious learning experiences.

Wulf & Steitz (1999) found the relationship between androgyny, self-efficacy, self-esteem and career decision-making among 91 high school girls.
Gianakos (1999) examined the relationship between four patterns of career choice development during later adolescence and career decision-making self-efficacy. As predicted, persons whose career choice development reflected a stable or multiple trial patterns reported significantly greater levels of career decision-making self-efficacy than did persons whose career choice development reflected a conventional or unstable pattern. Further, persons in the stable pattern group were significantly more likely to nominate professionals in their chosen fields as important career role models than were persons with conventional and unstable career patterns.

McWhirter et al. (2000) investigated the influence of a 9-week career education class on career decision-making self-efficacy, vocational skills self-efficacy, perceived educational barriers, outcome expectations, educational plans and career expectations among a sample of 166 high school students. The results showed that the career education class resulted in increased career-decision making self-efficacy, vocational skills self-efficacy, and short-term gains in outcome expectations but did not influence perceived educational barriers.

Prideaux and Creed (2001) reviews the recent literature on the three related career developmental constructs of career maturity, career decision-making self-efficacy and career indecision. Criticism of the usefulness and validity of the constructs are highlighted. In particular, there have been calls for the career maturity and career indecision constructs to be revised and widened. The strengths and weaknesses of the research methodology used in the three areas are also examined, and recommendations for future research were made.

Gaffner and Hazier (2002) reported self-efficacy, locus of control, and anxiety as factors that are personality components of decision-making. According to Betz and Voyten (1997) and Taylor and Betz (1983), students with low self-efficacy will be delayed in their decision-making.

However, Career decision-making self-efficacy has been found to be negatively associated with career decision-difficulties (Albion & Fogarty, 2002; Mau, 2000)

Morgan and Ness (2003) examined the taxonomy of Gati et al. (1996) on first-year university students of Canada in relation to career decision-making self-efficacy, sex-role identification, and stage of identity development. Results indicated a significant negative correlation between career decision-making difficulties and self-efficacy, which discriminated among degree of career indecision and whether or not students had changed their career plans since attending university.
While Guay et al. (2003) found career decision-making self-efficacy to be a significant predictor of career indecision and to act as a mediator between less proximal variables and career indecision.

Stacy (2003) in his study on 382 college students attending four year public university assessed college seniors perceived level of career-decision making self-efficacy (CDMSE) and examined the relationship between the participant’s CDMSE scores, as measured by the subscales of the Career Decision-Making Self-Efficacy Scale – Short Form (CDMSE-SF), and selected demographic characteristics. Results revealed significant findings among students’ reported level of CDMSE by gender, number of times student changed major, and college major choice. Additional study is also suggested to further define prediction values of demographic characteristics on the confidence level in making career-related decisions of college seniors as measured by the CDMSE-SF.

Pinquart, Juang, and Silbereisen (2004) found the meaningful associations between higher pre-unification self-efficacy beliefs with an increase in general career aspirations and a higher probability of switching from non-college-bound vocational training to attending a university. Furthermore, interaction effects of self-efficacy with grades and cognitive abilities appeared, indicating that for individuals with high self-efficacy, cognitive abilities became more important and grades less important in predicting the wish to pursue university studies. We concluded that beliefs in one’s capabilities and high academic abilities are important resources in vocational reorientation in times of social change.

Career indecision has been linked to high rates of anxiety and depression, more dysfunctional career thinking, lower self-esteem and lower career decision-making self-efficacy (Saunders et al., 2004)

Creed et al. (2005) in their study surveyed 166 students using measures of career indecision and career decision-making self-efficacy. By using two-wave, longitudinal cross-lagged panel design, and found that changes in career decision-making self-efficacy did not result in changes in career indecision, despite significant contemporaneous associations at both times.
Reese and Miller (2006) investigated the effects of a career development course on career decision-making self-efficacy and course was primarily designed to help undecided students with career decision making. A pre-test-post-test non-equivalent group design compared students who completed the course (n = 30) with a quasi-control group of students who were enrolled in an introductory psychology course (n = 66). Results indicated that students who completed the career course showed increased career decision making self-efficacy over all, specifically in the areas of obtaining occupational information, setting career goals and career planning. The career course also appeared to lower perceived career decision difficulties.

Guay, Ratelle, Senecal, Larose, and Deschenes (2006) examined the validity of career indecision and to explain career indecision as a function of self-efficacy, autonomy, and support from parents and friends. Based on a 3-year longitudinal design with college students (N = 325), results provided validity of career by revealing the presence of two indecision groups (chronically undecided and developmentally undecided) and a group of students who are decided. In addition, results indicated that self-efficacy and autonomy are important dimensions that make it possible to distinguish between these three groups.

Gushue, Scanlan, Pantzer, and Clarke (2006) explores the relationship between the social cognitive construct of career decision-making self-efficacy and the outcome variables of vocational identity and career exploration behaviors in a sample of 72 urban African American high school students. The results indicate that higher levels of career decision-making self-efficacy are related to both- a more differentiated vocational self-concept and to greater engagement with career exploration activities.

Argyropoulou, Dimakakou, and Besevegis (2007) examined the dimensions of career indecision among a sample of Greek high school students (N = 848) and to classify the students of the sample in regard to their career decision status and investigated the relationship between career decision status groups and generalized self-efficacy, coping strategies, and vocational interests. The results suggest that four factors contribute to career indecision: absence of structure, need for career guidance, diffusion of interests, and personal conflict. The clustering procedure indicates that the students of the sample could be classified in three career indecision cluster groups: decided, exploring possibilities, and undecided. These cluster groups differ in all four career indecision factors, generalized self-efficacy, coping strategies, and vocational interests.
Nota, Ferrari, Solberg, and Soresi (2007) studied the mediating relationship between career self-efficacy, family support and career indecision. Using a sample of 253 Italian youth, the study found that, for male adolescents attending a university-preparation high school, career search self-efficacy partially mediated the relationship between family support and career indecision and for female adolescents career search self-efficacy was associated with career indecision.

Coon (2008) explored the relations among career decision making self-efficacy, career optimism, coping, and career decision making difficulties. The variables investigated in this study were derived from research that implies a relationship between career optimism, career decision making self efficacy, coping, and career decision making difficulties.

Fouad, Cotter, and Kantamneni (2009) examined the effectiveness of a college career course designed to increase career decision-making confidence and facilitate career exploration. 73 Students from a large Midwestern university were given questionnaires assessing career decision-making difficulties, career decision-making self-efficacy, and perception of career and educational barriers during the first and fifteenth weeks of the course. Results indicated that on completion of the course students’ career decision-making difficulties decreased, career self-efficacy increased, and perceptions of barriers did not change.

Hammond, Lockman, and Boling (2010) in their meta-analyses study of 171 participants from a Historically Black University examined the adequacy of their model of career indecision for African American students and degree of relationship among positive affect, emotional intelligence and three factors in the model of career indecision. Factor analysis suggested that five factors (career self-efficacy, career-related emotional maturity, information needs, vocational identity development, and career decisional status) could be extracted to represent the constructs related to career decision making.

Sidiropoulou-Dimakakou, Mylonas, Argyropoulo, and Tampouri (2012) examined the relationship of career decision-making difficulties, dysfunctional career thoughts and generalized self-efficacy, as factors involved in the decision-making process for university students. The results revealed statistically significant positive correlations between CDDQ factors (lack of information, inconsistent information, and lack of readiness) and decision-making confusion, commitment difficulty and lack of determination whereas the results show statistically significant negative correlations between all the aforementioned variables and generalized self-efficacy. Moreover, the generalized self-efficacy, as well as the CDDQ factors seemed to be predictors of the lack of determination, decision-making confusion and commitment difficulty.
Research studies have so far offered contradictory and inconsistent conclusions in relationship between career decision-making self-efficacy with career decision-making difficulties. In some studies no relationship was found but others reported positive relationship between career decision-making self-efficacy and career decision-making difficulties. Also many studies did not substantiate these findings. Hence, the investigator wanted to explore the extent of influence that career decision-making self-efficacy on career decision-making difficulties of adolescents in the present study.

Personality

The word personality probably had its origin in the Latin word *personal* which means to sound through. This term was used to describe the voice of an actor speaking through a mask. At first the term *persona* referred directly to the mask worn by an actor. Later it came to be applied to the actors themselves. The derivation of the word Personality from *Persona* indicates that the personality can be assessed from the external traits as well.

During the early times, the personality was regarded as constituting what a person seemed to be. It was related to his physical make up, manner of walking, talking, dressing and a host of other similar characteristics. However, this is a very limited view and the psychological concept of personality goes further and deeper than mere appearance or outward behaviour. It is the totality of one’s outer as well as inner behaviour.

Personality is the stable set of characteristics and differences in the psychological behaviour including, thought, feelings and actions of people that have continuity in time and that may or may not be easily understood in terms of the social and biological pressures of the immediate situation alone. The inherited as well as acquired characteristics and tendencies, although stable to a large extent, are subject to change and modification according to the needs of the time and the environmental situation for making one adjusted to one’s self as well as to the environment.

Personality is generally a synthetic amalgam of traits developed to different extents in different persons, and is known by the conduct, behavior, activities, movements and everything else concerning the individual. It is the way of responding to the environment. Personality may also be described as the way an individual adjusts to the environment. It is the sum total of physical, mental, emotional, social and temperamental make up of the individual. It is the essence of one’s instincts, feelings, emotions, experience, habits, perception, memory, imagination and various ways of behavior.
The word personality by derivation means what an individual not only appears to be but what he really is. Allport (1937, 1966) defines personality as the dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment.

Good (1945) defines personality as the characteristic patterns of behavior through which the individual adjusts himself to his environment, especially his social environment.

Cattell (1950) defines personality as the prediction of what a person will do in a given situation. The goal of psychological research in personality is, thus, to establish laws about what different people will do in all kinds of social and general environmental situations. Personality is, in the first place, concerned with the behaviour of an individual, both over and under the skin.

Guilford (1959) regarded an individual’s personality as a unique structure of traits. According to Eysenck (1960) personality is more or less stable and enduring organization of a person’s character, temperament, intellect and physique which determine his unique adjustment to his environment. While, Rogers (1962) defines personality as the total pattern of an individual’s characteristic traits, constituting his distinctive ways of adapting to his environment.

Stagner (1974) is more concerned with inner system of thought processes of an individual and defines personality as an inner system of beliefs, expectancies, desires and values.

Mischel (1976) maintains that personality usually refers to the distinctive patterns of behavior (including thoughts and emotions) that characterize each individual’s adaptation to the situations of his or her life.

Kapoor, S.D. Srivastava, and Srivastava (1980) defines personality as more or less stable and enduring organization of a person's character, temperament, intellect and physique, which determine his unique adjustment to the environment.

Harre’ and Lamb (1983) have referred to personality as an individual’s enduring, persistent response patterns across a variety of situations. It is comprised of relatively stable patterns of actions often referred to as traits, dispositional tendencies, motivations, attitudes and beliefs which are combined into a more or less integrated self-structure. Personality includes the characteristics and attributes that distinguish one individual from others.
Webster’s Dictionary (1992) describes personality as the quality or state or being of a person, personal existence, the condition or fact relating to a particular person.

Personality refers to those characteristics of the person that account for consistent patterns of feelings, thinking, and behaving (Pervin, Cervone, & John, 2005, p. 6).

Personality is the organized, developing system within the individual that represents the collective action of that individual’s major psychological subsystems (Mayer, 2007, p. 14).

Hence, personality is the total of the distinctive characteristics of an individual, the stable and shifting patterns of relationship between these characteristics, their origins and the way. They interact to help or hinder the adjustment of a person to other people and situations.

Personality is the total psychological and social reactions of an individual, the synthesis of his subjective, emotional and mental life, his behavior and his reaction to the environment, the unique and individual trait of a person are connected to a lesser degree. Personality refers to a general style of interacting with the world, especially with other people—whether one is withdrawn or outgoing, excitable or placid, conscientious or careless, kind or stern. It is the organized combination of attributes, motives, values and behaviors that is unique to each individual.

Operationally, in the present study investigator was assessed personality on the basis of scores obtained on the five dimensions of Big Five Inventory (BFI) (John, 1990): extraversion, agreeableness, conscientiousness, emotional stability and openness.

Career Decision Making Difficulties and Personality

The relationship between personality and career decision making behaviour of an individual has been investigated by many researchers (Bordin, Nachmann, & Segal, 1963; Holland, 1962, 1966a, 1966b; Roe, 1957).

Numerous studies have examined the relations between various personality and behavioral characteristics, on one hand, and career indecision and indecisiveness, on the other (Cohen et al., 1995; Fuqua, Seaworth, & Newman, 1987; Guerra & Braungart-Rieker, 1999; Kelly & Lee, 2005; Leong & Chervinko, 1996; Slaney, 1988; Taylor, 1982; Taylor & Betz, 1983; Tokar, Withrow, Hall, & Moradi, 2003).
Costa et al. (1995) suggested that personality information can help in understanding the client’s strengths and weaknesses and result in more appropriate and realistic choices.

Leong and Chervinko (1996) examined the construct validity of career indecision. Negative personality traits such as perfectionism and fear of commitment were found to account for up to 20% of the variance when career indecision was measured by the Career Decision Scale (CDS). These authors also highlighted two aspects of career indecision as a trait based on vocational problem and as a part of a normative developmental process (p. 327).

In the study of Sampson et al. (1996); Bansberg and Sklare (1986) found that introvert students reported more decision difficulties than those who were extrovert. Costa et al. (1984) reported that neuroticism could be related to occupational difficulties such as job dissatisfaction or anxiety, the latter being already noted as an anticipated source of career decision difficulties.

Hamer and Bruch (1997) found that college students who were shy (i.e., those high on neuroticism and low on extraversion) had less mature attitudes regarding career planning and exploration and were less likely to engage in career information-seeking behaviors than those students who were high on extraversion and low on neuroticism.

Haraburda (1998) examined the links between undecidedness and all five personality dimensions and found that high scores on decisiveness were associated with low neuroticism and fewer psychological symptoms, whereas low scores on decisiveness were associated with low scores on extraversion, openness, agreeableness, and conscientiousness. Despite the possibility that some of these findings were influenced by social desirability and other biases affecting self-report measures, it is likely that the inclusion of personality variables would enhance the predictive power of the career decision-making model.

The study of Lounsbury et al. (1999) shows that career indecisiveness is positively associated with agreeableness and conscientiousness and negatively to neuroticism and also found a positive relation between career indecisiveness and agreeableness and is explained in such a way that individuals who are higher on agreeableness are more willing to cope with career planning, more trustful of information related to the career decision, tend to look for and accept advice from other people and, therefore, have fewer difficulties in their career decision-making process.
Newman, Gray, and Fuqua (1999) examined the relationship between career indecision and personality dimensions using high and low career indecision groups. The high and low indecision groups were found to differ significantly on a linear combination of the CPI factor scores. The profiles of the two indecision groups were also compared using mean T-scores for the 20 CPI scales. There was a clear tendency for the low indecision group to score higher on CPI dimensions, significantly so on 12 of 20 scales.

Schmidt (2001) defined career indecisiveness as a personality attribute that would exist in-spite of exposure to career resources or opportunity to choose.

Gaffner and Hazler (2002) investigated the relationships between career indecisiveness and personality types and difficulties in making career decisions. Their sample consisted of 111 undergraduate students from a small Midwestern University. The results identified lack of career readiness on the career decision-making difficulties questionnaire to be a better single predictor of indecisiveness than any other combination of variables.

Mastor (2003) examined the relationship between personality traits and gender differences in the selection of academic major among Malay students. The sample consists of 451 matriculation students and instruments used were the NEO PI-R Personality Inventory (Revised) and a self-designed questionnaire about choosing academic major. Dependent variables were level of satisfaction, confidence, commitment and difficulties in making decisions. Results indicated that there were significant differences among gender in satisfaction and difficulties in making decision. Male students were more satisfied and experienced less difficulty selecting their major of studies. Female students were found to have a higher means of neuroticism than male students. Correlation coefficients indicated that there were significant correlations between neuroticism, extraversion and conscientiousness with all the perceived decisional attributes.

Reed, Bruch, & Haase (2004) investigated whether the dimensions of the five-factor model (FFM) of personality are related to specific career exploration variables. Results revealed meaningful association between conscientiousness/extraversion/low neuroticism and career search self-efficacy/career information seeking. A second source involved association between openness and a lack of career information seeking. The third source involved association between neuroticism/openness and self-exploration.
Kushwaha and Hasan (2005) explored the psychological explanation for career decision making by incorporating the personality dimensions of Eysenck’s model, namely, extraversion and neuroticism in a paradigmatic manner. Gender was also incorporated in the study as an independent variable. Employing 2×2 factorial design with fixed effect model, the stratified random sampling technique was used to select an unbiased representative sample of 320 adolescent students of class Xth and was put to score on career decision making scale. After the 2×2 ANOVA treatment, extraversion, neuroticism and gender have emerged as potential factors in generating significant variance upon career decision making.

Bacanli (2006) evaluated the construct validities of two subtypes of personal indecisiveness (exploratory indecisiveness and impetuous indecisiveness) by examining their relationships to certain personality characteristics. The sample consists of 399 Turkish Freshman University students (194 male and 205 female) from Gazi University, Ankara, Turkey. The results indicate that personality characteristics i.e. low self-esteem, external locus of control and high level of irrational beliefs are strong predictor of exploratory indecisiveness.

Wang, Jome, Haase, and Bruch (2006) investigated the effects of personality and career decision-making self-efficacy on progress in career choice commitment in a sample of 184 college students. It was hypothesized that self-efficacy would mediate the relationship between neuroticism and extraversion and career choice commitment. Results revealed significant relationship between extraversion and career choice commitment, whereas for students of color, a partially mediated model fit the data in which neuroticism and extraversion were related to career choice commitment directly and indirectly through self-efficacy.

Browne (2006) investigated the relationship among the Big Five dimensions of personality, life satisfaction, and career decision status among 333 undergraduate Black college students. An examination of the factor structure of the career indecision scale was conducted to explore the relationship among personality dimensions and factors of career indecision. The Career Decision Scale (CDS), the NEO Personality Inventory - Revised (NEO PI-R, 2001), and a single item drawn from the Index of Well Being were used to measure career decision status, personality traits, and life satisfaction, respectively. Results indicated that extraversion, openness, and conscientiousness, were negatively related, and neuroticism positively related to apprehension; extraversion and agreeableness were negatively related to personal conflict; and neuroticism positively related to need for career information.
Nauta (2007) examined the relationship between career interests, self-efficacy and the big five personality dimensions (openness, conscientiousness, extraversion, agreeableness, and neuroticism) were used to predict college students’ career exploration behaviours among 113 college students. However, after controlling for gender and year in school, five of six interest types, one self-efficacy type, and two personality dimensions were associated with subsequent self-exploration. Whereas realistic, artistic, and conventional interests; artistic self-efficacy; and openness were positively associated with self-exploration, investigative and enterprising interests and extraversion were negatively associated with such exploration.

Saka, Gati, and Kelly (2008) examined the persistent aspects of career decision-making difficulties, using the emotional and personality-related career decision-making difficulties scale (EPCD). The contribution of four personality measures-general indecisiveness, self-esteem, trait anxiety, and identity status to the prediction of persistent career decision-making difficulties was tested on 747 students. Results indicated that individuals with high EPCD scores at the beginning of the academic school year had less confidence in their choice and were less close to making a decision about the major into which they wanted to be admitted at the end of the year. The moderate correlations between the EPCD score and the four personality measures supported the validity of the EPCD.

Jones (2008) examined the effects of personality traits on both general and specific career decision-making difficulties and self-reported career decidedness among 145 undergraduate students using the career decision-making difficulties questionnaire (CDDQ; Gati & Saka, 2001), NEO-PI-R (Goldberg, 2001) and indicated their career decidedness. Neuroticism was positively correlated, and conscientiousness, extraversion, agreeableness and rationality were negatively correlated with overall career decision-making difficulties. Conscientiousness was negatively correlated with specific difficulties related to motivation and information about the career decision-making process and neuroticism was positively correlated with difficulties related to lack of readiness, including lack of motivation and dysfunctional beliefs as well as lack of knowledge about the self. Rationality, neuroticism and conscientiousness were statistically significant independent predictors of overall career decision-making difficulties. The correlations between personality traits and the specific career decision-making difficulties add value to this as they indicate possible pathways of the relationships between personality traits and decidedness.
Jin, Watkins, and Yuen (2009) examined the mediating effect of career decision self-efficacy on the relationship between the Five-Factor Model of personality and the career commitment process in a sample of 785 Chinese graduate students. The multiple regression analyses showed that neuroticism and conscientiousness related significantly to progress in vocational commitment both directly and indirectly through career decision self-efficacy. High agreeableness related to less premature foreclosure. In addition, career decision self-efficacy associated with greater progress in vocational commitment but also a strong tendency to foreclose.

Thomas and Feldman (2009) examined the relationships of personality traits and interpersonal relationships with vocational indecision and the mediating role that identity construction plays in the development of those relationships among 202 college students in Hong Kong. Results revealed that personality traits and interpersonal relationships (e.g. with parents and peers) are related to the intensity of college students' search for their overall identity, positive anticipation of the work role, and level of identification with the student role. These role identification processes, in turn, are related to lower levels of vocational indecision.

Feldt and Woelfel (2009) examined 179 undergraduate college students completed a survey, the Career Decision Scale (CDS), and the NEO Five-Factor Inventory (NEO-FFI). Results indicated incremental validity of three domains of the five-factor model, neuroticism, agreeableness, and conscientiousness; self-efficacy for getting a job and job success, importance of ratings of job outcomes, and job outcome expectations. Results support hypotheses of social cognitive career theory in terms of the importance of self-efficacy and outcome expectations in predicting career planning.

Fabio and Palazzeschi (2009) studied the role of emotional intelligence and personality traits in relation to career decision difficulties. The Italian version of the Career Decision Difficulties Questionnaire (CDDQ), Emotional Quotient Inventory and the Big Five Questionnaire (BFQ) were administered to 296 interns of the tertiary sector. The emotional intelligence dimensions add a significant percentage of incremental variance compared to variances due to personality traits with respect to career decision difficulties.
Kelly and Shin (2009) examined the effects of neuroticism and negative career thoughts and feelings on lack of information, which is one of the core elements of chronic career indecision among 310 first-semester students who had entered university study without a declared academic major. Results revealed that negative career thoughts and feelings explained a large amount of the variance in lack of information. The influence of neuroticism on lack of information was indirect and fully mediated by negative career thoughts and feelings.

Gati, Gadassi et al. (2011) investigated the emotional and personality-related career decision-making difficulties model and questionnaire (EPCD) by studying its associations with various personality measures in three samples. As hypothesized, higher levels of emotional and personality-related career decision-making difficulties, as measured by the EPCD, were associated with higher levels of neuroticism, agreeableness, perfectionism, and need for cognitive closure, and lower levels of extraversion, openness to experience and career decision self-efficacy. In addition, higher levels of these difficulties were associated with a more external locus of control (LoC), and with being less advanced in the career decision-making process.

Gadassi, Gati, and Dayan (2012) by using the data of 383 young adults who were about to make a career choice assessed the individual’s decision status and the associations of the dimensions, emotional and personality-related career decision-making difficulties (EPCD; Saka, Gati & Kelly, 2008) and personality factors (NEO Personality Inventory-Revised; Costa & McCrae, 1992). The results suggest that, as hypothesized, comprehensive information gathering, analytic information processing, a more internal locus of control, greater speed of making the final decision, less dependence on others, and less desire to please others were more adaptive in making career decisions. However, contrary to hypotheses, high aspiration for an ideal occupation was more adaptive for the decision-making process, willingness to compromise was not associated with more adaptive decision making, and the results regarding consulting with others were mixed.

Al-Kalbani, Salleh, and Mastor (2012) investigated the relationships between career decision-making constructs in terms of its three dimensions and the Big Five factors. Data were collected from a randomly selected sample of 230 high school students. Pearson’s correlation coefficient was used to establish the relationship between the two sets of variables. Results indicate significant relationships between the Big Five factors and career decision-making constructs. Neuroticism was found to be negatively related with career decidedness; conscientiousness, extraversion, openness and agreeableness are positively and significantly correlated with career decidedness.
Di Fabio, Palazzeschi, Asulin-Peretz, and Gati (2013) investigated the distinctions between career indecision and indecisiveness. The different patterns of the associations between career indecision and indecisiveness, on one hand, and personality traits, career decision-making self-efficacy, perceived social support, and emotional intelligence, on the other, were studied in a sample of 361 university students. The results showed that career indecision, as measured by the career decision-making difficulties questionnaire, was highly associated with personality traits, and in particular with emotional stability. This pattern of result was obtained for both women and men; however, the prediction was stronger for indecision ($R^2 = .76$ and .55, for women and men, respectively) than indecisiveness ($R^2 = .35$ and .28, for women than for men, respectively).

Studies that offer insight into the dynamics of the career decision-making difficulties with reference to personality are very rare. Although the variable personality selected in the present study have been studied individually, but not much research has been done with the present combination. Hence, there is need to explore the relationship between career decision-making difficulties with personality.

Decision-Making Style

Decision-making style has been considered a crucial factor that affects an individual’s career development (Harren, 1979; Jepsen & Prediger, 1981; Super, 1980).

Decision-making styles refer to the characteristic ways in which different people behave in decision-making situations. The earliest efforts to identify these differences proposed trait-like categories of deciders who appeared to be planners, agonizers, delayers, impulsi ves, intuitives, fatalists, or compliant. From this perspective, it is expected that a decider who showed, for instance, impulsivity in choosing the first available alternative would display same decisional behavior across all decision-making situations.

The most widely used taxonomy in this tradition is that of Harren (as cited in Mau, 2000), who argued that decision making varies in the extent to which the individual assumes personal responsibility (versus assigning responsibility to fate, peers, and authorities) as well as in the extent to which the decider is logical (versus emotional) in the decision-making process.
Johnson (1978) described a systematic information-gathering style in which persons tend to analyze their experiences into constituent parts and form independent reactions to each part. They tend to delay psychological commitment until they have had an opportunity to analyze each component of their experience, and they move from thought to thought and goal to goal in a very deliberate, organized manner. Johnson (1978) further described that systematic individuals will find it difficult and frustrating to be required to state provisional career decisions during career counseling. This type appears to be related to the rational decision-making type postulated by Harren (1979).

Several theorists have postulated that persons who differ in decision-making style (or psychological type) would respond differently to career counseling interventions (Harren, 1979; Johnson, 1978; Myers & McCaulley, 1985), but virtually no research has examined the effects of decision-making style on the career counseling process. York and Tinsley (1986) did report on one investigation that suggests that Harren’s theory (1979) has particular relevance to the career counseling process. Harren theorized that individuals differ in the combination of strategies (i.e., decision-making styles) they use to make career decisions.

Johnson (1978); Myers and McCaulley (1985) also have postulated the existence of psychological types (i.e., individual differences in cognitive style) that they argue will respond differently to career counseling interventions. According to Myers and McCaulley, extraverts are aware of and rely on the environment for stimulation and guidance. They are action oriented and sometimes impulsive, enjoy frank and easy communication, and are more likely to reach decisions by talking them out and getting feedback. Johnson (1978) proposed a theory of decision-making styles in which he distinguished two information-gathering styles and two information processing styles that seem related to these psychological types.

Decision-making style refers to the process by which people usually make decisions, including the extent to which they may consult others, the speed with which a decision is made, the amount of research performed about available options, and the extent to which potential consequences are considered.
Although decision-making styles have been researched within several branches of psychology, the ideas of Janis and Mann (1977) have been particularly useful in developing measures in career psychology. They postulated that people make decisions in one of five possible styles. Unconflicted adherence is unquestioning alliance to a current decision. Unconflicted change is unquestioning change to a new decision. Defensive avoidance occurs when a person avoids making a decision because he or she is nervous about potential outcomes. Hyper-vigilance is a style in which a person makes quick, uninformed decisions in reaction to anxiety about potential outcomes. Finally, vigilance is a style in which a person makes a decision after a calm, thorough, and organized process of researching choices and consequences.

Janis and Mann’s (1977) theory has been extended into career psychology through the writings of Osipow (1983), and also has led to the development of a career decision-making questionnaire.

An individual who makes panicky decision and without reflection (panic decision-making), those who make decisions impulsively without reflection or prudence (impulsive decision making) or those who make their decision with regard to what other people suggest (avoidance) generally make a decision which is not optimal vis-à-vis their goals, interests or abilities. Thus, an individual’s decision-making style influences the way he makes his decision. This means that the individual’s preferred decision-making style affects his/her career decision.

Decision-making style in the present study has been defined as how adolescents are influenced by the way they make decision and behave in career decision-making situations as measured by self-made questionnaire of Adolescents Decision-Making Style (ADMS).

Career Decision-Making Difficulties and Decision-Making Style

The relation between an individual’s predominant decision-making style and his/her efficiency in the career decision-making process has also been examined in empirical studies. Decision-making style indicates the learned, usual pattern of an individual’s reactions in coping with a situation where he/she has to make a decision (Scott & Bruce, 1995, in Sager & Gastil, 1999) or the way he/she approaches cognitive tasks (Galotti, Ciner, Altenbaumer, Geerts, & Woulfe, 2006). Unadjusted decision making styles are negatively related to progress in a career decision-making process (Franken & Muris, 2005; Phillips, Pazienza, & Walsh, 1984 in Blustein & Phillips, 1990).
Amir and Gati (2006) investigated the relationship between measured and expressed career decision-making difficulties with variables such as career self-efficacy, aptitude, and decision-making style among 299 young adults who intended to apply to college or university in Israel. They found that the relationship between measured career decision-making difficulties, as measured by the career decision-making difficulties questionnaire, and expressed difficulties were generally high. Both measured and expressed difficulties correlated negatively with the student’s career decision-making self-efficacy. Participants with more crystallized career plans reported lower career decision-making difficulties, higher career decision-making self-efficacy and a higher thinking (vs. feeling) vocational decision-making style.

Galotti et al. (2006) investigated the relationships among individual difference variables (decision-making styles, planning proclivities, and epistemological orientations), cognitive measures of performance (e.g., amount of information gathered and considered); and affective reactions to, and descriptive ratings of, the decision-making process among undergraduate students. Results indicate significant relationships between individual differences measures and affective reactions to, or descriptive ratings of, the decision-making process. It was suggested that stylistic measures have their effects in the way individuals frame the decision-making process rather than in the way they go about gathering or structuring information.

Pecjak and Kosir (2007) in a study of 641 students examined the differences in personality, motivational factors and career decision-making difficulties between career decided and undecided students. The predictive value of some personality and motivational variables for secondary school students’ career decision-making difficulties was also investigated. The results show that there are differences between career decided and undecided students in most of the personality variables and decision-making styles. The most important predictors of students’ career decision-making difficulties are: a less panic-stricken and impulsive decision-making style, extraversion, emotional stability and competence in self-regulation.

Bimrose and Barnes (2007) suggested that the distinctive styles of client decision-making have emerged from case study research into the effectiveness of career guidance. Data analysis reveals four career decision-making styles: evaluative, strategic, aspirational and opportunistic. Overall, it is evident that the choices and decisions made as individual’s progress towards longer-term career destinations are multi-dimensional, complex, sometimes being implemented over an extended time frame and not always rational.
Paivandy, Bullock, Reardon, and Kelly (2008) examined two unexplored factors that may affect the development and maintenance of negative career thoughts, decision-making styles and a ruminative thought pattern. Results suggested that maximizing and rumination are moderately correlated with negative career thoughts. Together they account for 14% of the explained variance of negative career thoughts.

Landman, Davidovitch, Asulin-Peretz, and Gadassi (2010) proposed model refers to career decision-making profiles rather than career decision-making styles of 11 dimensions Career Decision-Making Profile (CDMP) was presented. Previous research on individual differences in career decision-making processes has often focused on classifying individuals into a few types of decision-making styles based on the most dominant trait or characteristic of their approach to the decision process (Harren, 1979). Study 1 reports the psychometric properties and the results of an exploratory factor analysis of the CDMP questionnaire, in a sample of young adults deliberating their career decisions. Study 2 presents the results of a confirmatory factor analysis, based on Israeli and US samples of young adults. The results of both studies supported the hypothesized 11 dimensions.

Gati, Gadassi, and Mashiah-Cohen (2011) investigated the convergent and incremental validity of the multi-dimensional model and questionnaire—the Career Decision-Making Profiles (CDMP, Gati et al., 2010)—by comparing it to two prevalent decision-making style models. Study 1 compared the CDMP to the Vocational Decision Style Indicator (VDSI; Walsh, 1986) using a sample of 423 young adults. Study 2 compared the CDMP to the General Decision-Making Style inventory (GDMS; Scott & Bruce, 1995; based on Harren, 1979) using a sample of 427 individuals. The results of Study 1 and 2 supported the convergent validity of the CDMP. Moreover, the results support in predicting individuals’ stages in the career decision-making process.

Di Fabio and Palazzeschi (2012) investigated the role of fluid intelligence, personality traits and core self-evaluation in relation to aspects of decision-making (career decision-making difficulties, decisional styles, indecisiveness). The Advanced Progressive Matrices (APM), the Big Five Questionnaire (BFQ), the Core Self-Evaluation Scale (CSES), the Career Decision-making Difficulties Questionnaire (CDDQ), the Melbourne Decision Making Questionnaire (MDMQ), and the Indecisiveness Scale (IS) were administered to 143 Italian high school students. The study revealed that the core self-evaluation construct added a significant percentage of incremental variance compared to variances due to fluid intelligence and personality traits with respect to aspects of decision-making. The results highlight the role of the decisional styles and its relationship with aspects of decision-making.
Career decision-making difficulties are thus widely influenced by decision-making style. Various research studies have indicated that decision-making style is positively associated with career decision-making difficulties. It may be assumed as one of the predictor variables of career decision-making difficulties.

**Rationale of the study**

Decisions pertaining to choice of one’s career have a vital influence on the well being of individual, social acceptance, health and bear lifelong consequences. While some people facing a career decision make their choice relatively easily, many others face difficulties before entering the actual decision-making process, or during it. These difficulties can sometime result in attempts to transfer the responsibility for making the decision to someone else, postponing the decision, or refraining from making it: in other cases difficulties may lead to a less-than optimal decision-making process and consequently to a less-than-optimal choice. The negative consequences may particularly affect adolescents.

Career decision-making self-efficacy, personality and decision-making style are other three variables which are also important for making right career decision. An individual should have belief in his/her capabilities to make career decision; the one who have higher levels of self-efficacy is likely to have lesser difficulties in career decision-making.

The individuals who are higher on personality dimensions are more willing to cope with career planning, has less tensions, worries and anxiety, tend to look for and accept advice from other people and therefore have fewer difficulties in their career decision-making process. Other important predictors of student’s career decision-making difficulties are decision-making style. Unadjusted decision making styles are negatively related to progress in a career decision-making process (Franken & Muris, 2005; Phillips et al., 1984 in Blustein & Phillips, 1990).

Not much of work is done in studying the relationship of career decision-making difficulties with career decision-making self-efficacy, personality and decision-making style taken together. Review of related literature also reveals mixed results.
The studies of Osipow and Gati (1998); Gaffner and Hazler (2002); Betz and Voyten (1997); Reese and Miller (2006) found a significant positive relationship between career decision-making self-efficacy and career decision-making difficulties whereas study conducted by Mau (2000); Albion and Fogarty (2002); Morgan and Ness (2003) showed a negative relationship between career decision-making self-efficacy and career decision-making difficulties, while Creed et al. (2006) found that changes in career decision-making self-efficacy did not result in changes in career indecision.

The studies conducted by Gaffner and Hazler (2002); Kushwaha and Hasan (2005) and Saka et al. (2008) found that personality was positively associated with career decision-making difficulties. Another study conducted by Lounsbury et al. (1999) shows career decision-making difficulties is positively related with some personality dimensions i.e. agreeableness and conscientiousness but negatively related with neuroticism whereas Jones (2008) found neuroticism was positively correlated, and conscientiousness, extraversion, agreeableness and rationality were negatively correlated with overall career decision-making difficulties.

The studies conducted by Tinsley et al. (2002); Amir and Gati (2006) found a significant positive relationship between decision-making style and career decision-making difficulties. Another study conducted by Pecjak and Kosir (2007) found that there are differences between career decided and undecided students in their vocation decision-making style. A study conducted by Mau (1995) found rational decision-making style is positively associated with career decidedness and negatively associated with the exploration stage of decision-making.

The inconsistent and contradictory results of research studies gave rise to the need of further probing. Also, the dependent variable of career decision-making difficulties has not been studied in relation with the other three independent variables taken together in the present study i.e. career decision-making self-efficacy, personality and decision-making style specifically in this part of the country.

Hence, given the prevalence and seriousness of difficulties aroused during career decision-making process, additional research is needed to understand career decision-making self-efficacy, personality and decision-making style and how they influence the career decision-making difficulties of adolescents.
Statement of the Problem

The statement of the problem thus read as:

CAREER DECISION-MAKING DIFFICULTIES OF ADOLESCENTS IN RELATION TO THEIR SELF-EFFICACY, PERSONALITY AND DECISION-MAKING STYLE

Objectives of the Study

The study was conducted on the basis of the following objectives:

1. (a) To find out whether gender differences exist in career decision-making difficulties of adolescents.
   (b) To find out whether gender differences exist in career decision-making self-efficacy of adolescents.
   (c) To find out whether gender differences exist in personality traits of adolescents.
   (d) To find out whether gender differences exist in decision-making style of adolescents.

2. (a) To find out whether career decision-making difficulties will differ among decided and undecided adolescents.
   (b) To find out whether career decision-making self-efficacy will differ among decided and undecided adolescents.
   (c) To find out whether personality traits will differ among decided and undecided adolescents.
   (d) To find out whether decision-making style will differ among decided and undecided adolescents.

3. (a) To find out whether career decision-making difficulties will differ among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.
   (b) To find out whether career decision-making self-efficacy will differ among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.
   (c) To find out whether personality traits will differ among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.
(d) To find out whether decision-making style will differ among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

4 (a) To find out the relationship of career decision-making difficulties with career decision-making self-efficacy of adolescents.

(b) To find out the relationship of career decision-making difficulties with personality of adolescents.

(c) To find out the relationship of career decision-making difficulties with decision-making style of adolescents.

5 To find out the predictors of career decision-making difficulties from among the independent variables of career decision-making self-efficacy, personality and decision-making style of adolescents.

**Hypotheses of the Study**

On the basis of above mentioned objectives, following hypotheses were proposed to be tested:

1 (a) There exists no significant gender difference in total career decision-making difficulties of adolescents.

This overall hypothesis covers the following domains:

(i) There exists no significant gender difference in sub-categories of lack of readiness of adolescents.

(ii) There exists no significant gender difference in sub-categories of lack of information of adolescents.

(iii) There exists no significant gender difference in sub-categories of inconsistent information of adolescents.

1 (b) There exists no significant gender difference in total career decision-making self-efficacy of adolescents.

This overall hypothesis covers the following domains:

(i) There exists no significant gender difference in self-appraisal of adolescents.

(ii) There exists no significant gender difference in occupational information of adolescents.
(iii) There exists no significant gender difference in goal selection of adolescents.
(iv) There exists no significant gender difference in planning of adolescents.
(v) There exists no significant gender difference in problem solving of adolescents.

1 (c) There exists no significant gender difference in personality traits of adolescents.
This overall hypothesis covers the following domains:
(i) There exists no significant gender difference in extraversion of adolescents.
(ii) There exists no significant gender difference in agreeableness of adolescents.
(iii) There exists no significant gender difference in conscientiousness of adolescents.
(iv) There exists no significant gender difference in neuroticism of adolescents.
(v) There exists no significant gender difference in openness of adolescents.

1 (d) There exists no significant gender difference in decision-making style of adolescents.
This overall hypothesis covers the following domains:
(i) There exists no significant gender difference in self-confidence of adolescents.
(ii) There exists no significant gender difference in panic of adolescents.
(iii) There exists no significant gender difference in avoidance of adolescents.
(iv) There exists no significant gender difference in impulsive of adolescents.

2 (a) There exists no significant difference in total career decision-making difficulties among decided and undecided adolescents.
This overall hypothesis covers the following domains:
(i) There exists no significant difference in sub-categories of lack of readiness among decided and undecided adolescents.
(ii) There exists no significant difference in sub-categories of lack of information among decided and undecided adolescents.
(iii) There exists no significant difference in sub-categories of inconsistent information among decided and undecided adolescents.
2 (b) There exists no significant difference in total career decision-making self-efficacy among decided and undecided adolescents.

This overall hypothesis covers the following domains:

(i) There exists no significant difference in self-appraisal among decided and undecided adolescents.

(ii) There exists no significant difference in occupational information among decided and undecided adolescents.

(iii) There exists no significant difference in goal selection among decided and undecided adolescents.

(iv) There exists no significant difference in planning among decided and undecided adolescents.

(v) There exists no significant difference in problem solving among decided and undecided adolescents.

2 (c) There exists no significant difference in personality traits among decided and undecided adolescents.

This overall hypothesis covers the following domains:

(i) There exists no significant difference in extraversion among decided and undecided adolescents.

(ii) There exists no significant difference in agreeableness among decided and undecided adolescents.

(iii) There exists no significant difference in conscientiousness among decided and undecided adolescents.

(iv) There exists no significant difference in neuroticism among decided and undecided adolescents.

(v) There exists no significant difference in openness among decided and undecided adolescents.

2 (d) There exists no significant difference in decision-making style among decided and undecided adolescents.

This overall hypothesis covers the following domains:

(i) There exists no significant difference in self-confidence among decided and undecided adolescents.
(ii) There exists no significant difference in panic among decided and undecided adolescents.

(iii) There exists no significant difference in avoidance among decided and undecided adolescents.

(iv) There exists no significant difference in impulsive among decided and undecided adolescents.

3 (a) There exists no significant difference in total career decision-making difficulties among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

This overall hypothesis covers the following domains:

(i) There exists no significant difference in sub-categories of lack of readiness among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(ii) There exists no significant difference in sub-categories of lack of information among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(iii) There exists no significant difference in sub-categories of inconsistent information among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

3 (b) There exists no significant difference in total career decision-making self-efficacy among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

This overall hypothesis covers the following domains:

(i) There exists no significant difference in self-appraisal among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(ii) There exists no significant difference in occupational information among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(iii) There exists no significant difference in goal selection among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.
(iv) There exists no significant difference in planning among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(v) There exists no significant difference in problem solving among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

3 (c) There exists no significant difference in personality traits of adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

This overall hypothesis covers the following domains:

(i) There exists no significant difference in extraversion among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(ii) There exists no significant difference in agreeableness among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(iii) There exists no significant difference in conscientiousness among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(iv) There exists no significant difference in neuroticism among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(v) There exists no significant difference in openness among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

3 (d) There exists no significant difference in decision-making style among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

This overall hypothesis covers the following domains:

(i) There exists no significant difference in self-confidence among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(ii) There exists no significant difference in panic among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.
(iii) There exists no significant difference in avoidance among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

(iv) There exists no significant difference in impulsive among adolescents belonging to academic streams i.e. medical, non-medical, commerce and arts.

4 (a) No significant relationship exists between total career decision-making difficulties and career decision-making self-efficacy of adolescents.

(i) There exists no significant relationship between sub-categories of lack of readiness and career decision-making self-efficacy (self-appraisal, occupational information, goal selection, planning and problem-solving) of adolescents.

(ii) There exists no significant relationship between sub-categories of lack of information and career decision-making self-efficacy (self-appraisal, occupational information, goal selection, planning and problem-solving) of adolescents.

(iii) There exists no significant relationship between sub-categories of inconsistent information and career decision-making self-efficacy (self-appraisal, occupational information, goal selection, planning and problem-solving) of adolescents.

4 (b) No significant relationship exists between total career decision-making difficulties and personality of adolescents.

(i) There exists no significant relationship between sub-categories of lack of readiness and personality (extraversion, agreeableness, conscientiousness, neuroticism and openness) of adolescents.

(ii) There exists no significant relationship between sub-categories of lack of information and personality (extraversion, agreeableness, conscientiousness, neuroticism and openness) of adolescents.

(iii) There exists no significant relationship between sub-categories of inconsistent information and personality (extraversion, agreeableness, conscientiousness, neuroticism and openness) of adolescents.
No significant relationship exists between total career decision-making difficulties and decision-making style of adolescents.

(i) There exists no significant relationship between sub-categories of lack of readiness and decision-making style (self-confidence, panic, avoidance and impulsive) of adolescents.

(ii) There exists no significant relationship between sub-categories of lack of information and decision-making style (self-confidence, panic, avoidance and impulsive) of adolescents.

(iii) There exists no significant relationship between sub-categories of inconsistent information and decision-making style (self-confidence, panic, avoidance and impulsive) of adolescents.

None of the independent variables of career decision-making self-efficacy, personality and decision-making style would contribute significantly in predicting the total career decision-making difficulties both independently as well as conjointly among adolescents.

(i) None of the independent variables of career decision-making self-efficacy, personality and decision-making style would contribute significantly in predicting lack of readiness independently as well as conjointly among adolescents.

(ii) None of the independent variables of career decision-making self-efficacy, personality and decision-making style would contribute significantly in predicting lack of information independently as well as conjointly among adolescents.

(iii) None of the independent variables of career decision-making self-efficacy, personality and decision-making style would contribute significantly in predicting inconsistent information independently as well as conjointly among adolescents.