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A qualitative investigation of the career paths of individuals working in an information technology environment

Gina Wilson

January 2002

This research report was submitted to the University of the Witwatersrand in partial fulfillment of the requirements for the degree of Master of Arts (Industrial Psychology)

DECLARATION

I declare that this research report is my own unaided work. It is being submitted for the degree of Master of Arts (Industrial Psychology) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any university, nor has it been prepared under the aegis or with the assistance of any other body, or organisation, or person outside the University of the Witwatersrand.

Signed G. Wilson Date 31 January 2002

Gina Wilson

ABSTRACT

The aim of this research was to investigate the career paths of individuals working in an Information Technology (IT) environment. The focus of the study is on the career history, subjective career views and career expectations and aspirations of these individuals. The study is exploratory and involved in-depth semi-structured interviews with nine individuals working in an IT environment in one financial institution. Results indicate that the career paths of these individuals no longer follow the traditional approaches to Career Development (CD), but rather amalgamate aspects of the traditional with the less traditional CD approaches. The results also indicate that the emphasis of CD is increasingly becoming the responsibility of the individual themselves, thereby requiring a more proactive and self-directed Career Management (CM) style. The results are discussed and interpreted in light of the literature reviewed.

Acknowledgments

A number of people have provided different forms of assistance to me in the course of this research. For this I owe them all a significant thank-you. They are :

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Dedication

This research report is dedicated to my mom who has shown such determination in the face of adversity. She is a constant reminder to me of what it means to be humble, hardworking, loving, honest and determined.

I love you Mom.

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CHAPTER 1

INTRODUCTION

The world of work as we know it is changing. The use of technology, and more specifically, information technology has grown exponentially in the last couple of years and the advent of the internet in 1993 (Goldstuck, 2001) has led to an increase in information technology usage in organisations today. This changing world of work is impacting on the jobs and careers of individuals. Organisations are becoming leaner and flatter, jobs are no longer for life, career paths are becoming less and less delineated and individuals are having to consistently improve themselves in order to develop their careers. This changing world of work appears to have necessitated a change in the nature of individual's careers within this environment. "It is a time of accelerated technological development, which affects us all in our professional lives...this is true with regard to the nature of work, the design of organisations, in communications between people, as well as in leadership and managerial roles" (Bradley, 2000, p.844). Whilst technology is "shortening product life cycles, making work less observable and organisations less hierarchical" it is conversely "increasing the importance of intellectual assets" (Aggarwal, 1999, p.83) in the form of employees skills and knowledge within organisations. It is not enough to invest in information technology (IT) as a sole method of competitiveness, as technology can be copied. What must be given attention is the people within the organisation, a well as the necessary changes to the organisational structure (Gellman, 1990).

Substantial research has been undertaken over the last 40 years that has examined the traditional Career Development (CD) theories and well established theories exist relating to careers. However, relatively little research has been undertaken in South Africa within this field. The relevance of these theories and

the related research may be questioned in light of the changes that have taken and continue to take place in the world of work and the nature of the relationship between the individual and his or her organisation with regards to careers. Thus, it is possible to recognise the importance of understanding the careers of individuals who find themselves in a changing world of work in South Africa. Information technology is becoming increasingly more powerful and whilst the economic impact of technology is becoming evident, the social impact is a lesser known entity (Aggarwal, 1999). As such, the contribution of this research can be seen in that it aims to understand the careers of individuals in South Africa who find themselves in a business environment which is being affected by change.

In light of this dearth of South African research, the aim of the present study is to investigate the career paths of individuals who are working within the changing world of work, namely in Information Technology (IT).

CHAPTER 2

LITERATURE REVIEW

This research is investigating the career paths of individuals working in an information technology environment. It is based in the field of career psychology. As such, it requires a review of career literature, particularly in the field of career development. Thus, this chapter outlines the theoretical basis of this research, as well as highlighting the context within which the research is based. Because of the nature of this research, literature regarding the changing world of work and the changing notion of careers will also be reviewed. As this research is exploratory, there is no single theory being tested and as such, this literature review will consider a multiplicity of theories within the field.

Section 2.1 is entitled the new world of work and details the changing nature of jobs and careers. *Section 2.2* considers the concept of the career whilst *section 2.3* expands upon this in terms of an individual's career development. In this regard, several theories relating to career development are covered. These range from more established theories such as Super, Driver and Schein to more recent theories of a protean career and a boundaryless career. *Section 2.4* identifies the notion of career management on the part of the individual and outlines a career management model. The final *section 2.5* takes into consideration a number of individual career factors that may be important in light of the potentially changing world of work and the impact that it is having on the individual. This final section is followed by the conclusion.

2.1 THE NEW WORLD OF WORK

"The world is changing rapidly and dramatically and these changes - economic, political, technological and cultural - are having profound effects on the world of work" (Greenhaus, Callanan and Godshalk, 2000, p.4). Perhaps the most profound changes that have occurred are technological. According to van der Speigel (in Howard, 1995, p.97) "the second half of this century has witnessed the birth of the information age". This information age is inextricably linked to the growth and usage of the computer. Information technology has become a catch word in an effort to make work faster and more competitive. Society is continuously in flux in its efforts to embrace the boom in information technology. It appears that technologically-driven change, in the form of information technology and in particular e-commerce, is having a significant effect on the business environment (Green Paper on Electronic Commerce, 2000). Tapscott (1998) identifies the effects that technology is having on organisations whereby corporate hierarchies are breaking down and rigid authority is dissolving into a participative, team based structure. Converging technology is meaning that conventional business models are no longer suitable for some organisations and therefore companies are having to reexamine how they compete and how they can add value (Tapscott, 1998). The same applies for individuals working in this technological environment who are having to realign their abilities and values to the organisation.

The new information technology environment will necessitate a new work environment as well as new work habits (van der Spiegel in Howard, 1995). Cascio (1998, p.5) sees work as being redefined through the "growing disappearance of the 'job' as a fixed bundle of tasks" and an increasing emphasis on organisational change in an effort to "full the ever-increasing demands of customers". According to Morgan and Smith (1996, p.174) a more "dynamic and flexible notion of job[s]" is necessary in today's world of work. Jobs are no longer constituted by the narrow view of "a single chunk of work that is

done...in exchange for compensation" (Morgan and Smith, 1996, p.174). If indeed, information technology is providing a significantly different environment in which employees operate and the traditional understanding of the job is becoming extinct, then two questions emerge "what are the implications of this change for those pursuing careers in today's business world?" and "in what way are their career expectations and aspirations going to be affected by this technologically driven change?" . These are the questions that this study aims to understand through its investigation of the career paths of individuals working in a technologically dependent environment.

In order to understand the career paths of individuals working in a potentially changing IT environment, it is necessary to briefly discuss the definition of a career.

2.2 DEFINING THE CONCEPT OF CAREER

Arnold (1997, p.16) defines a career in the broadest sense as a "sequence of employment-related positions, roles, activities and experiences encountered by a person". In this definition, an important point is made, that a career is a personal issue. It is seen to be an intangible possession of a person. Thus, the notion of a career takes on a subjective element in that it is relative to the person and the way that he or she views the world (Arnold, 1997). This definition highlights the subjective nature of an individual's career and as such informed the second research question of this study, to assess how individual's in IT view their own careers.

Hughes (1937 in Brown and Brooks, 1990) points out that a career has two facets : the objective career and the subjective career. In the case of the former, the emphasis is on the series of positions or offices that the person holds. The link can then be seen between the objective career and career development as

they both aim to determine the sequence of positions that an individual holds. The subjective career is relative to the individual and encompasses the individual's view of his or her career experiences. It is the "moving perspective in which the person sees his life as a whole and interprets the meaning of his various attributes, actions, and the things that happen to him" (Hughes, 1937 in Brown and Brooks, 1990, p.426). This delineation of the career into two facets is seen as important as it meant that both elements would have to be understood in order to establish a clear understanding of an individual's career. Therefore, the focus of the research was divided between the objective and subjective career. The dominant focus of most career research is on the objective career and the subjective is most often neglected (Collin, 1986 ; Collin and Young, 1986 ; Young and Collin, 1992). "Unless the subjective career is also duly recognised, theory is robbed of the opportunity to conceptualise the multidimensional quality of career" (Collin, 1998, p.3). In this study, both of the career facets are covered by the research questions, as the first research question considers an aspect of an individual's objective career, whilst the second question aims to understand the subjective career of an individual. The aim of the research is to investigate both the objective and subjective careers of individuals within a specific environment. It is these objective and subjective careers that in essence make up an individual's career path.

The work of Van Mannen and Schein (1977 in Schein, 1978, p.1) makes the distinction between what they term an 'internal' and 'external' career. These two distinctions correlate with the perspective of the individual and the organisation respectively. Thus, the 'internal' career relates to the meaning an individual pursues through his or her career, whilst the 'external' career involves the organisation "trying to set up a sensible developmental path for employees to follow throughout their working life in the organisation" (Hughes, 1937 in Brown and Brooks, 1990, p.426 ; Schein, 1978, p.1). Thus, the

subjective career mentioned earlier in this section is in tandem with the notion of an internal career whilst the objective career is synonymous with the external career.

A career is not linked to one occupation nor does it necessarily indicate movement from positions of low status to high status (Arnold, 1997), but rather relates to the accumulation of the positions, roles, activities and experiences that contribute to or result from an individual's employment (Arnold, 1997).

The most comprehensive and encompassing definition appears to be that provided by Greenhaus, Callanan and Godshalk (2000, p.9) who define a career as "the pattern of work-related experiences that span the course of a person's life". Work-related experiences consist of (1) "objective events or situations such as job positions, job duties or activities, and work-related decisions and (2) "subjective interpretations of work-related events such as work aspirations, expectations, values, needs and feelings about particular work experiences" (Greenhaus, Callanan and Godshalk, 2000, p.9). There is no inferral of upward movement or stability within a single occupation which is important in light of the changing business environment of the 21st century (Greenhaus, Callanan and Godshalk, 2000). This definition incorporates both the subjective and objective elements. The inclusion of both subjective and objective elements also extends to the development of a career. A career often involves change which can be in reaction to objective events, such as a person's promotional opportunities becoming limited or the career development can be instigated by a subjective reaction to events, such as a change in an individual's goals or values (Greenhaus, Callanan and Godshalk, 2000).

From the above it has become evident that the emphasis of career psychology has moved from the somewhat limited traditional approach to a more encompassing discipline that deals with the lifelong

work experiences of individuals. Traditional approaches focused on the occupational choices of individuals (that is, their influences in choosing the occupation that they did), whilst the less traditional approaches deal with the life long career process which is linked to the development of their careers throughout the different stages of their life and is predominantly linked to the organisation (Arthur, Hall and Lawrence, 1989). As such, it is necessary to consider the concept of career development and relevant theories in relation to this study. This will form the next section of this literature chapter.

2.3 CAREER DEVELOPMENT (CD)

The issue of careers is a complex one as it is constructed of many different facets. In this research, a few of these constructs were seen as being crucial in understanding an individual's career. As was mentioned earlier, traditional theories of careers have existed and been tested for about 40 years. However, these theories were created and maintained in a period of relative stability. Based upon the changing world of work, there is the understanding that the accepted traditional developmental models of career may be "less effective in understanding, predicting and responding to a particular individual's career concerns" (Kram, 1996, p.136). In today's world of work, there is little stability which has led to the creation of newer, less traditional theories that have attempted to embrace the changes taking place. The following section details the progression of relevant theories from traditional to the more contemporary.

2.3.1 Defining Career Development

Greenhaus, Callanan and Godshalk (2000, p.13) define CD as " an ongoing process by which individuals progress through a series of stages, each of which is characterised by a relatively unique set of issues, themes or tasks". The impetus of CD is on developing individual employees and improving

the match between an individuals career interests and the available career opportunities within an organisation (Hall, 1986).

The career development theories of Schein (1971), Driver (1980) and Super (1967) have been included in this research. Each of these theories assisted in the creation of the research questions as they deal with an individual's career history, are influenced by an individual's career expectations and aspirations as well as aspects of an individual's subjective career. Therefore, they highlighted three areas which came to represent the research questions of this study. The notions of career stages and career paths are also included as traditional approaches to CD. They are presented in no specific order.

2.3.2 Traditional Career Development Approaches

(a) Schein's (1971) Career Anchor Theory

Schein's (1971) theory is signified by his notion that career development is contingent upon "the interaction of the individual and the organisation over time" (Schein, 1978, p.2). Through significant research with Sloan Business School graduates, Schein (1978) established the concept of 'career anchors'. It was found that even though graduates had entered different jobs and little consistency existed in the job histories of individuals, there was consistency amongst the reasons given for career decisions such as continued education or moving organisations. This is where the 'career anchor' was created as a way of explaining the patterns of reasons given by the graduates. Thus, the term 'career anchor' came to symbolise "the pattern of self-perceived talents, motives and values which guide, constrain, stabilise and integrate the person's career" (Schein, 1978, p.126).

The purpose of such an anchor in a person's work life is, according to Schein (1978, p.127),

> a way of organising experience, identifying one's area of contribution for the long term, generating criteria for kinds of work settings in which one wants to function, and identifying patterns of ambition and criteria for success by which one will measure oneself.

Schein (1978, p.128) argues that the career anchor can be viewed as "that concern or value which the person will not give up, if a choice has to be made". Therefore, every individual has only one dominating career anchor (Barth, 1993).

The reason career anchors are important for this study is that even though individuals may exist within the same environment, their views of their careers may differ significantly. It is only through recognising these differences that suitable psychological contracts can be developed. These psychological contracts then impact upon the needs and expectations of individuals pursuing a career.

Another area that Schein's (1978) theory takes cognisance of is that individual's may not have the same educational or work experience background, yet they find themselves within the same profession or work environment and often make the same career development choices. Thus, the career history of an individual becomes an indicator of the individual's career choices in the past. Therefore it seems important to understand how an individual came to occupy a certain position in an organisation, which is the basis for the first of the research questions in this study which is to understand the career history of individual's working in an information technology environment.

Schein's (1978) research revealed five career anchors. They are : Technical / Functional Competence, Managerial Competence, Security, Autonomy and Creativity. Further research by Schein (1981) identified three more career anchors namely, Service or Dedication to the cause, Pure Challenge and Life Style. Each of these anchors will be briefly explained.

Technical / Functional Competence

This form of competence leads people to "make career decisions that [will] keep them in their areas of professional specialisation" (Brown and Brooks, 1990, p.441) rather than moving into management positions. The technical or functional element of the competence relates directly to the content of the work being done. If individuals excel in this competence, it indicates that their self-image is linked to their feeling of competence within the particular area and therefore, their perspective of career growth is career advancement within their specific area (Schein, 1978). Schein (1978) states that people who are anchored in this competence tend to leave organisations rather than be promoted outside of their respective area.

Managerial Competence

This form of competence requires that the individual moves to a position of managerial responsibility (Schein, 1978). Thus, the ultimate goal of individuals in this competence is to move into general management positions, with technical and functional jobs as stepping stones in the path to managerial success. Excelling in this competence requires proficiency in several functional areas such as analytical competence, interpersonal competence, and emotional competence[1] (Schein, 1978).

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[1] For further explanation of these meta-competences, the reader is encouraged to consult Schein, E.H. (1978). Career Dynamics : Matching individual and organisational needs. New York : Addison-Wesley

Security

The underlying concern of individuals rooted in this competence is career security and stability (Schein, 1978). In this regard, individuals who are anchored in this position will adhere to their employer's wishes in an attempt to maintain job security and income and ensure a future for themselves within the organisation. Thus, it can be recognised that whilst this is an important competence, it can be somewhat limiting for individuals as it requires that the individual's aspirations are recognised and realised by the organisation. The individual is dependent upon the organisation (Schein, 1978).There is little room for the individual to pursue personal aspirations, unless he or she moves to an alternative career anchor or organisation, which goes against the premises of this competence.

Autonomy

This competence is linked to independence. Individuals anchored in this position "seek work situations in which they will be maximally free of organisational constraints" (Schein, 1978, p.156). This allows for the pursuit of a profession or technical / functional competence. In essence, the autonomy and technical / functional competences exist as adversaries. Striving for autonomy thereby eliminates individuals from promotional opportunities as they tend to move into consulting positions that offer them freedom from the restrictive confines of large organisations. There is also no evidence, with individuals anchored in autonomy, of a sense of guilt or failure linked to the individuals not aspiring to higher career positions (Schein, 1978).

Creativity

The final career anchor identified through research conducted by Schein (1978) is that of creativity. This notion of creativity is linked to entrepreneurial activity of some form - either a new product, service or

organisation (Brooks and Brown, 1990). Whilst Schein's (1978, p.149) study revealed that individuals developed an entrepreneurial enterprise as a way of being "autonomous, managerially competent, able to exercise their special talents and build a fortune in order to be secure", but that their real reason for becoming entrepreneurs was for their own self-fulfillment. Through their entrepreneurial endeavours, individuals anchored in this category were able to achieve self-extension, either by creating something or having their name associated with a company or product (Schein, 1978).

Service or dedication to a cause

Individuals who are based within this career orientation will follow opportunities that will allow them to continue working on projects that are in tandem with their deep-seated beliefs (Petroni, 2000). In this respect, the individual gains achievement through adding value, for example through helping others. The individual's social values come to the fore and they have dedicated values that will not be easily compromised (Jarlstrom, 2000).

Pure Challenge

This career orientation epitomises an individual who looks for job novelty, variety and tasks that are challenging and require emotional commitment (Petroni, 2000). There is a competitive element to this career anchor as the individual displays a preference for overcoming obstacles, solving complex problems and winning against capable opponents (Petroni, 2000). In this respect, the process of winning becomes central to the individual's sense of self (Jarlstrom, 2000).

Life Style

This is the final career orientation developed as an addition to Schein's (1978) original career anchor theory. The individual's primary concern is to integrate his or her lifestyle so as to include family, personal and career concerns (Jarlstrom, 2000). However, there is still an individual pre-occupation with self-development (Petroni, 2000) as this in essence determines one's sense of identity (Jarlstrom, 2000). Thus, the overall impetus is upon gaining balance between all the different facets of one's life.

Significant amounts of research have been done on Schein's (1971) career anchors. The distribution of career anchors was tested quantitatively within a service organisation in England (Yarnall, 1998); the existence of the career anchor theory was tested empirically (DeLong, 1992); comparative studies have been done whereby Holland's and Schein's theories were tested for the correlations of their categories (Nordvik, 1991) and Miettinen (1979, 1980 in Jarlstrom, 2000) conducted a study on the career anchors of managers. However, this was based on those who had undergone a specific management training program within the organisation. In all of these instances, the sample size has been small and the emphasis has been either testing cause and effect relationships or testing the existence of the model. Little emphasis has been placed on discovering the orientations of individuals working within specific environments, in this case, IT environments.

(b) Driver's (1980) Theory of Career Concepts

The second career development theory relevant to this study is that of Driver (1980). Driver (1980 in Brown and Brooks, 1990) provides a career theory that is an assimilation of the properties of the individual and the organisation. Dalton (1989 in Arthur, Hall and Lawrence, 1989, p.94) states that Driver's (1980) theory highlights "four 'career concepts' that underlie a person's thinking about his or

her career but also seem to be built into certain occupations or organisations". Driver's (1980 in Brown and Brooks, 1990) premise is that people develop stable cognitive structures of their careers and subsequently use these structures to make sense of their careers. Thus, people's differences in "how they view their careers with respect to how permanent they see their career choices as being, the directions of career movement that represent success, and the points in life that they see as appropriate for making career choices" (Brown and Brooks, 1990, p.446) are taken into consideration by this theory.

Driver (1980) delineates four career concepts or styles : transitory, steady-state, linear and spiral (Brown and Brooks, 1990 ; Dalton, 1989 in Arthur, Hall and Lawrence, 1989). Similarity can be found between the career anchor theory of Schein (1978) and the career concepts developed by Driver (1980). For example, the transitory, steady-state, linear and spiral career concepts can be likened to the autonomy, technical, managerial and pure challenge anchors respectively (Yarnall, 1998).

The Transitory career concept

In this style, career choices are frequent (between one and four year intervals) and involve a substantial change in career direction (Brown and Brooks, 1990). This movement is usually lateral and allows the individual to move freely from job to job (Dalton, 1989 in Arthur, Hall and Lawrence, 1989). In this respect, it allows for the individual's search for identity, challenge and variety (Brown and Brooks, 1990), but may have adverse impacts upon the individual's ability to remain employed in a steady job.

The Steady-state career concept

For individuals who desire consistency in their work experience, this style allows them to choose a career early in life and to remain employed in this career indefinitely (Brown and Brooks, 1990). But, as Dalton (1989 in Arthur, Hall and Lawrence, 1989) highlights, the changes occurring in society require that even individuals in the most established professions such as medicine or skilled trades such as plumbing are being forced to re-assess their career paths. The emphasis in this career concept is upon security and competence.

The Linear career concept

This concept is linked to business and management. It is the most popular concept associated with the concept of 'career' (Brown and Brooks, 1990) and indicates that the individual aspires to a career that involves upward mobility. This upward mobility is either linked to the profession of the individual or the organisation within which he or she works. It is believed that the pursuit of such a career concept is based upon achievement and power (Brown and Brooks, 1990).

The Spiral career concept

The final career concept as defined by Driver (1980) is that of the spiral style. This concept highlights the career as a cyclical process in which changes occur every seven to ten years (Brown and Brooks, 1990). Based upon the desire for growth, individuals will commence a career within a field, develop within this field for a period of time and then move on to a related or sometimes completely alternative career which will again serve a cyclical purpose (Dalton, 1989 in Arthur, Hall and Lawrence, 1989).

(c) Super's (1967) Life-Span, Life-Space Approach

The final career development theory that assisted in establishing the research questions is that of Super (1967). Since its inception, this theory has undergone substantial renovation and revision. However, what can be ascertained by reviewing Super's (1967) and subsequent theories is that the Life-Span, Life-Space Approach is a conglomeration of several theories that exist within the realm of career development theory today. This impression is confirmed by Super (1980 in Brown and Brooks, 1990, p.199) where he states that "in one important sense, there is no Super's theory; there is just the assemblage of theories that I have sought to synthesise". But, it is through this synthesis that another theory is derived - the life-span, life-space approach. Thus, Super's (1967) theory can perhaps be seen as the most encompassing theory of career development. Central to Super's (1967) theory is the self-concept. Super and Bohn (1971 in Schreuder and Theron, 1997) hypothesise that career development is comprised of both the formation and the implementation of the self-concept in occupational contexts. Thus, achieving this self-concept requires that the individual attempts to synthesise his or her self-concept with the economic, social and cultural realities of the world (Super and Bohn, 1971 in Schreuder and Theron, 1997).

Along with the central tenet of self-concept, Super's (1967) theory proposes that an individual's career development proceeds through five life stages (Dalton, 1989 in Arthur, Hall and Lawrence, 1989; Isaacson and Brown, 1997 ; Super, 1992 in Schreuder and Theron, 1997). These five stages are : the *growth* stage (birth to 14 years); the *exploratory* stage (15 to 25 years); the *establishment* stage (25 to 45 years); the *maintenance* stage (45 years to retirement) and finally, the *decline* stage (retirement to

death)[2] (Dalton, 1989 in Arthur, Hall and Lawrence, 1989). Each of these stages focuses upon the interaction between the individual and the environment. The focus may either be on " the society forcing the individual to adapt to its needs or the individual forming an identity based on the choices and responses received from the environment" (Dalton, 1989 in Arthur, Hall and Lawrence, 1989, p.92). By comparing the developmental tasks confronting an individual with those that would be expected at that individual's age, the individual's career adaptivity can be ascertained (Super and Knasel, 1981).

This theory also highlights two pertinent issues. Firstly, that work-related organisations provide the opportunity for an individual to establish an identity as a competent and functioning member of society but that some individuals are unable to take advantage of this opportunity. Secondly, it raises the issue that some individuals may have difficulty maintaining a position for themselves within an organisation which is exacerbated if the individual is in the midpoint of their career (Dalton, 1989 in Arthur, Hall and Lawrence, 1989).

(d) The existence of career stages

Hall (1986) highlights three main career stages, namely, early career, midcareer and late career. It may be seen that these three stages are similar to Super's (1967) distinction of five main career growth periods that each individual goes through in his or her lifetimes. However, the career stages as identified by Super (1967) are narrowly defined and so those outlined here are seen to be more descriptive.

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[2] For a more in-depth description of the actions involved in each of these career stages, please consult Dalton, G.W. (1989). Developmental views of careers in organisations. In Arthur, M.B.; Hall, D.T. & Lawrence, B.S. (1989). Handbook of Career Theory. New York : Cambridge University Press

The placing of an individual in a specific career stage indicates, amongst other issues, a level of career maturity. Career maturity is defined as an individual's readiness to cope effectively with the developmental tasks of his or her life stage, as well as the readiness to make good choices (Hall and Hall, 1979). Thus, the career stage that the individual is in can be seen to have a ripple effect upon career expectations. These in turn are affected by issues such as organisational socialisation and commitment and may result in reality shock (Hughes, 1958 in Greenhaus, 1987) which creates feelings of disillusionment, dissatisfaction and disappointment in individuals.

What is pertinent to note is that the career stage that an individual finds him or herself in also has ramifications with regards to the career motivation that the individual experiences and the career management plan he or she puts into place (Hall, 1986). These concepts shall be discussed further in the following sections. Schreuder and Theron (1997) observe that these career stages are a synthesis of the aspects of adult life stages and career stages and thus refer to them as 'life stages'. Thus, it is necessary to briefly outline the applicable aspects of these three life stages.

Early Career / Life Stage

In this life stage, the behaviour of the individual is seen to have long-term consequences in that the actions of the individual in his or her early career will determine his or her later success (Stumpf and Hartman, 1984). There is a glut of opportunities available to the employee and the focus is upon establishing a place for oneself within the realms of the adult world (Schreuder and Theron, 1997). At this stage in an individual's life both physical and cognitive functioning are optimal and that early adulthood is symbolised by energy and vigour as well as enhanced problem-solving and abstract thinking abilities (Levinson, Darrow, Klein, Levinson and McKee,1978). Thus, the individual is able to limit his

or her commitments and avoid responsibility as much as possible whilst taking advantage of many of the options that arise in his or her work and home life (Schreuder and Theron, 1997).

This stage of an individual's work life is characterised by a variety of organisational expectations of the individual, some of which include loyalty, commitment, competence, integrity and the ability for personal growth (Schein, 1964 ; Hall, 1976). It is during this period of fitting into the organisation and the job that the individual may experience 'reality shock' due to a difference between the priorities of the individual and the organisation at this early stage (Hall, 1976).

Greenhaus and Callanan (1994) see the early career stage as being crucial to career establishment and achievement on the part of both the individual and the organisation. Relating to career establishment, there is the necessity for a two way relationship to exist. This two way relationship requires that the organisation assist new employees in fitting into their new job as well as into the organisation (Greenhaus and Callanan, 1994). This is where organisational socialisation becomes essential. On the part of the employee, he or she should be willing to learn and grow on the job, as well as undertaking self-exploration in an effort to ensure that there is a match between him or herself and the job they occupy (Greenhaus and Callanan, 1994). In terms of career achievement, this can only occur once the individual has managed suitably to establish him or herself within the job and the organisation. Again, the relationship is bi-directional where the individual shows an interest in promotion and career advancement and the organisation challenges the individual sufficiently as a way of ascertaining his or her abilities to contribute to the success of the organisation as well as creating realistic career paths (Greenhaus and Callanan, 1994). It is at this point that most companies inform their employees of the

availability of career management programs and employees are encouraged to assess these career management programs in terms of their own personal career goals (Greenhaus and Callanan, 1994).

Mid Career / Life Stage

Having proceeded through the early career or life stage, which is seen to be a tempestuous yet critical time for any individual with career goals, employees find themselves in the midcareer bracket. Whilst this stage of people's careers is characterised by a decline in physical ability it also signifies an abundance of wisdom and autonomy. Levinson et al. (1978) indicate that this period of an employee's career is symbolised by less instinct and more knowledge as well as a broader life perspective, more social awareness and self-awareness with regard to personal limitations. Enhanced cognitive functioning is more commonplace as individuals become better at being integrative and objective (Louw and Edwards, 1993).

Career salience is less obvious as individuals increase both family and leisure time and diversify their occupational interests (Gerdes, Moore, Ochse and Van Ede, 1988). The individual's sense of identity is said to be more grounded although there is still uncertainty regarding organisational issues such as obsolescence and job loss (Schneer and Reitman, 1994). However, the organisation has an obligation to inspire action on the part of the employee through the provision of mentoring skills, flexible career movements, training and education and encouraging creativity (Greenhaus and Callanan, 1994).

Late Career / Life Stage

Whilst the previous stages have alluded to the career as being an active involvement and construction by both the organisation and the employee, the emphasis changes in this career stage. The career comes to

imply the active disengagement from work (Hall, 1986). Even though life expectancy continues to increase (Raubenheimer, 1991 in Schreuder and Theron, 1997), the older worker's contribution to his or her career and the organisation gradually declines (Levinson et al., 1978). However, the organisation is not exempt from providing assistance even at this late career stage and should be attempting to assist the employee in making the transition to retirement through methods such as downscaling to part-time consulting (Schein, 1990).

Thus, as can be seen through this outline of the three career / life stages, the issues faced by individuals in each of these periods differ significantly. Clearly, life stages and career stages of an individual are inextricably linked. However, these stages involve a number of contexts - societal, personal and organisational - and therefore, the mechanisms utilised to deal with these stages vary physically, psychologically and emotionally (Schreuder and Theron, 1997). The career stage of the individual has implications for his or her career salience, career expectations and aspirations. These elements contribute to an individual's subjective career and as such, the second research question of this study, which involves a consideration of an individual's subjective career. This point is reiterated by a study done by Buckley and Petrunik (1995) on Canadian police officers. This study showed that career orientation was seen to change in time and in tandem with one's career stage and circumstances.

(e) Career paths

Having discussed the existence of career stages and their impact on the individual's work experience, it is necessary to examine the notion of career paths. Career paths are seen to encompass all aspects of an individual's career, therefore they are core to this research which is examining the career paths of individuals working within an IT environment. The career stages of an individual are inextricably linked

with his or her career path. Cascio (1991, p.242) defines career paths as "objective descriptions of sequential work experiences, as opposed to subjective, personal feelings about career progress, personal development or satisfaction". In layman's terms, this definition explains that employees move from job to job often with a plan or career direction in mind, and therefore leave a career path behind them, in the form of a sequence of jobs they have held as they continue to build a career path ahead of them. In the past, employees entering the workplace have tended to adopt a 'one life / one career' outlook. However, Hall (1996) emphasises that this is no longer suitable and that individuals should be aware that their "careers in the future will involve periodic cycles of skill apprenticeship, mastery and reskilling" (Hall, 1996, p.81). Thus, it appears that an individual's career path may not be as distinct as it may have been in the past when the world of work was more constant and stable. Thus, the aim of this study is to examine the career paths of individuals working within an IT environment which epitomises a changing work environment.

Career paths are becoming increasingly difficult to define based upon the corporate architecture of today's organisations which are encouraging flatness, leanness and a global outlook (Walker in Montross and Shinkman, 1992). Thus, in turn, rapid changes occur in job content, organisational structure and skills requirements which places emphasis on short-term career development and a step-by-step career trajectory. As a result, "career paths are taking on new meaning to employees as expectations change regarding careers" (Walker in Montross and Shinkman, 1992, p.395). These new expectations are also revealing new views of career paths whereby lateral moves are being seen more favourably, responsibilities evolve without a necessary title change, the essence of the work and one's ability to influence the shape of that work and the organisation is becoming increasingly important, success is being defined in personal fulfillment rather than promotional terms and the working day is less

rigidly defined by an 'eight to five' mentality (Walker in Montross and Shinkman, 1992). At the same time, the increase in the teamwork, project orientation and networking of today's flexible organisations is undermining the traditional individualistic notion of a career (Hall, 1996) and therefore altering the career paths followed by individual's in these organisations.

What must also be taken into consideration is that in the same way that the concept of 'career' has evolved over time, so too has the idea of the career path as a pre-determined upward movement (Cascio, 1991; Hall, 1996). This traditional association with upward mobility arose from the organisations' attempts to "move individuals along defined career paths in order to develop the capabilities necessary to staff various levels and types of jobs" (Montross and Shinkman, 1992, p.388). Career paths in today's world of work may be lateral (transfer), downward (demotion) or even completely changed (dismissal or retrenchment) (Montross and Shinkman, 1992). Traditional career development models are premised upon the notion of linear, hierarchical progression which ultimately encourages competition. However, O'Leary (1997) proposes that in today's world of work, the career path will be determined by the career ambitious individual who measures his or her success based upon subjective measures such as the degree of challenge, satisfaction or sense of growth and development.

Montross and Shinkman (1992) raise a pertinent issue which links the idea of career paths with the changes occurring in the world of work. In this way, career paths exist co-dependently with organisational structure, job content and skills requirements and a change in one elicits a change in the other (Montross and Shinkman, 1992). "Rapidly changing technologies have created new career paths for employees with the proper mix of skills, while their less adaptable colleagues have found themselves out of tune with their employers' future plans" (Greenhaus, Callanan and Godshalk, 2000, p.5). In light

of this, this study aims to understand the career paths of individuals in a changing, technology based, e-commerce influenced environment.

Whilst the notion of a career path has existed for some time, there is minimal research within the field. Hesketh, Gardner and Lissner (1992) looked at the technical and managerial career paths of engineers and their perceived career path opportunities; an examination of the career paths of Hotel Managers in Mauritius was conducted by Ladkin and Juwaheer (2000); the career paths of secretarial positions was investigated by Truss, Goffee and Jones (1992) which involved a comparison of such prospects in England, France and Germany. The difficulties of developing a career path in the medical world was highlighted by Mark (1991). However, most of the research conducted has focused upon elements contributing to a career path such as career salience and career commitment rather than on the subjective career path as a whole. Furthermore, there does not appear to be any research that has been conducted within the information technology realm.

2.3.3 Less Traditional Career Development Approaches

Having reviewed the traditional theories of Schein (1971), Driver (1980) and Super (1967) and the notions of career stages and career paths, it is important to consider two less traditional CD theories. These are the Protean career and the Boundaryless career.

(a) The Protean Career

"For managers in large-scale organisations, careers have traditionally provided a set of organising principles around which they have been able to structure both their private and professional lives" (Goffee and Scase, 1992, p.363). This meant that managers experienced a sense of "security, stability

and order" (Goffee and Scase, 1992, p.363) which enhanced their organisational commitment and loyalty. This study conducted by Goffee and Scase (1992) on British managers also found that the managers foresaw limited career opportunities for their futures and began to expend minimal effort at work and undertook their tasks to an almost unacceptable standard. Thus, the notions of commitment and corporate loyalty were drastically redefined as some managers even chose to go beyond minimal effort and adopted what Goffee and Scase (1992, p.377) term "anti-organisational attitudes". However, the newly established "protean career"(Hall and Mirvis, 1995; Greenhaus, Callanan and Godshalk, 2000) advocates career adaptivity and career-resilience, as well as different forms of organisational commitment. The protean career of an individual is constituted by his or her experiences, training, education, work within organisations and any changes made in occupation (Mirvis and Hall, 1994). This protean career is self-directed by the individual rather than the organisation and has the potential to be "redirected from time to time to meet the needs of the person" (Hall and Mirvis, 1995, p.333). As such, the notion of a career is continuously in flux and therefore, an individual's process of career development becomes increasingly complex.

The Protean career is a more recently adopted career development idea. It has received very little attention in career research, yet several authors (Arthur and Rousseau, 1996; Collin, 1996; Hall and Mirvis, 1996) advocate for its utility in today's changing world of work. A study conducted by MacDermid, Dean Lee, Buck and Williams (2001) encompassed the protean career concept. However, the impetus was upon women who had already assumed a protean work pattern through the adoption of part-time work arrangements. Whether or not the traditional career is disappearing (Guest and McKenzie-Davey, 1996), the notion of the protean career is beginning to be recognised as a valid reconceptualisation of the career. Like wise, the boundaryless career concept, which is discussed in the

following section, is also gaining popularity. According to Collin (1998, p.4) this is due to the fact that the protean and boundaryless conceptualisations do not " assume universal, objectively identifiable nor normative stages of career but rather individual rates and directions of change and development". As such, the next less traditional CD approach is the boundaryless career.

(b) The Boundaryless Career

In the way that the Protean career focuses upon the individual taking responsibility for his or her own career, the notion of a boundaryless career takes this one step further. A boundaryless career is one in which there are no organisational limitations. Thus, the boundaryless career is a competency-based view of careers whereby the individual's career path involves a sequence of job opportunities that extend beyond the boundaries of a single organisation (Defillippi and Arthur, 1994).

The boundarlyess career is in complete paradox to the traditional career in that it avoids stability, hierarchy and clearly defined job descriptions (Defillippi and Arthur, 1994). Thus, it eliminates the stable life-long career within one organisation traditionally advocated in organisations. 'Boundaryless' encompasses inter-organisational moves, as well as flexible, non-hierarchical organisations in which there are no or few directly observable pathways and no norms of objectively observable progress or success (Arthur and Rousseau, 1996). With the notion of a boundaryless career comes a move away from vertically-coordinated careers where an individual sees the development of his or her career as an upward progression and as such is unable to recognise any lateral opportunities that may exist. However, this type of career has implications in terms of its management. Mirvis and Hall (1994) provide what they believe are four crucial aspects in managing a career in a boundaryless career. The first requires that the individual goes through periodic cycles of reskilling that allow for lateral

movement as well as upward. The second, is the necessity for change on the part of the individual. This means that the individual should be motivated to change jobs, companies and possible even occupations within his or her lifetime. The third aspect of Mirvis and Hall's (1994) model is that of creating a more solid balance between work and home roles. The final aspect relates to the protean career as advocated by Hall (1996), whereby the individual takes full responsibility for his or her career development.

But, having outlined Mirvis and Hall's (1994) four step process for career management in a boundaryless career, it is also necessary to realise that such adaptation will require psychological adaptation of some form on the part of the individual encountering this boundaryless career. In this respect, expectations relating to upward mobility and career progression will have to be re-evaluated; the individual will have to deal with role overload and conflict in maintaining a sense of identity and ultimately, the individual will have to find a substitute for organisational identification by virtue of the fact that no constant relationship can be established with a single organisation (Mirvis and Hall, 1994).

If the traditional career path is to evolve into the protean or boundaryless career, it will require a new career contract between the individual and his or her employer. Hall (1996, p.5) sees the new career contract as "one in which the individual contributes strong performance in response to customer needs, continuously learning in relation to others, with adaptability in developing new competencies as the business environment changes". In this regard, Hall (1996) still sees the psychological contract as inherently relational but being more strongly held together by business success, clarity of purpose, mutual connection, respect and trust. According to Holbeche (1995), the new employee-employer relationship is characterised by a need for the individual to develop themselves and their employability under a flatter organisational structure. Hall and Mirvis (1995) state that the new psychological contract

being negotiated in organisations today is a move away from an organisationally based career to one which is protean or self-based.

As in the case of the protean career, the boundaryless career is gaining exposure as a potential new career development theory. However, there does appear to be a dearth of research on either of these concepts in the career literature.

2.4 CAREER MANAGEMENT (CM)

At this stage, the concepts of the career and career development have been outlined and the relevant theories of career development have been explicated. In this respect, these areas have examined the more objectively oriented aspects of an individual's career. Career management (CM) on the other hand, explores the more subjective elements of an individual's career. The concept of CM has begun to recognise the impact of the changes in organisations and the world of work on careers. Indeed, in a study by Pringle and Gold (1989) which considered the utility of career planning and management for male and female managers, the results revealed that career planning is no longer as useful a strategy as it may lead to managers having to stick rigidly to following plans rather than having the flexibility to take opportunities, which is more possible in individual CM. The issue of the role of CM and CP and the changes necessary for CM seems to be critical in understanding careers in modern organisations.

Given that CM is strongly based on an individual's subjective view of his or her careers and how to manage them, one of the aims of the present study is to assess how individual's in an IT environment view their own careers.

2.4.1 *Defining Career Management*

CM is the process that an individual develops, implements and monitors as a mechanism for ensuring the achievement of an individual's goals and strategies. Greenhaus and Callanan (1994) provide five elements that constitute CM on the part of the individual. Thus, CM is the process whereby the employee:

(1) obtains self-knowledge (interests, values, abilities, personality, career anchors),

(2) obtains a knowledge of the working environment (job and organisations),

(3) develops career goals,

(4) develops a strategy and finally,

(5) obtains feedback on the effectiveness of the strategy and the relevance of the goals.

Thus, CM operates as an individual activity rather than an organisational activity. Conversely, career development (CD) involves interaction and activity on the part of both the individual and the organisation.

Even though these terms are defined differently, it is imperative that they exist interdependently within an individual's career (Hall, 1986). Amalgamating the two concepts ensures that not only does the individual "understand the developmental tasks associated with each career stage" but also that he or she is able to "develop goals and strategies that are most appropriate for their particular career phase" (Greenhaus, Callanan and Godshalk, 2000, p.13). As Derr (1986, p.5) explicates, " a career is more than a job. It is more than a long-term sequence of jobs. A career has a sense of direction that comes from the individual careerist".

Hall (1986) provides a different view of CD and CM. He states that CD is an overarching practice that consists of both CM and career planning(CP). In this instance, CM is seen to be an institutional process and CP is seen to be an individual process. CP is defined as

> A deliberate process for (1) becoming aware of self, opportunities, constraints, choices and consequences, (2) identifying career-related goals, and (3) programming of work, education and related developmental experiences to provide the direction, timing, and sequence of steps to attain a specific career goal (Hall, 1986, p.54).

From the above definition, it appears that what Hall (1986) termed 'career planning' has evolved into today's understanding of 'career management'. However, what still stands is the necessity for the collaboration of CD and CM to occur in order for an individual to progress successfully in his or her career.

> If, as many writers assert, careers will change perhaps three to four times in a lifetime and that professionals will need to think about changing jobs every two to four years and employers every three to five years, then career planning will become a major skill and the career planning process itself will need to be flexible and responsive to the needs of the individual (Holbeche, 1995, p.177).

A study conducted by Morrison (1977) highlighted that managers needed to possess what is known as "career adaptivity" in order to deal effectively with the changing role demands facing them. Hall and Mirvis (1995, p.269) explicate that "heightened adaptivity" and "identity development" are the two most

important skills required in today's "contemporary high-speed work environment". Morrison's (1977) research also established that those who were most adaptive had been more proactive in their career development activities. If managers are 'career adaptive' then according to Morrison (1977), this signals a certain level of career maturity whereby the individual's chronological and career ages are seen to be congruent. This career adaptivity and maturity is then linked to an individual's ability to "cope with stress by planning the future in a way that includes change" (Mann, Siegler and Osmond, 1968 in Morrison, 1977, p.550). Similarly, Waterman, Waterman and Collard (1994) talk of the need for a "career-resilient" workforce. This career-resilient workforce is symbolised by the ability to not only reinvent themselves, which is synonymous with Morrison's (1977) notion of adaptivity, but more importantly, this workforce "takes responsibility for their own career management" (Waterman, Waterman and Collard, 1994, p.88). Therefore, it seems important in today's changing society that employees are able to effectively adapt to the changing technological developments that are occurring within most businesses as "fewer are now able to pursue 'orderly', predictable career paths within large, centralised bureaucratic systems" (Markham et al. in Goffee and Scase, 1992, p.365). In this respect, there is a need for research to be conducted that further examines these career paths, as well as research that examines the notion of CM in a changing world of work.

2.5 CAREER SALIENCE, COMMITMENT, EXPECTATIONS AND ASPIRATIONS AND MOTIVATION IN THE NEW WORLD OF WORK

Having discussed the subjective career of the individual through the notion of career management, it is important that a number of attributes are outlined that relate to an individual's career management and therefore, his or her subjective view of their career. An individual's career salience, career and

organisational commitment, career expectations and aspirations and career motivation all form the subjective view of his or her career.

2.5.1 *Career Salience*

Career salience is a concept that has received growing attention in the academic world due to the efforts of Greenhaus (1971, 1973). Greenhaus (1971) refined the concept of the 'importance of work' into 'career salience', or as it is also known, 'work-role salience'[3]. Career or work-role salience is defined as "the importance of work and career in one's total life" (Greenhaus,1971, p.52). Thus, an individual who experiences a high level of career salience would prioritise his or her work and career as opposed to other commitments in the form of family, friends or leisure (Morrow, 1983).

If work is seen to be salient in the individual's life, this is said to encourage self and vocational exploration and will have a positive impact upon the individual's commitment ultimately allowing him or her to create more realistic career expectations (Greenhaus and Sklarew, 1981). Therefore the inclusion of career salience as a factor in an individual's career development was recognised and was a key factor in the creation of the third research question which specifically addresses the career expectations and aspirations of individuals working in an IT environment.

A study conducted by Watson and Allan (1989) upon South African university students found that work-role or career salience of students enrolled for career-directed degrees was significantly higher than the other students who were registered for general degrees. This has implications for the students ability to make career decisions as well as their emphasis on early and long-term career planning which is

[3] The terms 'career salience' and 'work-role salience' are used as synonymous in the literature and as such shall be used interchangeably in this research report.

part of the early career stage as mentioned earlier. Thus, students with low career salience were less prepared to view a career as a source of personal satisfaction and an expression of their self-identity (Watson and Allan, 1989). This is echoed by a similar study by Greenhaus and Simon (1977) who took the link between low career salience and career indecision one step further by testing them against rewards. Their study questioned whether undecided students were less moved by the intrinsic characteristics of a job such as challenge, achievement and psychological growth and thus tended to emphasise the extrinsic work factors such as working conditions, pay and the ability to associate with their co-workers. What their study revealed was that students who were vocationally undecided tended to place less importance upon intrinsic work values than the students who were committed to an occupation. However, these results cannot be seen to be conclusive of all students. Research by Greenhaus (1971) considered the role of career salience in occupational choice and occupational satisfaction while Jans (1982) looked at the nature and measurement of work involvement with officers in the army. Thus, whilst research has been done on career salience it appears to focus on students and employees in the civil service. There is also an absence of qualitative research. The present research will be examining the career expectations and aspirations of individuals in an IT environment in order to establish the nature of their career salience.

2.5.2 *Commitment*

Commitment is intertwined with career salience. Morrow (1993) fails to see a clear distinction between career salience and career commitment as she believes that career commitment (or professional commitment as it is also known) are merely redefined and developed conceptualisations of career salience. However, these two concepts can be seen to be distinct in that career salience deals with the relative importance of work and career in the individual's total life whereas career commitment is linked

to the individual's dedication and commitment to a career or profession (Morrow, 1993). Career and organisational commitment shall now be briefly outlined.

Career / professional commitment

Career commitment is seen to be on a similar level to organisational commitment in terms of importance to both the individual and the organisation. Perhaps the most published definition of career commitment is that of Hall (1971, p.59). He sees career commitment as

> the strength of one's motivation to work in a chosen career role. Commitment to the entire career field or role is to be distinguished from commitment to the job, or to one's organisation. These three forms of commitment are often correlated, but they are theoretically distinct and may often have different causes or consequences.

However, Blau (1985) chooses to delineate career commitment in terms of an individual's profession rather than career. Thus, career commitment is seen as "one's attitude towards one's profession or vocation" (Blau, 1985, p.278). Morrow and Wirth (1989, p.40) also choose to see professionalism as part of career commitment and suggest it be defined as "the relative strength of identification with and involvement in one's profession". These are valuable suggestions.

This emphasis on professional commitment is linked to work conducted by Gouldner (1958). In this regard, Gouldner (1958) defined individuals pursuing a career as either 'cosmopolitans' or 'locals'. These dichotomous terms referred to 'locals' as having "commitment of one's career aspirations to an

employing company" conversely to 'cosmopolitans' whose career aspirations are committed to a profession or specialty (Gouldner, 1958 in Morrow and Wirth, 1989, p.41).

Colarelli and Bishop (1990, p.159) argue that due to the longitudinal nature of the career, "career commitment is important as it may provide an important source of occupational meaning and continuity in an era when organisations have become fluid and unable to provide employment security". Thus, the concept of career commitment was also seen as an important aspect of an individuals subjective career.

Organisational commitment

A number of different authors have written of organisational commitment. Porter (1968 in Buchanan, 1984, p.189) sees organisational commitment as " the willingness of an employee to exert high levels of effort on behalf of the organisation, a strong desire to stay with the organisation, and an acceptance of its major goals and values". Lee (1971 in Buchanan, 1984) relates organisational commitment to a similar concept, organisational identification and defines it as a degree of belongingness or loyalty. Steers (1977, p.46) sees organisational commitment as "the relative strength of an individual's identification with and involvement in a particular organisation". Porter, Steers, Mowday and Boulian (1974) believe that organisational commitment is characterised by three main factors. Firstly, a strong belief in and acceptance of the organisation's goals and values; secondly, a willingness to exert considerable effort on behalf of the organisation and finally, a strong desire to maintain membership in the organisation. Thus, if the world of work is changing in the way that the literature indicates, and the boundaryless career is becoming more predominant, then an individual's organisational commitment would undergo a change.

Research on career and organisational commitment has focused more on the prediction of the antecedents and outcomes of the organisational commitment (Steers, 1977) and career commitment (Aryee, Chay and Chew, 1994); the measurement of organisational commitment (Mowday, Steers and Porter, 1979); the link between commitment and turnover in Japan (Marsh and Mannari, 1977) and the reliability and validity of the career commitment concept (Morrow and Wirth, 1989) and the career commitment measure (Blau, 1988). There does not appear to be any research that considers the issue of commitment in a changing work environment. The present research will establish the nature of individuals commitment (career and organisational) through the examination of their career expectations and aspirations.

2.5.3 *Career Expectations and Aspirations*

Career expectations and aspirations are a complex aspect of career management. An individual's career expectations and aspirations are the first step in their entry into an organisation and can influence the socialisation of the individual into the organisation as well as affecting the commitment and psychological contract of the individual. Combined with the changing business environment that is becoming more flexible and is constantly developing technologically, an individual's career expectations and aspirations may need to be reassessed regularly.

Individual and Organisational expectations

An individual's career expectations and aspirations require constant evaluation against the realities of the world of work at any point in time. Dean (1982) states that every individual enters an organisation with a specific set of expectations about the world of work. These expectations are usually based upon early life experiences, formal education and the organisational entry process to name a few. Kotter (1973)

believes that there are four predominant expectations that need to be matched in order for the individual and the organisation to co-exist successfully. These are : what the individual expects to receive, what the individual expects to give and similarly, what the organisation expects to give and receive. If any inconsistency occurs in the provision of these expectations, reality shock occurs (Dean, 1982). Therefore, it can be seen that from the initial entrance into an organisation, an individual is required to re-evaluate his or her career path and ultimately, his or her expectations and aspirations.

Values and Expectations

Job expectations are individual beliefs about job outcomes which can be separated into three different categories; job content expectations, job context expectations and career expectations (Dean, 1982). The first two categories relate specifically to "the specific job that the employees will be doing including their reactions to the actual work" (Dean, 1982, p.58). The third category relates to the future career opportunities of the individual, particularly with reference to mobility and progression. Thus, a job expectation pertains to an individual's belief that he or she will obtain an outcome, regardless of the level of attainment, on a particular job (Greenhaus, Seidel and Marinus, 1983). Thus, it is assumed that if expectations are met then a job will be perceived as satisfying. However, Locke (1976 in Greenhaus et al., 1983) advocates that expectations are not necessarily affiliated with job satisfaction but rather that an employee's values influence job satisfaction. Greenhaus et al. (1983) have found support for this argument that values are greater influences in attaining job satisfaction than expectations. Expectations are seen as beliefs whereas values are seen as what a person want or desires in a job (Locke, 1976 in Greenhaus et al., 1983). Thus, values are seen to be important in that they involve not only the internal needs of the individual but also an aspect of motivation on the part of the individual in order to satisfy these needs (Super, 1957)

Goffee and Scase's (1992) survey of British managers of large-scale corporations reveals that over 80% of both the men and women in the study claim they have not reached their career aspirations, thereby creating dissatisfaction. Similarly, only four in every ten expressed any optimism about their future career prospects. No research has been found in South Africa which addresses the career expectations and aspirations of employees. Given the new work context identified in this research, this is an important issue which will be dealt with in this study.

2.5.4 *Career Motivation*

Based upon the changes occurring in the world of work, it would seem that an individual's career motivation is becoming a crucial factor in ensuring a career path that is suitable to the individual. London (1983, p.620) sees career motivation as "...the set of individual characteristics and associated career decisions and behaviours that reflect the person's career identity, insight into factors affecting his or her career, and resilience in the face of unfavourable career conditions". These three factors of identity, insight and resilience require further clarification.

Career identity

This is the extent to which an individual defines him or herself by their work (Hall, 1986; McCormick and Ilgen, 1995) . People who experience high career identity are involved not only in their jobs, but also in their careers and their professions (Hall, 1986). Career identity is indicative of an individual's drive in that it reflects people's career goals and whether these include advancement, status, increased monetary reward and leadership potential. It is also reflective of the urgency of these career goals - is the individual content to wait for his or her time to arrive or are they intent on striving for these

aspirations as soon as possible (Hall, 1986; London, 1983). Thus, upward mobility and the time taken to achieve it and its desired outcomes becomes an issue for career driven individuals.

Career insight

The second aspect of career motivation is linked to an individuals ability to be fully in tune with themselves and thus their strengths and weaknesses (Hall, 1986). Career insight refers to "the extent to which people are realistic about themselves and their careers and how accurately they relate these perceptions to their career goals" (Hall, 1986, p.26). Individuals assess themselves against the business environment they find themselves in and seek feedback as a mechanism for self-improvement. Having career insight allows them to set specific career goals and strategise as to how they aim to achieve them (Hall, 1986). In this way, the individual is taking cognisance of his or her shortcomings and is aware of his or her personal limitations (London, 1983).

Career resilience

The final part of the career motivation ideology is career resilience. McCormick and Ilgen (1995, p.261) see it as "the extent to which the individual is able to cope with situations that are less than optimal for his or her career". Bridges (1995) reiterates that in order for an individual to ensure some form of employment security for the future, resiliency is going to become crucial to an employee's repertoire of skills and abilities. Thus, an individual must develop the ability to bend and not break, to become flexible in the changing business environment. Being career-resilient provides individuals with a sense of competency and control with regards to their role in various situations, thereby equipping them with team work skills and the ability to see past the barriers of the present, beyond the risk to the sense of accomplishment that awaits them at the end of the tasks (Hall, 1986).

2.6 CONCLUSION

As was mentioned in the introduction, organisations are becoming leaner and flatter, jobs are no longer for life, career paths are becoming less and less delineated and individuals are having to consistently improve themselves in order to develop their careers. This changing world of work appears to have necessitated a change in the nature of individual's careers within this environment. As can be seen in the last section, and indeed throughout this chapter, research has been conducted within the career psychology field. However, it has tended to focus on student or civil service population groups or alternatively it has been conducted in a country outside of South Africa. As such, the literature reviewed here deals with relevant and well researched constructs, even though most of the research has tended to focus on the relevance of the construct. The way that people view their own careers within a changing environment appears under researched. Therefore, the aim of this research is to understand the career paths of individuals working within a changing business environment, thereby understanding their own subjective views of their careers and the constructs that constitute their career paths including their particular career histories and their own career expectations and aspirations.

Therefore, the research questions in light of the literature reviewed are as follows:

1. What is the career history of individuals in an IT environment?
2. How do these individuals view their own careers?
3. What are the career aspirations and expectations of these individuals?

CHAPTER 3

METHODOLOGY

The aim of this study is to examine the career paths of individuals working in an information technology environment. This chapter outlines the methodology employed in this research.

This chapter is divided into several sections which describe the overall research design (3.1), the qualitative orientation of the study (3.2), issues relating to the sample (3.3), the data collection techniques (3.4) and finally, the data analysis technique used in the study (3.5).

3.1 OVERALL RESEARCH DESIGN

The research design is qualitative, descriptive, cross-sectional and non-experimental (Howell, 1997). In this study, cross-sectional research was deemed to be suitable as the emphasis was not upon determining causal relationships between variables (Singleton and Straits, 1993). This cross-sectional approach contrasts with a longitudinal study which repeatedly measures the same characteristics at various different time intervals within a single group of individuals (Christensen, 1985). The non-experimental approach, also known as an ex-post facto design, was unavoidable due to the fact that conducting research of this nature within an organisation does not allow for the direct control of the independent variable, (in this study, the career paths) because the variable's manifestations may have already occurred or are not inherently manipulable (Kerlinger, 1986; Rosnow and Rosenthal, 1991).

The aim of this study was to establish the career paths of individuals working in an information technology environment, thereby examining the association between the potentially changing nature of

the workplace due to changing technology and e-commerce and the subsequent experience that this changing workplace is creating for individuals careers.

3.2 QUALITATIVE ORIENTATION

In order to adequately establish the experience of individuals working in an information technology environment, it was decided to utilise a qualitatively oriented research paradigm. The qualitative research paradigm has a number of benefits. Qualitative research methods allow one to "understand the actions of participants on the basis of their active experience of the world and the ways in which their actions arise from and reflect back on the experience" (Allan, 1991, p.178). Qualitative methods of data collection allow the researcher to ask questions whose answers cannot be quantified (Barker, Pistrang and Elliott, 1994), thereby eliminating the possibility of pre-empting certain answers as a quantitative methodology may do. The participant also has more freedom to express him or herself, thereby providing more depth and detail of information than quantitative methods allow (Barker, Pistrang and Elliot, 1994). This is particularly important in this study as it is investigating, as its second research question, the subjective views of individuals with regard to their careers. In this way, there is no inferral of cause and effect which allows the study to be more exploratory. The study was exploratory in that there is a paucity of research that exists not only within South Africa, but also internationally, that investigates the link between technology and individual's career paths.

The qualitative paradigm also offers a wealth of information and allows for more thorough probing and therefore understanding of the subject matter. Kvale (1996) emphasises the view that qualitative research allows one to understand the daily lived experiences from the subject's own perspective. Thus, in this study a qualitative paradigm will be most beneficial in ascertaining the individual's career paths

from their own particular experience.

Taylor and Bogdan (1984) highlight a number of important characteristics pertaining to qualitative research. Firstly, they see it as being inductive and thereby allowing researchers to develop patterns, insights and concepts from the data in order to generate meaning from it. This type of qualitative study allows for flexibility on the part of the researcher. Secondly, qualitative research allows the researcher to consider the settings and people involved in the research in a holistic manner and not reduce them to variables in the research equation. Thirdly, qualitative research provides a forum for researchers to set aside their personal beliefs, perspectives and predispositions and to take cognisance of the importance of trying to understand people from their own frame of reference. Qualitative researchers are then able to empathise and identify with the people in the study in order to understand their experience of reality.

3.3 SAMPLING STRATEGY

The research participants were drawn from one investment bank with headquarters in Johannesburg, South Africa. This investment bank had e-commerce occurring within its different divisions at the time of the study.

The sample was accessed through a combination of purposive and snowball sampling. Purposive sampling involves the selection of participants who appear to meet the needs of the study (Baker, 1994) whilst snowball sampling is a technique that allows the sample to emerge through a process of reference from one person to the next (Denscombe, 1998). This technique of snowball sampling is seen by Denscombe (1998) as being compatible with purposive sampling as interviewees were asked by the researcher to indicate other individuals whom they felt could contribute to the study and who would be

willing to be involved in the study. In this regard, the sample utilised in this study is definitely not a random selection (Taylor and Bogdan, 1984). Furthermore, due to the personal nature of investigating an individual's career path, it is unlikely that probability sample would have yielded a representative sample and the exploratory nature of this study does not necessarily necessitate a random selection.

The reason for this twofold approach to sampling was that the permission to undertake the study was initially obtained from the Human Resource Director of the organisation. The researcher was then given the name of the person responsible for the Central Information Technology division within the bank. The purpose of the study and the sample requirements were then explained to this individual and individuals heading up the respective IT departments within each business unit were then contacted via e-mail. This process identified three individuals who were prepared to participate and their names were then provided to the researcher who contacted these individuals telephonically and set up interview times. These individuals were then asked upon completion of their respective interviews to identify other potential participants for the researcher to contact. Each of these potential interviewees was then contacted telephonically by the researcher who explained the study and its benefits to each of the potential respondents. If the respondent agreed to participate, the researcher then set up a time to interview them. The interviews were scheduled at a time convenient for the respondents. The researcher also informed the respondents that if they wished, they could be provided with a basic interview guide prior to the interview to ensure that they felt adequately equipped and had had time to think about the questions. None of the respondents requested the interview questions.

In this case, individuals working in an information technology environment met the needs of the study. The main criterion for inclusion was that each of the respondents needed to be working in an

information technology position within their respective unit of the organisation. This criterion is linked to the research objectives in that they aim to understand the career paths of individuals working in an information technology environment. The study was not limited by demographic variables such as age, race and gender as it was an exploratory study within a single environment.

3.3.1 Ethics

In order to encourage participation in the study, the organisation was offered an executive summary of the study, as well as the opportunity, if they wished, for the researcher to present her findings to whomever they deemed necessary in their respective organisation. The organisation indicated that it wished to have a copy of the final report but that a presentation would not be necessary. Individuals were also given the opportunity to request a copy of the results and two participants indicated they would. Both the organisation and the participants were guaranteed of confidentiality with regards to the disposal of interview transcripts and audio tapes. Anonymity of the organisation and the individual participants in the written report was also guaranteed.

On commencement of the interview, each participant was asked to complete two consent forms. These consent forms ensured the confidentiality of both the interview and its results (see Appendix A). Two forms were necessary as the first granted consent to the researcher to ask questions of the participant and the second granted permission to the researcher to tape record the individuals respective answers. The provision of two consent forms was in accordance with standard University protocol. The interviewees were once again fully informed as to the purpose of the study and its outcomes. Interviewees were also informed that their own names, as well as the names of their respective organisations would remain confidential and would not be referred to in the research report.

3.3.2 Sample Size

There has been considerable debate within the realms of qualitative methodology concerning ideal sample size. Patton (in Crabtree and Miller, 1992, p.33) states that "qualitative inquiry focuses in depth on relatively small samples, even single cases (n=1), selected purposefully". Whilst qualitative research is generally seen to utilise smaller samples, there is also the need to capture both diversity and commonality of experience across a sample. Psychological research undertaken by Savoie (1996) and Teixeira and Gomes (2000) made use of 9 and 7 participants respectively. Kuzel (in Crabtree and Miller, 1992) suggests that between 6 and 8 participants is sufficient when studying a homogenous sample. In this case, the emphasis was upon finding trends amongst a homogenous sample of individuals working in information technology and as such 9 participants were used in the study. Initially the researcher has aimed to interview 10 participants. However, after leaving numerous telephone messages for the 10th participant, he indicated that he did not wish to participate.

3.3.3 Sample Demographics

A brief biographical questionnaire was also provided to each of the respondents with the consent forms. The purpose of this was to ascertain biographical information that would provide more information for the study in a way that was quick and accessible. This Biographical Questionnaire is included as Appendix B. The sample demographics from these biographical questionnaires have been included in the following summary table. They have not been presented in a case by case manner as it was felt that this may breach the right to confidentiality and anonymity assured to the participants by the researcher.

Summary Table of Sample Demographics

Participant Identification	Letters A to I
Age	*Range* - 24 years to 47 years *Mean* - 30,6 years
Sex	*Male* - 8 *Female* - 1
Race	*White* - 6 *African* - 2 *Indian* - 1
Marital Status	*Married* - 7 *Single* - 2
Job Tenure	*Range* - 8 months to 3 years *Mean* - 1,45 years
Organisational Tenure	*Range* - 1,5 years to 10 years *Mean* - 3,35 years

In order to maintain the anonymity of the interviewees, it is necessary to merely list the tertiary qualifications and job titles of these individuals. Fifty-five percent of the interviewees had a university qualification and their major subjects comprised economics, electronic engineering, marketing, industrial psychology, information technology, accounting and computer science. The remaining 45% either had a technikon qualification in information technology or various technical qualifications such as a Database Administrator (DBA) certification. 11% of the sample had no formal qualification of any kind.

With regards to the job titles of those who participated, there was no consensus amongst the different business units of the bank. That is, there was no standardised set of job titles from division to another. The job titles ranged from Online Services Owners, Technical Architecture, IT analyst, Systems Administrator and Business Analyst. The remaining interviewees did not know their job title and chose

to delineate themselves in terms of their business unit where they work.

3.4 DATA COLLECTION METHODS

3.4.1 Interview Guide Development

Data was collected through an individual semi-structured face-to-face interview with each of the respondents, namely 9 individuals working in an information technology environment. Semi-structured interviews have a sequence of themes to be investigated, as well as suggested questions. However, at the same time, they are flexible in their design and allow for the interviewee to express him or herself and allow for probing on the part of the researcher (Kvale, 1996). Kvale (1996, p.70) sees the qualitative interview as a "powerful method for capturing the experiences and lived meanings of the subjects' everyday world". Banister, Burman, Parker, Taylor and Tindall (1994, p.50) outline the benefits of semi-structured interviewing in collecting data. They delineate these as follows : (1) interviews provide access to subjective meaning; (2) they permit investigation of complex phenomena; (3) they allow for reflexivity on the part of the researcher and finally (4) they can address power relations in research. Thus, it is possible to note the benefits of using interviewing as a data collection tool.

The interview guide was created through a review of literature in the area. In particular, career development theory and career management as well as well as a review of the quantitative questionnaires that exist in the area of career development psychology relating, for example, to career salience. These areas were thoroughly researched and a number of questions were created. Based upon the review of the literature in the area, questions in the interview schedule were divided into three areas, namely, the career history of individuals in an information technology environment, the individuals views

of their own careers and finally, the career aspirations and expectations of these individuals. This interview guide is attached as Appendix C. These questions were then checked by a senior researcher in the Department of Psychology. Based upon her suggestions, the interview guide was revised and further research in the area was read to ensure the applicability of the interview questions to the study. These revised questions were once again reviewed by the senior researcher and the necessary changes made. At this stage, as a final check on the suitability and applicability of the interview questions, the researcher conducted a pilot interview with two individuals working in the information technology field but not within a banking environment. It was found that one of the questions was repetitive and as such, the interview guide was rectified for the third time. Due to the fact that these individuals were from a different organisation than the one used in the study, these pilot interviews have not been included in the results.

Standardised questions were asked of each of the interviewees to maintain the validity and reliability of the process and outcome of the research. The questions were open-ended as advised by Seidman (1991). This aided the free and easy flow of information. During the interview process, participants' responses were probed to ensure that the researcher was able to gain a thorough and comprehensive understanding of the participants' position.

3.4.2 The interview procedure

The data collection method related specifically to the objectives of the research, that is to examine and understand the career paths of these individuals.

Each of the 9 qualitative interviews was held at the premises of the organisation. In each instance, a

meeting room was reserved for the interview to ensure a suitable and private interviewing environment. Each interview was conducted by the researcher herself and at the beginning of each of the interviews participants were reminded of the confidentiality and anonymity of their comments with regard to the interview and the final research report. Participants were also assured that the audio tapes utilised in the interview process would be blanked out and that the interview transcripts would be shredded on completion of the research. Interviewees were encouraged to answer honestly and openly and that they were at liberty to refuse to answer any questions if they wished. This did not occur.

Each interview lasted between 45 minutes and an hour. Interviewees were thanked for their time before and after the interview. Upon completion of the interview process with each of the participants, a letter was written by the researcher to each participant to thank them for their time and input. These were distributed by mail.

3.5 DATA ANALYSIS AND INTERPRETATION

The data collected from the qualitative research interviews was in a raw format and as such, needed to be transformed into a format that could be analysed and given meaning within a theoretical context. Qualitative analysis and interpretation is an inductive process as research findings are derived from the data which is, in essence, people's words. This type of data analysis allows the researcher to describe what was found in the interviews in a real and recognisable way for those who participated in the study as well as for those reading the study (Belenky, 1992 in Maykut and Morehouse, 1994). This interpretive - descriptive approach is suitable for this study which is based upon exploring the nature of the career path within a constantly evolving environment.

3.5.1 *Pre-Analysis*

The semi-structured interviews were tape recorded and transcribed verbatim. This allowed the researcher to understand the participants' answers in their own terminology. Four of the 9 interviews were transcribed by a professional transcriber and were then cross checked by the researcher whilst listening to the tapes to ensure inter-rater reliability within the transcribing process. This cross-check mechanism also ensured that no data was lost or manipulated. The remaining 5 interviews were transcribed by the interviewer. The interview transcripts were between 10 to 12 single spaced, typed pages each. These interviews transcripts were then used in the analysis process.

3.5.2 *Generating Meaning*

Thematic content analysis as advocated by Miles and Huberman (1994) was used to analyse the transcripts. Specifically, Miles and Huberman's (1994) tactics for generating meaning including the notions of themes, patterns and clustering were used. Ertmer (1997) sees this type of analysis as beneficial in that it gets to the heart of the themes that exist in everyday life. Thematic content analysis has become a commonly utilised qualitative analysis technique and has been used in many psychological studies (Berg, 1995 ; Henwood in Richardson, 1996 ; Krippendorf, 1980). The purpose of content analysis is to reduce the total content of communication to a set of categories that represent some characteristics of research interest (Singleton and Straits, 1993). Thus, the emphasis in this qualitative study was upon meaning as opposed to a quantitative paradigm that encourages quantification. The process of establishing meaning from the interviews transcripts shall now be outlined.

Coding

This is the first process in the content analysis approach. It is the process of transforming raw data into a

suitable form for analysis. This coding process can be seen to have a mechanical and interpretative component (Berg, 1989). The mechanical component involves physically organising and sub-dividing the data into categories whilst the interpretative component requires that the researcher determines which categories are meaningful in terms of the research. Thus, the interview transcripts were read and colour coded. Each interview was coded separately. Links between codes were noted at this stage for assistance in the clustering stage. This is known as pattern coding (Miles and Huberman, 1994). Note was also made of possible illustrative quotations that could be utilised in the results section. Data was coded both theoretically and empirically. That is, codes were based upon the literature that had informed the interview questions as well as upon other issues that arose out of the interview process. Two of the transcribed interviews were coded separately by a colleague to ensure inter-rater reliability. These codes were then checked with the codes that the researcher herself has identified from the same transcripts. No significant discrepancies were found.

Noting patterns or themes

In the study, several patterns arose as to the intended careers that individuals working in IT intended to follow, as well as the issues they face regarding their career salience and so on. With respect to establishing patterns, the researcher then read the other interviews in conjunction with one another as a way of corroborating the same theme from different subjects as well as remaining open to any disconfirming evidence (Miles and Huberman, 1994).

Clustering

Miles and Huberman (1994, p.249) see the process of clustering as a mechanism for understanding a "phenomenon better by grouping and conceptualising objects that have similar patterns or

characteristics". In this regard, the emphasis is on themes that are beginning to emerge that are common to several of the interviews. It is this ability to conceptualise the grouped data that makes clustering more thorough in meaning than noting patterns.

Counting

Whilst counting is commonly associated with quantitative research, it is also used on a smaller scale in qualitative data analysis. In order to establish patterns and themes, it is necessary to consider the number of responses or behaviours that occurred under the pattern or theme. Numbers can provide a more economical and manipulable mechanism for seeing the general drift of the data more easily (Miles and Huberman, 1994). Using numbers also allows a researcher to be more "analytically honest which protects against bias" (Miles and Huberman, 1994, p.253). In this research, the use of actual numbers as well as the presence of words such as "all" or "most" indicate that counting as a verifying tactic was used (Miles and Huberman, 1994).

Making conceptual and theoretical coherence

The final stage in the analysis of data is that of establishing conceptual and theoretical coherence. Whilst theory in the field was utilised, it was also realised that the study was exploratory and that little research of this nature had been undertaken. As such, the findings of the study are presented in conjunction with existing theory as much as is possible in the discussion chapter of this report.

3.6 CONCLUSION

The qualitative methodology utilised in this study as well as the process of sampling, data collection and data analysis has been explicitly outlined. As can be seen, the process of qualitative research is a

rigorous one that needs to be carefully undertaken in order to avoid, as much as possible, subjectivity. This was achieved through the conducting of pilot interviews, the cross transcription of approximately half of the interviews as well as the cross-validation of interview coding to ensure inter-rater reliability.

CHAPTER 4

RESULTS

This chapter identifies the results of this study. These results were ascertained through the use of thematic content analysis (Miles and Huberman, 1994) from the nine semi-structured interviews conducted with the participants as well as from the brief biographical questionnaires completed by each of the participants. Thus, the themes and patterns that arose from these participants' responses are outlined in this chapter. Each of the themes is identified and briefly explained in relation to the collective responses of the participants. In order to illustrate the themes, direct quotations from the participants have been included in italics. Whilst the use of these quotations is selective, they do reflect the views of more than one of the participants at any one time.

Several themes emerged in this research. They have been classified according to the three research questions, namely, 4.1 Career History, 4.2 Subjective Career Views and 4.3 Career Expectations and Aspirations. A fourth area was raised which did not form part of the research questions and has been classified as 4.4 Internal and External environmental influences. Each of these four primary categories has several sub-themes which will be detailed in the remainder of this chapter.

4.1 CAREER HISTORY

The career history category is constructed of three sub-themes. *These are* : varied versus direct career paths; the notion of a traditional profession and the utility of tertiary qualifications.

4.1.1 Varied versus direct career paths

Of the nine participants who participated in this study, only one entered his position in the organisation directly from University. The remaining eight participants have all held some form of previous employment. Seven of these eight participants all indicated that their first employment position was not what they desired but that they had accepted these positions in order to kickstart their careers. *"If you are new in the market you basically want to break in and so you accept whatever is thrown at you"* was one of the comments of a participant. As such, most of the first employment positions held by these individuals was either in the technical side of things, policy making or in the maintenance and programming realm of IT. Each of these work experiences was seen to be crucial in starting their respective careers, however, it seems that most of the individuals have moved away from these areas when they moved into the organisation being studied. One of the participants has had what could be termed an extremely varied previous career whereby he has followed more than 5 different careers in his life ranging from being a bank clerk, accountant, owning his own business, selling houses and stockbroking. In this instance, the age of the participant could be seen to be a factor in terms of the fact that IT as a career has only boomed significantly in the past decade and as such, various careers needed to be pursued prior to entering IT. This participant did feel that his multiple career gave him an advantage in that he had multiple value to add to the organisation. Few direct quotes have been provided in this section for fear of identifying participants based upon the uniqueness of their respective employment histories.

Having identified the career paths of the participants prior to joining the organisation, it is also important to include their respective career paths since joining the organisation being studied. Within this organisation, various different areas exist, all of which require IT input. For example, the individuals

used within this study came from the Treasury, Asset Management, Private Bank, Risk and Securities Business Divisions as well as the Central IT division which serves the needs of the business directly. Five of the nine individuals had undergone a role change or Business Division change since being employed within the bank. For those who had undergone role change, the move was either desired or demanded by the direction of the business. Of those who began their career in the Central IT division and had subsequently moved on to other areas of the bank, there was an indication that beginning in Central IT was a way of proving themselves to the business and increased the chance of being recognised for the work that they did. One participant stated that *"[he] started out on a contract in Central IT and things went very well and from there the guys see you are doing your part, you are working and then you get drawn into the business when they see the quality of your work"*. One of the individuals stated that he had entered the organisation when his department was a fledgling undertaking and, in this respect, he was able to shape his career to his advantage rather than having to fit into the role expected of him. *"That has afforded me the opportunity to kind of decide whether I want to stay technical, and the opportunity came along where I could actually manage one of the environments as opposed to physically looking after it, hands on sort of thing"*.

As can be seen from this sub-theme, most of the participants have had varied career paths, whilst only one individual entered the organisation directly from university. These varied career paths have occurred pre and post-organisational entry.

4.1.2 The notion of a traditional profession

Six of the participants stated that they did not see IT as a traditional profession and thus, the career paths provided by IT were in no way traditional. A common example of a traditional profession that was

mentioned was accounting whereby the career path for an individual to follow is clearly delineated (for example, doing articles as a starting point). *"I suppose IT is an exciting field...it is new...it's not like accounting or engineering where the parameters are very much set on a defined career path and working within restraints"*. In this respect, these 6 participants all felt that their career history was in line with this lack of direct career path and as such could not be standardised in any way in any organisation. This lack of standardisation was also seen to extend to the recruitment procedure as there did not appear to be consistency in terms of how the participants came to join the organisation. That is, some of the participants submitted their CV's and a position was created or found, some were brought on board based upon the expertise they could offer to a project or area whilst others were directly employed to fill a vacancy.

4.1.3 The utility of tertiary qualifications

Eight of the nine participants included in this study had some kind of tertiary qualification. They did however differ in that these qualifications ranged from degrees to diplomas. One of the participants had no formal qualifications. There was no consistency with regards to the major subjects these individuals displayed. They were diverse and included Marketing, Industrial Psychology, Electrical Engineering and Computer Science. Both of the Diplomas were in the IT field either directly or indirectly, for example, in the form of Database Analyst (DBA) certifications. Several of the participants felt that their university grounding had in some way assisted them in pursuing a career in IT, although a number of them felt that they should have done degrees in Information Systems (IS) rather than in IT and Computer Science (CS) due to the fact that IS was more utilisable in the financial industry based upon its wider skills base. *"I think varsity really prepares you to take a challenge and go for it...I was comfortable in the environment immediately"* said a participant.

What is interesting in terms of tertiary qualifications is those that possess degrees all felt that their role in the organisation was not determined by their degree but rather by their skills and experiences. *"If you have the qualifications and you know what you are doing, I promise you, a degree does not count, not in IT"* said a participant. However, two of the participants who do not have degrees felt that in order to gain acceptance within their respective IT environment and within the financial industry itself, it is necessary to undertake such a qualification. *"With IT, you chase qualifications all the time because technology changes so much you need to go and update regularly. At some point in my life I am going to reach 30 or 40 and I won't be able to chase those qualifications continuously and at that point I will know I have got a degree and I won't have to update regularly and plus, it makes for a better life"*. As such, both of these participants are planning on beginning degrees in 2002. *"I have actually seen in other people walking in to the bank, walking into the department, people coming in with degrees, they don't have to go through that curve of having to prove themselves"* was the general consensus amongst those who had no university qualification. Both of these participants felt that a degree would give them more credibility although this credibility had a different purpose for each. One of the participants felt that it would give him credibility in terms of moving out of the bank and into a consulting position. *"This way I could use that [a degree] as an anchor, as some kind of credentials to persuade people to come and consult with me...I can add value as a consultant, but the people who do that have long strings of degrees after their names and so the degree would add credibility in other people's minds"*. Whilst the other participant felt that a degree would provide him with more opportunity to move internally in the bank initially and perhaps outside of the organisation. *"The reason I want to do a BSc is because of the possibilities I will have within Company X and other companies"*.

Having outlined the career histories of the participants in this study, their subjective career views will

now be presented.

4.2 SUBJECTIVE CAREER VIEWS

This subjective career category is constructed of the following sub-themes. They are : careers in today's world of work; requirements of the job in order to build a career; the role of personality attributes in IT; the fear of redundancy, the existence of a career plateau and finally, the changing emphasis of career commitment. Each of these themes will now be described.

4.2.1 Careers in today's world of work

Two important issues were raised in this study pertaining to careers in today's world of work. The first relates to the provision and availability of career opportunities, while the second indicates the importance of each individual taking responsibility for his or her own career. These two issues are interlinked as maintaining a proactive career involves seeking opportunities and vice versa.

Every one of the participants raised the idea that their careers were based upon opportunity in every respect. Whether they were able to see opportunities and act upon them or whether in turn they received opportunities from the organisation itself. *"There is enough opportunity to grow if you have the opportunity and space. If that opportunity is not given to you, then you are screwed"* (participant C). Almost all of the individuals felt that if they were to progress in their respective careers it was imperative for them to be vigilant in seeking out opportunities. Participant B stated that " *you have got to really look for your own opportunities and grab them"* whilst another added *"I need the opportunity to say let me do this...or I need somebody to say you have got the opportunity, what do you want to do?"*. In this respect, the need for self-drive and a proactive attitude on the part of the individuals becomes obvious.

The opportunities were seen to provide both horizontal and lateral career moves which highlighted the notion that these individuals accepted the need for sideways movement in terms of gaining experience in certain areas. *"In terms of moving towards the managerial side, that might just perhaps be put on hold right now because I will probably have to move sideways for a while if I really want to take up the position that is being offered"* acknowledged one participant.

The existence and taking up of these opportunities is also on a global scale in that the bank is international. As such, the cross-continental opportunities need to be taken into consideration, *"the opportunity to work in a different environment"*. However, the cross-continental opportunities do only appear to appeal to those individuals in the study who are single.

Throughout each of the interviews conducted there were many signs to indicate that the interviewees not only saw themselves as being inherently responsible for their own careers, but also that they undertook this career advancement consistently and rigorously. Regardless of whether this was through the attendance of training, the pursuing of a degree or the recognising of opportunities, the purpose remained the same - to be an active opportunist and a forward thinker in terms of one's career. Training was in almost every instance self-initiated, even though it was supported monetarily by the organisation being studied. *"In this environment you need to be pretty savvy to get things done"* said participant C whilst other added, *"I don't think that you can not have prospects because you can always create something"* and *"I found if there's a good opportunity, I don't want to let the opportunity slip by"*. The emphasis in most instances appeared to be on the ascertainment of skills and knowledge in order to progress in one's career. *"At the moment my focus really is skills and developing myself and equipping myself with the kinds of skills that I believe will be beneficial for me going forward"*. Thus, once again,

the utility of tertiary education comes to the fore as the interviewees believed that skill and knowledge attainment was the way forward for their respective careers and that their degree and their job title had less of an impact. Many felt that their career path was determined by their own self-drive and determinism as well as their interests and skills and that the future was a creation of their own doing. In this regard, the importance of being alert and perceptive to the job market and career changes was crucial in ensuring the longevity of the individuals own career. This is in turn linked to a following theme relating to the fear of redundancy.

The role of the organisation in career advancement apart from the provision of growth potential and opportunities was seen to be limited. *"I wouldn't say Company X is very helpful, or has a dramatic role to play in my career aspirations, or my career development, it is going to be left up to me entirely"* was the common assumption.

4.2.2 Requirements of the job in order to build a career

The general consensus appears to be that there are certain requirements of the job that need to be present in order for an individual to be able to successfully pursue a career in IT. The most predominant requirement in this instance was that of growth potential. Growth was seen to be imperative to advancing one's career and thus, the existence of growth potential was seen to be crucial. This need for growth was not specific in that individuals wanted a specific designation or position but was rather indicative of these individuals need for autonomy, responsibility, diversity and variety. *"I don't think of growth in term of moving into my bosses' position, in terms of pure designation change. It's not that kind of growth, but you grow in the sense that you play different roles. If I have to move from my team, my department and move to another department in terms of my aspiration and expectation level, then I would define that as growth"* said participant H. this need for variety was identified as several

individuals indicated that they *"don't have fun in a routine, operational kind of job"*. Thus, the emphasis is on gaining as wide an experience as possible that in no way limits the individual's ability to grow his or her own career.

There was also an indication by several of the interviewees that their role in IT needed to be expanded to include a realm of interpersonal interaction if they were to continue to pursue a career in it. This many felt was imperative as they believed that their main aim in IT was service provision and as such, their interaction with those utilising their services was important. Other important factors of the job included the opportunity for enjoyment, creativity and innovation.

As well as the requirements of the job raised above, there was also a strong indication that the participants required a tangible outcome for their efforts to encourage them to continue their careers.

At least seven of the nine participants commented upon the fact that in order to manage their careers they needed to see some kind of tangible outcome for their efforts. *"In terms of lifespan, it is not only the technological lifespan that bothers me, it is the results lifespan. It is very seldom that you will get to even design something and it lasts you six years. It doesn't work like that. The results of my hard work are not long enough"* said participant C. This need for a tangible outcome was closely linked to each of the individuals need for achievement. "I prefer to achieve as opposed to not achieving. It's very important for me to be an achiever" said a participant. Participant G added *"I think the sense of completion gives you the ability to say I have also achieved short-term"*. This need for achievement was seen as a mechanism for gaining recognition from colleagues and the organisation and thus, assisting the individual's career. *"I'm the kind of person who wants to do something right once, you*

know if something's not quite right I don't feel I have achieved something".

4.2.3 The role of personal attributes in IT

Each of the nine respondents indicated that there were a number of particular personal aspects that a person needed to possess in order to pursue a career in IT. In most cases, there was the indication that individual's utilise their personal strengths and interest in order to make their career that much more satisfying personally. Perhaps the most predominant requirement of an individual as raised by this study was that of the ability to deal with change and uncertainty. Participant F even went so far as to state that *"change is constant...it is the only constant"*. Whilst most of the interviewees felt that the IT field was exciting and allowed them to be creative and innovative, there was still the consensus that any individual wishing to work in the field needed to be flexible and adaptable in order to deal with the constant change. *"IT as a whole evolves with the business and that's what makes me stay. It's dynamic, it's changing, it's constantly growing and there's always newer things which means that I always need to keep up"*. Further personal attributes were identified such as self-confidence, the ability to lobby on behalf of yourself and your interests and do some self-selling, the ability to guide without direction in essence drawing upon your initiative, this initiative ties in with the need to be a risk taker and to have strong communication skills as well as the ability to be self-motivated in terms of advancing your career. *"It's my confidence, my ability to work under pressure, to deliver on demand, my ability to meet requirements and expectations, my ability to communicate with my department and my ability to work with business users"* said a participant whilst another contributed that *"I think it is the right attitude. If you have the right attitude towards what you believe in and what you do, that's what makes you fit what you are doing"*

A further personal requirement that was emphasised by the participants was self-insight. In this study, working in IT was not seen to be an easy task. Over half of the respondents indicated that in order for them to drive their careers in the way that they wished, they needed their own personal self-insight. In this regard, this self-insight was a mechanism for identifying their own strengths and weaknesses as well as highlighting their interests which in turn gave them ideas as to how they could fulfill their career aspirations. *"I think it is up to the individual to see where opportunities are that they feel they could be of benefit to the organisation"*. Thus the self-insight goes a long way in identifying how the individual can make a valid contribution.

Whilst it was not directly stated, there was an indication from the participants in this study, of the need to be resilient under pressure. Several of the participants indicated that being in an IT environment was a pressurised and stressful environment to work in due to the demands placed on them in terms of reaction time to problems that arose as well as being on call *"24/7"* as one individual stated. *"I become so stressed sometimes, I say this environment is going to drive me crazy sometimes"* was a sentiment echoed by at least two people.

4.2.4 The need to add value and avoid redundancy

Nearly all of those interviewed in this study indicated that their predominant requirement in terms of their career was to add value in some way and thus make a difference to the organisation. *"I need to actually make a difference to the company"* said an interviewee. They all felt that this need to make a difference was a way for them to gain some form of personal, internal recognition for what they do. This need to make a difference ties in strongly with these individuals need to have personal interaction within their jobs. Through personal interaction one is able to make a difference to a person's life or an

organisation's business capability. There was also an indication that this need to add value on a personal level is a mechanism for proving one's worth to the organisation. In this respect, it can then enhance one's career. *"I think if I haven't been able to prove that I can add value on a global scale to the business in the next two years I should get worried" said participant C.* This need to make a difference was indicated on a general level within the individuals careers as well as specifically within the realm of IT. *"I'd also like to make a difference in IT"* participant H stated.

Further requirements of the job included not being set up for failure in any way. Some individuals felt that the environment was such that occasionally individuals were set up to fail in their task and as such, their career. Six of the nine participants indicated that they had an inherent need to not fail and that even in an environment where there is little room for mistakes, there was still *"the need to achieve what [they] set out to do. The need to make an impact in the business and the environment. And the need to not fail"*.

However, this emphasis on adding value, not failing and making a difference may in fact be attributed to a larger force - the fear of redundancy. Three of the interviewees raised the point that their value add was in some way limited by a timeframe. That is, they felt that their respective positions may be rendered redundant at some stage in their career life. However, this was not seen to be a major issue as these individuals interpreted it as a way for them to progress to the next level of their respective careers. *"I kind of feel that I've come to the stage where I have outgrown my use for where I am now so I want to get onto the next level"* was the comment from participant I. This ties in significantly with the technical versus business dilemma. That is, that remaining in the technical sphere will ultimately create a redundancy in one's career due to the steep learning curve associated with the area.

Perhaps the most significant result that arose relating to the fear of redundancy was that of the debate between individuals staying in the technical side of IT or moving into the business side of IT. All nine of the participants indicated that at some stage in their careers either within their present organisation or outside of this organisation they would initiate such a move. Reasons cited for this move were all basically the same : *"IT in its purest from has got a very limited lifespan"*. IT was seen by all the participants to have a technical side in which skills and knowledge were easily made redundant based upon the rate of technological change and development. *"If you are purely technical, technical skills change. Then you are stuck and your whole career you will get stuck consistently"* noted participant B and *"Considering my long term future, if it becomes technical based there is the chance my career will become stagnant"* . Thus, the impetus was squarely upon avoiding this trap and as such, bridging the gap between technology and business. *"I would hate to think that I am in pure IT...I must be in business...mixed with IT"* was the general feeling amongst the participants. Apart from the redundancy aspect of being in IT technical, the issue of recognition was also a dominant factor. *"I want to move out of technology or into a business type role. In the supportive roles in a business you only get punished for failing, you don't get rewarded for success"* .In this respect, many of the interviewees desire to move into the business sphere was driven by a desire to have more than a supportive role in the business. One participant summed up this desire to move into business as *"It's sort of like you get closer to the business, you don't stay in the background unseen. You make things happen, making sure all the ticks and crosses are checked. You get to spend more time with the real people, the people that make things happen on a daily basis, the people who say yes or no to big deals"*. Participant A stated the following, *"I like unique work which is more managerial to me than technical"*. This desire for some kind of managerial involvement was obvious in most of the participants as they felt it would allow them to progress their careers and gain an understanding of how technology and business could be more readily

integrated. *"I need to understand how the business and technology actually should work and interact and how to make it efficient"*(participant C) and *"I kind of see myself more on the business side. Seeing where the business is going and how technology can enable it"* (participant E). The managerial focus was also felt by some as being more in tandem with their personalities, their need for interpersonal interaction and the strength of their 'soft skills' in the form of communication primarily. Thus, by not limiting one's background in a purely technical sense, one can increase the longevity of one's career. *"I won't be redundant because I am not entirely tied to technology"* said participant C.

Most of the positions held by the respondents were seen to be more technical than they ultimately desired for their careers and thus most expressed an interest to either move fairly soon or alternatively, diversify their roles to their own specifications as much as possible. *"You can actually create your own role at company X because for the CEO to the IT managers, they are very approachable people. There is that open door policy"* was an individual's response. *"It's not really where I want to be because it's very technically inclined. The one's and zero's just don't excite me"* was one comment. However, in order to move into this business oriented field where the focus for these individuals is upon strategic decisions rather than the maintenance of systems and hardware, one needs to develop him or herself. One of the participants felt that the way for him to bridge this gap was through education. *"If I did an MBA, it would give me the business knowledge and if I mixed my technical skills with my business knowledge, I can move onto the next phase"* . This ascertainment of business prowess was seen as a step up as the individual's contributions would be more obvious. Regardless of the debate, there can be no doubt that these individuals do not wish to specialise themselves with regards to technology in that they are ultimately contributing to their own redundancy.

"Success is very much tied to if I am actually still making a difference" said participant B. In this regard, the relationship between career success and the need to make a difference as a mechanism for avoiding redundancy can be seen.Whilst there can be no doubt that career success was important to every individual interviewed in this study, the specific focus of each of these individuals was often different. However, there were similarities in that some individuals chose to focus on tangible measures of career success whilst some highlighted intangible measures and others focussed on the outcomes of career success. Those who focussed on the tangible measures rated monetary return as the most obvious form of career success. *"Career success is a reward in terms of remuneration, satisfaction that you have achieved something and maybe a bit or recognition"* . The more intangible aspects of career success included recognition, achievement, happiness as well as having made a difference to another individual's life. In this respect, the measure of career success was on an individual level. *"Career success is reaching a point where I am able to be happy coming to work and enjoying what I am doing and having some kin d of recognition for that"* (participant B) ; *"Career success is being happy doing what you are doing"* (participant F) ;*"Career success is setting a goal for myself, achieving it and moving on"* (participant I) and *"Career success is if I change people's lives I will feel satisfied and fulfilled"* (participant H). This recognition aspect of career success also extended to recognition outside of the workplace for some, *"Career success is recognition not only in the workplace, but also at home and the ability to balance both of these" (participant G).* There was one individual who saw career success as an achievement of an end state in which he could see that his career has provided well enough for him along the way as to ensure a satisfactory end state. It is interesting in this regard in that this individual was the oldest of the interviewees and as such, his career expectations and aspirations (which shall be discussed under a further section) were not as strong as the other individuals in the study. *"Career success is an end state. That would be career success for me. That my career has managed to*

deliver an end state for me as an outcome" said this individual. Thus, career success in this instance was seen to be the ability of the participants career providing a nice home and a comfortable lifestyle when he retired.

4.2.5 The existence of a career plateau

This theme is directly linked to the previous theme - the fear of redundancy. This fear of redundancy may be further enhanced by the inability to place a time frame on one's career due to the existence of a career plateau. In this sub-theme there were two main sides of the coin. Those who felt that you could not have a time frame in an industry such as IT because of the high rate of change associated with it as well as the fact that in the IT industry it was easy for individuals to reach a career plateau. *"After 2.5 years you reach a plateau. You have got an understanding of the environment and once you get familiar with the concepts and you have done your part in stabilising the environment, you will reach a plateau and then you start looking around because its experience and you don't want to lose our experiences, you want to build on it"* was one response.

The other side of the coin felt that they were happy in what they were doing at present and had adopted and attitude of 'wait and see'. *"I don't think about where I will be in five years or what responsibilities I will have because I am really happy where I am now "* (participant B). They were doing well financially and planned to leave the organisation to travel and start their own businesses and as such a timeframe was less necessary for this group of individuals. They also stated that career opportunities were not really dependable. That is, one could receive an opportunity for career advancement tomorrow that had only been anticipated for in a years time. Thus, the emphasis was strongly upon adaptability and flexibility rather than the rigidity of planning. Needless to say, this does not mean that these individuals

did not have career plans but rather that they did not deem it crucial to put a time limit upon them. However, there did appear to be a level at which one gains enough experience and is thus able to move through a career that much easier because one's skills are valued. *"Once you reach that level of 5 years experience then you become a sought after skill because you've gone through the motions and you're at that level where you can start directing business with an IT background"* stated participant G. Almost all of the interviewees stated that they had no specific time plan for their career. This lack of career planning was seen to be acceptable by most as they felt that they were young and as such could make choices more easily and be more flexible in their career path than older individuals.

4.2.6 The changing emphasis of career commitment

A distinct link could be recognised between career salience and commitment within this study. Each of the nine participants showed some form of career salience. That is, their career was seen to be an important part of who they were and was driven by their own need to achieve some kind of ultimate career status. However, differing levels of career salience were identified amongst those who were married with children and those without children. Those with children reiterated that whilst their career was important to them, it was on an even footing with their family life and their social life in the case of friends. One of the participants who is the oldest of all of the nine indicated that in his case, " [he] works to live he doesn't live to work". He also stated that whilst he is aware of the environment in which he works, "work is very much a portion of [his] life, not [his] whole life". In this instance, it appears that the age of this participant has a significant affect on the way that he sees his career and the commitment that he puts into it.

Four of the nine individuals who are married but childless experience a fairly distinct career salience that

is on a par to the remaining two participants who are single. *"It's difficult when you look at it in terms of time, you spend most of your time at work. Fortunately I don't have kids yet. I think it becomes difficult with children to try and manage as well. I think as soon as we start to have kids the priorities will definitely change" said participant E.* Several of the participants indicated that they try to balance their home and work lives and that in some instances, it is necessary for either one or the other to take a backseat. However, this manner of compromise is not permanent. *"You get times when you are really busy and you spend a lot more time at work and you are working weekends, you are working evenings and other times where it is quieter and you spend more time with your family"* said one individual. In some cases, the issue arose as to whether the career commitment displayed by individuals was in fact voluntary or whether the pressure of the IT environment they found themselves within made career commitment a mandatory requirement in order to succeed. *"I am married and I am a bit reluctant to admit that right now my career is first because of the requirements Company X has on me".* A participant who is single stated that *"I'd say that 80% of my time, whether it's here or away from the office is dedicated to the bank and therefore my career".* It was felt by several of the interviewees that this commitment to one's career *"investing for the future so to speak"* was a way of investing in themselves and their effort and time was acknowledged through good rewards.

Each of the respondents experienced some form of career commitment. In some individuals it was stronger than in others. In this respect, the link between career commitment and career salience was significant. Those who were married and had children still portrayed career commitment. They indicated dedication to their jobs, spent extra time at the office when necessary and showed drive to make a career for themselves. However, this was not as strong as those who were either married without children or single. A relationship can thus be seen between the ages of the individuals in this study and their

respective career salience and career commitment. *"I don't view my job as somewhere I go in the morning and come home from at night and that's it. It is very important to me"* said a married with children participant whilst a single participant stated that *"80% of [his] time whether it's here or away from the office has been dedicated to my career and job"*.

When it came to expressing organisational commitment, there appeared to be less importance placed on it. The general feeling from at least 65% (n=9) of the study was that a lack of career path or opportunities would make them move on to another organisation. Not only was there an apparent decrease in organisational commitment but also a realisation by three of the respondents that to expect life time job security from any organisation was not possible anymore. *"I would like to stay, but I haven't got a naive view that this is going to be the place for the rest of my life"* said one individual.

Having detailed the six main sub-themes of the subjective career category, it is necessary to present the third main category relating to the career expectations and aspirations of the participants.

4.3 CAREER EXPECTATIONS AND ASPIRATIONS

The career expectations and aspirations main category relates specifically to the third research question in this study. A number of sub-themes were identified through the analysis. They are : initial career expectations; post-entry career expectations and finally career aspirations. These categories shall now be presented.

4.3.1 Initial career expectations

Whilst a variety of reasons exist amongst the participants as to their reasons for entering the IT field, the

most unanimous decision was for monetary gain. Most saw IT as a lucrative career which would allow them to gain status and prestige within the world of work, as well as in the external environment. Three of the participants were aware of the way IT could benefit their careers in that the speed with which IT occurs would in turn provide them with quicker career opportunities and therefore deliver personal results faster. When asked why he had pursued a career in IT rather than continuing with his degree in electrical engineering, participant G replied, *"I am an opportunist, I am very optimistic and I'm very hyperactive and so the long drive to the long haul of 5 years is what put me off. With IT, career results are quicker and the environment is more high paced and exciting".*

Several of the individuals in this study indicated that they had used IT as a stepping stone and that it has paid off for them in terms of them gaining access to the organisation. One of the individuals even went so far as to say that *"I went into IT and it paid off. I suppose I was lucky it paid off for the better, but IT was never my strong point from the word go"* whilst another commented that *"I may not want to stay in IT...I mean IT is just where I am beginning".*

Each of the interviewees made a comment on the money involved in their particular industry. There can be no doubt that over 50% of those who participated see IT as providing competitive remuneration. This money was often reviewed as a mechanism for reward on a more tangible level as it gave the individuals some kind of status. *"One of the things that would make me think twice about leaving IT is that it has been very rewarding in terms of status and personal growth"* . Some interviewees even felt that their career success was in some manner reflected by the amount of money that they made each month. However, even though money was inherently important in their careers, these individuals all indicated that their need for reward in the form of recognition was also significant. In this respect, the

intangible reward was brought about by an investment of time and effort in their jobs which indicated their dedication and resulted in respect from their colleagues. *"The challenge and the fun make the money worthwhile"* said a participant. This need for intangible reward could be seen as a competitive mechanism in that individuals are constantly improving themselves and striving for reward and recognition in an effort to prove their value over other individuals within the organisation. Two of the individuals in this study indicated that the ascertainment of monetary reward was for them an indication of job security as they were physically reassured by this tangible outcome for their services.

From the interviews conducted it appears that the career expectations of these individuals were fairly modest and unassuming. The emphasis seems to have taken two sides - tangible expectations and intangible expectations. In terms of tangible expectations, the most commonly identified was that of fair and competitive remuneration. Another tangible aspect that was brought to the fore was the focus on gaining technically oriented skills. At least two of the respondents expected to *"get training and be certified"*. One of the individuals expected to be able to see the tangible results of his efforts. *"When I first entered Company X, I wanted to see where it would take me. I wanted new challenges, somewhere where I got my hands dirty and lived with the proof of the pudding"* said this gentleman. There was also a mention by three individuals that the organisation was going to provide some kind of career development for those entering it for the first time.

In terms of intangible expectations, the impetus was upon being challenged, being able to input one's own ideas and on utilising opportunities provided. *"I just said ok, this is a challenge and I want to learn. Grab this opportunity and see am I good or not. I didn't have many expectations because I knew that I had to prove myself first and after that I can start exploring and see what's there for me at*

Company X" (participant D) and *"What I wanted was something where you got in and lived it. You could see if your ideas pan out and you had the ability to go back and change if it wasn't"* (participant F)

However, in amongst the expectations was also the realisation by many of the study's participants that the company they were entering was indeed different in some way to what they had experienced previously and as such would take some adapting too. *"I knew that I would get here and it would not be hierarchical, you wouldn't get to see progress in terms of moving up different levels"* was an individual's response.

4.3.2 Post-entry career expectations

A few of the respondents indicated that having entered the organisation and spent time in their respective positions, their expectations have changed in some ways. For some it was a matter of realising that they wished to move outside of certain areas of IT. *"I have been developing for some time now and I don't want to be a developer for the rest of my life"* (participant D), whilst for others it was a rethink of what had initially driven them to pursue a career in the organisation and in the IT industry and what now drove them. *"Money. I think my career expectation then was money, the fastest way of making money. But it's changed now. It's become a mental challenge".*

4.3.3 Career aspirations

Most of the respondents in this study indicated that they had a general idea about their career aspirations for the short-term and that they also had a long-term career aspiration that were more position oriented. In the short-term these aspirations were indicative of the notion discussed above regarding the technical

versus business sphere debate. Thus, the need to operate at a more strategic level rather than a maintenance level was obvious, *"To be involved at a strategic level and determining what to do as opposed to how to do it"* (participant F) and participant I added, *"I'd like to move closer into the business, more into business management as opposed to IT as a whole" (I)*

In most cases, the career aspirations of these individuals was seen to be possible within the organisation based upon the fact that most of them saw a similarity between their own career goals and the goals of the organisation. *"I find that my career aspirations are very much in touch with the organisation as a whole because they lay the plan down and say this is where we want to be and you kind of plot a course for yourself"* said a participant. However, there was one individual who was somewhat older then the rest of the individuals in the study who appears to have different requirements in terms of career aspirations. *"As opposed to my colleagues whose career aspirations are aimed at achieving more work, more responsibility or recognition. I don't have any of those aspirations. Work is merely a vehicle that brings me money every month that I can use to maintain my life and feed my family"* was his response.

Of all the positions indicated by the interviewees, there can be no doubt that most of their career aspirations are directed toward achieving some kind of managerial position. One of the individuals pointed out that he had in fact begun this managerial track already but that he was still not exactly where he wished to be in terms of responsibility. *"In the last 18 months, I have actually moved out of the technical environment into the managerial side of things"*

These desired positions differed in most individuals naturally as career aspirations are subjective and unique to the individual. There was however an overlap in terms of individuals who wished to enter

project management. It appears that project management will provide an opportunity to develop the strategic role that many of the interviewees desire. *"If you are in IT, but you are at the level of business analyst or project management, you don't have to know the underlying products in detail because you deal with the products at a business level. So I think I should be at this level and not at the nitty gritties" said one ; "More project management. I don't want to be on the technical side which I have been for the last three years"* said another, whilst a third added, *"I kind of feel that I am more suited to a managerial position and project management and that sort of thing because I am better at my people skills, at my soft skills than I want to be at my technical knowledge".*

Two individuals saw an easy career move for themselves by moving into the trading and dealing side of the bank. They both saw this as a natural progression as they both felt that they had an intimate knowledge of the systems used in such careers and would have less trouble adapting. *"If I wanted to get out of IT that is where I would go - forex trading or trading equities - becoming a trader"* and *"I would rather be a dealer, an institutional dealer or a private dealer"* .

Three of the interviewees saw an opening for themselves to move into consulting although the focus of the consulting did differ. *"I would rather see myself running with a group of people...consultants possibly...anything from business process re-engineering to information management"* and *"I would like to do business process re-engineering or become a financial consultant or an investment consultant".*

Several unique career aspirations did arise out of this research. It seems that two of the individual in this study can see their career aspirations taking them out of the organisation, although only one of these

would still be within the IT field. *"I have always wanted to write or to be an English teacher"* was one person's aspiration whilst another's was *"In the future what I want to do is start my own company"*. The only female in the study reiterated that she would like to develop her role into that of a relationship manager. This was linked to the need for more one-on-one interaction and personal contact with clients and users alike. *"My long term career goal is to be a relationship manager because you are working more with people really than with a specific product...then with technology...it's more holistic"* was her comment. *The final aspiration that arose was somewhat out of sync with those raised by others in the study but is nevertheless important. "My ultimate goal in life is to be some kind of rocket engineer" was his dream.*

Having outlined the career expectations and aspirations of the individuals in this study, it is important to introduce the fourth and final main category of these results - the importance of the environment in developing career.

4.4 THE IMPORTANCE OF THE ENVIRONMENT IN DEVELOPING A CAREER

This final main category focuses upon the impact of the environment on an individual's career in an IT environment. This main category was not identified through the research questions but rather evolved through the analysis of the interview's. Specifically two main significant sub-themes emerged. They are : the impact of the internal environment on the individual's career and the importance of person-environment fit. These shall now be identified and discussed.

4.4.1 The impact of the internal environment on the individual's career

Within this sub-theme, several issues were raised by the participants. They related specifically to the

organisational environment and to the organisational structure.

The Organisational Environment

Several of those who participated indicated that the environment within this particular bank was in some way fierce and required a certain level of tenacity in order for the individual to succeed. *"It is a very harsh environment and it is not always under your control whether you succeed or not and if you don't succeed then you are not very proud. It is harsh in that if you don't make it then you are going to get out...there is a high turnover"* was one individual's observation whilst another added, *"The environment is hectic. It is almost but not quite crisis mode. There is a lot of intensity in needing to get things done, needing to achieve thing. I love the fast paced environment"* . However, the size of the environment was found by at least three people to be favourable in that it allowed for move career movement. *"The scope is so much bigger and there is more movement available"* . Again, this career movement was self-initiated and self-driven rather than being guided by any formal organisational process. *"That's what makes company X so interesting. It only gives you something on a plate and says off you go and do it. You have got to make it happen yourself"*. Thus, the need for personal tenacity rises again.

Within the realm of the organisational environment was the existence of an organisational culture. Even though most individuals felt that their career goals were in tandem with those of the organisation and that the organisation itself was very caring toward its employees, *"it is a company that takes care of its people"* , there was still an underlying insinuation that fitting into the culture of this organisation was a black and white affair - you either did or you didn't and there was no fighting the odds. *"Company X is a force of nature. There's this timeline within 6 months if you don't leave company X it means you are*

strong enough to go through the culture because of the way Company X's culture works". Other comments regarding the organisational culture included, *"I don't think I am perfectly suited to the political games that happen within Company X"* ; *"Company X is very demanding"* and *"I haven't seen an organisation as complex yet as simple as this one. The dynamics are definitely different"* . Thus, the impetus is not only about the individual pursuing a career within this culture, but also whether that career will be accepted within the realms of the organisation's culture.0

The Organisational Structure

The notion of the structure enhancing one's ability to fit in to the organisation and thus follow a career is distinctly linked to the environment of the organisation. This bank advocates a lack of structure in some instances which some individuals may find disconcerting in terms of outlining a future career for themselves. *"If you are not comfortable with a lack of structure, you can't work at company X. They don't have the structure because it is an entrepreneurial organisation".* There was also the indication that the structure of the organisation, that is its lack of structure, created a specific work ethic of employees. *"I think the structure of company X, the work and the dynamic of the organisation is different"* said participant E.

The tendency for Company X to implement a team oriented work ethic places pressure on the employee to assert himself individually and as such, to establish his or her career in a meaningful way. Whilst most of the respondents were aware and accepting of the team based work structure, it seems that the team based ideology is not without its difficulties. *"When you are working as a team it becomes more difficult because you are dependent on the other team members to provide you with information and that sometimes does become difficult"* .

This team emphasis decreases the individual's influence and even though it has many benefits, it also creates additional pressure for those operating in a team. *"I have a team who work with me and they take the decisions and if everything goes well, am I the person who did it? No, I am one of the team who did it"*. This is due to the need to multi-task in order to get the job done as well as the expectation that all the individuals within a team are multi-skilled. *"Company X has a very flat structure. We work in a team. Everyone basically does everything and we all share the workload"*.

The nature of the business that these individuals find themselves in has a direct impact on their careers. The nature of the business relates to the specific organisation and its structure and culture as outlined above. *"I think that if I was working in a more structured environment I would have more defined career goals"*. The notion is that Company X is not a traditional organisation but rather an entrepreneurial one and thus, an individual's career goals are different. *"I would have more traditional career goals if I was working in a more traditional career orientated organisation"*.

As such, at least three participants felt that their career was to a certain extent controlled by the IT environment they work in and the business' technology decisions. *"The way that I think about my career is influenced by the environment I work in definitely"* said one and *"My career is in a way controlled by the business and what technology can offer for the business"* said another.

4.4.2 The importance of person-environment fit

In the same way that the environment influences an individual's career, so to does the individual have requirements of the internal environment in order to ensure the continuity of his or her career. It was felt by several of the interviewees that there needed to be person-environment fit in order to assist the

individual in pursuing a career within this financial institution. It was deemed important that *"If you as a person fit into the culture you will be ok"*. The extent of this fit included the ability to recognise what is valued by the organisation and to assess whether that is in tandem with one's own personal values. *"I think I am not looking to climb the corporate ladder which is something that is valued here"* mentioned one participant.

These individuals were also insistent upon the fact that the environment needed to be challenging enough to ensure they were constantly busy and thereby retained. Whilst this challenge may exist at present, it is imperative that it is maintained. *"Once you are here there is no way that you can spend a whole week doing nothing. It's very challenging and you're learning on a daily basis"* said one whilst another added *"I usually say to them, if you want to retire I will go and work for government, but here I am challenged. There's no way you came here to retire"*. The environment also needed to provide learning, change, flexibility and increasing responsibility for these individuals.

Four of the individuals involved in the study indicated that they were unaware of two specific organisational processes both of which were seen as crucial contributors to their respective careers. These related to the performance appraisal system and the promotion system. *"In terms of promotion, I have had lots of bosses...I don't think I have been promoted"* said participant C. The question arises however as to whether this lack of information is attributable to the organisation itself or to the managers of these respective individuals. This is based upon the fact that a couple of the interviewees mentioned that they required managers who were facilitative and proactive on their behalf to ensure the successfulness of their careers. Others had in fact come across managers whom they felt were uninterested in their career welfare. *"My previous manager compared to my current manager just never*

saw fit that it was his responsibility to look after his staff" was an interviewee's response. This lack of managerial involvement also related to the lack of informal feedback that individual's receive from their managers on a more regular basis.

4.5 SUMMARY

This chapter has outlined the results ascertained through qualitatively oriented interviews held with the nine participants in this study. The core focus has been upon the individual and his or her career history, subjective career and career expectations and aspirations in an effort to understand the career paths of these individuals who are working within a specific business environment.

Four primary categories were used to outline the themes. Three of these categories were linked to the research questions whilst the fourth was identified through the use of thematic content analysis on the interview's conducted. The first category was Career History and was constructed by three sub-themes namely, varied versus direct career paths; the notion of a traditional profession and the utility of tertiary qualifications.

The second primary category related to the subjective career of the individual and had six sub-themes. They were as follows : careers in today's world of work; requirements of the job in order to build a career; the role of personality attributes in IT; the fear of redundancy, the existence of a career plateau and finally, the changing emphasis of career commitment.

The third primary category encompassed the career expectations and aspirations of these individuals and consisted of their initial career expectations; their post-entry career expectations and their career

aspirations.

The final theme that arose from this research was that of the importance of the environment in developing a career. This theme took cognisance of the bi-directional relationship between the individual and his or her environment. Thus, two sub-themes emerged - the impact of the internal environment on the individual's career and the importance of person-environment fit.

The following chapter, the Discussion, creates the link between the results obtained in this study and the literature reviewed in Chapter 2.

CHAPTER 5

DISCUSSION

This chapter of the research report provides the link between the literature and research surveyed in Chapter 2 and the results obtained from the study in Chapter 4. The contextualisation of results is imperative to understanding and gaining meaning from this research study. In light of this, the results of this study require location in the realm of career development theory which is a field of study within career psychology.

Based upon the fact that this research is exploratory in nature and that little research has been done in this field, the structure of this chapter will be as follows. The chapter will begin with a brief overview of the results as identified in the study relating to the three research questions . A brief consideration of the world of work will follow and subsequently, a discussion of the results based upon the career development theories illustrated in the Literature Review. This will allow for the inclusion of all of the themes that arose from the results. The second section of this chapter will discuss the practical and theoretical implications of the results for both the individual's and the organisation concerned and the chapter will end with suggestions for further research.

5.1 A SUMMARY OF THE RESULTS OF THE STUDY

5.1.1 Career History

As can be seen from the results of this study, there was no standardised career trajectory that individual's followed in order to establish themselves in IT. Not only was it not standardised, but there was also no-one single trajectory, with one individual having come from an HR department for example.

As such, there was no congruency either within individual's or between individual's. There was also an indication that the possession of a tertiary qualification was fast becoming crucial to advancing one's career. Both of these results raise questions with regards to the provision of tertiary qualifications by service providers, as well as the trend that the IT marketplace is increasingly being based upon a skills base rather than a content base.

5.1.2 Subjective Career Views

In relation to the subjective career views of individual's, several interesting points were raised that have meaning in the changing world of work. The agreement by most of the employees that they no longer saw their careers as traditional signals a move away from the traditional understanding of careers and possibly, career development theory. The lack of a lifetime career in an organisation has tremendous implications for an individual's commitment to the organisation. Combined with the non-existent corporate ladder in this particular organisation, there can be no doubt that the guiding of one's career is significantly different to what it was in the past. The acknowledgment by all the interviewee's of the possibility of redundancy signals a potential area of concern with regards to careers in South Africa today.

5.1.3 Career Expectations and Aspirations

This final category of results indicated the existence of Maslow's (1954) Hierarchy of needs amongst those in the study. The career expectations and aspirations of these individuals were initially very low order needs and as the position developed and their skills were enhanced, so too did their needs change to higher order, less materialistic needs.

5.2 THE WORLD OF WORK

Whilst no questions were directly asked about the potentially changing world of work in this study, there can be no doubt from the results that the world of work has undergone substantial change in recent years. The responses by the participants that their jobs are different and that they have to employ different skills in order to get ahead in their present positions indicates that the world of work is no longer understandable in traditional terms. What is apparent is that whilst the evolution of IT is having a significant impact upon these individual's careers, as Greenhaus, Callanan and Godshalk (2000) forecasted, there is also another force at play that is creating this need to adapt to the changing world of work. That is, the changing world of work is also occurring outside of IT rather than being exclusive to the field. This may be due to the changing economics of the country whereby individual's are having to ensure that they remain employed and as such, need to be more proactive about their careers. Alternatively, the changes occurring in businesses today in terms of flattening hierarchies, outsourcing of functions and decreasing job security may also be creating the necessity for a change in the view of careers from the traditional. No definitive answer can be found in this instance due to the focus of this study, but from the results it is obvious that careers are changing and will possibly continue to change throughout this century and that even though technology plays a big part in influencing these changing careers, for those outside of IT, the career may also take on a new meaning.

The emphasis in the results of this study relating to the need for service provision and the constant consideration of the customer reiterates Cascio's (1998) observation that the emphasis in this new world of work will be upon fulfilling the increasing demands of the customer. The importance of multi-skilling in this study was raised as a predominant issue and in this regard, Morgan and Smith's (1996) statement that jobs are no longer defined by a narrow, singular focus appears to be true. The absence of job titles

in this particular organisation also creates an interesting scenario in which not only has the traditional notion of a job changes, but so to has the way that an individual can choose to delineate him or herself from others. The question then arises - if the supposed purpose of the absence of job titles is to remove the competitive element and allow individuals to prove themselves in a unique and individual way, is it working? The results of this study indicate that the competitive element still exists and that individuals still compare themselves to others regardless of whether they have a job title or not. This is indicated by the individuals comparisons of themselves with others, for example, with regards to career salience.

The literature had indicated that e-commerce as a business practice was eliciting some form of change in the way that individuals in IT were doing their jobs. Whilst most indicated that their careers had in some way been affected by e-commerce, most reiterated that e-commerce was merely a different kind of business model and as such, was not providing any kind of overwhelming change in their jobs and careers. The bigger challenge appears to be stemming from the constant evolution of IT and the changing world of work which as identified earlier does not seem to be specific to the IT arena.

The career development literature shall now be considered in light of the results.

5.3 TRADITIONAL VERSUS LESS TRADITIONAL CAREER DEVELOPMENT THEORIES

Due to the fact that this research is exploratory in nature, the career development theories provide a solid basis from which to understand and explicate the results. They shall form the main focus of this discussion.

5.3.1 Schein's (1971) Career Anchors Theory

Schein's (1971) career anchor theory in its entirety can still be seen to have a place in today's career development understanding. As a concept in relation to this study, it still is able to provide an explanation for the career development patterns of individuals. However, in light of the results of this study, elements of the theory need to be reconsidered or enlarged and, in some cases, discarded. Schein's (1978) reasoning for the existence of career anchors in individuals careers has a very future oriented feel to it in that they provide direction for individuals in terms of where they wish to function and make a contribution in the long term. In this study, whilst most individuals fell within the technical competence career anchor in their present positions, all stated that they did not wish to nor would allow themselves to remain within such a realm. Thus, most saw themselves moving into more managerial positions and as such, adopting a more managerial competence career anchor. A move into this career anchor is in tandem with the results of this study as the individuals who participated all wished to increase their realm of responsibility and saw their beginnings in the technical competence anchor as a stepping stone to a managerial position. This desire for a move from technical to managerial competence ties in with a sub-theme identified in this study relating to the individuals stating that they did not wish to remain in the technical sphere for fear of redundancy and as such wished to move into more managerial positions that would allow them to exercise some authority, display increased responsibility and utilise their creativity and innovation.

There was one anomaly in the results of this study which would best be placed within the autonomy career anchor rather than the managerial in terms of his desired future. This participant was significantly older than the remainder of the sample and as such, in light of all his responses within the study, it seems that his age and thus, career history and work experience remove him from the managerial competence

anchor and leave him with the desire to move himself away from organisational constraints. In this respect, this individual indicated that he wished to perhaps pursue a career in consulting which Schein (1978) identifies, in his explanation of the autonomy anchor, as providing freedom from the restrictive confines of large organisations.

Barth's (1993) statement that every individual has only one dominating career anchor no longer appears to provide a satisfactory explanation. Even though the individuals in this study were predominantly within the technical competence and showed a desire for the managerial competence, it seems that there is the possibility that in today's changing world of work, these individuals desire the presence of more than one career anchor. From the results of this study it appears that the creativity, pure challenge and life style career anchors are also predominant indicators of the type of careers these individuals wish to pursue. Thus, the impetus in this instance is on creating a career that allows for an anchoring in managerial, creativity, pure challenge and life style anchors. The career anchor in this regard would be seen as a more holistic concept rather than a number of individual concepts working in isolation. Perhaps in today's world of work where there is little room for certainty, individuals are demanding more of their careers in an effort to ensure their ability to contribute into the future and as such, it is not possible to focus purely on one anchor as a source for one's future career direction. In this respect, a link can be seen between the career anchors of the individuals and their respective career aspirations as detailed in the results.

Schein's (1971) career anchor theory also takes cognisance of the job and career history of the individual. Thus, even though the career history of the participants in this study differed in many instances, they all appeared to have a common goal in terms of career development. That is, to develop

another aspect of their careers that would enable them to move out of the technical competence anchor that they found themselves in at the time of the study. In this respect, the tertiary qualifications and work experience of the individuals in this research were all different. Some had experienced convoluted career paths that had seen them pursuing a number of careers prior to their entrance into the organisation being studied. However, regardless of how many careers occurred prior to the present organisation, each of these careers appeared to have been a stepping block for discovering where it was that these individuals wished to be in their careers. Most of them were within the IT field in one way or another, either writing policy, fulfilling the service function of the hardware or systems design. Again, the anomaly existed in terms of the older participant and a possible explanation for his varied and diverse career path could be based upon the recent evolution of in-house IT. IT as a profession cannot be seen as a traditional profession, a fact that was strongly raised by those in this study, because the advent of IT has not existed for longer than about 15 years, as well as the fact that attaining an IT qualification is not governed by any standardised procedure, such as the accounting profession is. Prior to this time, computing was outsourced and ran on a mainframe computer. Personal computers which are tantamount to IT today did not exist. As such, the varied career path of this older participant can be and is most likely attributable to the fact that IT did not exist when he was pursuing his first career.

What is interesting to note and is something that Schein's (1971) theory does not take into consideration is the issue of tertiary qualifications. The impetus of an individual's tertiary qualification, based upon the results of this study, appears to guide the type of job that they go into and thus, the career development that he or she aspires to. For example, those who did a diploma in IT found themselves in the programming and hardware support areas respectively. The individual who had a psychological and management background went into a Human Resources position as her first career move, whilst those

with accounting qualifications went into computer auditing as their first professional career. Thus, a pattern arises as to the tertiary qualification and the first position that the individual occupies in his or her career. These initial positions may then be an indication as to the types of career anchors these individuals may fall into.

As can be seen from the results, these tertiary qualifications did not limit the types of careers that these individuals desired to pursue. Thus, the use of a tertiary qualification cannot be disputed in terms of establishing a level of intelligence and ability on the part of the individual, but based upon the link between the positions held by those in this study at present and their relevant qualifications, it appears that a tertiary qualification is merely a mechanism for accessing entry into an organisation and once the individual has entered the organisation, the impetus is on him or her to shape their career in the way that he or she wishes. This highlights the pertinence of the Protean Career theory that shall be discussed later in this chapter.

Thus, from this discussion of Schein's (1971; 1980) career anchor theory it can be seen that whilst the concept does still have a place in today's world of work, there are elements of it that appear to need reconsideration in light of the changes occurring in individual career development in today's world of work.

5.3.2 Driver's (1980) career concepts

The basic premises of Driver's theory can still be seen to have a place in today's changing career landscape. The strength of this theory lies in the fact that it allows for the consideration of the organisation as well as the individual. However, in today's world of work, the role of the organisation is

decreasing and the role of the individual in his or her own career development is increasing. A limitation of this theory, in light of the results of this study, is that it appears to have been based on the notion of a traditional position or organisation. That is, a profession such as medicine or accounting whereby the career path is more easily identifiable and a more traditional organisation that maintains a hierarchy and job titles. In this instance, the organisation used in this study cannot be seen to be a traditional organisation as it has a flat structure and does not advocate the use of job titles. However, the question still remains as to whether this is particular to this organisation, to the industry or to business in general? Likewise, being in IT does not constitute a traditional profession in the eyes of those in the study, which indicates that the career path that these individuals will follow should be different and less distinct.

The three criteria that Brown and Brooks (1990) advocate this theory fulfills do not seem to be as relevant in today's business arena. They state that the theory encompasses people's differences in how they view the permanency of their careers, the directions of career movement that symbolise success and the points in life that they see as appropriate for making career choices. However, the results of this study no longer allow for such a clear cut understanding. The first and last points as highlighted by Brown and Brooks (1990) may be influenced by the existence of the career plateau as indicated in the results, as well as the fear of redundancy that appears to be prominent in the minds of those interviewed. The notion of permanency seems somewhat impossible in today's working world where individuals can no longer enter a position with the mindset of one life/one career. This in turn impacts upon the ability to make career choices. That is, individuals will have to ensure that the career choices that they make will offer them a constant platform to change as the world of work does. This theory presumes that an individual will have time to make a calculated career choice as and when he or she feels the time is right. Unfortunately, such an element of certainty can no longer be assumed in today's society. Businesses are

downsizing, retrenching and delayering consistently and often without warning, meaning that the Protean and Boundaryless career concepts (which shall be discussed further in the following section) are coming to the fore.

The other factor as mentioned by Brown and Brooks (1990) involves the notion of career success. The results of this study show that career success can no longer be solely related to objective, external issues, such as money, but also to what O'Leary (1997) terms the internal, subjective elements. As O'Leary (1997) proposed, the measure of success in today's world of work is in fact related to subjective elements such as challenge, responsibility, opportunity and skills development. These were all attributes of success identified by those who participated in this study. However, there was still the hint of objective success measures having a place, such as money.

Like Schein's career anchor theory, Driver's career concepts theory does have merit in the realm of career development. However, the rigidity it dictates does not seem appropriate in the changing career scenario. The assumption that an individual will base his or her entire career on one of the career concepts is no longer viable. Reviewing the results of this study with regard to this theory shows that individuals are once again adopting a hybrid form of the concepts. Elements of the transitory, linear and spiral career concepts appear to be occurring in tandem. The frequency of career choices (transitory concept) is evident in this study, but they do not necessarily involve a substantial change in career direction. For example, the sample demographics of this study show that the time spent in the organisation by the individuals is not, in any of the nine cases, equal to the time that they have spent in their present positions. However, they all remain in IT. The power and achievement associated with the linear concept is present yet a little less obvious in this study. Whilst individuals may aspire to upward

mobility, the emphasis appears to be changing and individuals are recognising that it is not necessarily job movement that brings reward and satisfaction, but rather an increase in responsibility and skills. The spiral career concept seems to be the most encompassing of the situation in today's world of work, and is supported by the array of career aspirations that individuals in this study displayed. However, in all likelihood, the cycle time that Brown and Brooks (1990) indicate for the spiral career concept will probably be more realistically portrayed by the cycle time indicated in the transitory career concept - that is, one to four years. In this particular study, the steady-state career concept appears to have no merit as none of the individuals had either chosen one career from the beginning (based upon their somewhat convoluted career histories) nor wished to stay within their present career. They all expressed the sentiment that job security was a thing of the past.

Thus, as can be seen from the above discussion, there is place for elements of Driver's career concepts theory. However, these elements need to be combined with other aspects of the CD theories being discussed before a conclusive CD theory can be created that applies to today's world of work.

5.3.3 Super's (1967) life stages

What is apparent from the results of this study, is that the link between the life stages and career stages of the participants can no longer be as clearly delineated by age. Super's theory indicates five life stages, each of which have ages attached to them. Thus, the individual who is 24 years of age would be placed in the exploratory life stage. Whilst this may be true, the demographics of this study show that the mean age was 30 and the age range was 24 to 47 years. However, the participants in this study cannot be as easily placed into Super's life stages. Of the nine participants, six of them fell into Super's establishment stage. Whilst this may in essence be true, it would be better to see eight of the nine participants in the

exploratory stage and one in the maintenance stage, based upon the descriptions Super provides of each of his life stages. The notion that age affects one's adaptivity no longer appears as true as it may have been at the inception of this theory. Each of the individuals in this study, excluding the one individual who was significantly older than the remainder of the participants, displayed behaviour reflected in the exploratory stage. Therefore, if age is no longer as influential with regards to one's career stage, then what is making the difference? The answer to this may in fact lie in the increasing presence and importance of individual's personality attributes. In this study, the results show that a number of personality attributes are necessary in the IT sphere in order to succeed and to pursue a career. Thus, the career stage an individual finds him or herself in may potentially be more due to his or her personal attributes rather than to his or her age.

If indeed age has less influence, this has implications for the individual's career maturity. Being a certain age does not seem to indicate, as strongly as in the past, an individual's career maturity and his or her attitude toward his or her career development. This can be seen to be true with regards to this study where some of the younger participants showed definite career maturity whilst some of the older participants showed less certainty. Again, the career stages of those in this study could not be as easily categorised. Whilst most had the energy, vigour and ability to act on opportunities (Levinson, Darrow, Klein, Levinson and McKee, 1978) common to the early career stage, they also showed a decrease in career salience (Gerdes, Moore, Ochse and Van Ede, 1988) and an expansion of knowledge seen to be indicative of the mid career stage.

This discussion has highlighted the presence of Super's theory, although as has been the case thus far, Super's theory appears to require some updating based upon the career situations that individual's are

finding themselves in today's society.

5.3.4 The Protean and Boundaryless Career

The protean career concept is one of the more recent CD theories that, in light of the results of this study, seems appropriate in today's world of work. The results of this study as discussed under the subjective career views category, all indicate that the Protean career is unconsciously being adopted in the workplace. Whilst the concept of the career path does still exist, it is not necessarily as objective as it used to be and as such, subjective elements are coming to the fore. For example, career salience and commitment. The protean career concept is framed by the idea of an individual taking responsibility for his or her own career path and future CD. The emphasis in the results whereby individual's placed importance on taking opportunities, being challenged, being proactive and increasing their responsibility all show protean tendencies. Combined with the career aspirations of these individuals and the fact that they have all experienced varied career paths which do not appear to limit their aspirations in any manner, there can be no doubt that the protean career notion is infiltrating the business sphere. Hall (1996) makes the observation that pursuing a career today requires constant skill apprenticeship, mastery and reskilling, which is strongly supported by the results of this study. The emphasis is upon personal growth and development rather than, for example, the structured career stage process. This is supported by Collin (1998) who argued that the protean and boundaryless career concepts allow for individual rates of change and development.

Whilst most CD theories relate to an individual's career, as was identified in this study, team-work is on the increase. This in turn impacts the way that the individual is able to develop his or her career. The individualistic career does still exist, but in tandem with the growing emphasis on team-work. Such a

development can be more easily accounted for by the protean and boundaryless career concepts where there is room for flexibility and adaptability. The importance of personal attributes in IT as raised in the results, also hints at the presence of the protean career ideology. For example, the individual's ability to deal with change and utilise self-insight all indicate that the individual is aware of the need for him or herself to take control of their own career. The future of one's career is no longer exclusively an organisational issue.

With the growth of the protean concept comes the realisation that the emphasis of commitment is changing. This was an issue revealed by the results. Previously, the stability of one's career encouraged both career and organisational commitment. However, even though both these concepts are still present in the workplace, the loyalty aspect of organisational commitment has decreased. The protean career is symbolised by the individual looking out for him or herself. As such, loyalty to the organisation may exist short-term, but should a better opportunity arise that required a move outside of the organisation, the individuals in this study would not hesitate. This hints at the existence of the boundaryless career which shall be discussed next. This change in organisational commitment has implications for staff retention and places a larger responsibility on the organisation to ensure that an environment that meets the requirements of employees is created.

Based upon the results, the protean career appears to be less about linearity and upward mobility, something which O'Leary (1997) proposed. However, there does still appear to be an element of competition within this organisation that relates to an individual's responsibilities rather than job title. This competition is in some ways healthy as it seems to encourage individuals to strive within their careers and gives them an indication of the direction in which to guide their careers. The existence of

aspects of career motivation, commitment, salience and adaptivity and flexibility in the results of this study all demonstrate the existence of the protean career, as well as the utility of the concept. It is thus possible to recognise that individual career management (CM) has a definitive role to play in today's world of work to ensure that individuals are able to direct their careers for the future.

Having advocated for the presence of the protean career concept in today's world of work based upon the results of this study, it seems that the boundaryless career may also have a place in more recent CD theory. As with the protean career, the results of this study show that issues of career salience, resilience, motivation and so on are present, all of which impact on the boundaryless career as well. The issue of organisational commitment is possibly the strongest indicator of the presence of this theory. The career aspirations of those in this study can also be seen as indicative of the boundaryless career in that they did not necessarily see themselves remaining within the organisation.

The four step process as outlined by Mirvis and Hall (1994) can be seen as an individual's attempt at his or her own career management.

As can be seen through this discussion thus far, the traditional CD approaches do have their place in today's understanding of CD. However, as has been indicated they all require reconceptualising to ensure their applicability in today's world. The difficulty lies in that fact that an attempt to amalgamate all these theories into one coherent whole will be fruitless. Each of the theories operates from a different mode of thinking which will be difficult to join. However, the protean and boundaryless career concepts do seem to provide a more holistic understanding of a career in modern society. There does need to be a an increase in emphasis of individual CM as there can be no doubt that it is going to become that much

more crucial in the future. Similarly, the internal and external environmental issues also require attention by those in the field as it appears that the role of the environment can have an effect on the career path of an individual. This issue of the role of the environment shall now be discussed further.

5.4 THE IMPORTANCE OF THE ENVIRONMENT

An important issue that arose in the results of this study was the impact of the internal environment, that is, the environment of the organisation. None of the theories included in this study appear to take into consideration the impact of this environment on an individual's career. Each of them has a different emphasis, but all of them base their explanations on the career development of the individual. Schein's (1971; 1980) career anchor theory does consider the relationship between the individual and the environment, but this environment appears to be one based on the industry (in this case, IT) rather than on the environment of the particular organisational environment. Super's (1967) theory also mentions the environment, but this is in relation to how the environment causes the individual to adapt rather than how the organisational environment directly impacts on the individual. Whilst this inclusion of such a theme may appear subjective in that it may only apply to this particular environment, this does not seem likely. Some of the issues raised may be particular to this organisation, but various elements may also relate to the broader financial industry itself. Issues raised related to the size of the organisation, the ability to get ahead in the organisation, the issues involved in adapting to an organisational culture, as well as the particularly flat structure of the organisation in the study. Thus, this is an avenue for further research, as well as for further theoretical development. However, in this study, the prevalence of the internal environment theme indicates that it cannot be ignored. This theme was bi-directional in that whilst the internal environment placed certain demands on the individual in terms of his or her career development, so to did the individual have demands of the internal environment. What is interesting in

this regard is that this bi-directional relationship can be satisfied for both parties if they choose to, but in the case of this organisation and the individuals in this study, this relationship is in need of some attention in order for career development to be beneficial to both sides.

5.5 THEORETICAL AND PRACTICAL LIMITATIONS OF THIS RESEARCH

The theoretical and practical implications of this study are widespread. Whilst many of the theoretical implications have been outlined through the progression of this discussion, there can be no doubt that the world of work has changed since the introduction of the theories of Schein, Driver and Super and that the Protean and Boundaryless career are present in today's career development realm regardless of the attention they have been given by those in the field. Thus, theoretically, there is a need for further development of career development theories that adequately address the career development phases, decisions and skills necessary to adapt to the changing world of work. Perhaps there is the need for the development of a career development theory that is encompassing of all of the aspects raised by the theorists reviewed in this study, as has been seen in this discussion, it is not always possible to see them in isolation.

The practical implications of this research are far-reaching. The implications are important from the perspective of the individual as well as the organisation. On the part of the individual, there is the need to adopt career coping strategies. This will enable the individual to see where he or she has elements of improving themselves, as well as developing a strategy that allows him or her to function optimally in times of career change. As has been indicated by this study, this change appears to require constant attention and is occurring regularly, thereby requiring vigilance on the part of the individual in order to be able to cope with career change. What also needs to occur that will ultimately affect the individual is

that of a re-focusing of career counseling. Based upon the fact that job security is, to a certain extent, no longer guaranteed and that having a qualification in an area does not necessarily mean that a job will be found in this area by the individual highlights the direction that career counseling should be taking. Individuals should receive career guidance that makes them more aware of the need to multi-skill themselves and to be proactive about their careers from the moment that they begin a tertiary qualification. In this respect, the shock of finding post-degree or post-diploma employment will be decreased.

Arising from this study are several other practical implications that fall upon the shoulders of the organisation. The first is the necessity for developing a flexible work environment. As has been identified by this study, the notion of the Protean and Boundaryless career has a place in career development theory and is being unconsciously adopted by many individuals in today's world of work. However, these theories are dependent upon flexibility and adaptability in order for it to work on the part of the individual. Even in flat organisations, whilst promotion opportunities are less hierarchically oriented, their presence is important to an individual's ability to advance his or her career. Thus, the environment that the individual requires in order for these flexible career development approaches to work is one that allows for this flexibility and adaptability. The second aspect on the part of the organisation is that of clearly outlining the career development processes and procedures. If the Protean and Boundaryless careers are the theories of the future, organisations need to take cognisance of this and have a plan as to how career development is going to occur on the part of the individual. This ties in with the need for delineating the promotion and reward structures within the organisation. Thus, even though the impetus is upon individuals developing their own careers, they are aware of the promotional and reward aspects as they do so. In some instances, this may provide a form of motivation for those who are not

particularly driven yet get the job done satisfactorily.

What becomes even more crucial for organisations operating in this changing world of work is the issue of succession planning. Both the Protean and Boundaryless careers are characterised by dedication to one's own career rather than to a profession or to an organisation. In this regard, succession planning needs to move away from emphasising the job and instead focus on the skills and strategies that will allow for the achievement of the desired business results. Organisations need to make sure that they have active succession planning occurring as a mechanism for counteracting the lack of commitment necessitated by the Protean and Boundaryless career concepts. The final practical implication raised through this study is that of tailoring the career development programmes to the culture of the organisation. This can be seen to be linked to the need for a flexible work environment. This tailoring of programmes to the organisation's culture will allow the organisation to build up a picture of the key drivers of career satisfaction in the organisation and this will ultimately provide insight into career commitment and ways of eliciting this from individuals. Retaining intellectual capital will be crucial for organisations in the future as the career development theories emphasis is upon constant career movement in order to satisfy career aspirations which can be seen to be both a positive and negative factor for companies today.

5.6 SUGGESTIONS FOR FURTHER RESEARCH

The exploratory nature of this research hints at a number of the areas which deserve the attention of future researchers. The most obvious area for future research is that of the testing of the Protean and Boundaryless career theories. Whilst these theories are written about, albeit minimally, in the literature, in this study they were seen to provide useful explanations for the state of careers in today's world of

work. However as with all theory development, there is the need for them to be tested empirically. Alongside the testing of these theories is the need for further development of them. There are aspects of them that could possibly be further developed and identified.

The second area for future research introduces the role of the internal environment. There is a need for a career development theory that takes cognisance of the internal environment of the organisation. Obviously this cannot be too specific to an organisation, but it is an underdeveloped research area. Research such as this is important because the business environment's that individuals are finding themselves in are moving further and further from the traditional and are not requiring traditional career development skills from them. As such, the changing environment's these individuals are in (not specifically IT only but business in general) means that the environment may be both a help and a hindrance in terms of future CD. This needs to be assessed.

The influence of demographic variables is an under researched area in career development theory. In this particular IT environment, the variable of age could be a worthwhile research area. In this study, there appeared to be indications that the age of the individual affected his or her career aspirations and expectations as well as his or her career development initiatives. The link between age, career history and career anchor would also provide an interesting area for research. In this respect, the gender variable would also provide an interesting research avenue. Whilst studies have been done on female career development, there has been a dearth of studies that focus on women in an IT environment which is highly pressurised and male dominated. Linking to this female / male debate in the IT environment, another area of study that was identified by this study is that of the affect of having a family on career commitment. This study hinted at the fact that those individuals with children in particular had less of an

inclination toward actively committing themselves wholeheartedly to their careers. This was based upon observation and interpretation of the results and should thus be tested further. A further investigation of dual career couples in IT should also be undertaken, as the involvement of one's spouse in the industry can be seen to be a contributor to one's career commitment based upon the mutual understanding of the demands of the environment.

Due to the observation that the changing world of work may not be exclusively reserved for those in IT, there is the need for the career paths of individuals outside of IT to be identified. This will then lead to the possible establishment of trends across professions and to could assist in further developing the career development theories that are prevalent in today's world of work.

Quantitatively, the career anchors of individuals working within an IT environment could be identified. This would assist in identifying potential career paths for these individuals. Tied in with this is the need for significant research to be undertaken regarding the concept of a career path. The term is one that is utilised frequently in career literature, yet there does not appear to be consensus as to what constitutes a career path. This identification of an individual's career anchor could be taken a step further in that there may be a connection between an individual's tertiary education and the career anchor that he or she adopts as dominant. Furthermore, the identification of these individuals career anchors could provide valuable information for organisations as it would allow for the career orientations of the employee's to be matched with the career orientations provided by the organisation.

There is also room for the research into the reasons that individuals leave IT. As was indicated by the results of this study, there appears to be a career plateau which when hit causes the individual to move

on or change positions. This ties into a further research area - examining whether there are in fact personality attributes necessary to succeed both in the IT industry and in the Financial industry.

The final area for future research is that of identifying the career coping strategies of individuals in the changing world of work. This could have implications for future training and development of individuals in the business environment.

5.7 LIMITATIONS OF THIS RESEARCH

The first factor of this research that could be seen as limiting relates to its exploratory nature. Whilst no research existed in this area and as such, the importance of this research became recognisable, this absence of prior research meant that no one theory could be utilised in this study. Therefore, the theory base covers several areas of career psychology and cannot be seen as experimental in terms of testing a specific theory.

Logistically, the use of qualitative research is often met with the concern of subjectivity. In this study, the researcher was aware of this and made efforts to reduce subjectivity. This was done through the use of pilot interviews, the cross-checking of interviews transcriptions and the use of a second person in the analysis process, thereby creating inter-rater reliability. However, subjectivity is not totally unavoidable and as such needs to be acknowledged.

A further limitation could be recognised with regards to the generalisability of the study. That is, the sample was specific (individuals working in IT) and was based within a particular industry (Financial) as well as within one organisation. This generalisability is further limited by the sample size. However, the

results ascertained should be seen in light of the fact that this research is possibly the first of its kind in the area and as such, there had to be limitations on the sample to ensure that the study could be undertaken in the time and with the resources available.

5.8 CONCLUSION

This discussion has created a link for the reader in terms of the literature in the area and the results of this study. Having done so, there can be little doubt that the world of work has indeed changed and that the CD theories being utilised may require updating. The relatively unresearched, yet important protean and boundaryless career concepts were seen to have some merit. However, they do require further substantiation and clarification. The importance of the environment was raised as an issue in this discussion, a factor which few CD theories have managed to encompass. But, regardless of the limitations of the theory or this study, the world of work is changing and those wishing to pursue a career in IT have to do so in a more proactive and opportunistic way to ensure their own future.

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APPENDIXES

Appendix A

Informed Consent Forms

Cover Letter to Consent Forms

(University of Witwatersrand Letterhead)

Date

Dear Sir / Madam

I am currently completing a Master of Arts Degree in Industrial Psychology at the University of the Witwatersrand. One of the requirements of this degree is the undertaking of a supervised research project. I have chosen to study the career paths of individuals working in an information technology environment in South Africa. As you are an employee in this environment, your participation in this study is greatly appreciated. This research project has been authorised by your organisation.

As you are aware, participation in this study involves one semi-structured interview with myself. Involvement in this study is voluntary and you will be able to withdraw at any point should you wish. Having agreed to participate, University protocol dictates that I obtain your written informed consent to interview you and to tape record the interview for transcription at a later date. These relevant consent forms are attached.

Please note that the final research report will summarise the results of the study, thereby ensuring that your individual responses cannot be identified. Also, the identity of your organisation will not be revealed within the research report. Should you wish, you will be provided with an executive summary of the research results on completion of the study in February 2002 upon request.

Thank you for your valuable time and assistance.

Gina Wilson
Masters Student
Department of Psychology

Karen Miller
Research Supervisor
Department of Psychology

INFORMED CONSENT FOR RESEARCH PARTICIPANTS

(Consent to interview)

I _____ (name), as _____ (designation) of _____ (organisation) agree to participate in Gina Wilson's MA research study which is investigating the career paths of individuals working in an information technology environment.

I understand that this will involve one individual interview with Gina Wilson at a time suitable for me.

Signed (respondent) _____ Date _____

Signed (researcher) _____ Date _____

INFORMED CONSENT FOR RESEARCH PARTICIPANTS

(Consent to tape record interview)

I _____ (name), as _____ (designation) of _____ (organisation) agree to participate in Gina Wilson's MA research study which is investigating the career paths of individuals working in an information technology environment.

I hereby give my consent to Gina Wilson to tape record the interview. This is to allow for the accurate recall of information arising from the interview. I am aware that no distinguishing remarks about either myself or my organisation shall be used in the final research report.

In addition, all audio tapes utilised will be blanked out after transcription and these subsequent transcripts shall be shredded on completion of the research report.

Signed (respondent) _____ Date _____

Signed (researcher) _____ Date _____

Appendix B
Biographical Details Form

Biographical Details

Please complete the following biographical details. Where necessary, please mark the correct box with a tick.

1. **Age** _____

2. **Sex** | Male | Female |

3. **Race** | African | Indian | White | Coloured |

4. **Marital Status** | Married | Single | Divorced | Widowed | Living with partner |

5. **Tertiary Qualifications** _____

6. **What is your present job title?** _____

7. **How long have you been in your current position?** _____

8. **How long have you worked at Company X?** _____

Appendix C
Interview Guide

INTERVIEW QUESTIONS

1. *CAREER HISTORY*

a. Tell me about your career since you left school?
Ideas : Promotions?
Skills transferred from university to job?
Training received on the job?
Other positions before now?

b. How were you employed at Company X?
Ideas : has this affected your commitment to your career in anyway?

c. What made you choose your career?
Ideas : If individual's career has changed, then what made them go into IT?

d. How did you get into your current position?
Ideas : if moved jobs - how do they feel about the move?

e. Do you feel adequately equipped by your degree, work experience and training to work in this field? Why / Why not?

2. *EMPLOYEES SUBJECTIVE VIEW OF THEIR CAREERS*

a. How important is your career to you in relation to other aspects of your life?
Ideas : examples of other aspects - family / friends / leisure?
Why is it important?

b. How involved are you in your job personally?

c. What is it that makes you stay in your job?

d. Do you see a long-term career for yourself in this organisation? Why?
Ideas : Importance of career development in your profession?

e. What would you do if you saw no clear career path for yourself in this organisation?

f. What would make you change careers or organisations?

g. Do you expect there to be changes in your career in the future? What are they?
Ideas : how are you preparing yourself for these changes?

h. Have you thought about how you plan to develop your career in the future?

3. *CAREER ASPIRATIONS AND EXPECTATIONS*

a. What were your career expectations when you entered this job?
Ideas : reality shock due to different expectations?
how different from when started?
How were they formed?
If had previous work experience - did it make your expectations more realistic?

b. what are your career aspirations?
Ideas : How did you develop them?
Realistic?
Where are you now in terms of these aspirations?

c. What do you think you need to do to fulfill your own career aspirations?

d. What role does / should your organisation play in fulfilling these career aspirations?

e. What does career success mean to you?
Ideas : Linked to profession or to outcomes?

f. How important is career success to you? Why?

g. To what extent are your career goals consistent with the goals of the organisation?
Ideas : does this affect your career aspirations in any way?

h. Do you have a time frame for yourself in terms of reaching your career objectives?
Ideas : realistic?

4. *FLEXIBILITY AND ADAPTABILITY*

a. How do you see the relationship between technology and your career?

b. There has been a lot of talk about e-commerce and the impact that it is having on the way we do business. Have you found that e-commerce has impacted on your career?

c. How do you feel about working in an e-commerce environment? Why?

d. How do you as a person fit into this job?