



GORDON INSTITUTE
OF BUSINESS SCIENCE

University of Pretoria

Acquiring career capital components for knowledge workers across different industries

SetebeSeabela

10646622

A research project submitted to the Gordon Institute of Business Science, University of Pretoria in partial fulfillment of the requirements for the degree of Masters of Business Administration.

09 November 2011

Abstract

The competitive nature of the world of work today and the resultant opportunities in global career mobility for knowledge workers is gaining momentum across industries. This emergence of the global economy has prompted the need to investigate the differences or similarities of career capital components and methods of acquisition and accrual across industries.

The research was conducted in two phases. The first quantitative phase was set out to investigate career capital components and methods of acquisition in the manufacturing industry. The results obtained on phase 1, were used together with the secondary data previously obtained through three pieces of research done on career capital in three different industries, to ascertain the differences in career capital components and methods of accrual across four different industries. The total sample size representing the four industries was 200.

The research has defined specific career capital components and methods used to acquire career capital that are relevant to knowledge workers in the manufacturing industry. The findings have been used to develop a model to help organisations understand the career needs of the manufacturing knowledge worker with specific enablers and core career capital highlighted. The research further helped draw conclusions on the differences and similarities of career capital components and methods used by knowledge workers across industries.

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

SetebeSeabela

09 November 2011

ACKNOWLEDGEMENTS

This research is dedicated to my family! Thank you for your words of encouragement to keep me going and for your understanding and compassion during the past 2 years. To Mama le Papa – You bring out the best in me!

To my employer, SAB Alrode and Prospecton - thank you for your support and covering up for me whilst away from work.

A very special thanks to Margie! My engagements with you have been very rewarding. I am certainly a much better person now than I was when we started with the process. Thank you for your passion, availability and guidance.

To my friends, sorry for not being there over these years. I will make it up to you!

Table of Contents

ABSTRACT	II
DECLARATION	III
ACKNOWLEDGEMENTS	IV
CHAPTER 1: PROBLEM DEFINITION	- 1 -
1.1 INTRODUCTION	- 1 -
1.2 RESEARCH PURPOSE.....	- 3 -
1.3 RESEARCH SCOPE.....	- 6 -
CHAPTER 2: LITERATURE REVIEW	- 8 -
2.1 TODAY’S WORLD OF WORK.....	- 8 -
2.2 KNOWLEDGE WORKER, PROTEAN CAREER AND CAREER CAPITAL	- 10 -
2.3 KNOWLEDGE WORKER’S CAREER CAPITAL AND THE ORGANIZATION	- 13 -
2.3.1 Individuals’ Inputs and objectives	- 15 -
2.3.2 Organisations’ Inputs and Objectives	- 15 -
2.4 CAREER MOBILITY	- 16 -
2.4.1 Work-role transition	- 20 -
2.4.2 Movement capital	- 20 -
2.4.3 Structures of risks and opportunities	- 22 -
2.4.4 Interplay between movement capital and structure of risks and opportunities	- 23 -

2.4.5	Activities to maintain and enhance movement capital	- 23 -
2.5	ACCUMULATION OF CAREER CAPITAL	- 24 -
2.5.1	Personal Growth:	- 24 -
2.5.2	Operational Autonomy:	- 25 -
2.5.3	Task achievement:	- 25 -
2.5.4	Money:	- 25 -
2.6	KNOWLEDGE WORKER CAREER CAPITAL: DIFFERENCES ACROS INDUSTRIES.....	- 26 -
2.7	CONCLUSION.....	- 28 -
CHAPTER 3: THE RESEARCH QUESTIONS		- 29 -
3.1	RESEARCH QUESTION 1:	- 29 -
3.2	RESEARCH QUESTION 2:	- 30 -
3.3	RESEARCH QUESTION 3:	- 30 -
3.4	RESEARCH QUESTION 4:	- 31 -
CHAPTER 4: RESEARCH METHODOLOGY		- 32 -
4.1	RESEARCH METHOD AND DESIGN	- 32 -
4.2	PHASE 1 RESEARCH METHOD	- 33 -
4.2.1	Unit of Analysis	- 34 -
4.2.2	Population.....	- 34 -
4.2.3	Sample	- 34 -
4.2.4	Data Collection	- 35 -
4.2.5	Data Analysis.....	- 37 -
4.3	PHASE 2 RESEARCH METHOD	- 38 -

4.4	ASSUMPTIONS AND LIMITATIONS	- 40 -
CHAPTER 5: RESULTS		- 42 -
5.1	RESULTS OF RESEARCH PHASE 1	- 42 -
5.1.1	Results for Research Question 1: Career Capital Components in Manufacturing Industry	- 42 -
5.1.2	Results for Research Question 2: Methods of acquiring career capital components in manufacturing industry	- 48 -
5.2	RESULTS OF RESEARCH PHASE 2	- 53 -
5.2.1	Results for Research Question 3:	- 58 -
5.2.3	Results for Research Question 4:	- 62 -
CHAPTER 6: DISCUSSION OF RESULTS		- 66 -
6.1	RESEARCH QUESTION 1:	- 66 -
6.2	RESEARCH QUESTION 2:	- 75 -
6.3	RESEARCH QUESTION 3: RESEARCH QUESTION 3 TAKES THE FORM OF HYPOTHESIS TESTING AS FOLLOWS:	- 83 -
6.4	RESEARCH QUESTION 4: RESEARCH QUESTION 4 TAKES THE FORM OF HYPOTHESIS TESTING AS FOLLOWS:	- 87 -
CHAPTER 7: CONCLUSION AND RECOMMENDATIONS		- 92 -
7.1	INTRODUCTION	- 92 -
7.2	MAJOR FINDINGS	- 92 -
7.3	RECOMMENDATIONS FOR HR PRACTITIONERS	- 95 -

7.4 RECOMMENDATIONS FOR KNOWLEDGE WORKERS.....	- 96 -
7.5 RECOMMENDATIONS FOR FUTURE RESEARCH.....	- 97 -
7.6 CONCLUSION.....	- 98 -
REFERENCE LIST:.....	- 99 -

LIST OF FIGURES

FIGURE 1: LAMB AND SUTHERLAND (2010) <i>de facto</i> MODEL OF CAREER CAPITAL	- 12 -
FIGURE 2: A PSYCHOLOGICAL CONTRACT MODEL OF CAREERS (Inkson and king, 2011)	- 14 -
FIGURE 3: CONCEPTUAL MODEL OF WORKER MOBILITY (Forrier, Sels and Steynen, 2009).....	- 19 -
FIGURE 4: CAREER CAPITAL ACCUMULATION: Enabler-Core-Objective Model	- 14 -

LIST OF TABLES

TABLE 1: MANUFACTURING PRODUCTION AND SALES (STATISTICSSA, 2011)	- 14 -
TABLE 2: MOST DIFFICULT-TO-FILL VACANCIES in 2010 (CILMS, 2011)	- 14 -
TABLE 3: TOP TEN RANKED CAREER CAPITAL COMPONENTS OF THE MANUFACTURING SAMPLE	- 14 -
TABLE 4: RANKING OF THE PERCEIVED IMPORTANCE OF OTHER CAREER CAPITAL COMPONENTS OF THE ENTIRE SAMPLE	- 14 -

TABLE 5: TOP TEN RANKED CAREER CAPITAL COMPONENTS OF THOSE LESS THAN 40YEARS OF AGE - 14 -

TABLE 6: TOP TEN RANKED CAREER CAPITAL COMPONENTS OF THOSE GREATER THAN AND EQUAL TO 40 YEARS OF AGE..... - 14 -

TABLE 7: TOP TEN RANKED METHODS OF BUILDING CAREER CAPITAL FOR THE ENTIRE SAMPLE - 14 -

TABLE 8: RANKING OF OTHER METHODS OF BUILDING CAREER CAPITAL FOR THE ENTIRE SAMPLE - 14 -

TABLE 9: TOP TEN RANKED METHODS OF BUILDING CAREER CAPITAL FOR THOSE LESS THAN 40 YEARS OF AGE..... - 14 -

TABLE 10: TOP TEN RANKED METHODS OF BUILDING CAREER CAPITAL FOR THOSE GREATER THAN AND EQUAL TO 40 YEARS OF AGE..... - 14 -

TABLE 11: RANKING OF IMPORTANCE OF CAREER CAPITAL COMPONENTS OF THE FOUR SECTORS BASED ON THE WEIGHTED SUM..... - 14 -

TABLE 12: RANKING OF IMPORTANCE OF THE METHODS USED IN ACQUIRING CAREER CAPITAL FOR THE FOUR SECTORS BASED ON THE WEIGHTED SUM..... - 14 -

TABLE 13: RANKING OF CAREER CAPITAL COMPONENTS OF THE ENTIRE SAMPLE BASED ON P-VALUE > 0.05..... - 14 -

TABLE 14: RANKING OF METHODS OF ACQUIRING CAREER CAPITAL OF THE ENTIRE SAMPLEBASED ON P-VALUE > 0.05..... - 14 -

TABLE 15: A HISTORY OF THE THEORY DEVELOPMENT IN CAREER CAPITAL COMPONENTS (Naidu, 2009) - 14 -

TABLE 16: THE TOP TEN IMPORTANT CAREER CAPITAL COMPONENTS IN
MANUFACTURING GROUPED AND MAPPED TO EXISTING THEORY.....- 14 -

TABLE 17: THE TOP TEN IMPORTANT METHODS OF BUILDING CAREER
CAPITAL IN MANUFACTURING GROUPED AND MAPPED TO EXISTING THEORY
.....- 14 -

APPENDIX A: QUESTIONNAIRE - CAREER CAPITAL COMPONENTS (Naidu,
Crosson and Nyembe, 2009)- 14 -

CHAPTER 1: PROBLEM DEFINITION

1.1 Introduction

Managing a career in the global economy has become increasingly important for global knowledge workers. As a result knowledge workers are faced with day to day challenges to maintain and acquire relevant skills and competencies to incrementally shape their global careers. Therefore, it has become paramount for knowledge workers to know and understand the career capital components that are required to ensure global career mobility and most importantly, how these components are acquired throughout a knowledge worker's career journey.

Post the 1980's, the impact of globalisation, demographic changes and technological advancements amongst other factors, have been driving new forms of organisation, new ways of working and new characteristics in individuals and employees (Ohmae, 2001). The changes brought about by globalisation and the heightened competitive factor in the global economy has a direct influence on the workplace and employees, often unrealised yet powerfully impacting individuals' career paths (Lamb and Sutherland, 2010). This therefore means that knowledge workers can no longer rely on acquiring the traditional minimum requirements for a job but instead, need to constantly acquire relevant skills for their careers to remain globally competitive.

The concept of career capital was proposed by Defillippi and Arthur (1996) and can for all intents and purposes be described as the value created through ongoing improvement in career position and recognition in the competitive external labour market (inter-organisational recruitment) as well as the internal labour market (intra-organisational staffing) (Lamb and Sutherland, 2010). There is no question that there is wealth in knowledge, especially in today's knowledge based and technologically driven economies (Halim, Beck and Choo, 2010). As economies develop from the machine and mass production phase into information age, it is the human resource management internally and customer relations management externally that determine the realisation of tangible outcomes for the organisation (Freeze and Kulkarni, 2007). This is where intellectual or knowledge workers are essential components to achieve competitive advantage (Halim, Beck and Choo, 2010).

The career capital concept points to the heightened importance and the challenge for the knowledge worker to focus on building relevant and recognisable career capital in the new world of work (Lamb and Sutherland, 2010).

The new world of work is characterised by a dynamic business environment that encourages knowledge worker mobility across organisations' boundaries and have given rise to the boundaryless career (Arthur and Rousseau, 1996) where knowledge workers strive to develop their skills, capabilities and competencies to accumulate a career capital that may be traded to organisations in the new world of work. The mobility of knowledge workers and the boundaryless career provide

challenges for the organisation that participate in the knowledge economy as there is increased competition for skilled, capable and competent people (Naidu, 2009). This therefore introduces a different dimension in that as much as the organisations are not directly responsible for individuals career capital in most cases, the organisation need to also understand the career capital components that are attractive to the skills market and ensure that the organisations retention and succession plan is relevant to the new world of work.

1.2 Research Purpose

Career development gains new meaning in the context of employability demands in a knowledge economy (Kuijpers & Scheerens, 2006). In this context, increased mobility, a dynamic work environment, and an increased level of career support from employers are seen as characteristics of a modern career (Kuijpers & Scheerens, 2006). All of these characteristics put emphasis on individual and self-management in career development (Kuijpers & Scheerens, 2006). For most individuals their career is a substantial part of their life, not only in terms of energy invested, but also the time, skills and even relationships invested into performing the job and fitting into the company and organizational setting (Clarke and Patrickson, 2008).

The purpose of the study is to firstly, further explore the components of career capital, as defined by Lamb and Sutherland (2010) and the methods used to build career capital in the manufacturing industry. The research study aims to

create an understanding of the perceived components of career capital and to identify the methods used to build career capital by high - value knowledge workers in manufacturing. Coy (2002) highlights that in the knowledge-based economy, organisations' assets are often those that do not qualify for inclusion on the balance sheet. Organisations need to understand these individuals to better retain their skills sets and use them to their advantage (Coy, 2002). An understanding of these issues will help identify the role that career capital plays in labour turnover, as high - value knowledge workers regularly trade their careers and change employment within organisations or between organisations and industries (Nyembe, 2009).

Secondly, based on the notion of tradable careers, the research will further ascertain the key career components that are deemed common across the three industries that have been researched before namely, High Technology Research and Development sector, Banking sector, the South African Public Sector and Manufacturing. The results obtained for career components across industries will assist knowledge workers in understanding the differences in career capital components across industries, and the differences in methods used to acquire these components across industries.

The table below indicates South Africa's manufacturing industry performance in terms of Production and Sales from April 2010 to April 2011 as follows:

Estimates	April 2011	% change between April 2010 and April 2011	% change between Feb to April 2010 and Feb to April 2011	% change between Jan to April 2010 and Jan to April 2011
Physical volume of manufacturing production index (base 2005=100)	95,0	0,4	3,8	3,4
Total estimated sales of manufactured products (R million)	103 017	6,9	8,5	8,0

Seasonally adjusted estimates	April 2011	% change between March and April 2011	% change between Nov 2010 to Jan 2011 and Feb 2011 to April 2011
Physical volume of manufacturing production index (base 2005=100)	102,8	-3,7	2,3
Total value of sales of manufactured products (R million)	111 482	-3,5	3,7

TABLE 1: MANUFACTURING PRODUCTION AND SALES (StatisticsSA, 2011)

Manufacturing production increased by 0.4% year on year in April 2011, lower than the revised 4.9% increase in March 2011 compared to March 2010. The 0.4% increase was mainly driven by higher production in the basic iron and steel, non-ferrous metal products, metal products and machinery division (3.4% and contributing a 0.7 of a percentage point), the food and beverage division (3.3% and contributing a 0.5 of a percentage point), the petroleum, chemical products, rubber and plastic products division (1.6% and contributing a 0.4 of a percentage point) and the furniture and other manufacturing division (3.7% and contributing a

0.2 of a percentage point) (Statistics SA, 2011). For the first quarter of 2011, real gross domestic product at market prices increased by 4.8% quarter-on-quarter, seasonally adjusted and annualised (Statistics SA, 2011). The manufacturing industry contributed 2.2% based on growth of 14.5% (Statistics SA, 2011). The unadjusted real GDP at market prices increased by 3.6% year-on-year (Statistics SA, 2011). Therefore, the most notable performances of industries in the first quarter of 2011 compared to the first quarter of 2010 included the manufacturing industry which increased by 4.9% (Statistics SA, 2011). These results therefore epitomise the importance of the manufacturing industry in the South African economy.

The research study hopes to add to the existing body of knowledge and foster a deeper understanding of the motivation behind the actions of knowledge workers within the manufacturing environment, with the view of ultimately contributing to a win-win scenario for both employers and employees (Nyembe, 2009).

1.3 Research Scope

The research will consist of two phases. The first phase of the study will focus on exploring how career capital components are acquired within the manufacturing sector, thus building on the previous work done by Naidu, Crosson and Nyembe (2009) in the High Technology Research and Development, Public and Banking

sectors respectively. This first phase will focus on the knowledge workers in one large manufacturer in Gauteng.

Secondly, the phase 2 of the study will focus on the already researched career capital components and acquisition in the following sectors; South African Public Sector, South African Banking Sector and South African High-Technology Research and Development Sector. The results and data achieved from phase 1 (Manufacturing Sector) will then be combined with the pre-existing data of the sectors mentioned above to do a comparison on career capital components and acquisition between the four sectors.

CHAPTER 2: LITERATURE REVIEW

2.1 Today's world of work

Since the 1960s, when information technology and knowledge were recognized as being increasingly important in economic activities and the concept of “knowledge economy” was coined, many economic theories have appeared to examine the phenomena (Dang and Umemoto, 2009). With reference to the assumption of what knowledge is, there are three main views in the literature of the knowledge economy, namely, knowledge-as-asset, knowledge-as-relation and knowledge-as-capability (Dang and Umemoto, 2009). Moreover, knowledge is the most strategic asset; the larger the volume of the economy’s knowledge stock, the higher its economic position and competitive advantage in comparison with others (Dang and Umemoto, 2009).

One trend that will facilitate the rise of the knowledge economy will be increasing ubiquitous access to information (Perotti, Wall and McLaughlin, 2010). This trend is already beginning with the escalation of smartphone shipments, and the millions of applications available for them (Anderson, 2009). To complement this trend, knowledge workers are becoming more mobile and distributed (Perotti, Wall and McLaughlin, 2010). Even today, millions of knowledge workers work in coffee shops, restaurants, cars, airports, and parks, in addition to their homes (World at Work, 2007).

Career development gains new meaning in the context of employability demands in a knowledge economy. In this context, increased mobility, a dynamic work environment, and an increased level of career support from employers are seen as characteristics of a modern career (Kuijpers and Scheerens, 2006). All of these characteristics put emphasis on individual and self-management in career development (Kuijpers and Scheerens, 2006). Previously, career realities were characterized as linear and static, representing among others, assured employability, regular promotion, predictable job moves with organizations taking responsibility for managing individuals (Herriot, 1998). The trend in the new world of work is that individuals are becoming more self-concerned as well as globally mobile (Lamb and Sutherland, 2010). This points to the heightened importance, for the knowledge worker, of focusing on building relevant and recognizable career capital (Baruch, 2006). With Globalisation which is heightening competition, organizations must continue to develop tangible products and provide services which are based on strategies created by employees (Ongori, 2007).

The knowledge-based economy is also not an economy of diminishing returns, but one of increasing returns (Arthur, 1996) and intangibles such as skills, professional knowledge, organizational capabilities, reputational capital and other collections of data are imperative to its success (Edvinsson, 2002). The knowledge economy makes a habit of introducing new ways of working,

condemning old ways of working, and thereby triggering changing career arrangements around the globe (Arthur, 2008).

As stated by Clarke (2001), this is an economy that requires integrated knowledge where successes of enterprises are more and more dependent on the effective collection, storage and utilization of this knowledge. Meisinger (2006) notes that knowledge is a key characteristic in today's working world where skills, experience and creativity in people are the key differentiators for most organisations. Competition and the demand for more specialised skills and knowledge have emerged as the key drivers. The knowledge economy is dynamic and is characterised by the intangible and it is within these intangible assets that the value is embedded for both the organisation and the individual (Edvinsson, 2002). The knowledge economy is characterised by investment in technology and knowledge intensive activities, thus creating an opportunity for knowledge employees to trade their skill within organisations or when transferring to other organisations or industries (Burfitt and Ferrari, 2008).

2.2 Knowledge Worker, Protean Career and Career Capital

The term knowledge worker generally refers to individuals who rely on knowledge as their true resource and means of performing their daily job (Froneman, 2008). The structure of modern day economy has changed from an era where companies in the past relied on manual workforce to one today where they rely on knowledge workers (Froneman, 2008). Increasingly now, individuals

are enacting careers outside organizational boundaries, defining career success on their own terms rather than by the organizational measures of salary and rank (Baugh and Sullivan, 2005). Rapid technological change and globalization have intensified the decoupling of individual careers from organizations, putting more emphasis on individuals for their own career development (Baugh and Sullivan, 2005).

Knowledge workers possess a high level of job specific knowledge and skills including general business acumen (Drucker, 1994). Their willingness to learn and their ability to continually reinvent themselves to their business context is characteristic of the knowledge worker (Drucker, 1994). The notion of protean careers is somewhat distinct from the boundaryless career concept as greater emphasis is placed on self-determination and the permeation of a broader range of boundaries, including those between organisational employment and independent contracting (Donnelly, 2009). A protean career is one in which the individual, rather than the organisation, takes responsibility for transforming their career path, in taking responsibility for their career (Donnelly, 2009). Moreover, the individual changes herself of himself according to the need (Donnelly, 2009). The protean career is essentially a contract with oneself, rather than with the organisation (Baruch 2004).

Lamb and Sutherland (2010) describe career capital as the capital that is of value to the field of the career, where an individual would possess a particular set of

competencies or capital unique to that specific individual. Lamb (2007) further asserts that from her research that the individual starts with a primary set of capitals that his/her nature or temperament and then develops and accumulates along a career path, while being influenced by personal, social, educational and organisational factors as well as the interactions between them.

Through the development of the *de facto* model of career capital formation, as indicated by figure 1 below, Lamb and Sutherland (2010) presents career capital amongst other things as a process of development that takes place within a growing context from the individual and then the organisational and then the global context or knowledge economy (Naidu, 2009).

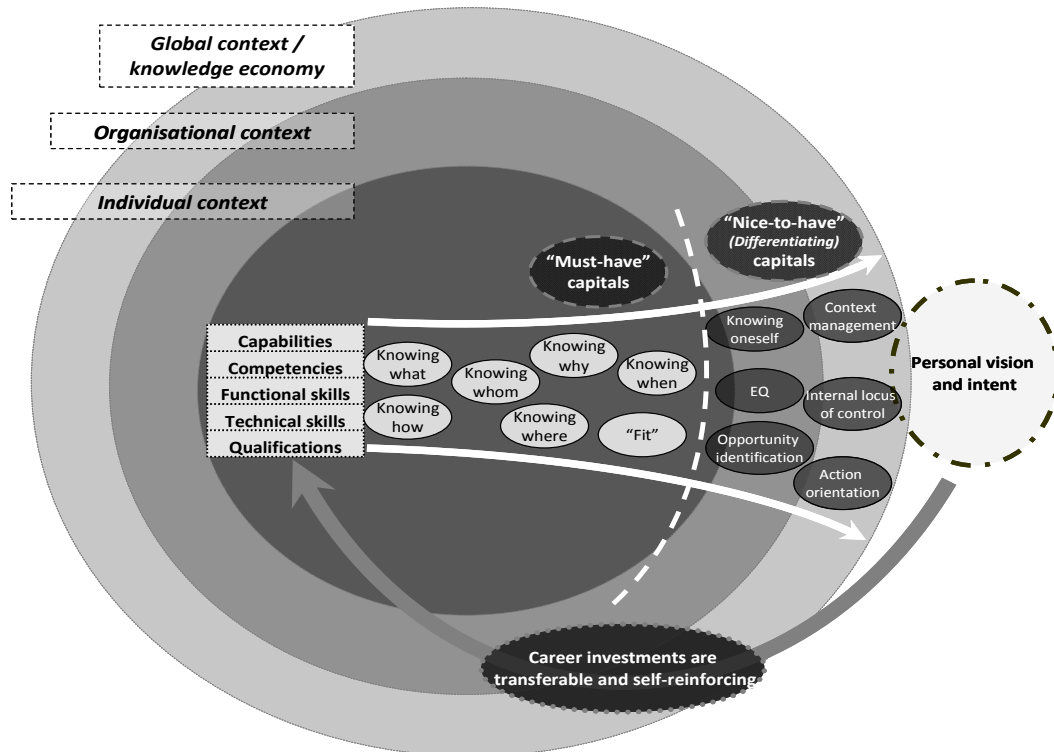


FIGURE1: LAMB AND SUTHERLAND (2010) *de facto*MODEL OF CAREER CAPITAL

2.3 Knowledge worker's career capital and the organization

Inkson and King (2011) argue that in today's knowledge society both individual and organization are primarily engaged in the negotiation of 'capital' based on each party's knowledge. The notions of career capital (Inkson and Arthur, 2001) and organizational knowledge capital potentially integrate individual and organizational interests, based on the latency of such capital as a key resource in which both individuals and organizations can invest, and from both can generate added value (Inkson and King, 2011).

This view is based on three specific areas of an organization's competencies from which its knowledge is derived (DeFillippi, Arthur and Lindsay, 2006). One is its culture which can attract individual contributions, a second is its capabilities (or know-how), based on skills or knowledge lodged within it; a third is its connections (or networks) and the access they provide to resources (Inkson and King, 2011). These competencies are grounded in the collective and integrated talents of its people. Each area of organizational knowledge mirrors an area of individual knowledge (Inkson and King, 2011).

Knowing-why stems from an individual's motivation and values, into which an organisation's culture seeks to tap (DeFillippi, Arthur and Lindsay, 2006).

Knowing-how refers to the skills and knowledge developed through both formal and experiential learning (DeFillippi, Arthur and Lindsay, 2006).

Knowing-whom refers to the interpersonal relationships an individual may contribute to a firm's networks through his or her own links (DeFillippi, Arthur and Lindsay, 2006).

Figure 2 below, captures the idea of a contract in which investments of capital are informed by prior accumulation and future intentions, and shows, as a momentary event in a trajectory from past to future, the capital being invested in an employment relationship (Inkson and King, 2011).

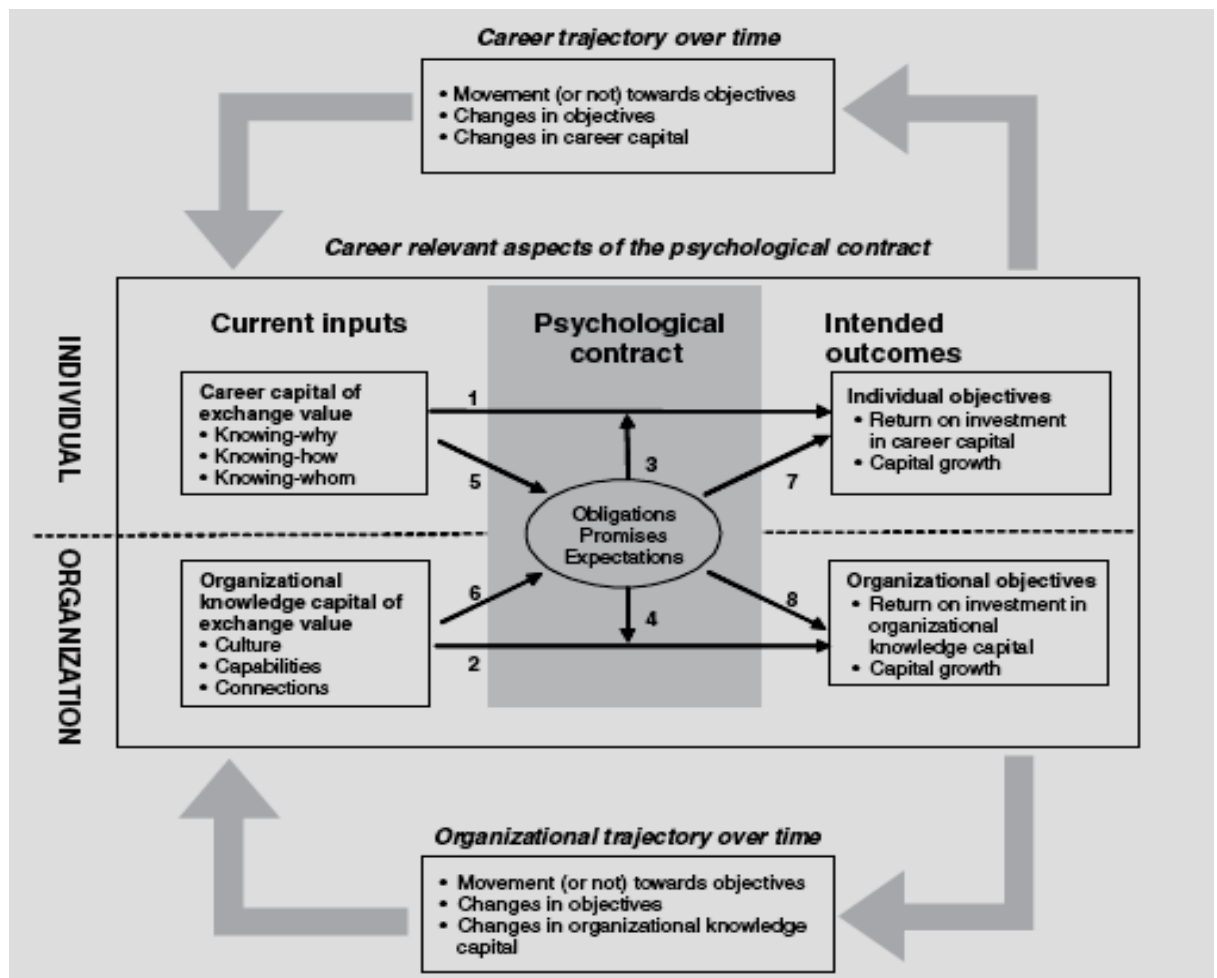


FIGURE 2: A PSYCHOLOGICAL CONTRACT MODEL OF CAREERS (Inkson and King, 2011)

2.3.1 Individuals' Inputs and objectives

Each individual worker invests career capital and has aspirations for a future return (Arrow 1) – a dividend (in the form of pay, status, recognition and responsibility) received on the capital invested, and/or the growth of that capital in the form of renewed identity or motivation (knowing-why), new skills or knowledge (knowing-how), and extended networks (knowing-whom) (Inkson and King, 2011). Individual career objectives develop and change over time, and are constantly shaped and reshaped in situations of uncertainty and as career capital is accumulated and depreciates with time (Inkson and King, 2011). These characteristics render the contract dynamic and unpredictable (Inkson and King, 2011). The shaded arrows at the top of figure 2 reflect the changing nature of career objectives that over time will affect the individual's pursuit of career capital (Inkson and King, 2011).

2.3.2 Organisations' Inputs and Objectives

Complimentary to the individual's investment in the contract, the employing organization invests organizational knowledge capital in the form of its own culture, capabilities and connections, which are, as shown above, organizational counterparts of knowing-how, knowing-why, and knowing-whom (DeFillippi, Arthur, & Lindsay, 2006). According to Boxall (2007), firms' economic objectives are, in the short term to ensure that approaches to managing people (among other resources) are cost-effective and deliver a return on investment. Over the long term, and particularly in high value-added and high-tech sectors such as

professional services, their objectives extend to building competitive advantage through high-quality knowledge resources in the form of employees and contractors who may be attracted, retained, developed and motivated by intensive HR practices (Inkson and King, 2011). At the same time their socio-political objectives are to balance social legitimacy (complying with local labour laws and institutions) against autonomy and room for manoeuvre (Inkson and King, 2011). Arrow 2 indicates the organization's expectations of securing a return on its investment in terms of achieving these objectives. The changing nature of organizational interests over time is represented by the shaded arrows in the bottom part of figure 2 (Inkson and King, 2011). From the organization's perspective as well as the worker's perspective therefore, contracts need to reflect changing interests and objectives over time, especially in the smaller, more flexible organizations of today (Inkson and King, 2011).

2.4 Career Mobility

The increasingly fragmented and discontinuous nature of careers has been at the centre of attention in current career research (Forrier, Sels and Stynen, 2009). This changing nature of careers inspired the search for new career concepts, of which the concepts of boundaryless career (Arthur and Rousseau, 1996) and the protean career (Hall, 2004) are the most influential. They both focus on the growing uncertainty and unpredictability of careers, the crossing of traditional boundaries and the increased importance of individual agency in shaping careers

(Forrier, Sels and Stynen, 2009). Although these career concepts differ in their main focus of attention, they both endorse the idea that mobility becomes more central to our understanding of how careers develop (Ng, Sorenses, Eby and Feldman, 2007; Sullivan, 1999).

The period of the 1950s to the 1980s characterized traditional careers, as careers were seen as stable and predictable (Van Staden and du Toit, 2010). Careers were a succession of related jobs arranged in a hierarchy of status levels through which people moved in an ordered and predictable sequence (Currie, Tempest and Starkey, 2006). The organization determined what constitutes career success, which was usually measured by promotions and increases in salary (Van Staden and du Toit, 2010).

Global careers for knowledge workers however, are increasingly reliant on skills that are constantly relevant and transferable for successful career progression. For individual workers, the decision to invest in the organization in particular to develop skills that are specific to that context, will be influenced by, among other things, the extent to which they are oriented towards organizational or inter-organisational careers; and, if the latter, the extent to which the newly acquired career capital is portable (Inkson and King, 2010). Each individual worker invests career capital and has aspirations for a future return – a dividend (in the form of

pay, status, recognition and responsibility) received on the capital invested, and/or the growth of that capital in the form of renewed identity or motivation (knowing-why), new skills or knowledge (knowing-how), and extended networks (knowing-whom) (Inkson and King, 2010).

The new world of work is characterized by a dynamic business environment that encourages knowledge worker mobility across organizations' boundaries and have given rise to the boundaryless career (DeFillippi and Arthur, 1996) where knowledge workers strive to develop their skills, capabilities and competencies to accumulate career capital that may be traded to organizations in the new world of work. Career capital typically grows through transfer, experience and exposure as knowledge workers move through and across organizations accumulating experiences in the boundaryless careers (Lamb and Sutherland, 2010). The movement of knowledge workers in a knowledge economy between organizations correspond to the nature of modern careers, which can be seen as a sequence of jobs or projects over the course of a person's life (Van Staden and du Toit, 2010). Knowledge workers therefore take control of their own careers, as their careers consist of assignments, irrespective of the organization employing them (Van Staden and du Toit, 2010). Trevor (2001) asserts that on a continuum of usefulness, 'movement capital' is seen as a highly tradable and transferable currency and asset of the knowledge worker in the globalised world of work.

Forrier, Sels and Steynen (2009) developed a generic model framework mapping how individual and structural factors may concurrently influence an individual's mobility opportunities and actual work-role transitions. Figure 3 below illustrates the conceptual model. From this conceptual model, work-role transition, movement capital, structure of risk and opportunities, interplay between movement capital and structure of risks and opportunities, and activities to maintain and enhance movement capital will be discussed below. The figure is different to the models figure 1 and 2 in that it further illustrates that if career capital is specific to an industry, it therefore limits a knowledge workers mobility or movement capital across industries.

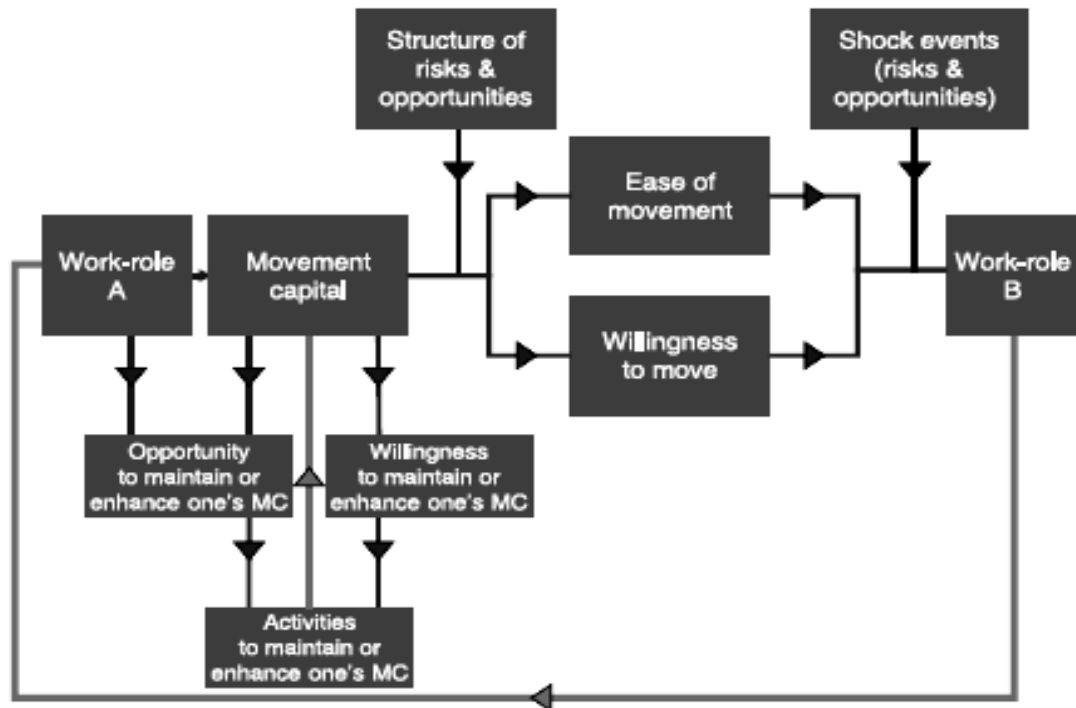


FIGURE 3: CONCEPTUAL MODEL OF WORKER MOBILITY (Forrier, Sels and Steynen, 2009)

2.4.1 Work-role transition

Forrier, Sels and Steynen (2009) define work-role transition as any change in employment status and job content. Transitions may involve change in the level of hierarchy, function, centrality to power, (geographical) location, product or process, employer, employment status (e.g. unemployment, retirement, reemployment), industry, and intensity of employment (i.e. full- or part-time) (Gunz, Peiperl and Tzabbar, 2007).

The transition from one work-role to another is visualized by the feedback loop in figure 3 (Forrier, Sels and Steynen, 2009). Individuals occupy a specific work-role (i.e. work-role A on the left-hand side of the figure), and may (or may not) go through a process that brings them closer to another work-role (i.e. work-role B on the right-hand side of the figure) (Forrier, Sels and Steynen, 2009).

2.4.2 Movement capital

Central in the agency perspective on career mobility is the focus on a person's qualities shaping his or her career (Forrier, Sels and Steynen, 2009). Movement capital encompasses the individual skills, knowledge, competencies, and attitudes influencing an individual's career mobility opportunities (Forrier, Sels and Steynen, 2009). Forrier et al. (2009) identified the following dimensions of movement capital:

- Human capital – Human capital encompasses individuals' knowledge, skills, and abilities that may affect their career opportunities (Forrier *et al.*, 2009).

This relates to the knowing-how competencies outlined by DeFillippi and Arthur

(1994). As Fugate, Kinicki and Ashforth (2004) frame it: human capital represents an individual's ability to meet the performance expectations of a given occupation. Consequently, human capital influences the individual's opportunities to occupy this occupation (Forrier *et al.*, 2009).

- Social capital – DeFillippi and Arthur (1994) use the term knowing-whom competencies when discussing career relevant networks. Including social capital as a dimension of an individual's movement capital, Forrier *et al.*, (2009) focus on external ties of a focal actor (to whom is a person connected) and not so much on the collectivity (network) itself and its internal structure (e.g cohesiveness) (Adler and Kwon, 2002).

- Self-awareness – This relates to the question who am I and who do I want to be? (Forrier *et al.*, 2009). Fugate *et al.*, (2004) refer to career identity. The notion of self-awareness relates to the knowing-why competencies of DeFillippi and Arthur (1994). Even if people have a specific combination of human capital and social capital, their career may still unfold in multiple ways (Forrier *et al.*, 2009). People who are self-aware are conscious of their strengths, weaknesses, goals, values, beliefs, and who they want to become (Forrier *et al.*, 2009). Self-awareness is an 'internal career compass' providing direction (McArdle, Waters, Briscoe & Hall, 2007).

- Adaptability – This refers to 'the willingness and ability to change behaviours, feelings and thoughts in response to environmental demands' (McArdle *et al.*, 2007). Adaptability involves both the ability to change (adaptability competence) and the willingness to change (adaptability motivation) (Hall,

2002). Adaptability is the dynamic aspect of movement capital (Forrier *et al.*, 2009). It allows people to evolve and enables and motivates them to adapt human capital, social capital, and career identity to new circumstances (Forrier *et al.*, 2009).

2.4.3 Structures of risks and opportunities

While people may to some extent shape their careers, a strong focus on agency runs on the risk of minimizing the influence of structural factors on career patterns and outcomes (Forrier *et al.*, 2009). The agency perspective starts from the assumption that individuals can make their own career, matching their capacities to occupations best suiting these capacities (Forrier *et al.*, 2009). King, Burke and Pemberton (2005) refer to the influence of institutional constraints imposed by 'gatekeepers' to job opportunities, the available jobs, organizations and occupations and the ease of entering them (Felman and Ng, 2007) or the organizational demography and opportunity structure (Lawrence and Tolbert, 2007). Gunz *et al.*, (2007) argue that career boundaries shape careers. They state that: 'if work careers are patterns of movement across a social landscape formed by the complex network of economic society, then career boundaries are the lines on that social landscape that mark the discontinuities in the patterns, points at which there are constraints on the movement'.

2.4.4 Interplay between movement capital and structure of risks and opportunities

In the conceptual model, the movement capital and structure of risks and opportunities are concurrently shaping careers (Forrier *et al.*, 2009). The right-hand side of the framework explains the action, i.e how and why people make (or do not make) a transition from work-role A to work-role B given their movement capital and the structure of risks and opportunities they are embedded in (Forrier *et al.*, 2009).

2.4.5 Activities to maintain and enhance movement capital

A wide range of activities can maintain or enhance movement capital, such as task enrichment, career counselling, training, outplacement, network development, etc. (Verbruggen, Sels and Forrier, 2007). Career counselling to name one example, may help to clarify career expectations (self-awareness), bring individuals into contact with new networks (social capital), increase the insight in one's available skills and competencies (self-awareness, human capital) and stimulate a person to become more adaptive and self-directed (adaptability)(Forrier *et al.*, 2009). Participation in these activities can be initiated by the individual (career self-management) or others (e.g organizational career management) (Forrier *et al.*, 2009).

2.5 Accumulation of Career Capital

The changes in traditional organizational structures are forcing many individuals to change their view of a career, as the career options in flatter organizations are limited (Evans, 2003). The change of career type from a traditional hierarchical career to a career characterized by a lack of organizational support and boundaries has shifted the responsibility for career development to individual knowledge workers (Currie et al., 2006).

Carter and Scarbrough (2001) identified four key career motivators once a knowledge worker has moved beyond career entry. The four key motivators are:

2.5.1 Personal Growth:

Personal growth is the first key motivator and can be described as the opportunity for individuals to realize their potential through intellectual, personal and career development. Knowledge acquisition forms part of personal development, leading to a sense of achievement and recognition of peers and ensures that workers grow as individuals and as professionals (Lin, Kuo, Ho and Huo, 2008; Svetlik and Stavrou-Costea, 2007; Thite, 2004). The stimulation and challenges provided by the job that a knowledge worker performs also contribute to personal growth (Van Staden and du Toit, 2010).

2.5.2 Operational Autonomy:

Operational autonomy is the second key motivator and can be described as a work environment that allows knowledge workers to have control over the tasks that are assigned to them within the constraints of the organizational setting (Van Staden and du Toit, 2010). The organizational culture and leadership influence the manner in which knowledge is managed (Mercer, 2008). The key to obtaining high levels of autonomy lies in the level of flexibility a knowledge worker's manager will allow (Mercer, 2008).

2.5.3 Task achievement:

Task achievement is the third motivator and can be described as the sense of satisfaction that a knowledge worker gets from producing work of high standard and quality that the individual feels proud of (Van Staden and du Toit, 2010).

2.5.4 Money:

Money is seen as a reward for the contribution made by knowledge workers to the success of the organization.

2.6 Knowledge worker career capital: Differences across industries

The labour market survey conducted by The Centre for International Labour Market Studies (CILMS, 2011), found it abundantly clear from its results that the overriding challenge facing industries is not one of declining reserves, geographical location or the seasonality of the industries. Rather, it is the labour market which constitutes the major challenge facing companies (CILMS, 2011). The fact that this is a problem for companies across the entire industry suggests that the type of skills and experience required will vary considerably between sectors (CILMS, 2011).

Ultimately the growth intentions of industries will only be realized if the staff required to support this are available in the requisite numbers and with the skills and experience which companies want (CILMS, 2011). The report also suggested that there is a sizeable proportion of companies in different sectors struggling to fill vacancies for managerial staff. Similarly, a large proportion of industries had difficulty filling vacancies for engineers and professional engineers (CILMS, 2011). These three job roles were the only ones which were consistently difficult to recruit across industries. Below, is a table that indicates the survey finding, ranking the most difficult to fill vacancies in 2010.

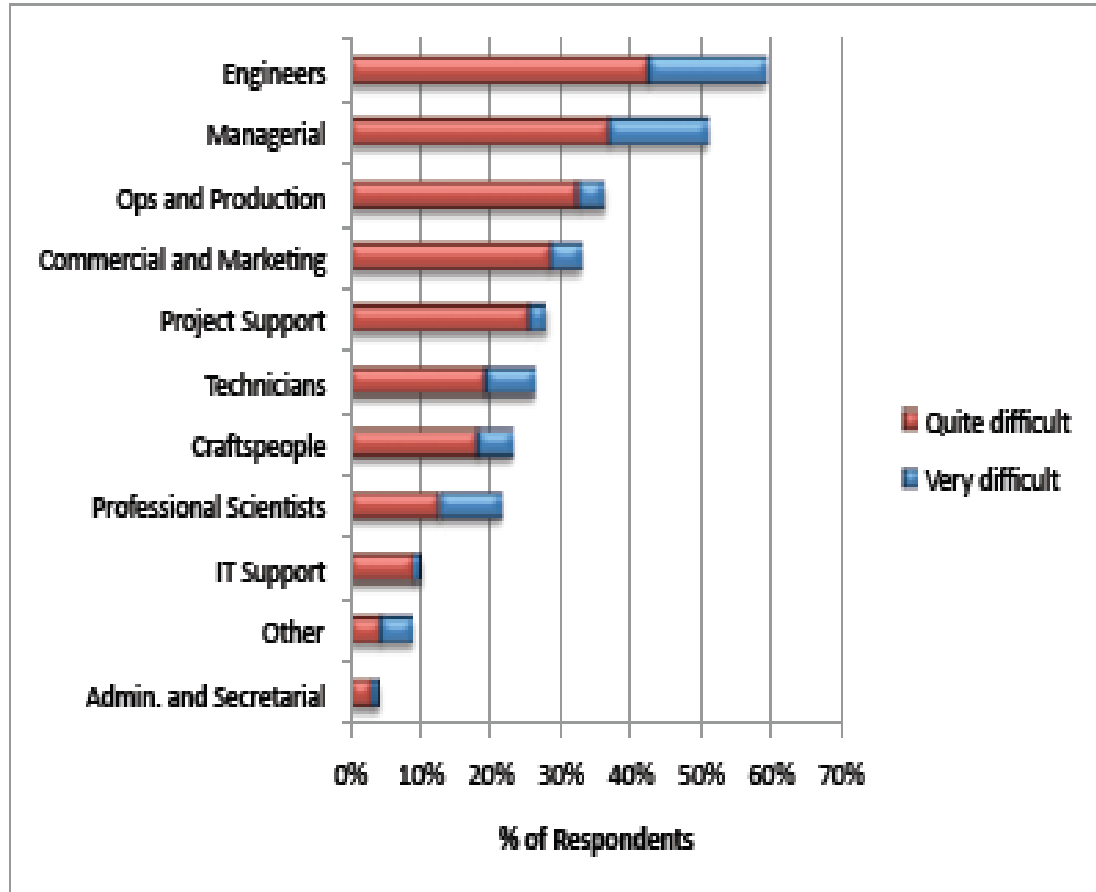


TABLE 2: MOST DIFFICULT-TO-FILL VACANCIES in 2010 (CILMS, 2011)

The knowledge worker is confronted with inequalities in employability that is based purely on the ability to accumulate, apply and continuously adapt career specific knowledge (Suutari and Makela, 2007). Career specific competencies can leverage the employability of individuals and career opportunities generally remain available to those individuals prepared and able to make the necessary investments in to their career capital (Rosenbaum, 1986).

2.7 Conclusion

On account of individuals having different expectations regarding their careers (Grobler, Warnich, Carrell, Elbert, & Hatfield, 2006) and since their career paths may involve job opportunities going across organizational boundaries one has to agree that career development has become the responsibility of the individual (Froneman, 2008). It offers individuals the possibility, within a better understanding of the complex interactions between the career competencies, the new continuously adapting organization and the boundaryless career, to develop, accumulate and leverage their relevant career capital (Froneman, 2008).

The aim of the research is to identify the key career components that are prevalent in the manufacturing industry and further gain an understanding of how these components are accumulated by these knowledge workers. Nyembe echoed in her research that the knowledge economy is characterised by investment in technology and knowledge intensive activities, thus creating an opportunity for knowledge employees to trade their skill within organisations or when transferring to other organisations or industries (Nyembe, 2009). The research, using the already existing research and findings in the High-tech Research and Development sector, Banking sector, South African Public sector and Manufacturing sector career components, will also seek to determine the key career components that are common and transferable across industries.

CHAPTER 3: THE RESEARCH QUESTIONS

This study continues the current research into the components of career capital for knowledge workers by specifically exploring the components as perceived by knowledge workers in the manufacturing industry. The results obtained from the manufacturing sector will be compared with the results obtained from the 3 pieces of research done by Crosson, Naidu and Nyembe in 2009. The report will answer the research questions outlined below and translate and capture the findings into a framework of the components of career capital, how it is accumulated and applied. This chapter will draw on the factors highlighted in the literature review (Chapter 2):

3.1 Research Question 1:

What are the components of career capital in the manufacturing industry and how are the components ranked in terms of importance?

This research question seeks to determine and understand the career capital components that are perceived by knowledge worker in the manufacturing industry. The identification of these career capital components will assist knowledge workers to build their own career capital and also play an important role in assisting HR practitioners in recruiting and retaining knowledge workers.

3.2 Research Question 2:

How do you build career capital in a manufacturing environment and how are the methods ranked in terms of importance?

This research question seeks to explore the process and methods of acquiring and accruing career capital amongst knowledge workers in the manufacturing industry.

3.3 Research Question 3:

Research question 3 takes the form of Hypothesis Testing as follows:

Ho: The career capital components are the same for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Ha: The career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

The research question 3 takes the form of hypothesis testing. This research question seeks to determine the differences and/or similarities of career capital components between the different industries. With the prevalence of global careers and career mobility, this will assist knowledge workers in understanding the differences in career capital components across industries.

3.4 Research Question 4:

Research question 4 takes the form of Hypothesis Testing as follows:

Ho: The methods of acquiring career capital components are the same for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Ha: The methods of acquiring career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

This research question seeks to determine the differences and/or similarities in methods of acquiring career capital components between the different industries.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Research Method and Design

The research was conducted in two phases.

- Phase 1: Lamb (2007) did the original research on the career capital components for knowledge workers in the global economy which was published by Lamb and Sutherland (2010) in the International Journal of Human Resource Management. This was then followed by the three pieces of research which were done simultaneously to investigate career capital in the following industries:
 - South African Public Sector (Crosson, 2009)
 - South African Banking Sector (Nyembe, 2009)
 - South African High-Tech Research and Development Sector (Naidu, 2009).

The quantitative research questionnaire for the abovementioned researches was co-created by Crosson, Nyembe and Naidu, based on the preliminary interviews conducted in their qualitative research.

Therefore, the same questionnaire was used to gather the data on the career capital components and career capital acquisition in the manufacturing sector. This research phase took the form of a quantitative descriptive study that was

implemented through survey research with the use of self-administered questionnaires (Zikmund, 2003). The aim of this research phase was to determine the perceived importance of career capital constructs and rank them according to their weighting. The results of this were then used in phase two, to determine the common and the areas of difference between career capital constructs that exist across the four researched sectors.

- Phase 2: This research phase also took the form of a quantitative study using secondary data where the analysis of variance was used to test the hypothesis that career capital components prevalent in different sectors are the same or different by testing for differences amongst means across groups or factors. For ANOVA, the existing data that was compiled in the 3 studies done previously was used for comparison in an attempt to ascertain the similarities/differences that might exist between the different components of career capital amongst the different sectors and their acquisition.

4.2 Phase 1 Research Method

The quantitative research questionnaire co-created by Crosson, Nyembe and Naidu (2009), was used to gather responses from 49 knowledge workers from a large manufacturing company in SABMiller, the second biggest beer producer in the world. The aim of this phase was to ascertain the prevalence of the inherent career capital components and methods of acquisition and accrual by knowledge workers in the manufacturing industry.

4.2.1 Unit of Analysis

The unit of analysis was the perceptions of knowledge workers on the components of career capital and how they are accumulated.

4.2.2 Population

The population of relevance included knowledge workers at one of the 7 brewery's in SAB Limited. The brewery is based in Gauteng, south of Johannesburg, and it employs over 500 people and is responsible for 35% (8.1 million hectoliters) of SAB's domestic annual beer volume.

4.2.3 Sample

For phase 1, a sample size of 49 knowledge workers was used to collect the data from SAB Limited. Judgemental or purposive sampling was used. This is a non-probability sampling technique in which an experienced individual selects the sample based on his or her judgement about some appropriate characteristic of the sample members (Zikmund, 2003). A large manufacturing company was defined as a company that employs more than 500 employees.

Sampling was done according to the following criteria:

- Knowledge worker must be at PE+ level in the organization (PE+ level in SAB Limited is responsible for all the formulation of plans and the execution thereof, of all the brewery activities).

- Knowledge worker must be a specialist or in line management

4.2.4 Data Collection

Questionnaire Design

The quantitative research questionnaire co-created by Crosson, Nyembe and Naidu (2009) was used to gather data. It was divided into an introductory phase, Section A and Section B. The introductory section provided an introduction to the research study; highlighted participation was voluntary and provided the researcher and the supervisor's details. A brief definition and description of career capital was provided to ensure that the respondents understood what career capital means.

Section A covered the biographical information that would be required to analyse the information. Under the biographical section, respondents were required to provide information regarding their age, gender, and role in the organization, qualifications and years of experience in the manufacturing industry

Section B consisted of the two research questions. A 1 - 5 Likert scale was used to rate research questions 1 and 2. For research question 1, the '1' rating indicated that the component being tested was 'not important at all'; the '3' rating indicated the component being tested was 'somewhat important' and the '5' rating indicated the component being tested was 'critically important' (Crosson,

2009). For research question 2, the '1' rating indicated that the method of accrual being tested was 'not used at all'; the '3' rating indicated that the method of accrual being tested was 'somewhat used' and the '5' rating indicated the method of accrual being tested was 'used extensively' (Crosson, 2009).

An open-ended question technique was used to gather any career capital component or method that the respondents deemed important and was not covered in the questionnaire. Sufficient space was provided for respondents to answer the question.

Questionnaire pre-testing

The questionnaire design phase was followed by a pilot phase that tested the efficacy of the questionnaire to extract the data of interest (Naidu, 2009). The pilot phase involved subjecting the designed questionnaire to pretesting by carrying out trial runs with a group of six typical respondents selected on a convenience basis (Naidu, 2009). Pre-tests allow the researcher to detect problems with the questionnaire instructions and design (Zikmund, 2003). During the pretesting phase the researcher searched for evidence of ambiguous questions, evidence that questions have the same interpretation to all respondents, evidence of potential misunderstanding and signs of participant fatigue and loss of interest (Naidu, 2009). The pre-tests identified constructs that were ambiguous, incomprehensible and were absent from the vocabulary of the

population of interest (Naidu, 2009). Synonyms were identified through discussion of the constructs with pre-test participants and were added for greater clarity and understanding (Naidu, 2009).

Data Collection

The primary data for phase 1 was collected using the self-administered questionnaire that was emailed to respondents. An electronic version of the questionnaire was also available for respondents who preferred to complete the questionnaire electronically. To deal with issues of anonymity and confidentiality, the questionnaire was set up through 'SurveyMonkey' to allay fears of respondents. Questionnaire return boxes were also set up at four stations in the brewery to allow respondent who prefer paper based questionnaire to return anonymously as well. For the 60 questionnaires that were distributed, 50 were completed. This resulted in a 83.3% response rate, and the following is a breakdown of how the questionnaires were completed:

- Email – 24 responses
- Manual – 25 responses

4.2.5 Data Analysis

The data collected in phase 1 was subjected to an editing process in order to check and adjust for omissions, legibility and consistency (Naidu, 2009). Three questionnaires included an item non-response (Zikmund, 2003) where a respondent did not specify a response for a construct. The decision rule for item

non-response was to use a neutral plug value (Zikmund, 2003). It was also assumed that the omission was unintentional and midpoint Likert response, response three (3), was assumed for these entries as a neutral plug value. Content analysis was carried out on the open-ended questions and constructs were identified and frequencies noted.

The editing phase was followed by a coding phase where the categorical data was allocated a numerical score to facilitate transfer of the data from survey to computer (Zikmund, 2003).

The final stage in the coding process was an error checking and verification or “data cleaning” (Zikmund, 2003) stage. The purpose of this stage was to ensure that all codes were legitimate (Naidu, 2009).

4.3 Phase 2 Research Method

This research phase was done by using pre-existing secondary data on career capital collected by Crosson, Naidu and Nyembe in 2009, as well as the data gathered in phase 1. Secondary analysis is the re-analysis of data for the purpose of answering the original research question with better statistical techniques, or answering new questions with old data (Glass, 1976). Blumberg, Cooper and Schindler (2008) define secondary data as information or data that has already been collected and recorded by someone else, usually for other purposes.

4.3.1 Data Collection

The pre-existing secondary data from the public, Finance and Research and Development sectors was used together with the data collected from the Manufacturing sector in phase 1 for the analyses in phase 2. All of the four samples were from single companies. The sample size for this phase, broken down into the respective industries was as follows:

- Manufacturing – 49 respondents
- Finance – 58 respondents
- Research and Development – 52 respondents
- Public Sector – 41 respondents

The combined sample size for all four sectors was therefore 200 respondents.

The data was also be subjected to an editing process in order to check and adjust for omissions, legibility and consistency (Naidu, 2009). The editing phase was followed by a coding phase where the categorical data will be allocated a numerical score to facilitate transfer of the data from survey to computer (Zikmund, 2003).

4.3.2 Data Analysis

Analysis of variance (ANOVA) was used to determine the differences or commonalities of career capital components and acquisition between the four sectors. Variance can be defined as the measure of the dispersion, or variability, of a population of measurements (Keller, Warrack, Bartel, 1994), and it can be calculated as the average of the squares of the distance each value is from the

mean in the statistics (Bluman, 1997). The main purpose of ANOVA is to check whether the means of two or more populations are different in the statistics (Wu, Feng and Chung, 2010). In general, the means of the populations are usually compared by the t-test, and three or more means should be compared by the ANOVA (Wu, Feng and Chung, 2010). ANOVA is used to check whether the means of every sample are equal by comparing the some of the squares within (SSW) and the sum of the squares between (SSB), and it can be divided into one-factor ANOVA model or two-factor ANOVA model (Wu, Feng and Chung, 2010). The one-factor ANOVA model is to study the effect of a single variable on response and the two-factor ANOVA model is to discuss the relationship between two interactive factors and response (Wu, Feng and Chung, 2010). ANOVA was therefore appropriate for use to seek answers for questions 3 and 4 of the research study. The alpha of 0.05 was used for the analyses and the results were ranked ordered based on the p-value greater than 0.05 to obtain similarities and differences in Career Capital Components and Methods of Acquiring Career Capital Components.

4.4 Assumptions and Limitations

Most of the questionnaires were completed electronically and sent back via email. Maintaining anonymity was therefore compromised through the respondents email address. The outcome and results from the non-probability, judgemental sampling cannot be generalized to the entire manufacturing industry

population. Because of possible time constraints on the respondent's side, the questionnaire could have been filled as a quick tick box exercise to get through the questionnaire without any comprehension of what each item in the questionnaire really meant. This therefore may pose a risk in the integrity of the results. Results from knowledge workers in one manufacturing company may not be truly reflective and representative of the manufacturing industry in South Africa.

CHAPTER 5: RESULTS

This chapter presents the results obtained from the study.

5.1 Results of research phase 1

Research phase 1 was a quantitative study that investigated the components of career capital among knowledge workers in the manufacturing industry and the methods used by knowledge workers to accumulate career capital. This phase took the form of a descriptive study implemented through survey research with the use of self-administered questionnaire (Zikmund, 2003). The results obtained were then used in phase 2. The data obtained from this research phase focused on gathering data to address the following research questions:

- Research Question 1: What are the components of career capital in the manufacturing industry and how are the components ranked in terms of importance?
- Research Question 2: How do you build career capital in a manufacturing environment and how are the methods ranked in terms of importance?

5.1.1 Results for Research Question 1: Career Capital Components in Manufacturing Industry

A total of 27 variables were used in a structured survey to gather data for this section of phase 1. Respondents were asked to rate the perceived importance of each variable in the manufacturing industry (career capital component) using a 5-

point Likert scale. The definitions of the 5 points on the Likert scale were as follows:

- 1 = Not Important at all
- 3 = Some-what important
- 5 = Critically important

The top ten most important career capital components as perceived by the total sample of respondents (50 respondents) are shown in Table 3.

TABLE 3: TOP TEN RANKED CAREER CAPITAL COMPONENTS OF THE MANUFACTURING SAMPLE

Rank	Career Capital Components	Sum	Median	Mode	1	2	3	4	5
1	Self motivation and drive	218	5.00	5	0	1	2	20	26
2	Being known for delivery and execution	214	5.00	5	0	2	4	17	26
3	Ability to participate in a team (team player)	212	4.00	4	0	0	5	23	21
4	Determination and perseverance	207	4.00	5	0	2	9	14	24
5	Relevant hands on knowledge	206	4.00	4	0	1	5	26	17
6	Flexibility and adaptability; Ability to adapt to various environments	204	4.00	5	0	2	9	17	21
7	Knowing yourself or emotional Intelligence.	203	4.00	5	0	0	14	14	21
8	People skills; having good working relationships	203	4.00	4	0	0	11	20	18
9	Ability to influence/motivate	203	4.00	4	0	0	9	24	16
10	A comprehensive technical understanding. (To know why)	202	4.00	5	0	2	11	15	21

Colour Key:

	Top 10 Ranked Sums
	Modal Response

The median of each variable was calculated to examine the central tendency of the responses and the mode of each response was calculated to show the most popular response for the sample. In order to determine the importance of each construct, a weighted sum was calculated for each variable. If the items on the Likert scale are assigned numerical values, the numerical values of the items on the Likert scale can be summed to arrive at an overall score (McCall, 2001) that represents their weight, or importance within the defined set of constructs (Naidu, 2009). Each constructs weight was calculated by multiplying the integer value allocated to the scale response by the total number of responses for that scale value (Naidu, 2009). The calculation revealed the weight of each construct, called the weighted sum, which indicated the level of importance by the magnitude of the value (Naidu, 2009). The calculated weighted sum therefore enabled each construct to be ranked. The highest possible score for the weighted sum is 245.

Table 4 below indicates career capital components that ranked from 11 to 27, with “Networking external the company” rated as the least important career capital component amongst respondents.

TABLE 4: RANKING OF THE PERCEIVED IMPORTANCE OF OTHER CAREER CAPITAL COMPONENTS OF THE ENTIRE SAMPLE

Rank	Career Capital Components	Sum	Median	Mode	1	2	3	4	5
11	Ability to lead a team (team leader)	199	4.00	4	0	1	11	21	16
12	Personal reputation	198	4.00	4	0	3	9	20	17
13	Understanding challenges of managing in your industry and working environment	198	4.00	4	0	0	14	19	16
14	Business Acumen; understanding of the business bigger picture	194	4.00	4	0	1	13	22	13
15	Understanding your reactions and feelings to different situations	194	4.00	5	0	2	15	15	17
16	Educational qualifications	193	4.00	4	0	1	15	19	14
17	Technical ability (To know how)	193	4.00	4	0	3	12	19	15
18	Action Orientation	191	4.00	4	1	3	11	19	15
19	A practical or pragmatic understanding of the technical and working environment	190	4.00	4	0	0	16	23	10
20	Passion for the industry environment	187	4.00	4	0	3	15	19	12
21	Networking within the organisations	181	4.00	4	0	4	17	18	10
22	Ability to identify new opportunities for the organisation	177	4.00	3	0	3	21	17	8
23	Experience in industry	176	4.00	4	0	6	16	19	8
24	Knowledge and understanding of entire product life cycle or a system view	173	4.00	4	1	5	17	19	7
25	Networking with stakeholders like customers and suppliers.	173	4.00	4	1	9	12	17	10
26	Multi disciplinary experience i.e. experience in diverse disciplines e.g. different roles in the organisation	165	3.00	3	0	10	17	16	6
27	Networking external the company	154	3.00	3	5	11	14	10	9

Colour Key:

	Modal Response
--	----------------

Although not critical for this research study, Table 5 below indicates the top 10 most important career capital component for respondents under the age of 40.

TABLE 5: TOP TEN RANKED CAREER CAPITAL COMPONENTS OF THOSE LESS THAN 40 YEARS OF AGE

Rank	Career Capital Components <40	Sum	Median	Mode	1	2	3	4	5
1	Self motivation and drive	160	5.00	5	0	1	1	15	19
2	Being known for delivery and execution	159	5.00	5	0	1	2	14	19
3	Ability to participate in a team (team player)	157	4.00	5	0	0	4	15	17
4	Ability to influence/motivate	153	4.00	4	0	0	4	19	13
5	Flexibility and adaptability; Ability to adapt to various environments	152	4.50	5	0	2	6	10	18
6	Relevant hands on knowledge	150	4.00	4	0	1	5	17	13
7	A comprehensive technical understanding. (To know why)	150	4.00	5	0	1	8	11	16
8	Knowing yourself or emotional Intelligence.	150	4.00	5	0	0	9	12	15
9	Educational qualifications	144	4.00	4	0	1	10	13	12
10	Business Acumen; understanding of the business bigger picture	143	4.00	4	0	1	9	16	10

Colour Key:

	Top 10 Ranked Sums
	Modal Response

‘Self motivation and drive’ and ‘Business acumen’ were rated 1 and 10 respectively. The weighted sum, median and mode of the sample responses were calculated. Table 6 below indicates the top 10 most important career capital component for respondents with or over the age of 40.

TABLE 6: TOP TEN RANKED CAREER CAPITAL COMPONENTS OF THOSE GREATER THAN AND EQUAL TO 40 YEARS OF AGE

Rank	Career Capital Components >40	Sum	Median	Mode	1	2	3	4	5
1	Flexibility and adaptability; Ability to adapt to various environments	52	4.00	4	0	0	3	7	3
2	Educational qualifications	49	4.00	4	0	0	5	6	2
3	Business Acumen; understanding of the business bigger picture	51	4.00	4	0	0	4	6	3
4	A comprehensive technical understanding. (To know why)	52	4.00	5	0	1	3	4	5
5	A practical or pragmatic understanding of the technical and working environment	51	4.00	4	0	0	3	8	2
6	Technical ability (To know how)	50	4.00	5	0	1	5	2	5
7	Relevant hands on knowledge	56	4.00	4	0	0	0	9	4
8	Experience in industry	46	4.00	4	0	1	5	6	1
9	Knowledge and understanding of entire product life cycle or a system view	47	4.00	4	0	1	4	7	1
10	Ability to identify new opportunities for the organisation	43	3.00	3	0	1	8	3	1

Colour Key:

	Top 10 Ranked Sums
	Modal Response

‘Flexibility and adaptability’ and ‘Ability to identify new opportunities for the organisation’ were rated 1 and 10 respectively. The weighted sum, median and mode of the sample responses were calculated.

5.1.2 Results for Research Question 2: Methods of acquiring career capital components in manufacturing industry

A total of 26 variables were used in a structured survey questionnaire to gather data for this section of phase 1. Respondents were asked to rate the perceived importance of each method used to accumulate career capital in the manufacturing industry using a 5-point Likert scale. The definitions of the 5 points on the Likert scale were as follows:

- 1 = Not used at all
- 3 = Some-what used
- 5 = Used extensively

The top ten most important methods of acquiring career capital components as perceived by the total sample of respondents (49 respondents) are shown in Table 7 below.

TABLE 7: TOP TEN RANKED METHODS OF BUILDING CAREER CAPITAL FOR THE ENTIRE SAMPLE

Rank	Methods of Acquiring Career Capital	Sum	Median	Mode	1	2	3	4	5
1	Willingness to learn	220	5.00	5	0	0	2	21	26
2	Ensuring that you deliver on your promise	205	4.00	5	0	0	12	16	21
3	Further training and development	204	4.00	4	1	2	2	27	17
4	Association with and learning from successful individuals inside the organisation	201	4.00	4	0	1	8	25	15
5	Having a personal vision and development plan	200	4.00	4	0	1	11	20	17
6	Networking and relationship building internal to the company	187	4.00	4	1	1	16	19	12

7	Eagerness to adopt new ways of working	187	4.00	4	0	4	15	16	14
8	Developing a complete competence in your role before seeking new opportunities	186	4.00	4	0	3	14	22	10
9	Innovation in the way you work	186	4.00	4	0	3	16	18	12
10	Keeping to the rules of my organisation	185	4.00	3	0	4	19	10	16

Colour Key:

	Top 10 Ranked Sums
	Modal Response

The median of each variable was calculated to examine the central tendency of the responses and the mode of each response was calculated to show the most popular response for the sample. In order to determine the importance of each construct, a weighted sum was calculated for each variable. If the items on the Likert scale are assigned numerical values, the numerical values of the items on the Likert scale can be summed to arrive at an overall score (McCall, 2001) that represents their weight, or importance within the defined set of constructs (Naidu, 2009). Each constructs weight was calculated by multiplying the integer value allocated to the scale response by the total number of responses for that scale value (Naidu, 2009). The calculation revealed the weight of each construct, called the weighted sum, which indicated the level of importance by the magnitude of the value (Naidu, 2009). The calculated weighted sum therefore enabled each construct to be ranked. The highest possible score for the weighted sum is 245.

Table 8 below indicates the methods of acquiring career capital that ranked from 11 to 26, with “Changing jobs across industries” rated as the least important career method of acquiring career capital amongst respondents.

TABLE 8: RANKING OF OTHER METHODS OF BUILDING CAREER CAPITAL FOR THE ENTIRE SAMPLE

Rank	Methods of Acquiring Career Capital	Sum	Median	Mode	1	2	3	4	5
11	Ensuring multi-disciplinary exposure	176	4.00	4	0	4	18	21	6
12	Being mentored or coached	175	3.00	3	4	2	20	8	15
13	Improving education qualifications	170	4.00	4	5	4	11	21	8
14	Adding value by challenging the status quo	167	3.00	3	1	8	17	16	7
15	Identification of opportunities to improve visibility and reputation at higher levels in the organisation	166	3.00	3	2	7	17	16	7
16	Reading to keep updated with current industry events and issues	164	3.00	3	5	4	19	11	10
17	Association with and learning from successful individuals outside the organisation	155	3.00	4	6	11	10	13	9
18	Depending on my original qualification	153	3.00	3	2	7	26	11	3
19	Changing jobs within current company	150	3.00	3	7	4	20	15	3
20	Networking and relationship building with stakeholders like suppliers and customers	147	3.00	3	8	5	18	15	3
21	Attending conferences	126	3.00	2	10	14	13	11	1
22	Changing jobs within current industry	120	3.00	3	15	8	17	7	2
23	Networking and relationship building external to the company	114	2.00	1	17	13	9	6	4
24	Presenting at conferences	108	2.00	1	18	10	17	1	3
25	Luck has played a role in your career	98	2.00	1	22	13	7	6	1
26	Changing jobs across industries	87	1.00	1	27	12	4	6	0

Colour Key:

	Modal Response
--	----------------

Although not important for this research study, Table 9 below indicates the top 10 most important methods of acquiring career capital component for respondents under the age of 40.

TABLE 9: TOP TEN RANKED METHODS OF BUILDING CAREER CAPITAL FOR THOSE LESS THAN 40 YEARS OF AGE

Rank	Methods of Acquiring Career Capital <40	Sum	Median	Mode	1	2	3	4	5
1	Willingness to learn	163	1.00	1	22	6	3	5	0
2	Ensuring that you deliver on your promise	152	2.00	1	13	7	11	4	1
3	Association with and learning from successful individuals inside the organisation	150	3.00	3	6	2	16	10	2
4	Further training and development	149	3.00	3	2	5	18	8	3
5	Having a personal vision and development plan	148	4.00	4	1	1	1	22	11
6	Eagerness to adopt new ways of working	143	4.00	4	5	2	7	15	7
7	Networking and relationship building internal to the company	140	3.50	3	1	4	13	12	6
8	Keeping to the rules of my organisation	137	3.00	3	0	3	16	13	4
9	Developing a complete competence in your role before seeking new opportunities	136	3.50	3	1	1	16	6	12
10	Being mentored or coached	135	4.00	4	0	1	11	12	12

Colour Key:

	Top 10 Ranked Sums
	Modal Response

'Willingness to learn' and 'Being mentored and coached' were rated 1 and 10 respectively. The weighted sum, median and mode of the sample responses were calculated.

Table 10 below indicates the top 10 most important career capital component for respondents with or over the age of 40.

TABLE 10: TOP TEN RANKED METHODS OF BUILDING CAREER CAPITAL FOR THOSE GREATER THAN AND EQUAL TO 40 YEARS OF AGE

Rank	Methods of Acquiring Career Capital >40	Sum	Median	Mode	1	2	3	4	5
1	Willingness to learn	57	2.00	2	5	6	1	1	0
2	Further training and development	55	3.00	3	2	1	6	3	1
3	Innovation in the way you work	53	3.00	4	1	2	4	5	1
4	Ensuring that you deliver on your promise	53	3.00	3	0	2	8	3	0
5	Having a personal vision and development plan	52	4.00	5	0	1	1	5	6
6	Association with and learning from successful individuals inside the organisation	51	4.00	4	0	2	4	6	1
7	Ensuring multi-disciplinary exposure	50	3.00	3	1	3	4	4	1
8	Reading to keep updated with current industry events and issues	50	4.00	4	0	1	2	8	2
9	Developing a complete competence in your role before seeking new opportunities	50	3.00	3	3	1	4	2	3
10	Keeping to the rules of my organisation	48	3.00	4	0	3	4	4	2

Colour Key:

	Top 10 Ranked Sums
	Modal Response

‘Willingness to learn’ and ‘Keeping to the rules of my organisation’ were rated 1 and 10 respectively. The weighted sum, median and mode of the sample responses were calculated. These results from phase 1 will be discussed in Chapter 6.

5.2 Results of research phase 2

Research phase 2 was a quantitative study that investigated whether there are differences or not on the components of career capital among knowledge workers in the public sector, manufacturing, finance and research and development industries, and the methods used by knowledge workers to accumulate career capital. This research phase was done by using pre-existing secondary data on career capital collected by Crosson, Naidu and Nyembe in 2009, as well as the data gathered in phase 1. The sample size for this research phase was 200 respondents from all four sectors combined. The data obtained from this research phase focused on gathering data to address the following hypotheses:

Research Question 3:

Research question 3 takes the form of Hypothesis Testing as follows:

Ho: The career capital components are the same for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Ha: The career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Research Question 4:

Research question 4 takes the form of Hypothesis Testing as follows:

Ho: The methods of acquiring career capital components are the same for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Ha: The methods of acquiring career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Table 11 below indicates the analysis of the career capital components across the four sectors, ranked ordered based on the weighted sum. These results were used for the Analysis of Variance to ascertain the differences or similarities of career capital components across the four sectors.

TABLE 11: RANKING OF IMPORTANCE OF CAREER CAPITAL COMPONENTS OF THE FOUR SECTORS BASED ON THE WEIGHTED SUM

Rank	Career Capital Component	Sum	Median	Mode	1	2	3	4	5
1	Self motivation and drive	856	5.00	5.00	0	1	12	52	135
2	Determination and perseverance	816	5.00	5.00	0	2	23	67	108
3	Being known for delivery and execution	810	5.00	5.00	1	3	19	69	108
4	Ability to participate in a team (team player)	810	5.00	5.00	0	1	24	64	111
5	Flexibility and adaptability; Ability to adapt to various environments	802	4.00	5.00	1	2	24	70	103
6	People skills; having good working relationships	789	4.00	4.00	1	3	20	102	74
7	Ability to influence/motivate	775	4.00	5.00	2	6	30	74	88
8	Knowing yourself or emotional Intelligence.	768	4.00	5.00	1	7	40	57	95

9	A comprehensive technical understanding. (To know why)	765	4.00	4.00	0	9	30	92	69
10	Passion for the industry environment	763	4.00	5.00	5	8	36	56	95
11	Ability to lead a team (team leader)	757	4.00	5.00	0	12	39	64	85
12	Business Acumen; understanding of the business bigger picture	756	4.00	5.00	2	14	34	56	94
13	Personal reputation	744	4.00	4.00	0	0	0	200	0
14	Educational qualifications	741	4.00	4.00	2	5	50	84	59
15	Action Orientation	738	4.00	4.00	4	8	37	92	59
16	Understanding your reactions and feelings to different situations	736	4.00	5.00	2	10	50	61	77
17	Understanding challenges of managing in your industry and working environment	729	4.00	4.00	1	11	46	86	56
18	Relevant hands on knowledge	723	4.00	4.00	4	6	52	91	47
19	Multi disciplinary experience i.e. experience in diverse disciplines e.g. different roles in the organisation	716	4.00	4.00	1	20	46	76	57
20	Technical ability (To know how)	709	4.00	4.00	1	7	33	100	59
21	Knowledge and understanding of entire product life cycle or a system view	708	4.00	4.00	3	18	47	76	56
22	A practical or pragmatic understanding of the technical and working environment	706	4.00	4.00	1	2	38	108	51
23	Networking within the organisations	691	4.00	4.00	5	16	51	87	41
24	Experience in industry	672	4.00	4.00	7	21	50	85	37
25	Networking with stakeholders like customers and suppliers.	651	4.00	4.00	11	29	44	78	38
26	Ability to identify new opportunities for the organisation	642	3.00	3.00	15	22	72	52	39
27	Networking external the company	636	4.00	4.00	15	29	48	69	39

The median of each variable was calculated to examine the central tendency of the responses and the mode of each response was calculated to show the most popular response for the sample. In order to determine the importance of each construct, a weighted sum was calculated for each variable. If the items on the Likert scale are assigned numerical values, the numerical values of the items on

the Likert scale can be summed to arrive at an overall score (McCall, 2001) that represents their weight, or importance within the defined set of constructs (Naidu, 2009). Each constructs weight was calculated by multiplying the integer value allocated to the scale response by the total number of responses for that scale value (Naidu, 2009). The calculation revealed the weight of each construct, called the weighted sum, which indicated the level of importance by the magnitude of the value (Naidu, 2009). The calculated weighted sum therefore enabled each construct to be ranked. The highest possible score for the weighted sum is 1000.

“Self motivation and drive” ranked the highest across the four sectors, with 135 and 52 respondents rating the career capital component a ‘5’ and ‘4’ respectively. “Networking external the company” was the least rated and the least important career capital component across the four sectors.

Table 12 below indicates the analysis of the importance of methods used in acquiring career capital across the four sectors, ranked ordered based on the weighted sum. These results were used for the Analysis of Variance to ascertain the differences or similarities in methods of acquiring career capital across the four sectors.

TABLE 12: RANKING OF IMPORTANCE OF METHODS USED IN ACQUIRING CAREER CAPITAL FOR THE FOUR SECTORS BASED ON THE WEIGHTED SUM

Rank	Method of Acquiring Career Capital	Sum	Median	Mode	1	2	3	4	5
1	Willingness to learn	854	5	5	0	0	7	57	136
2	Ensuring that you deliver on your promise	827	5	5	0	5	15	58	122
3	Further training and development	739	4	4	3	18	28	83	68
4	Association with and learning from successful individuals inside the organisation	738	4	4	1	10	34	108	47
5	Networking and relationship building internal to the company	732	4	4	3	12	37	94	54
6	Innovation in the way you work	730	4	4	0	15	45	79	61
7	Eagerness to adopt new ways of working	715	4	4	0	16	54	77	53
8	Developing a complete competence in your role before seeking new opportunities	696	4	4	6	17	48	85	44
9	Ensuring multi-disciplinary exposure	692	4	4	6	18	44	86	46
10	Having a personal vision and development plan	692	4	4	9	20	39	82	50
11	Adding value by challenging the status quo	687	4	4	2	18	58	83	39
12	Reading to keep updated with current industry events and issues	686	4	3	10	16	59	56	59
13	Keeping to the rules of my organisation	655	4	3	2	33	72	55	38
14	Improving education qualifications	627	4	4	23	24	38	81	34
15	Being mentored or coached	621	3	3	21	31	60	43	45
16	Identification of opportunities to improve visibility and reputation at higher levels in the organisation	607	3	4	15	34	50	79	22
17	Depending on my original qualification	598	3	3	13	33	86	43	25

18	Networking and relationship building with stakeholders like suppliers and customers	587	3	4	22	39	43	70	26
19	Association with and learning from successful individuals outside the organisation	572	3	4	27	40	40	68	25
20	Changing jobs within current company	561	3	3	46	11	67	49	27
21	Attending conferences	518	3	2	35	64	43	38	20
22	Networking and relationship building external to the company	494	3	1	71	30	39	41	19
23	Changing jobs within current industry	448	2	1	91	20	42	32	15
24	Luck has played a role in your career	417	2	1	81	53	34	21	11
25	Presenting at conferences	407	2	1	92	34	41	28	5
26	Changing jobs across industries	361	1	1	110	39	24	23	4

5.2.1 Results for Research Question 3:

Ho: The career capital components are the same for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Ha: The career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

The results for this hypothesis were obtained by performing Analysis of Variance on 27 variables across the four industries. The alpha of 0.05 was used for the analyses. The average per sector was also calculated with a resultant

classification of the sector's category of High, Medium or Low. The classification guideline for the category was done as follows:

- Low (L) = 1-2.5
- Medium (M) = 2.5-3.5
- High (H) = 3.5 - 5

The p-value for each variable was calculated and rank ordered accordingly. As a guide, p-values > 0.05 were considered as a cut-off to determine the highest ranking variables across sectors. Therefore the p-value greater than 0.05 indicates the similarities across sectors on Career Capital Components, whilst p-value < 0.05 indicates significant differences of career capital components across the four sectors.

The table below indicates the ranking of career capital components across the four sectors based on the p-values obtained. The acronyms used in the below tables under Averages and Category are as follows:

- F – Finance
- M – Manufacturing
- P – Public
- R – Research and Development

TABLE 13: RANKING OF CAREER CAPITAL COMPONENTS OF THE ENTIRE SAMPLE BASED ON P-VALUE > 0.05

Career Capital Components	Knowledge Worker Ranking	p-value	Average				Category			
			F	M	P	R	F	M	P	R
Educational qualifications	14	0.991	3.97	3.94	4.00	3.96	H	H	H	H
Determination and perseverance	2	0.435	4.43	4.22	4.29	4.42	H	H	H	H
Action Orientation	15	0.420	4.03	3.90	4.10	3.81	H	H	H	H
Self motivation and drive	1	0.068	4.74	4.45	4.59	4.48	H	H	H	H
A practical or pragmatic understanding of the technical and working environment	22	0.046	3.96	3.88	3.88	4.25	H	H	H	H
Knowledge and understanding of entire product life cycle or a system view	21	0.035	4.05	3.53	3.93	3.65	H	H	H	H
A comprehensive technical understanding. (To know why)	9	0.034	3.93	4.12	4.00	4.38	H	H	H	H
People skills; having good working relationships	6	0.031	4.48	4.14	4.12	4.13	H	H	H	H
Being known for delivery and execution	3	0.004	4.59	4.37	4.39	4.06	H	H	H	H
Flexibility and adaptability; Ability to adapt to various environments	5	0.000	4.71	4.16	4.32	3.92	H	H	H	H
Business Acumen; understanding of the business bigger picture	12	0.000	4.64	3.96	4.39	3.19	H	H	H	M
Technical ability (To know how)	20	0.000	3.96	3.94	3.71	4.42	H	H	H	H
Relevant hands on knowledge	18	0.000	3.47	4.20	4.00	3.85	M	H	H	H
Experience in industry	24	0.000	4.05	3.59	3.20	3.44	H	H	M	M
Ability to identify new opportunities for the organisation	26	0.000	3.83	3.61	3.34	2.88	H	H	M	M
Personal reputation	13	0.000	4.53	4.04	4.24	3.73	H	H	H	H
Multi disciplinary experience i.e. experience in diverse disciplines e.g. different roles in the organisation	19	0.000	4.64	3.37	3.66	3.40	H	M	H	M
Networking within the organisations	23	0.000	4.16	3.69	3.34	3.44	H	H	M	M
Networking with stakeholders like customers and suppliers.	25	0.000	4.14	3.53	3.27	2.90	H	H	M	M
Networking external the company	27	0.000	4.10	3.14	3.59	2.73	H	M	H	M
Passion for the industry environment	10	0.000	4.67	3.82	3.63	3.90	H	H	H	H
Ability to participate in a team (team player)	4	0.000	4.86	4.33	4.15	4.13	H	H	H	H
Ability to lead a team (team leader)	11	0.000	4.34	4.06	4.29	3.46	H	H	H	M
Ability to influence/motivate	7	0.000	4.55	4.14	4.17	3.73	H	H	H	H
Knowing yourself or emotional Intelligence.	8	0.000	4.60	4.14	3.88	3.75	H	H	H	H

Understanding your reactions and feelings to different situations	16	0.000	4.47	3.96	3.66	3.46	H	H	H	M
Understanding challenges of managing in your industry and working environment	17	0.000	4.21	4.04	4.10	3.33	H	H	H	M

Out of 27 variables analysed across the four sectors, only four career capital components were significantly the same with all their averages high per sector. The knowledge worker ranking from table 11 was also included in the above table to indicate the original rating of importance based on the knowledge workers perceptions. The rankings further indicate the spread of differences in terms of what knowledge workers in the different industries perceive as being important.

“Educational qualifications” ranked high based on the p-value of 0.991. The averages for the different sectors were all high, with the Public sector being the highest across the four sectors. “Self motivation and drive” was the fourth highest with a p-value of 0.068 with all sectors classified as having high categories.

23 variables analysed indicated differences across sectors with their p-values being < 0.05 . “A practical or pragmatic understanding of the technical and working environment” ranked high on the differences across the four sectors based on the p-value of 0.046. The averages for the different sectors were all high, with the Research and Development sector being the highest across the four sectors. “Experience in industry” was the tenth highest variable indicating differences across the four sectors out of the 23 variables with a p-value of

0.000, with two of the sectors classified as having high and two classified as medium categories based on averages (Finance, Manufacturing; and Public, Research and Development respectively).

“Understanding challenges of managing in your industry and working environment” ranked the lowest based on the p-value of 0.000 amongst the remaining 23 career capital components with differences across the four sectors. Finance and Manufacturing are classified as having high averages whilst the Public sector and Research and Development industry were classified as medium categories based on averages of 3.83, 3.61, 3.34 and 2.88 respectively. The above results will be further discussed in Chapter 6.

5.2.3 Results for Research Question 4:

Ho: The methods of acquiring career capital components are the same for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Ha: The methods of acquiring career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

The results for this hypothesis were obtained by performing Analysis of Variance on 26 variables across the four industries. The alpha of 0.05 was used for the analyses. The average per sector was also calculated with a resultant

classification of the sector's category of High, Medium or Low. The classification guideline for the category was done as follows:

- Low (L) = 1-2.5
- Medium (M) = 2.5-3.5
- High (H) = 3.5 - 5

The p-value for each variable was calculated and rank ordered accordingly. As a guide, p-values > 0.05 were considered as a cut-off to determine the highest ranking variables across sectors. Therefore, the p-value greater than 0.05 indicates the similarities across sectors on methods of acquiring career capital and p-values less than 0.05 indicate differences across sectors.

The table below indicates the ranking of methods of acquiring career capital that across the four sectors based on the p-values obtained

TABLE 14: RANKING OF METHODS OF ACQUIRING CAREER CAPITAL OF THE ENTIRE SAMPLE BASED ON P-VALUE > 0.05

Building Career Capital	Knowledge Worker Ranking	p-value	Average				Category			
			F	M	P	R	F	M	P	R
Association with and learning from successful individuals inside the organisation	4	0.557	3.97	4.10	3.90	3.88	H	H	H	H
Depending on my original qualification	17	0.376	3.09	3.12	3.44	3.13	M	M	M	M
Willingness to learn	1	0.345	4.69	4.49	4.59	4.58	H	H	H	H
Developing a complete competence in your role before seeking new opportunities	8	0.247	3.90	3.80	3.61	3.54	H	H	H	H
Innovation in the way you work	6	0.113	4.17	3.80	3.78	3.90	H	H	H	H
Further training and development	3	0.085	4.16	4.16	3.80	3.79	H	H	H	H
Ensuring multi-disciplinary exposure	9	0.066	4.02	3.59	3.54	3.63	H	H	H	H
Changing jobs across industries	23	0.027	2.31	1.78	1.80	1.75	L	L	L	L
Reading to keep updated with current industry events and issues	12	0.016	4.03	3.35	3.59	3.58	H	M	H	H

Networking and relationship building internal to the company	5	0.014	4.26	3.82	3.76	3.79	H	H	H	H
Adding value by challenging the status quo	11	0.012	3.98	3.41	3.56	3.63	H	M	H	H
Ensuring that you deliver on your promise	2	0.009	4.69	4.18	4.44	4.40	H	H	H	H
Being mentored or coached	15	0.004	3.72	3.57	3.02	2.96	H	H	M	M
Keeping to the rules of my organisation	13	0.002	3.81	3.78	3.27	3.21	H	H	M	M
Association with and learning from successful individuals outside the organisation	19	0.002	3.57	3.16	2.73	2.75	H	M	M	M
Luck has played a role in your career	24	0.001	2.74	2.00	2.02	1.94	M	L	L	L
Changing jobs within current industry	26	0.000	3.05	2.45	1.95	1.92	M	L	L	L
Changing jobs within current company	20	0.000	3.78	3.06	2.44	2.52	H	M	L	M
Improving education qualifications	14	0.000	3.95	3.47	2.98	2.88	H	M	M	M
Identification of opportunities to improve visibility and reputation at higher levels in the organisation	16	0.000	3.93	3.39	2.83	2.81	H	M	M	M
Eagerness to adopt new ways of working	7	0.000	4.28	3.82	3.49	3.54	H	H	M	H
Networking and relationship building with stakeholders like suppliers and customers	18	0.000	3.97	3.00	2.66	2.71	H	M	M	M
Networking and relationship building external to the company	22	0.000	3.45	2.33	2.27	2.35	M	L	L	L
Having a personal vision and development plan	10	0.000	4.16	4.08	3.29	3.27	H	H	M	M
Attending conferences	21	0.000	3.36	2.57	2.49	2.48	M	M	L	L
Presenting at conferences	25	0.000	2.78	2.20	1.85	1.87	M	L	L	L

Out of 26 variables analysed across the four sectors, only seven methods of acquiring career capital were significantly the same with six of the sectors having high averages and one having medium averages. The knowledge worker ranking from table 12 was also included in the above table to indicate the original rating of importance based on the knowledge workers perceptions. The rankings further indicate the spread of differences in terms of what knowledge workers in the different industries perceive as being important.

“Association with and learning from successful individuals inside the organisation” ranked the highest based on the p-value of 0.557. The averages for

the different sectors were all high, with the Manufacturing sector being the highest across the four sectors at an average of 4.10. “Ensuring multi-disciplinary exposure” was the seventh highest with a p-value of 0.066 with all sectors classified as having high categories.

23 variables analysed indicated differences across sectors with their p-values being < 0.05 . “Changing jobs across industries” ranked high based on the p-value of 0.027 for differences in method of acquiring career capital across the four industries. The averages for the different sectors were all low, with the Finance sector being the highest across the four sectors. “Changing jobs within current industry” was the tenth highest out of the 19 variables with a p-value of 0.000, with only the Finance sector classified as having medium and the remaining three sectors classified as low categories based on averages (Manufacturing, Public, Research and Development respectively). “Presenting at conferences” was the lowest rated on differences in method of acquiring career capital amongst the four sectors, with three out of four sectors scoring low ratings.

The above results will further be discussed in Chapter 6.

CHAPTER 6: DISCUSSION OF RESULTS

This chapter discusses the results of the research study with the aimed to answer the research questions outlined in Chapter 3. The sections below detail the findings of the study with reference to the literature review (Chapter 2), thus highlighting the relationship between the findings of the research and the literature reviewed.

6.1 Research Question 1: What are the components of career capital in the manufacturing industry and how are the components ranked in terms of importance?

This research question investigated the dominant career capital components that are perceived by knowledge workers in the manufacturing industry as being important and critical in assisting knowledge workers to build their own career capital. The important career capital components for knowledge workers in the manufacturing industry were identified by calculating the weighted sum and ranking the components in order of importance. The Likert scale modal response of all the 27 components of career capital indicated a minimum response of no less than three, as a result, emphasising the importance of all career capital components for knowledge workers in manufacturing.

Naidu (2009) summarised the history of the theory development in career capital as represented in Table 11as follows:

TABLE 15: A HISTORY OF THE THEORY DEVELOPMENT IN CAREER CAPITAL COMPONENTS (Naidu, 2009)

Bourdier (1986)		DeFillippi and Arthur (1994)	Jones and DeFillippi (1996)	Lamb (2007)	8 Components of Career Capital (Lamb, 2009)
Economic capital					Economic capital
Social capital		Knowing whom		Network of peers, colleagues and leaders	Knowing whom
Cultural capital	Embodied component	Knowing why			Knowing why
	Objectified component	Knowing how		Drive execution and delivery	Knowing how
	Institutionalised component			Qualification and calibre of education	
			Knowing What	Context Management; Fit	Knowing What (Context Management)
			Knowing When	Opportunity Identification; Fit	Knowing When and Knowing Where
			Knowing Where		
				Knowing oneself	Knowing oneself
				EQ and Social Intelligence	EQ
				Action orientation	Action orientation
				(Initiative in the business context)	(Initiative in the business context)

The summary above therefore enabled the findings of the top ten career capital components in manufacturing to be grouped in to themes as identified in the

literature review. Table 12 below outlines the themed and grouped top ten important components of career capital in manufacturing.

TABLE 16: THE TOP TEN IMPORTANT CAREER CAPITAL COMPONENTS IN MANUFACTURING GROUPED AND MAPPED TO EXISTING THEORY

Career Capital Groups	Overall Rank of career capital component	Career capital component	Literature relevance
Personal Attributes	1	Self motivation and drive	Action Orientation
	4	Determination and perseverance	Passion
	7	Knowing yourself or emotional Intelligence.	Knowing oneself
Personal Reputation	2	Being known for delivery and execution	Knowing whom
Social Intelligence	3	Ability to participate in a team (team player)	Knowing whom
	8	People skills; having good working relationships	Knowing whom
Technical Proficiency	5	Relevant hands on knowledge	Knowing how
Context Management	6	Flexibility and adaptability; Ability to adapt to various environments	Knowing what
	9	Ability to influence/motivate	Knowing what
Technical Proficiency	10	A comprehensive technical understanding. (To know why)	Knowing why

6.1.1 Discussion of the top ten most important career capital components

This section discusses the findings on the components of career capital with the link to the literature review, in the order of their importance as per the weighted sum of each career capital component.

6.1.1.1 Self motivation and drive

Self motivation and drive scored a weighted sum of 218 (Table 3), making this career capital component the most important for the knowledge workers in manufacturing. Table 3 further shows that out of 49 respondents, 26 rated this component a '5', 20 respondents rated it a '4' and 2 respondents rated it a '3'. Only 1 respondent rated the career capital component a '2'. Ibarra (2003) asserted that knowledge workers are making dramatic career changes in response to individual reflection and re-evaluation. Tharenou (2009) further stated that some have become more self-directed in their careers, self-initiating international careers, or choosing lateral, or even downward, job moves to fulfil personal needs (Hall, Gardner, & Baugh, 2008). Increasingly, individuals are driven more by their own desires than by organisational career management practises (Sullivan & Baruch, 2009).

6.1.1.2 Being known for delivery and execution

Being known for delivery and execution received the second highest score. This rating epitomises the nature of the manufacturing environment and the fast paced delivery requirements using the world class manufacturing systems such

as six sigma and just-in-time to name a few. The knowledge workers track record and experience in delivery and execution is therefore critical in building career capital, as it boosts confidence and gives an indication of the knowledge workers ability to perform and deliver in the future. The work of Inkson and Arthur (2001) confirmed and support the concept that knowledge workers generate experience and as they move and progress, this accumulated experience moves with the individual and becomes integrated into the texture of the new role and organisation.

6.1.1.3 Ability to participate in a team (Team player)

Ability to participate in a team scored a weighted sum of 212 (Table 3). 21 and 23 out of 49 respondents rated this component a '5' and '4' respectively. Knowledge workers in today's new world of work prefer work environments that are conducive for working and winning in teams. Nyembe (2009) highlighted that the modern day worker is comfortable with ambiguity, teamwork and relationship building as compared to traditional work contexts where management styles were commanding and controlling.

6.1.1.4 Determination and perseverance

Determination and perseverance scored a weighted sum of 207 (Table 3). 24 out of 49 respondents rated this component a '5'. Determination is foundational and key in a knowledge worker's quest for career success. From an awareness of personal needs, self-determined individuals choose goals; the doggedly pursue

them (Martin and Marshall, 1995). This involves asserting an individual's presence, making his or her needs known, evaluating progress toward meeting goals, adjusting performance and creating unique approaches to solve problems (Martin and Marshal, 1995).

6.1.1.5 Relevant hands on knowledge

Relevant hands on knowledge scored a weighted sum of 206 (Table 3). 26 out of 49 respondents rated this component a '4'. This is particularly true that the majority of the knowledge workers in manufacturing would deem this as one of the top 5 most important career capital component considering how technologically intensive and innovation driven the manufacturing industry is. It is therefore imperative that the "relevant hands on knowledge" is readily available for the industry to remain competitive. Inkson and Arthur (2001) supported this view in their definition that states that knowing-how career capital included the skills, expertise, and tacit and explicit work-related knowledge needed to carry out the job successfully. The term combines explicit knowledge, implicit experiences, soft skills, and technical expertise into a specific form of career capital that is clearly increased by the experience in and new context and a new job that comes with different assignments (Haslberger&Brewster, 2009).

6.1.1.6 Flexibility and adaptability; Ability to adapt to various environments

Flexibility and adaptability scored a weighted sum of 204 (Table 3). 21 out of 49 respondents rated this component a '5'. Ballout (2007) noted that portable skills, the motivation to tolerate change and ambiguity, foci for new learning, personal identification for new learning and the development of multiple networks of relationships are all integral aspects of the boundaryless career. Ballout (2007) further stated that boundaryless career as a new form of career is mostly described as an individual-focused approach, in which individuals are responsible for their careers and that their unique human resource qualities (including human capital and capabilities) drive their success in multi-employer settings.

6.1.1.7 Knowing yourself or emotional intelligence

Knowing yourself or emotional intelligence scored 203. Out of the 49 respondents, 21 rated the component a '5', 14 rated a '4' and 14 rated it a '3'. Knowledge workers who best know themselves have the highest propensity to take advantage of opportunities that will result in their career success. This is as a result of a clear understanding of the individual's own strengths and weaknesses, and the ability to maximise the strengths. Suutari and Smale (2008) emphasised in their work that knowing-why career capital consists of an individual understanding his/her own personal values, strengths and weaknesses, job-related motives and interests, and an overall self-awareness about what is necessary in order to be the master of their own career. Such self-

understanding establishes the confidence needed to pursue a desired career path and provides the motivation to achieve success in one's career (Cappellen & Janssens, 2005; Inkson & Arthur, 2001). In addition, it refers to the individual's capability to make the right career choices and look for the right kind of development paths across jobs and employers (Suutari & Smale, 2008). People who are self-aware are conscious of their strengths, weaknesses, goals, values, beliefs, and who they want to become (Forrier et al., 2009). Self-awareness is an 'internal career compass' providing direction (McArdle et al., 2007).

6.1.1.8 People skills; having good working relationships

The ability to influence/motivate scored a weighted sum of 203 (Table 3). 18 and 20 out of 49 respondents rated this component a '5' and '4' respectively. Having good working relationships is particularly important to ensure a reciprocal flow of information between knowledge workers and as a result fostering ease of knowledge transfer.

6.1.1.9 Ability to influence/motivate

Ability to influence/motivate scored a weighted sum of 203 (Table 3). 16 and 24 out of 49 respondents rated this component a '5' and '4' respectively. This career capital component scored the same as the people skills component, thus implying that the ability to influence and motivate goes hand in hand with having good people skills. Pringle and Mallon (2003) emphasised and described in their work that a knowledge worker is an employee with high level of experience and

worker's ability to leverage their social and human competencies to navigate and negotiate the business context speaks to understanding the political playing field and being decisive and persuasive in generating results.

6.1.1.10 A comprehensive technical understanding

A comprehensive technical understanding scored 202, thus making it the least popular career capital component out of the top ten career capital components. Out of the 49 respondents, 21 rated the component a '5', 15 rated a '4', 11 rated a '3' and 2 rated it a '2'. Again, because of the nature of the manufacturing industry and its high technological intensity, it was expected that this career capital component would form part of the top ten most important career capital components in manufacturing, with the majority of the 49 respondents rating it a critically important component. Work done by Haslberger and Brewster (2009) supports the finding in that, they asserted that the knowing-why capabilities are seen as fundamental for commitment, which in turn improves performance. This indicates that increasing a person's career capital is beneficial for both the individual and the organisation, as long as the individual is committed to stay (Haslberger & Brewster, 2009).

6.1.2 Summary of Career Capital Components in Manufacturing

The career capital components in the manufacturing industry represent a wide range of skill required for knowledge workers in this field. Self-motivation and

drive was the most valued career capital component out of the top ten whilst a comprehensive technical understanding was the least rated out of the top ten career capital components.

6.2 Research Question 2: How do you build career capital in a manufacturing environment and how are the methods ranked in terms of importance?

This research question investigated the dominant methods used by knowledge workers in manufacturing to build and acquire career capital. The important methods used for building career capital were identified by calculating the weighted sum and ranking the components in order of importance. The Likert scale modal response of the 24 methods of building career capital indicated a 79.3% response of no less than three, as a result, emphasising the importance of the majority of methods identified to build career capital for knowledge workers in manufacturing.

Naidu (2009) and Lamb (2007) identified and defined themes that summarised the career capital accumulation activities in to groups. The top ten methods of building career capital from the manufacturing industry study were grouped and mapped accordingly as indicated in Table 13 below:

TABLE 17: THE TOP TEN IMPORTANT METHODS OF BUILDING CAREER CAPITAL IN MANUFACTURING GROUPED AND MAPPED TO EXISTING THEORY

Career Capital Accumulation Activity	Rank	Methods of acquiring Career Capital	Accumulation Activity Groups (Lamb, 2007)
Building a personal brand	2	Ensuring that you deliver on your promise	Building social networks for increased visibility
	6	Networking and relationship building internal to the company	Building social networks for increased visibility
	5	Having a personal vision and development plan	Building social networks for increased visibility
	10	Keeping to the rules of my organisation	Building social networks for increased visibility
Challenging convention	7	Eagerness to adopt new ways of working	Challenging complacency
	9	Innovation in the way you work	Application of learning to new contexts
Continuous growth and development	1	Willingness to learn	Continual learning
	3	Further training and development	Continual learning
	8	Developing a complete competence in your role before seeking new opportunities	Learning from experience
Learning from and through other	4	Association with and learning from successful individuals inside the organisation	Learning from experience

6.2.1 Discussion of the top ten most important methods to acquire career capital

This section discusses the findings of the methods of building career capital with the link to the literature review, and are presented in the order of their importance as per the weighted sum of each method.

6.2.1.1 Willingness to learn

Willingness to learn scored a weighted sum of 220 (Table 7), making this method of building career capital the most important for the knowledge workers in manufacturing. Table 7 further shows that out of 49 respondents, 26 rated this method a '5', 21 respondents rated it a '4' and 2 respondents rated it a '3'. The knowledge workers expressed that the desire to learn and the willingness to put in an extra effort in acquiring knowledge, skills and experience is one of the important and essential determinants of success within the manufacturing industry. Arthur and Rousseau (1996) indicated in their work, that a shift from "bounded" careers prescribed by relatively stable organisational and occupational structures to "boundaryless" careers characterised by uncertainty and flexibility, has resulted in enforcing the need for employees to take charge of their careers (Banai & Wes, 2004), self-organise to learn, and make sense of their environment without external guidance (Littleton & Arthur, 2000).

6.2.1.2 Ensuring that you deliver on your promise

Being known for delivery and execution received the second highest score, with a weighted sum of 205. This method of acquiring career capital was rated by 21, 16 and 12 respondents, ratings of '5', '4' and '3' respectively, out of 49 respondents. DeFillippi and Arthur (1996) asserted that the energy and dynamism of the individual refers to knowing-why or the sense of purpose and motivation to deliver.

6.2.1.3 Further training and development

Further training and development scored a weighted sum of 204 (Table 7). 17 and 27 out of 49 respondents rated this method a '5' and '4' respectively. This method of acquiring career capital is supported by the work of Suutari and Makela (2007) through their affirmation that knowledge workers seek employment that enables them to progress and gives them enough flexibility to manage their personal goals. Employees seek regular training and development opportunities in order to acquire transferable skills, and are ready to work for a series of organisations (Banai & Wes, 2004).

6.2.1.4 Association with and learning from successful individuals from inside the organisation

This is the fourth important method of acquiring career capital. 15 and 25 respondents out of 49 respondents rated this method a "5" and "4" respectively. Having a successful career-coach to rub-off their skills and knowledge is

absolutely essential for a knowledge worker in manufacturing. This is supported by the work of DeFillippi and Arthur (1994) on knowing-whom career capital which refers to career-relevant networks and contacts, existing not only within the organisation but also outside, and include customer relationships, and professional and personal social connections (Parker & Arthur, 2000). It is closely related to the growing body of literature on social capital, referring to assets embedded in and available through a network of relationships (Adler & Kwon, 2002).

6.2.1.5 Having a personal vision and developmental plan

Having a personal vision and developmental plan scored a weighted sum of 200 (Table 7). 17, 20 and 11 out of 49 respondents rated this method a '5', '4' and '3' respectively. Fugate and Ashforth (2003) provided evidence in their work that supported the notion that a career identity provides a representation of "who I am" or "who I want to be" at work. Suutari and Makela (2007) further supported this notion by affirming that the knowledge worker realises their personal vision and developmental plan by having different work experiences and by developing knowing-why, knowing-how and knowing-whom career capital, thus as a result, developing their own career identities.

6.2.1.6 Networking and relationship building internal to the company

Networking and relationship building internal to the company scored a weighted sum of 187 (Table 7), making this the sixth most method of building career

capital. 12, 19 and 16 respondents out of 49 respondents rated this method a '5', '4' and '3' respectively. In the new world of work, knowledge workers are known for their mobility and the relationships they build through their boundaryless careers. Suutari and Makela (2007) supported this by reporting that, because of their mobility global managers encounter a significant number of people in different contexts, both within and outside their firms. These network relationships represent a wide range of contacts geographically, culturally, professionally and socially (Suutari & Makela, 2007).

6.2.1.7 Eagerness to adopt new ways of working

Eagerness to adopt new ways of working scored a weighted sum of 187 (Table 7). 14, 16 and 15 out of 49 respondents rated this method a '5', '4' and '3' respectively. The manufacturing industry presents an ever changing technological and creative environment that requires flexibility and adaptation of new ways of doing things by knowledge workers in various fields. Forrier, Sels and Steynen (2009) defined work-role transition as any change in employment status and job content. Transitions may involve changes in the level of hierarchy, function, centrality to power, (geographical) location, product or process, employer, employment status (for example, unemployment, retirement, reemployment), industry, and intensity of employment (such as full-time or part-time) (Gunz et al., 2007).

6.2.1.8 Developing a complete competence in your role before seeking new opportunities

Developing a complete competence in your role before seeking new opportunities scored a weighted sum of 186 (Table 7). 10, 22 and 14 out of 49 respondents rated this method a '5', '4' and '3' respectively. Much of the research and literature review focused on the experience, knowledge and skills that knowledge workers gather to enable their success in their chosen careers. Lamb and Sutherland (2010) acknowledged in their work that career capital typically grows through transfer, experience and exposure as knowledge workers move through and across organizations accumulating experiences in the boundaryless careers.

6.2.1.9 Innovation in the way you think

Innovation in the way you think scored a weighted sum of 186 (Table 7). 12, 18 and 16 out of 49 respondents rated this method a '5', '4' and '3' respectively. With the ever changing competitive landscape in the manufacturing industry, innovation remains the single most important trait for knowledge workers to remain relevant and be noticed.

6.2.1.10 Keeping to the rules of my organisation

Keeping to the rules of my organisation scored a weighted sum of 185 (Table 7). 16, 20 and 19 out of 49 respondents rated this method a '5', '4' and '3' respectively. As Baruch (2004) indicated 'why, how, and whom' are primarily individual assets of motivation, skills and relationships. This method of acquiring career capital links directly to 'further training and development (rated second)'

to enable knowledge workers in keeping to the rules of the organisation. This was further supported by Baruch (2004) in that the intelligent career places a great deal of emphasis on individual competencies and role behaviours, and on the connections between these competencies (application of the different forms of knowing) and organisational employment processes and practises.

6.2.2 Summary of Methods of Acquiring Career Capital Components in Manufacturing

There is a wide range of methods that knowledge workers in Manufacturing use to acquire career capital. Out of the 26 methods that were used for this analysis, willingness to learn and keeping to the rules of the organisation were rated amongst the top ten. Willingness to learn was rated the most important method of acquiring career capital, with keeping to the rules of the organisation being rated tenth.

6.3 Research Question 3: Research question 3 takes the form of Hypothesis Testing as follows:

Ho: The career capital components are the same for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Ha: The career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

6.3.1 Discussion of the differences and/or similarities of career capital components across the four sectors (Manufacturing, Research and Development, Finance and Public sectors).

This section discusses the findings of the differences and similarities of career capital components across the four sectors with a link to the literature review in the order of their importance as per the p-value of each component. Out of 27 variables analysed across the four sectors; only four career capital components were significantly the same with all their averages being high per sector. 'Educational qualifications' ranked the highest in similarities across the four sectors with a p-value of 0.991. The knowledge workers' averages for the four sectors were high for this career capital component. This is in agreement with Paton's (2005) definition of a knowledge worker that defined a knowledge worker as an educated individual in a specialist knowledge area. Van Staden and du Toit

(2010) were in agreement with this notion through their statement that the growth in certain economic sectors, coupled with knowledge workers entering retirement, creates a unique demand for knowledge workers. Such growth requires workers to obtain formal education to enter these areas of knowledge work (van Staden & du Toit, 2010). Once knowledge workers enter these sectors, continuing education will be required to ensure that their knowledge is kept up to date (van Staden & du Toit, 2010). Such a scenario highlights the need for continuous learning of knowledge workers as knowledge rapidly becomes obsolete in knowledge organizations (van Staden & du Toit, 2010).

'Self motivation and drive' was ranked fourth as a career capital component that is similar to the four industries with a p-value of 0.068. The averages from the knowledge workers were also high from the four sectors. This career capital component concurs with the assertions made by Currie et al. (2006), in that the change of career type from a traditional hierarchical career to a career characterized by a lack of organizational support and boundaries has shifted the responsibility from organizations to individual knowledge workers. With this shift in career types, the need for the knowledge workers to remain self motivated and driven is important to facilitate knowledge acquisition and constant achievement of success. However, this also poses a challenge for organizations in helping the knowledge workers to stay motivated. Mercer (2008) highlighted the need for organizations to address job designs, assignments and career progress to provide meaningful and challenging work that will lead to personal growth for

knowledge workers. People are motivated when they are interested in the job, even though they may find the status, perks or responsibility associated with it of little value (van Staden & du Toit, 2010).

23 out of the 27 career capital components indicated differences across the four sectors based on the p-values. The top 5 career capital components that indicated differences are as follows:

- A practical or pragmatic understanding of the technical and working environment (p-value = 0.046).
- Knowledge and understanding of the entire product life cycle or a system view (p-value = 0.035).
- A comprehensive technical understanding (p-value = 0.034).
- People skills; having good working relationships (p-value = 0.031).
- Being known for delivery and execution (p-value = 0.004).

'A practical or pragmatic understanding of the technical and working environment' and 'A comprehensive technical understanding' had similar p-value scores (p-value = 0.035 and 0.034 respectively) and also resulted in high averages across the four sectors. These career capital components indicated differences across all four sectors with their p-values < 0.05. van Staden and du Toit (2010) indicated in their study that the need to become a specialist is very important in a knowledge workers career path. The work done by Haslberger and Brewster (2009) supported this study's findings in that, they asserted that the

knowing-why capabilities are seen as fundamental for commitment, which in turn improves performance.

The analysis has also given insights in that, for the different sectors, a comprehensive technical understanding will not be the same because of the nature of the complexity in operations and products. To this point, as seen in Table 13, Research and Development, and Manufacturing industries scored the highest averages of 4.38 and 4.12 respectively on 'a comprehensive technical understanding' career capital component across the four industries. This therefore suggests the importance of this career capital in technologically intensive and complex environments such as High-Tech research and development, and to a lesser extent for industries such as the Finance and Public sectors. The career capital components that were used for this research study were industry specific.

6.3.2 Summary of differences and similarities of Career Capital Components across the four sectors

85.2% of the career capital components that were analysed resulted in differences across the four sectors. Therefore, only 14.8% resulted in similarities across the four sectors. This could be as a result of the differences in knowledge worker career capital requirements between the two technologically intensive sectors (Manufacturing and High Technology Research and Development) and the service based sectors (Public and Finance sectors).

The research hypothesis was to test if there were similarities and/or difference in the components of career capital among knowledge workers across the Manufacturing, Finance, High Technology Research and Development and Public sectors. Therefore the Null Hypothesis was that the components of career capital across the four industries are the same. A 95% significance level was used for the analysis. Out of 27 variables used for this research study, 4 variables accepted the null hypothesis (**Ho**) and 23 variables accepted the alternative hypothesis. Based on the results obtained above, the null hypothesis is therefore rejected in favour of the alternative hypothesis. There is strong statistical evidence in favour of the alternative hypothesis (i.e. **Ha**: The career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.)

6.4 Research Question 4: Research question 4 takes the form of Hypothesis testing as follows:

Ho: The methods of acquiring career capital components are the same for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

Ha: The methods of acquiring career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.

6.4.1 Discussion of the differences and/or similarities of methods used to acquire career capital across the four sectors (Manufacturing, Research and Development, Finance and Public sectors).

This section discusses the findings on the differences and/or similarities of methods used to acquire career capital across the four sectors with the link to the literature review, in a descending order of their similarity or difference as per the p-value of each method. Out of 26 variables analysed across the four sectors, only seven methods in acquiring career capital were significantly the same with six of the methods having high averages per sector. 'Association with and learning from successful individuals inside the organisation' ranked the highest in similarities across the four sectors with a p-value of 0.557. DeFillippi and Arthur (1994) and Parker and Arthur (2000) emphasized that knowing-whom career capital refers to career-relevant networks and contacts existing not only within the organization but also outside, and includes customer relationships, and professional and personal social connections. This method of acquiring career capital had strong similarities across the four sectors with very high averages obtained in all four sectors. 'Ensuring multi-disciplinary exposure' was rated seventh with a p-value of 0.066. This method of acquiring career capital was rated high across all the four sectors. This finding supports Naidu's (2009) assertion that the diversity in learning allows the knowledge worker to reinforce previous learning by repeating activities, to learn from new experiences and then to integrate learning and discover innovative solutions.

19 out of the 26 methods used to acquire career capital indicated differences across the four sectors based on the p-values. However, the top 5 methods of acquiring career capital that indicated differences are as follows:

- Changing jobs across industries ($p = 0.027$)
- Reading to keep updated with current industry events and issues ($p = 0.016$)
- Networking and relationship building internal to the company ($p = 0.014$)
- Adding value by challenging the status quo ($p = 0.012$)
- Ensuring that you deliver on your promise ($p = 0.009$)

‘Changing jobs across industries’ had p-value scores of 0.027 and resulted in very low averages across the four sectors. Although this method of building career capital showed substantial differences across the four sectors, the low averages indicate that this method was rated less important in acquiring career capital by knowledge workers. The low average rating is also in contradiction to what DeFillippi and Arthur (1996) ascertained in that the new world of work is characterized by a dynamic business environment that encourages knowledge worker mobility across organisations’ boundaries and has given rise to the boundaryless career where knowledge workers strive to develop their skills, capabilities and competencies to accumulate career capital that may be traded to organizations in the new world of work. ‘Ensuring that you deliver on your promise’ had high averages for the Finance and Public sectors at 4.69 and 4.44 respectively, thus indicative of the importance of this method of building career

capital in the services industries. Naidu (2009) noted that ensuring that you deliver on your promise; the knowledge worker builds a reputation for delivery making them the person that people in the organization first think of when allocating challenging work. This then affords the reputable knowledge worker greater access to opportunities for learning (Naidu, 2009). This method of building career capital has however indicated differences across the four sectors. The methods of acquiring career capital components used for this research study were industry specific.

6.4.2 Summary of differences and similarities in methods used to acquire Career Capital across the four sectors

73.1 % of the methods used to acquire career capital that were analysed resulted in differences across the four sectors. Therefore, only 26.9% resulted in similarities across the four sectors.

The research hypothesis was to test if there are similarities and/or difference in the methods used to acquire career capital among knowledge workers across the Manufacturing, Finance, High Technology Research and Development and Public sectors. Therefore the Null Hypothesis was that the methods used to acquire career capital across the four industries are the same. A 95% significance level was used for the analysis. Out of 26 variables used for this research study, 7 variables accepted the null hypothesis (**Ho**) and 19 accepted the alternative hypothesis. Based on the results obtained above, the null

hypothesis is therefore rejected in favour of the alternative hypothesis. There is strong statistical evidence in favour of the alternative hypothesis (i.e. **Ha**: The methods of acquiring career capital components are different for the following industries; Banking, High-Technology Research and Development, Manufacturing, and Public sector.)

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

In this chapter, major findings of career capital components and methods used to acquire career capital are briefly discussed in relation to the research objectives. Recommendations for knowledge workers and Human Resource practitioners are presented based on these findings. Finally, recommendations for future studies are tabled.

7.2 Major Findings

7.2.1 Career capital acquisition in Manufacturing Industry

Managing a career in the global economy has become increasingly important for global knowledge workers. As a result knowledge workers are faced with day to day challenges to maintain and acquire relevant skills and competencies to incrementally shape their global careers. Therefore, it has become paramount for knowledge workers to know and understand the career capital components that are required to ensure global career mobility and most importantly, how these components are acquired throughout a knowledge worker's career journey.

The findings for both career capital components and methods of acquiring career capital revealed that there are huge differences across the four sectors and that

that knowledge workers no longer depend on the traditional career requirements for their success within their corporate environment. The figure below depicts the dominant career capital components and methods of building career capital within the manufacturing industry.

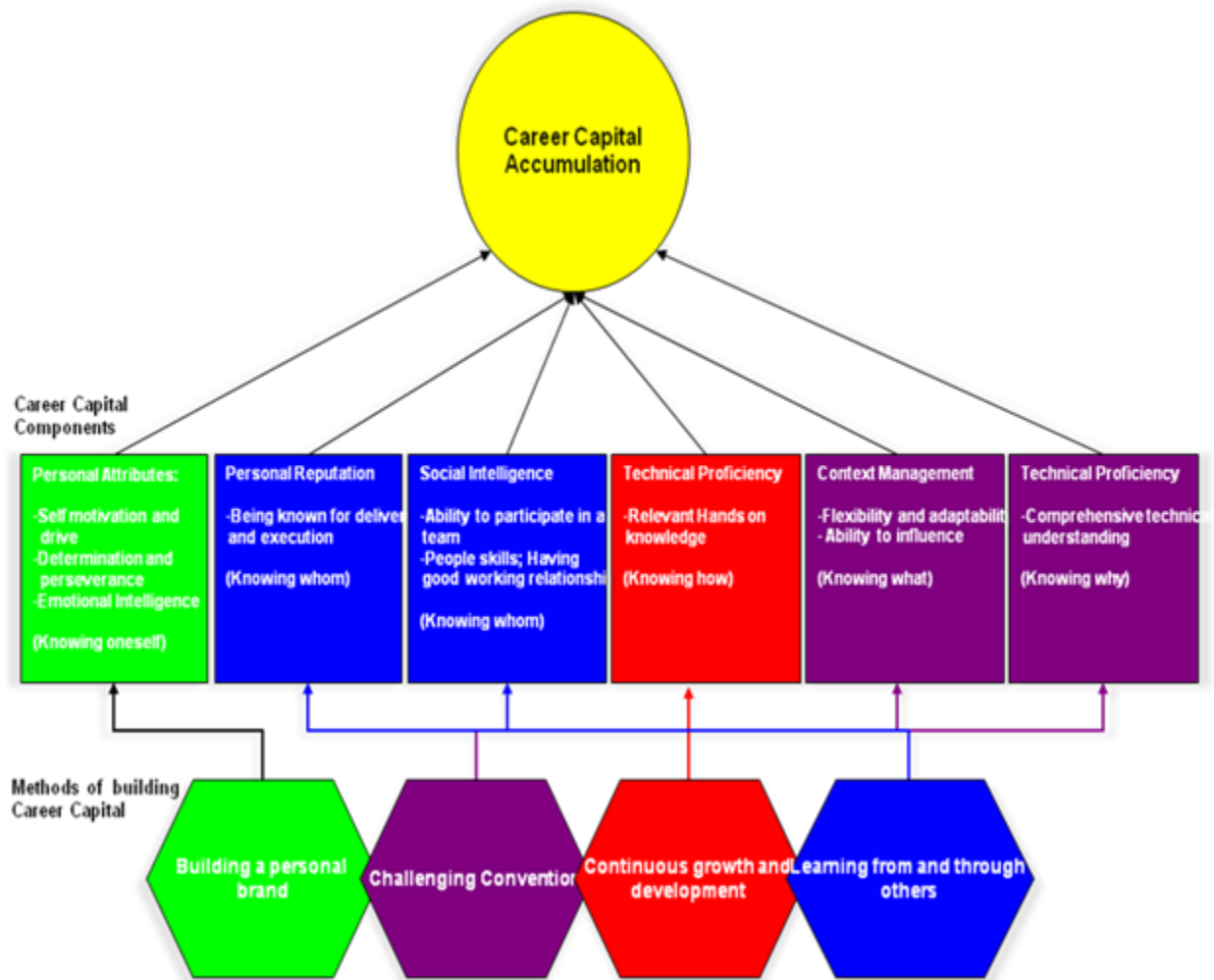


FIGURE 4: CAREER CAPITAL ACCUMULATION: Enabler – Core – Objective Model

The research findings revealed that building a personal brand, challenging convection, continuous growth and development and learning from others were the key enablers for knowledge workers to acquire career capital. The

conceptualization of this model was based on the results obtained and summarized in table 16. The different colours of this model indicate the link between an enabler (method of acquiring career capital) and its core career capital. These enablers form the major part of how a knowledge worker in the manufacturing industry builds his or her own career. This model also depicts the specific core components that are driven by the specific enabler. Personal reputation, social intelligence, context management and technical proficiency are the dominant themes that are overarching for the specific core career capital component for knowledge workers. This model therefore provides a good and simple summary of what is required for knowledge workers to build and acquire career capital in the manufacturing industry, and furthermore allows respective knowledge workers and HR practitioners in organizations to customize their career developments accordingly.

7.2.2 Career capital acquisition across the four industries (Public sector, Manufacturing, High Technology Research and Development and Finance)

The findings further gave insights in to the dominant similarities and differences in the career capital components and methods used in building them across four industries (Public sector, Manufacturing, High Technology Research and Development and Finance).The career capital concept points to the heightened importance and the challenge for the knowledge worker to focus on building relevant and recognisable career capital in the new world of work (Lamb

&Sutherland, 2010). The literature review further indicated that the new world of work is characterised by a dynamic business environment that encourages knowledge worker mobility across organisations' boundaries and which has given rise to the boundaryless career (Arthur &Rousseau, 1996) where knowledge workers strive to develop their skills, capabilities and competencies to accumulate a career capital that may be traded to organisations in the new world of work. To this point, the research indicated that there are a lot more differences than there are similarities in the career capital components and the methods used to acquire career capital across the four industries by the respective knowledge workers.

7.3 Recommendations for HR Practitioners

Traditional methods to attract and retain talented knowledge workers are proving to be unsustainable as knowledge workers are now equipped with tools and knowledgeable to build their own careers. The research findings and literature review further revealed that it is more pertinent now for HR practitioners to constantly stay relevant with their recruitment processes and strategies as knowledge workers no longer solely rely on job promotions and their organisations to gain experience and compete in the workplace. Organisations therefore, have an interest in retaining, engaging and managing knowledge workers (Snell, 2008). Organisations have to start accepting the changing psychological contract and respond accordingly (Nyembe, 2009).

The research further indicated that there are differences in the career capital components and the methods to acquire them across the different industries. HR practitioners thus need to be aware of these differences and customise accordingly to their relevant industries. This implies that the career capital components and the methods used to acquire career capital are industry specific and different across industries. Adding to this, HR practitioners need to find innovative ways that can assist them in gathering information and data on a regular basis from knowledge workers about what is relevant to build their careers. This will help the organisation to ascertain internal and external drivers that can improve the retention of knowledge workers and minimise knowledge worker turnover.

7.4 Recommendations for Knowledge Workers

Knowledge workers are increasingly independent from their organisations with respect to gaining career capital. Having said that, knowledge workers have to play an important role of influencing their workplace environment, to make it conducive for further acquisition of career capital for all knowledge workers. As a result, this will ensure a win-win situation for all knowledge workers and the organisation. Another important aspect for senior knowledge workers in learning and gaining career capital is from taking the position of mentors and coaches to junior knowledge workers. This will ensure knowledge transfer to the broader organisation, and at the same time enhancing leadership qualities and abilities

that will be required later in the senior knowledge worker's career. Knowledge workers need to also be aware of the similarities and differences that exist in career capital components and methods of acquiring career capital that are evident across the different industries and as a result, customise their career capital acquisition based on their industry aspirations. Knowledge workers need to continue working in cross-functional and multidisciplinary teams to enhance their learning experience and learn from others within the organisation.

7.5 Recommendations for future research

Based on the research findings, further research study in the following areas would assist in further understanding and gaining more knowledge on knowledge worker career capital accumulation:

- Are the similarities and differences in career capital components and methods to acquire career capital industry specific for example, service industry specific)? The current research has indicated huge differences in both career capital accumulation and methods of acquisition during the study of the two services industries (Finance and Public sectors) and the two highly technical industries (Manufacturing and Research and Development). A similar study be conducted exploring detail within a sector (such as the services sector), will give a broader and rich understanding of similarities and differences in career capital acquisition exist for knowledge workers in specific industries.

- Are there similarities and/or differences in career capital acquisitions between knowledge workers of different age groups in different sectors?
- Did the recent recession influence and introduce new innovative ways of building and acquiring career capital in the competitive labour market for knowledge workers? Again, was age a factor in these innovative career capital acquisitions across the different sectors?
- Is there a synergy between the factors that drive organisational energy and those that drive individual knowledge worker career capital accumulation?

7.6 Conclusion

The manufacturing industry is an extremely important sector in any economy. As a result, the relevant skills and the acquisition of those skills needs to be understood both from an individual level and organisational level, to drive industry growth and continue extracting value and innovation from knowledge workers. The similarities and differences that exist in career capital accumulation across different industries also need to be considered in the career capital acquisition processes. Furthermore the techniques that enhance the key set of skills that the knowledge worker would require holistically need to be considered to be competitive across many industries. These are also important for the HR practitioners and the recruiting organisations to understand in order to attract and retain the right talent for the organisation.

REFERENCE LIST:

Adler, P. S., & Kwon, S. (2002). Social Capital: Prospects for a new concept. *Academy of Management Review*, 27, 17-40.

Anderson, M. (2009). *Top ten predictions for 2009*. Retrieved June 20, 2011, from startegic news services podcast: www.tapsns.com/media.php

Arthur, M. (2008). Examining contemporary careers: A call for interdisciplinary inquiry. *Human Relations*, 61 (2), 163-186.

Arthur, M., & Rousseau, D. (1996). *The Boundaryless career: A new employment principle for a new organisational era*. New York, NY: Oxford University Press.

Banai, M., & Wes, H. (2004). Boundaryless global careers: the international itinerants. *International Studies of Management and Organisation*, 34 (3), 96-130.

Ballout, H. (2007). Career success: The effects of human capital, person-environment fit and organisational support. *Journal of Managerial Psychology*, 22 (8), 741-765.

Baugh, G., & Sullivan, S. (2005). Mentoring and career development. *Career Development International*, 10 (6-7), 425-426.

Baruch, Y. (2006). Career development in organisations and beyond: Balancing traditional and contemporary viewpoints. *Human Resource Management Review*, 16, 25-138.

- Baruch, Y. (2004). *Managing careers: Theory and practice*. Harlow: UK: Prentice-Hall.
- Bluman, A. (1997). *Elementary Statistics: A step by step approach, 3rd Edition*. New York: McGraw-Hill.
- Blumberg, B., Cooper, D., & Schindler, P. (2008). *Business Research Methods, Second European Edition*. London: McGraw-Hill.
- Boxall, P. (2007). The goals of HRM. *The Oxford Handbook of Human Resources Management*. Oxford: Oxford University Press
- Burfitt, A., & Ferrari, E. (2008). The housing and neighbourhood impacts of knowledge-based economic development following industrial closure. *Policy Studies, 29* (3), 293-304.
- Cappellen, T., & Janssens, T. (2005). Career paths of global managers: Towards future research. *Journal of World Business, 40*, 348-360.
- Carter, C. & Scarbrough, H. (2001). Towards a second generation on KM? The people management challenge, *Education + Training, 43* (4/5)
- Clarke, M. (2001). The knowledge economy. *Education + Training, 43* (4), 189-196.
- Clarke, M., & Patrickson, M. (2008). The New covenant of employability. *Employee Relations, 30* (2), 121-141.
- Coy, P. (2002). High turnover, high risk. *Businessweek*, 3776 pp. 101 -190.

Crosson, S. (2009). Building career capital for senior managers in the South African public sector – *Unpublished MBA Research Report*. Gordons Institute of Business Science at the University of Pretoria. Johannesburg: GIBS.

Currie, G., Tempest, S., & Starkey, T. (2006). New careers for old? Organisational and individual responses to changing boundaries. *International Journal of Human Resource Management*, 17 (4), 755-774.

Dang, D., & Umemoto, K. (2009). Modelling the development toward the knowledge economy: a national approach. *Journal of Knowledge Management*, 13 (5), 358-372.

DeFillippi, R., & Arthur, M. (1996). The Boundaryless career: A Competency-based perspective. *Journal of Organisational Behaviour*, 15 (6), 307-324.

DeFillippi, R., Arthur, M., & Lindsay, V. (2006). *Knowledge at work: Creative Collaboration in the New Economy*. Malden, MA: Blackwell.

Donnelly, R. (2009). Career behaviour in the knowledge economy: Experiences and perceptions of career mobility among management and IT consultants in the UK and the USA. *Journal of Vocational Behaviour*, 75, 319-328.

Donnelly, R. (2009). The knowledge economy and the restructuring of employment: the case of consultants. *Work Employment Society*, 23 (2), 323-341.

Ducker, P. (1994, November). The age of social transformation. *The Atlantic Monthly*

Edvinsson, I (2002) The new knowledge economics, *Business Strategy Review*, 13(3), 72 – 76.

Evans, C. (2003). *Managing for knowledge - HR's strategic role*. Oxford: Butterworth-Heinemann.

Feldman, D., & Ng, T. (2007). Careers: Mobility, embeddedness and success. *Journal of Management*, 33, 350-377.

Forrier, A., Sels, L., & Steynen, D. (2009). Career mobility at the intersection between agent and structure: A conceptual model. *Journal of Occupational and Organisational Psychology*, 82, 739-759.

Freeze, R., & Kulkarni, U. (2007). Knowledge management capability: defining knowledge assets. *Journal of Knowledge Management*, 11 (6), 94.

Froneman, S. (2008). *A roadmap of career capital accrual for knowledge workers sector – Unpublished MBA Research Report*. Gordons Institute of Business Science at the University of Pretoria. Johannesburg: GIBS.

Fugate, M., & Ashforth, B. (2003). Employability: the construct, its dimensions, and applications. *Academy of Management Proceedings* .

Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behaviour*, 65, 14-38.

Glass, G. (1976). Primary, Secondary and meta-analysis of research. *Educational Researcher*, 5 (10), 3-8.

Grobler, P., Warnich, S., Carrell, M., Elbert, N., & Hatfield, R. (2006). *Human Resource Management in South Africa*. London: Thomson Learning.

Gunz, H., Peiperl, M., & Tzabbar, D. (2007). *Boundaries in the study of careers*. Thousand Oaks, CA: Sage.

Hall, D. T. (2002). *Careers in and out of organisations*. Thousand Oaks, CA: Sage.

Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behaviour*, 65, 1-13.

Hall, D., Gardner, W., & Baugh, S. (2008). *The questions we ask about authenticity and attainability: How do values and beliefs influence our career decisions?* Anaheim, CA: Careers division themesession panel discussion presented at the academy of management.

Halim, H., Beck, J., & Choo, S. (2009). A cross national study of human resource strategies in managing knowledge workers between Malaysia and Singapore. *Labour and Management in Development*, 10.

- Haslberger, A., & Brewster, C. (2009, May-June). Capital gains: Expatriate adjustment and the psychological contract in international careers. *Human Resources Management, 48* (3), pp. 379-397.
- Herriot, P. (1998). Careers. (M. Poole, & M. Warner, Eds.) *The Handbook of Human Resource Management*, 469-480.
- Ibarra, H. (2003). *Working Identity: Unconventional strategies for reinventing your career*. Cambridge, MA: Harvard Business School Press.
- Inkson, K., & Arthur, M. (2001). How to be a successful career capitalist. *Organisational Dynamics, 30* (1), 48-61.
- Keller, G., Warrack, B., & Bartel, H. (1994). *Statistics for Management and Economics*. Duxbury, California.
- King, Z., Burke, S., & Pemberton, J. (2005). The bounded career: An empirical study of human capital, career mobility and employment outcomes in a mediated labor market. *Human Relations, 58*, 981-1007.
- King, Z., & Inkson, K. (2011). Contested terrain in careers: A psychological contract model. *Human Relations, 64* (1), 38-57.
- Kuijpers, M., & Scheerens, J. (2006). Career competencies for the modern career. *Journal of Career Development, 32* (4), 303-319.

Lamb, M. (2007). The components of career capital for knowledge workers in the global economy – *published MBA Research Report*. Gordons Institute of Business Science at the University of Pretoria. Johannesburg: GIBS.

Lamb, M., & Sutherland, M. (2010). The components of career capital for knowledge workers in the global economy. *The International Journal of Human Resource Management*, 21 (1-3), 295-312.

Lawrence, B., & Tolbert, P. (2007). *Organisational demography and individual careers: Structure, norms and outcomes*. Thousand Oaks, CA: Sage.

Lin, C., Kuo, T., Kuo, Y., Ho, L., & Kuo, Y. (2008). The KM chain - empirical study of the vital knowledge sourcing links. *Journal of Computer Information Systems*, 48 (2), 91-99.

Littleton, S., & Arthur, M. (2000). *The future boundaryless careers*. Cambridge: Cambridge University Press.

Martin, J. E., & Marshall, L.H. (1995). Choice maker: A comprehensive self-determination transition program. *Intervention in school and clinic*, 30, 147 – 156.

McArdle, S., Waters, L., Briscoe, J. P., & Hall, D. T. (2007). Employability during unemployment: Adaptability, career identity and human and social capital. *Journal of Vocational Behaviour*, 71, 247-264.

McCall, C.H. (2001). An empirical examination of the likert scale: some assumptions, development, and cautions. *Proceedings of the 80th Annual CERA Conference*, November 15-16, 2001 South Lake Tahoe, CA

Meisinger, S. (2006). Talent management in a knowledge-based economy. *HR Magazine*, 5 (1), 10.

Mercer. (2008, July 23). Brainpower: rewarding knowledge workers. Retrieved April 03, 2011, from Mercer web site: www.mercer.com/referencecontent.htm?idContent=1314145

Naidu, G. (2009). Building Career Capital in High Technology Research and Development Organisations sector – *Unpublished MBA Research Report*. Gordons Institute of Business Science at the University of Pretoria. Johannesburg: GIBS.

Ng, T., Sorensen, K., Eby, L., & Feldman, D. (2007). Determinants of job mobility: A theoretical integration and extension. *Journal of Occupational and Organisational Psychology*, 80, 363-386.

Nyembe, E. (2009). Career Capital for High-Value Knowledge Workers in a South African Bank sector – *Unpublished MBA Research Report*. Gordons Institute of Business Science at the University of Pretoria. Johannesburg: GIBS.

Ohmae, K. (2001). *Der Unisichtbare Kontinent: Vier strategische Imperatives fur die New Economy*. Vienna: Ueberreuter.

Ongori, H. (2007). A review of literature on employee turnover. *African Journal of Business Management*, 1 (3), 49-54.

Parker, H., & Arthur, M. (2000). *"Careers, organising and community"*. Oxford: Oxford University Press.

Paton, S. (2005). In search of the knowledge worker, Working paper *Labour Process Conference*. Retrieved September 10, 2011 from:
www.hrm.strath.ac.uk/ILPC/2005/conf-papers/Paton.pdf

Perotti, J. W., Wall, P., & McLaughlin, G. (2010). The future of knowledge work: predictions for 2020. *On the Horizon*, 18 (3), 213-221.

Pringle, J., & Mallon, M. (2003). Challenges of the boundaryless odyssey. *International Journal of Human Resources Management*, 14 (5), 839-853.

Rosenbaum, J. (1986). *Institutional Career Structures and the Social Construction of Ability*, in Richardson (ed.). Connecticut: Greenwood Press.

Snell, A. (2008). The Future of Talent Management, *Workforce Management*. 87(20) 55 – 56.

Statistics South Africa. (2011). *Manufacturing Production and Sales*. Retrieved May 22, 2011, from: www.statssa.gov.za

Sullivan, S. (1999). The changing nature of careers: A review and research agenda. *Journal of Management*, 25, 457-484.

Sullivan, S., & Arthur, M. (2006). The evolution of the boundaryless career concept: Examining physical and psychological mobility. *Journal of Vocational Behaviour*, 69, 19-29.

Sullivan, S., & Baruch, Y. (2009). Advances in career theory and research: A critical review and agenda for future exploration. *Journal of Management*, 35 (6), 1542-1571.

Sutherland, M., & Jordaan, W. (2004). Factors affecting the retention of knowledge workers. *South African Journal of Human Resource Management*, 2 (2), 63-72.

Suutari, V., & Makela, K. (2007). The career capital of managers with global careers. *Journal of Managerial Psychology*, 22 (7), 628-648.

Suutari, V., & Smale, A. (2008). Designing IB curricula for future global careerists: A boundaryless career perspective. *Journal of Teaching in International Business*, 19 (2), 167-191.

Svetlik, I., & Stavrou-Costea, E. (2007). Connecting human resources management and knowledge management. *International Journal of Manpower*, 28 (3-4), 197-206.

Tharenou, P. (2007). Self-initiated international careers: Gender difference and career outcomes. In S. G. Baugh & S. E. Sullivan (EDs.). *Maintaining energy, focus and options over the career: Research in careers*, 1, 197-226. Charlotte, NC: Information Age.

- The Centre for International Labour Market Studies. (2011). *Labour Market Intelligent Survey*. Robert Gordon University.
- Thite, M. (2004). Strategic positioning of HRM in knowledge-based organisation. *The Learning Organisation*, 11 (1), 28-44.
- Trevor, C. (2001). 'Interactions amongst ease-of-movement determinants and job satisfaction in the prediction of voluntary turnover'. *Academy of Management Journal*, 44, 621-638.
- van Staden, R., & du Toit, A. (2011). Career development of South African knowledge workers. *Centre for Information and Knowledge Management*, 14 (1), 80-91.
- Verbruggen, M., Sels, L., & Forrier, A. (2007). Unraveling the relationship between organisational career management and the need for external career counselling. *Journal of Vocational Behaviour*, 71, 69-83.
- World at Work. (2007). *Telework Trendlines for 2006*. Retrieved June 20, 2011, from World at Work: www.worldatwork.org/waw/adimLink?id=17182
- Wu, H., Feng, T., & Chung, T. (2010). Studies of VOCs removed from packed-bed absorber by experimental design methodology and analysis of variance. *Chemical Engineering Journal*, 157, 1-17.
- Zikmund, W. (2003). *Business Research Methods*. United States of America, South Western a division of Thomson Learning .

Appendix A: Questionnaire - Career Capital Components (Naidu, Crosson and Nyembe, 2009)

SURVEY INTRODUCTION

I am conducting research on how career capital is accumulated by individuals in the manufacturing environment. I need to determine what career capital consists of and how it is accumulated in the manufacturing environment such as in South African Breweries so that we understand how people like yourselves build your careers.

What is career capital?

Career capital is the sum of the value that employees have collected through their background and experience. For example a medical doctor's career capital might consist of an original qualification, experience in a specialisation and building up a reputation amongst patients and through teaching at a medical school which all lead to him acquiring patients. When you look at becoming a part of an organisation, you need to show the career capital that you have to invest in an organisation. If you are part of a company, career capital is the resources you have at your disposal that allows you to excel in your job and to be given promotions. Career capital then consists of many components that are accumulated through one's career.

You are requested to please complete the attached survey that should take no more than 10 minutes of your time. Your participation is voluntary and you may withdraw at any time without penalty. The survey does not require you to put your names down. All data will be kept confidential. If you have any concerns, please contact me or my supervisor. Our details are provided below:

	Researcher	Supervisor
Name:	Mr. SetebeSeabela	Prof. Margie Sutherland
Email:	Setebe.seabela@za.sabmiller.com	sutherlandm@gibs.co.za
Phone:	+27 76 922 3779	+27 11 771 4362

CONTINUED ON NEXT PAGE.....

Survey questions

You are **not required** to put your name down.

Please indicate answers by placing a **X** in the appropriate boxes.

Age	20 - 29	30 - 39	40 - 50	>50
Code	1	2	3	4

Gender	Male	Female
Code	1	2

Role/Current Area:	Engineer/ Scientist Non managerial	HR	Line Management Executive	Other (Please specify)
Code	1	2	3	

Years of experience in Manufacturing environment	< 1 year	2 - 5 years	5 - 10 years	> 10 years
Code	1	2	3	4

Highest level of Education	Matric	Diploma	Degree	Postgraduate Degree
Code	1	2	3	4

Question 1: How important have the following career capital components been in building your career capital?

Please rank your response on the 5 point scale by marking with **X** in the appropriate block in the table below.

Please vary your responses along the scale as far as possible.

Career Capital Components

Code	1	2	3	4	5
	Not important at all		Some-what important		Critically important
Flexibility and adaptability; Ability to adapt to various environments					
Educational qualifications					
Business acumen; understanding of the business bigger picture					
A comprehensive technical understanding. (To know why)					
A practical or pragmatic understanding of the technical and working environment					
Technical ability (To know how)					
Relevant hands on knowledge					
Experience in industry					
Knowledge and understanding of entire product life cycle or a system view					
Ability to identify new opportunities for the organisation					
Personal reputation					
Multi disciplinary experience i.e. experience in diverse disciplines e.g. different roles in the organisation					
Networking within the organisations					

Code	1	2	3	4	5
	Not important at all		Some-what important		Critically important
Networking with stakeholders like customers and suppliers.					
Networking external the company					
Action orientation					
Determination and perseverance					
Passion for the industry environment					
Being known for delivery and execution					
Self motivation and drive					
Ability to participate in a team (team player)					
Ability to lead a team (team leader)					
Ability to influence/motivate					
Knowing yourself or emotional Intelligence.					
People skills; having good working relationships					
Understanding your reactions and feelings to different situations					
Understanding challenges of managing in your industry and working environment					

Additional Career Capital Components

Other components that you have encountered: Please say what they are and then rate them:					
Code	1	2	3	4	5
	Not important at all		Some-what important		Critically Important

CONTINUED ON NEXT PAGE.....

Question 2: Which of the following methods have you used to build your career capital?

Please rank your response on the 5 point scale by marking with **X** in the appropriate block in the table below.

Please vary your responses along the scale as far as possible.

Building Career Capital

Code	1	2	3	4	5
	Not used at all		Some-what used		Used extensively
Changing jobs across industries					
Changing jobs within current industry					
Changing jobs within current company					
Depending on my original qualification					
Further training and development					
Improving education qualifications					
Identification of opportunities to improve visibility and reputation at higher levels in the organisation					
Ensuring multi-disciplinary exposure					
Being mentored or coached					
Eagerness to adopt new ways of working					
Willingness to learn					
Networking and relationship building internal to the company					

Code	1	2	3	4	5
	Not used at all		Some-what used		Used extensively
Networking and relationship building with stakeholders like suppliers and customers					
Networking and relationship building external to the company					
Luck has played a role in your career					
Developing a complete competence in your role before seeking new opportunities					
Reading to keep updated with current industry events and issues					
Adding value by challenging the status quo					
Innovation in the way you work					
Keeping to the rules of my organisation					
Association with and learning from successful individuals inside the organisation					
Association with and learning from successful individuals outside the organisation					
Having a personal vision and development plan					
Ensuring that you deliver on your promise					
Attending conferences					
Presenting at conferences					

Additional Ways to Build Career Capital

Other ways you have developed your career: Please say what they are and then rate them:					
Code	1	2	3	4	5
	Not used at all		Some-what used		Used extensively

