



**TO WHAT EXTENT IS THE SKILLS SHORTAGE DEBATE
INSTRUMENTALLY INFORMING POLICY MAKERS IN THE PRIVATE
SECTOR?**

Thesis submitted for the degree of Doctor of Social Science

School of Business

University of Leicester

2020

By

Tadiwa Muradzikwa

ABSTRACT

Using a qualitative approach, the thesis explores comparatively whether the skills shortage debate in Zimbabwe and Canada is influencing private sector recruitment and training policies. Though, numerous scholarly works have explored the skills shortage debate, the extent to which the debate is instrumentally informing policy makers to enable them to develop effective recruitment and training policies remains unclear. The thesis aims to address this gap, as current literature does not clearly reveal the extent to which private sector policy makers are aware of the debate or even paying attention to the debate when developing their policies.

Though, the skills shortage debate cuts across various sectors, information and communications technology (ICT) positions were chosen as the focus of the study because the debate is prevalent in the sector.

The case study research design is applied to reveal policy makers' perceptions on the topic. 20 interviews with private sector human resources management executives and documentary evidence were used for triangulation purposes. The thesis relies on human capital theory and institutional theory, amongst others, to enhance understanding of the labour market processes and explain the relationship between the skills shortages debate and private sector recruitment and training policies in the two countries. The theories facilitate conceptualisation of the causes of skills shortages in the labour markets.

The main finding of the study is that the skills shortage debate is not directly influencing recruitment and training policies in the private sector. The skills deficit debate was not instrumentally informing policy makers in the private sector because there are barriers that are deterring the knowledge transfer between industry and academia. There was limited interaction between academia and industry which deterred the debate from influencing policies. Private sector executives were not paying attention to academic research because of lack of confidence in the education system and in some instances, a perception that institutions of higher learning were slow at adapting to the evolving changes. The findings in Harare and Montreal showed that the policy formulation process was influenced by other multiple external and internal contextual factors confronting the organisations. The skills gap debate was not among the everyday realities.

ACKNOWLEDGEMENTS

I would like to express my deepest appreciation to my supervisors, Dr Réka Plugor and Dr Martí López-Andreu for their patience and guidance from the beginning to completion of the thesis. Without their support completion of the thesis would not have been possible.

I would like to thank my wife (Mutsa Muradzikwa), children (Elkanah and Talia), father (Gresham Muradzikwa) and mother (Chido Muradzikwa) for their support and encouragement throughout my studies. Above all to God for his Grace.

CONTENTS

Chapter 1 - Introduction

1.1.	Introduction	1
1.2.	Background to the Problem	8
1.3.	Aim of the study	13
1.4.	Research Questions	13

Chapter 2 - Literature Review

2.1.	Introduction	15
2.2.	The Labour Market Theories and Skills Shortage	15
2.3.	Skills Shortage Debate	19
2.4.	Academic Debate on Skills Shortage	22
2.5.	Practitioners' Views on Skills Shortage Debate	32
2.6.	Policy interventions	35
2.7.	The Barriers to knowledge transfer between academia and industry	40
2.8.	Conclusion	42

Chapter 3 – Research Methodology

3.1.	Introduction	45
3.2.	Research Questions	45
3.3.	Rationale of The Research Methodology	46
3.4.	Research Design	49
3.5.	Contextual Background	51
3.6.	Sampling	57
3.7.	Data Collection Methods	63
3.7.1.	The Research Instrument -Interview Questions Construction	64
3.8.	Pilot Study	65
3.9.	The Research Processes	67
3.10.	Data Analysis	68
3.10.1.	Interview Transcripts Analysis	68
3.10.2.	Documentary Evidence Analysis	70

3.11.	Rigor and Transparency	71
3.12.	Ethical Considerations	73
3.14.	Conclusion	75
Chapter 4 - Results and interpretation of findings		
4.1.	Introduction	77
4.2.	Definition of Skills	77
4.3.	Are Policy Makers in The Private Sector Influenced by The Academic Debate on Skills Shortage When Making Policy Decisions?	81
4.4.	What Do Policy Makers Take into Consideration when developing Recruitment and Training Policies?	88
4.5.	Final Remarks	93
4.6.	Conclusion	94
Chapter 5 - Discussion		95
Chapter 6 - Conclusion		
6.1.	Introduction	104
6.2	Contributions	106
6.3	Future Research	108
6.4	Limitations of the Study	109
6.2.	Final Remarks	109
References		111
Appendices		136

CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION

The study investigates the extent to which the skills shortage debate in the academia is influencing the human resources management policies and practices in the private sector. This study will narrow its focus on recruitment and training policies. In other words, it explores whether the debate is influencing the recruitment and training policy choices of private sector human resources management executives. Given the divided opinions on the existence of skills shortages, lack of empirical tools for measuring skills shortages, and ambiguous definition of skills etc.

Colebatch (1998) defines policy makers as “different bodies” including senior managers of companies that establish rules and make decisions to either retain stable and predictable patterns or to alter the status quo in the organisations. In this study, the policy makers are human resources managers or directors who are involved in developing recruitment and training policies.

According to Shah and Burke (2003:5), a “skill is an ability to perform a productive task at certain level of competence”. Skills are acquired through formal training and informal learning. In addition, skills can be categorised into generic skills or firm specific skills. The generic skills are transferable across organisations. Generic skills include the following: basic literacy skills, numeracy skills, computer literacy, interpersonal skills, communication, teamwork, problem solving skills, reliability, motivation, punctuality etc. (Gamble et al., 2010; Shah and Burke, 2003). Firm specific skills include tacit and technical expertise that are unique to certain professions and are not easily transferable across occupations (Gamble et al., 2010). From these diverse definitions, one can deduce that the term skills is a contested term with multiple meanings. Therefore, this study will examine the impact of the equivocal nature of the term on the policy decision making process. It attempts to assess whether this ambiguity is deterring policy makers from

conceptualising the debate. The research also examines whether the vagueness of the term inhibits the private sector from applying valuable information the debate generates to eradicate the skills shortages in their organisations.

The debate comprises of two main opposing perspectives. On one end of the spectrum pro-skills shortage deficit view supporters and on the other supporters of the anti-skills shortage view. Bayer Corporation (2014) also acknowledges the existence of the debate. It postulates that there are conflicting views on the shortage of STEM workforce (science, technology, engineering and mathematics workers) in the US (Bayer Corporation, 2014). The pro-skills shortage protagonists (include the academia, governments and practitioners etc.) postulate that skills shortages are pervasive (Kirlidog et al., 2018; Asliturk et al., 2016; ICTC, 2012; ICTC, 2017, Caldwell, 2013; Foster, 2014; Osborne, 2012; Jackson et al., 2002; Stern, 2001; Dychtwald et al., 2006; Marriotti, 1997; Grasz, 2014; Clarke and Herrmann, 2007; Tiaki, 2014; McGrath-Champ et al., 2006). The supporters of the pro-skills shortage view postulate that skills shortages are a recurring universal problem which is negatively impacting business operations, eroding profits, inhibiting economic growth etc. The contrasting view comprises of anti-skills shortage proponents (for example, scholars, governments, recruitment practitioners etc) who dispute the ubiquity of skills shortages and in other instances, they completely reject the existence of skills shortages (Thomson et al., 2018; Benderly, 2014; Ryan, 2015; Murphy, 2014; McLaughlin, 2014; Jones, 2013; Salzman et al., 2013; Rothstein, 2012; Ozimek, 2013; Schied, 2014; Matloff, 2002; Cappelli, 2015; Freeman, 2006).

The pro skills shortage view supporters use statistical evidence to support their position that shortages of STEM workforce are universal (Bayer Corporation, 2014). A 2014 survey among US contractors conducted by the Associated General Contractors of America found that 83% of the organisations are finding it hard to get skilled workers. A 2014 OECD economic survey in Canada reported shortages of ICT practitioners in Alberta and Saskatchewan (OECD, 2014). A 2013 REC/KPMG UK report on jobs showed 14 areas of skill shortage. The number increased to 47 areas in the first quarter of 2014 (Anonymous, 2014). The argument for pervasiveness of skills shortage has been used to push for the training agenda.

In contrast, anti-skills shortage proponents argue that the claim that skills shortages are universal is a figment of imagination because the overall number of graduates has been increasing exponentially. Their position is that pro-skills shortage view supporters take for granted that shortages exist without scrutiny because empirical evidence on the ground suggests that the complaints are not warranted. The anti-skills shortage supporters use the increase in cases of credential inflation and increase in youth unemployment as evidence to prove that there are no skills shortages (Cappelli, 2015). The anti-skills shortage view supporters criticise the pro-skills shortage view supporters for heavily relying on employer-based reports which are grossly biased. The skills deficit argument has been found wanting because it lacks specifics on who lacks what skills (Schied, 2014). Furthermore, critics indicate that the “range of skills identified as deficient are similarly vague and wide” (Schied, 2014:555).

Anti-skills shortage view criticises the employers for creating artificial shortages through their unrealistic expectations, inefficient hiring practices that screen out good candidates, lack of strategic fit between selection, induction and organisational goals. They also criticise employers for inefficient talent management plans, low wages, outdated recruitment practices that fail to attract talent, disgruntled managers who wish to exercise their power through stalling the recruitment process, age discriminatory practices, defunct collaborations between tertiary institutions and industry (Benderly, 2014; Ryan, 2015; Murphy, 2014; McLaughlin, 2014; Jones, 2013). Given this background, this study seeks to establish whether the debate is enlightening employers in seeing how their practices are also contributing to skills shortages.

Other anti-skills shortage scholars argue that if skills shortages are widespread, one would witness a universal rise in wages in the industries. For instance, Ozimek, (2013) postulates that there are no skills shortages in the USA because there is no evidence of rising wages. Cappelli (2015:251) states that in the USA, “very little evidence is consistent with the complaints about a skills shortage, and a wide range of evidence suggests that the complaints are not warranted”. An article in the Star newspaper states that “detective work by economists, journalists, social media sleuths and investigators at the parliamentary budget office proved that the federal government was using unreliable statistics to support its claim that Canada had plenty of jobs but no workers with the skills to fill them” (Goar, 2014:1).

Though the skills shortage discourse seems to be a universal phenomenon, this study will concentrate on two cases, i.e. (Montreal) Canada and (Harare) Zimbabwe. The rationale for selecting the two cases is that, despite their significant contrast in terms of cultural, economic and geographical backgrounds (the former a western or developed country and the later a developing country), the debate is prevalent in Canada and Zimbabwe. (Asliturk et al., 2016; Thomson et al., 2018; Mena Report, 2013; OECD, 2014; Gray et al., 2014; Mavhiki et al., 2013; Goar, 2014). OECD (2014) survey in Canada concludes that there are massive shortages of the STEM (science, technology, engineering and mathematics) fields because vacancy rates have significantly exceeded the number of job seekers for example in Alberta and Saskatchewan provinces. Skills shortage view supporters in Canada attribute pervasive shortages to retirement of baby boomers, economic growth, technological advances, immigration system not bringing in workers with required skills etc. The opposing view refutes the pro-skills deficit view stating that Canada is not experiencing skills shortages (Meredith, 2011; McDaniel et al., 2015; McQuillan, 2013).

In Zimbabwe, the skills deficit supporters argue that shortages are widespread in the country because the education system is not producing qualified workers. Other causes include the economic crisis, a collapsed apprenticeship system and brain drain (Muchabaiwa and Muyambo, 2017). However, academics in Zimbabwe such as Garwe (2014b) and Al-Samarrai and Bennell (2003) refute this view.

The study focuses on the two cases because it is interesting to establish how policy makers in those countries perceive and respond to the debate given the significantly different contexts. The sharp contrast between the cases is a strength of this study because it offers an opportunity to compare the situations in the two countries that are significantly different in terms of cultural, socio-economic and geographical backgrounds. It facilitates conceptualisation of the policy decision-making processes in the private sector companies in the two countries.

While the skills shortage debate is a discourse that cuts across various professions from medical field, construction, engineering, environment to aviation professions, this study will focus on various companies in diverse sectors that hire information and

communications technology (ICT) professionals because previous literature shows that the debate is prevalent in the ICT field. Piechota (2016), Cedefop (2010). Kirlidog et al. (2018), Asliturk et al. (2016), Cameron and Faisal (2016), ICTC (2012), ICTC (2017), Caldwell (2013) and Foster (2014) amongst others postulate that skills shortage in the ICT field are widespread.

Cedefop (2010), Kirlidog et al. (2018) and Caldwell (2013) amongst others argue that skills shortage in the ICT field are widespread. The scholars postulate that pervasive ICT skills shortages are hindering private sector productivity, lowering revenues and inhibiting the growth of small to medium enterprises. On the contrary, scholars such as Thomson et al. (2018), Schied (2014) and Matloff, (2002) dispute this view arguing that while employers complain about shortage of skilled ICT professionals in the labour market, evidence suggests that ICT graduates face challenges in finding jobs. Twinomurinzi et al. (2017:215) describe “this situation as the ICT skills paradox”.

King (1998:16) acknowledges the existence of the skills shortage debate in the academia noting that “University of California professor Dr Norman Matloff claims that the much-touted ICT labour shortage is a farce”. Matloff (2002) argues that the outcry for shortage of software engineers is not substantiated by reality because companies such as Microsoft only hire a very small percentage of the total supply of engineers i.e. 2% and this percentage is constant across the industry. The scholar argues that “If employers were that desperate, they would certainly not hire just a minuscule fraction of their job applicants” (Matloff, 2002:6). Thomson et al. (2018), also share the same view as they argue that skills shortages in ICT are superficial.

The study relies on the human capital theory and institutional theory to make interconnections and interpret the findings i.e. to explain the rationale behind the policy decisions in the private sector. The thesis uses human capital theory and institutional theory concepts amongst others to explain skill formation process and the rationale behind the policy choices in the private sector. The other reason for using the theories is that the divergent groups of the skills shortage debate use the concepts of the theories to either support their claims or dispute the opponents’ point of view. In addition, the study applies the theories because they help in understanding how labour markets function. The theories

serve the purpose of explaining why and how the skills shortages occur thereby enabling better conceptualisation on why the skills shortage debate exists.

According to David and Lopez, (2001) and Nafukho et al. (2004), the human capital theory postulates that if individuals, employers and governments invest more in education and training, it would result in a more productive workforce, improved quality of workers, higher earnings, profitability and accelerated economic growth. The human capital theory corresponds to any stock of knowledge or characteristics of workers (either innate or acquired e.g. workers attitude, numeracy skills, communication skills etc.) that contribute to their productivity (Coff and Raffiee, 2015). Proponents of the theory such as David and Lopez (2001), state that skills shortages can be resolved through investing in education and training systems so that employees acquire the desired skills. The theory is relevant for this study because according to Marginson (2019), it is one of the central theories that has been influencing policy thinking in the private sector. Furthermore, the theory is useful for the study because it explains the skill formation process. It also explains the reasons behind the quality of skills in the market and it explores whether education systems are developing relevant skills that are needed by employers. Furthermore, the human capital theory explains the relationship between education and work (Marginson, 2019). These are all important for this study because they enable understanding of skills shortages. In this study, the human capital theory serves the purpose of explaining the causes of skills shortages and drawing connections between the findings of the study and previous studies.

The institutional theory “is defined as a body of theory largely used to explain the persistence and homogeneity of phenomena as well as change in these phenomena over time” (McGuire et al., 2002:5). The institutional theory is relevant for this study because it helps in explaining how policies are introduced, maintained or discontinued by actors in different contextual settings of the organisations under study. The supporters of the theory argue that congruence between the organisation and its external environment is crucial if the organisation is to survive. Therefore, institutions are always considering the changes in the external environment and adjusting policies accordingly to maintain congruency. This makes the institutional theory relevant because one of the objectives of this research is to identify those factors in the external environment that private sector

institutions are considering when changing policies, with the intention of identifying whether the skills shortage debate is among those factors.

Proponents of skills mismatch theory such as Hatos (2015:432) define skills mismatch as “various types of imbalances between skills or competences offered and those required in the labour market”. Another supporter of the skills mismatch theory is Cedefop (2010). The organisation argues that skills mismatch takes various forms e.g. skill shortages, qualification mismatch, over or under qualification/ education, skill gap and over or under skilling (Cedefop, 2010). While these variables indirectly describe shortages in the labour market, they have different meanings and can occur either simultaneously or at different times and place depending on the context. This fluidity in the meaning of skills mismatch theory presents some challenges because “skills and competences are seldom measured, by straight forward indicators, measurement of skills mismatch is carried out, usually by indirect indicators (proxy) each of them with different advantages and disadvantages” (Hatos, 2015:433). The theory is relevant for this study because the thesis attempts to establish whether the debates on the types of skills mismatch (e.g. skill shortages, under qualification etc.) highlighted above are influencing recruitment and training policies in the private sector, given the fluidity of the concept and lack of straight forward indicators. This theory is relevant for this study because it helps in explaining the findings in respect of the sub-research question on the factors that influence policies in the private sector. The reason being that various types of skills mismatch determine the type of recruitment and training policies or strategies that are adopted by the companies.

In other words, the theories above are relevant for this study because protagonists of the skills shortage debate in the academia such as Watson (2007), Grasz, (2014) etc. have been using concepts from the above theories (such as human capital theory, skills mismatch theory etc.) to explain how and why shortages occur. However, majority of the scholars have not gone further to explore whether the information from the discourse is influencing policies in the private sector. This study seeks to contribute through going further to explore whether the private sector policy makers are taking the debate into consideration when developing recruitment and training policies.

Several studies cite myriad policy interventions at government level and at corporate level. However, the extent to which the policies are drawn from the debate remains

unclear. Richardson (2009) states that some of the corporate level policy interventions include increasing the average number of hours worked per employee, introducing formal and informal training in order to increase the supply system, job enrichment, hiring among the minority or qualified immigrant workers etc.

At the State level, several governments have also introduced national policy interventions. For instance, Maumbe and Wyk (2011) mention that the South African government launched the “Joint Initiative on Priority Skills Acquisition” (JIPSA) in 2006, a platform for the government, business and organised labour to discuss set skills priorities, align training and skills development efforts for the public and private sectors and to accelerate the provision of priority skills needed by employers. The effectiveness of these policy interventions is not clear because according to some employers, shortages persist. Therefore, the extent to which the debate is instrumentally informing the policy makers in the private sector is not clear. In addition, the impact of the equivocal nature of the term, skills, conflicting theoretical findings and lack of measuring tools or indicators on the capacity to make effective policies is yet to be explored. On the other hand, according to Richardson (2009) if governments do nothing about the skills shortages, individual workers and employers will not be able to produce the levels and quantities that are required by the labour market. The reasons being that employers who operate in labour markets with scarce skills are reluctant to invest in the formation of transferable skills, sophisticated production methods and in turn workers are less motivated to acquire higher-level skills because they are not needed to secure employment (Richardson, 2009; Booth and Snower, 1996).

1.2. BACKGROUND TO THE PROBLEM

The study comes during an epoch when the supporters of the skills shortage view are claiming that organisations are losing an average of \$14000 for every job that stays vacant for three months (Grasz, 2014). The theory of organisation affirms that skills shortages “hamper profit maximisation, healthy market positions and organisation’s continuity” (Henkens et al., 2008:1318). Van den Broek (2012) states that skills shortages hamper business growth. Skills shortages are lowering productivity, lessening revenues and inhibiting the growth of small to medium enterprises (Brixiova et al., 2009; Bayer Corporation, 2014). Grasz (2014) postulates that 96% of the academics in the institutions

surveyed in Chicago revealed that there is not enough effort being made to close the skills gap. Those advocating for the training agenda proclaim that government initiatives, employer-educationist partnerships, proactive learning as well as labour market intelligence on the part of job seekers, apprenticeships, workplace training etc., are the means for addressing skills mismatch and shortages. The training initiatives will help young people and the unemployed to build links with the labour market and to gain useful work-related skills. However, these strategies seem to be ineffective because many employers still report difficulties in finding suitably skilled workers (World Economic Forum, 2014). “There is little clarity however, as to which practices and interventions work, and which ones need to be scaled up. Most skills initiatives today serve a few hundred or perhaps a few thousands of young people, while the need registers in the millions”. (Mourshed et al., 2014). This ambiguity buttresses the need to examine the extent to which the findings from the academia are instrumentally informing the policy makers and those that are driving the training agenda.

The debate is aggravated by the ambiguity of the term “skills”. The lack of a unified definition and approach to skills in the academia presents formidable challenges because the phenomenon is open to more than one interpretation. The term skill is used in the academia to allude to a broad range of requirements i.e. numerous generic employability skills (basic literacy numeracy skills, computer literacy, interpersonal skills, communication, teamwork, problem solving skills, reliability, motivation, punctuality etc.) and profession specific technical skills. (Shah and Burke, 2003). The term skills is a contested and fluid term whose definition is dependent on organisational context. There is an unclear distinction between shortages of numbers from shortages in qualities of workers (Taylor, 2005). Several studies do not make a distinction between soft non-technical skills (motivational or personnel characteristics) and hard technical skills (Taylor, 2005). Whether soft skills such as self-motivation, versatility, willingness to work overtime etc. are within the reach of colleges or vocational education and training systems is yet to be established. Some definitions of the term skills are also characterised by certain biases and stereotypes which complicates the whole process of defining the term. For instance, Maumbe and Wyk (2011) and Baum (2006) argue that the hospitality “low skill” stereotype is based on a western-centric definition of skill that represents only technical aspects of the work. This study posits that the resolution of skills shortages can be inhibited by stereotypically based definitions and ambiguity of the definition of skills.

These aspects potentially prevent education systems and governments from devising appropriate strategies.

As a result of the ambiguity of the term skills, it is not surprising that there are also varying definitions of skills shortage which is also problematic. Scholars acknowledge the lack of unified definition, for example, Thomson et al. (2018:3) postulate that “Indeed, there is not even agreement as to how to define a shortage...” Richardson (2009:327) defines skills shortage as situation when “the supply of workers is not sufficient to meet the demand at current rates of pay”. Aaron and Capron (1959:307) define the shortage as a “situation in which there are unfilled vacancies in positions where salaries are the same as those currently being paid to others of the same type and quality”. Barnow, Trutko and Lerman (1998:7) define skills shortage as “a market disequilibrium between supply and demand in which the quantity of workers demanded exceeds the supply available i.e. those willing to work at a particular wage and working conditions at a particular place and point in time”. Richardson (2009:332-333) states that skills shortages occur “when employers are unable to fill or have considerable difficulty in filling vacancies for an occupation or specialised skills needs within that occupation at current levels of remuneration and conditions of employment and reasonably accessible location... or where existing employees do not have the required qualifications, experience... or where workers may not be adequately trained or qualified to perform tasks....” Whilst at first glance these definitions of skills shortage seem uncomplicated, studies have shown that they are ambiguous. Though the definitions give emphasis on the concepts of supply shortfalls in relation to demand, Richardson (2009) shows that the meaning of the concepts is not always forthright. Some of the definitions do not distinguish between the definition of skills shortages and the causes of shortages. The phrase skills shortage has been used interchangeably with vague phrases like talent shortage (Michaels et al., 2001; Gamble et al., 2010; Ross, 2013). McCracken et al.’s (2016: 2736) study also demonstrated that the “term talent was a subjective one” meaning that it varied from one company to the other, depending on the company’s specific needs. Therefore, it is not apparent how education systems can respond effectively to the skills shortage problem given the ambiguity or lack of precision on what skills shortage means.

OECD (2003:103) concurs that “there is no universally applied definition of skills shortage”. Kahn (2015:247) concurs that skills shortage is defined in various ways e.g. in

some instances, it takes the “form of poor literacy and numeracy skills among young people making the transition from school to work... in other situations, insufficient supply of technically trained workers... and in other contexts, dearth of students pursuing science, technology, and mathematics (STEM) fields”. Cedefop (2010) outlines that there are various forms and causes of skills shortages i.e. qualification mismatch, over or under qualification/ education, skill gap and over or under skilling. Economics’ definition of skills shortage differs from the definitions used by other fields (Ozimek, 2013). Schied (2014:556) argues that the international definitions of “skills” provided by intergovernmental organisations are not aiding countries in resolving the problems. The scholar states that the “notion of skills is not an easily defined concept and that countries need to provide an alternative to the OECD and World Bank’s notion of skills... in order to build on the skills that citizens of respective societies have developed as means of survival in an everchanging world” (Schied,2014:556). There are varying interpretations of ‘skills shortages’ phenomenon in the academia. Therefore, one wonders how skills shortages can be addressed, if the definition of the phenomenon remains elusive. In other words, the term is vague thus the study will attempt to establish whether the ambiguity is causing discordance and deterring in-depth conceptualisation of the phenomenon as well as the capacity of private sector policy makers to comprehend the issue.

Beyond the definition crisis, the other problem that exists is that “there are no objective measures or direct indicators of skills shortages” (Alpert and Auyer 2003:1) The US Bureau of labour Statistics (1999) states that there is no single empirical tool for measuring labour skills shortages. Richardson (2009) and Ross (2013) also concur that circumstances in which skills shortages occur are not crystal clear. There are no universally applied empirical tools for measuring skills shortages and sometimes the impact is exaggerated by employers (Richardson, 2009). Scholars, Barnow, Trutko and Lerman (1998) Aaron and Capron (1959) and Auditor General (2006) put forward the duration it takes to fill vacancies, total supply and demand concepts as indicators for measuring skills shortages. However, Richardson (2009) argues that these concepts are problematic because the approach yields inaccurate results. For example, total supply alludes to all who have attained a certain qualification in a profession but does not cover those who are qualified but are unwilling to work in fields of specialty, in certain locations, or for certain number of hours required by employers. In other words, the total

supply of workers may be enough but some of the qualified workers may be unwilling to work in their respective fields.

On the demand side, Richardson (2009) demonstrates that employers have numerous, dynamic, complex, stringent expectations and contractual terms that sometimes make it difficult for governments to measure and anticipate the level of demand. For instance, employers have different terms of employment (i.e. part time, full time, working during the weekends or during the week, diverse pay rates, various management experience demands, employee attributes expectations) etc. Such broad ranges of different terms make it difficult to use demand as the measure for skills shortage because it yields inaccurate results. It also portrays an artificial shortage because the total supply in the system as whole may be producing an adequate supply of qualified graduates or workers but some employers may be facing challenges in either retaining or recruiting because the potential workers are not attracted to the employers' requirements and contractual terms being offered. In other words, there is no clear distinction between situations where skills are in short supply and situations where people are simply not applying. This study seeks to examine the extent to which the policy makers in the private sector trust and use the information from the debate in developing their recruitment and training policies given the lack of standard empirical indicators and tools for measuring skills shortage in the academia and public sector. At the same time, this study also seeks to establish whether policy makers in the private sector perceive and comprehend how their practices are causing the shortages.

Furthermore, another problem that is evident from the debate is that most studies do not make a clear distinction between difficulties in filling vacancies, skills gap and skills shortages (Richardson, 2009; Shah and Burke, 2003). Each of these scenarios has different implications on the nature of the policies and on the level at which the policy decisions should be made. For instance, difficulties in filling vacancies can be addressed through employer policy interventions such as increasing wages and improving working conditions in order to make the jobs more attractive. According to Richardson (2009), such policy interventions are usually made at private or corporate sector level and not at government level (Richardson 2009). Other scholars state that skills shortage in the labour market can be understood if the government and educationists forge closer relations with employers e.g. Green et al. (1998). Richardson (2009) argues that conducting research

among employers and unions yields inaccurate findings because of biased political interests that the parties have. Watson et al.,2006, Bryant and Jaworski (2011) and Hurrell (2016:609) argue that “managers are usually affected by the biases and organisational politics when reporting skills deficits e.g. gender stereotypes, justification of training and recruitment budgets”. The scholar argues that forging relations with recruitment consultants and employment agencies provides more accurate results about the labour market.

From the discourse above, one can deduce that it is not clear how the ‘debate’ is influencing recruitment and training policy decisions and practices of private sector policy makers. It is important to explore this further given that the debate raises valuable information by shedding some light on how employer’s practices are causing shortages. There is need to examine the extent to which the debate has been applied when developing recruitment and training policies given the conflicting findings, ambiguous definitions, lack of objective measures or direct indicators of skills shortages that characterise the debate. This research will facilitate conceptualisation of the skills shortage debate and will possibly unravel new areas for future research.

1.3. AIM OF THE STUDY

Given this background characterised by lack of unified definition of the term skills, lack of objective measures or direct indicators of skills shortages, lack of consensus on the existence of shortages in the academia described above, this study seeks to establish whether the skills shortage debate is influencing recruitment and training policies in various private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers.

1.4. RESEARCH QUESTIONS

- Are human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers influenced by the skills shortage academic debate when making policy decisions?
- What do human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers take into consideration when developing recruitment and training policies?

The structure of thesis comprises of six chapters. Chapter 1 (Introduction) has already been discussed above. Chapter 2 (Literature Review) discusses in a systematic way, past studies, key ideas and theories to facilitate conceptualisation of the skills shortage debate. The researcher also identifies existing recruitment and training policy interventions and examines how policy makers in the private sector arrive at the policy decisions. There is also an attempt to establish whether the policies are being influenced by the skills shortage debate. Furthermore, there is an examination of existing literature vis-à-vis the sub research questions indicated above. In the same chapter the thesis explores literature that looks at the knowledge transfer barriers between academia and industry. The reason being that it helps in identifying possible obstacles that might deter the skills gap debate from penetrating into practitioner spheres. In Chapter 3 (Research Methodology) there is an elaboration of research design and methodology. In Chapter 4 (Findings) the researcher presents the findings from the interviews and the secondary data. Chapter 5 (Discussion) discusses the findings in relation to the previous academic studies on skills shortages and labour market theories. Chapter 6 (Conclusion) provides a summary and a synthesis of the main findings. There is also a discourse on the limitations of the study.

In conclusion, the introductory chapter outlined the purpose, objectives of the study, background to the problem, and the research questions the study seeks to address. It also discussed the significance and implications of the study as well as the intention to make recommendations for future related research. The next chapter is the literature review which will explore the previous studies on skills shortage debate.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

The previous chapter outlined the objective of the study, background to the problem and the research questions. This section:

- a) explores the literature on the skills shortage debate,
- b) identifies existing policy interventions,
- c) examines how policy makers in the private sector arrive at the policy decisions,
- d) investigates whether their policies are being influenced by the skills shortage debate.

The first section of this chapter explores the labour market theories in order to gain a better understanding of the skills formation process in the labour market and to conceptualise the skills shortage debate. In addition, the aim is to explain why skills surplus or skills deficits occur. The second part of the chapter elaborates on the aspects of the debate that is underway among the academics and practitioners vis-à-vis the definition, existence, pervasiveness and causes of skills shortages. Lastly, the chapter ends with exploring literature that looks at the knowledge transfer barriers between academia and industry, with a purpose of identifying possible obstacles which might be deterring the skills gap debate from penetrating into practitioner spheres. The literature review will not only examine the skills shortage of two cases under study i.e. Canadian and Zimbabwean contexts, but will also analyse the cases in different countries to enable deeper conceptualisation of the phenomenon and to establish the extent to which the debate is instrumentally informing policy makers.

2.2. THE LABOUR MARKET THEORIES AND SKILLS SHORTAGES

The starting point if one is to enhance conceptualisation of skills shortages is to examine the labour market theories. The reason being that labour market theories not only explicate the skills formation process and the type of skills in the labour market but also enable grasping of how and why skills shortages or skills surplus occur within the labour market.

Some of the labour market theories are neoclassical theory (i.e. human capital theory) and institutional theory. In the context of the skills shortage phenomenon the neoclassical theory accentuates the role of wages, postulating that labour supply and demand is determined by real rates of wages (Krynska and Kopycinska, 2015). Supporters of the neoclassical theory state that real wages can either cause or address the shortages of labour. According to Krynska and Kopycinska, (2015:179), “rising real wage stimulates labour supply but restricts labour demand when it decreases”. The neoclassical theory postulates that shortages occur when there is a disequilibrium between labour supply and labour demand caused by attempts or measures aimed at adjusting the real wage (Krynska and Kopycinska, 2015). The theory argues that wages should be flexible as any measures at restricting them results in harmful repercussions e.g. labour shortages. According to Roy et al. (1996) cited in Fairholm (2009:7), labour market imbalances can be understood by examination of “basic economic theory which postulates that in a competitive labour market, with no major impediment to price and wage flexibility, most labour market imbalances should be resolved over time. More workers will move into occupations that are experiencing shortages as vacancies and market wages start to rise. Employers will reduce their hiring intentions as market wages go up. Labour market imbalances will therefore only exist while this adjustment process is taking place. The duration of these labour market imbalances will depend on the magnitude of the shocks hitting the economy and the speed at which the adjustments are made. Labour compensation or wage and quantity changes will operate to resolve these imbalances.” The job search theory which is also influenced by the neoclassical framework states that labour supply is determined by the reservation wage that is the lowest wage the unemployed person is willing to accept. Shortages occur when the wage is below the reservation wage. The behaviour or decisions of the unemployed are explained in terms of marginal costing i.e. comparison of lost earnings or costs of not taking a job that does not meet their wage expectation vs additional income expected to be earned once a better job is found (Krynska and Kopycinska, 2015).

The analysis of the skills shortages is also aided by the theoretical frame of the human capital theory, namely when making sense of the factors influencing human resources management policies and practices in the private sector. According to African Development Bank Group (2011), the human capital theory is a neoclassical labour

market theory that postulates that investment in education and training will enhance higher productivity. The theory postulates that when students acquire the skills (the portable human capital) used by employers, graduate earnings and productivity follow” (Marginson, 2019). From a human capital theory lens, shortages are being caused by inadequate investment in education.

According to Xu and Fletcher (2017), the human capital theory posits that length of experience and training or education is a good predictor of expertise or future productivity because individual workers have a set of skills or abilities which they can improve or accumulate through training and education. Productivity levels are identified by years of schooling. The proponents of the human capital theory thinking postulate that human capital theory is influencing recruitment policies. For instance, they argue that formal qualifications (degrees) have a signalling effect i.e. they are used by employers to confirm whether human capital has been accumulated and to signal potential future productivity (Spence, 1973; Weiss, 1995). In this regard, it is important to study whether employers take into consideration education or formal qualifications when developing recruitment and training policies because according to supporters of the human capital theory, education provides an initial signal on future productivity. In other words, it would be interesting to study whether the belief in credentials is the most important factor that is influencing recruitment policies and practices. Furthermore, the supporters of pro-skills shortage view use the human capital theory concepts to advance the training agenda and lobby for investment in education.

However, the human capital theory, is criticised for ignoring inequalities, exploitation of labour by capital and treating workers as commodities (Nafukho et al., 2004; Bowles and Gintis, 1975). Other weaknesses of the human capital theory are the problems of multivariate modelling and lack of realism. Furthermore, the theory is also criticised by supporters of the labour market segmentation theory for positing the existence of a unified market with open competition and only distinguishing factor in wages being the human capital. The human capital theory applies a universalist lens/ closed system. It postulates that the theory is applicable in all contexts (Marginson, 2019).

A different angle that enables understanding of skills and skills shortages is through using the theoretical lenses of the institutional theory. The institutional theory also provides

some insights into the internal factors that either buttress organisational policies or drive the change of organisational policies. The prioritisation of certain skills over others by institutions can result in either skills deficit or surplus. The extent to which the practices are entrenched in the organisations determines labour market flexibility i.e. the ability to respond to the changing economic conditions. Institutional theory “is defined as a body of theory largely used to explain the persistence and homogeneity of phenomena as well as change in these phenomena over time” (McGuire et al., 2002:5). Institutions are social entities whose survival depends on establishment and continued enforcement of normative social patterns, collective meanings/ institutional logics, and self-activating social processes (McGuire et al., 2002). The homogeneity depends on the extent to which the practices diffuse and the strength of self-activating forces (McGuire et al., 2002). In line with the institutional theory perspective, change of recruitment and training policies is determined by the power of functional, political and social pressures confronting the organisations. The functional, political and social pressures include performance level problems, effectiveness of existing policies, increased competition for human resources, changes in laws, change in political interests, globalisation etc. In line with the institutional theory view, the extent to which the firms pay attention or are influenced by the debate, depends on the extent to which the debate is aligned with the contextual norms and practices established by the institutions as well as the influence or power of the actors driving the ideas raised by debate to challenge the norms. The extent to which the policy makers pay attention to the debate is dependent on amount of pressure or the extent to which the debate challenges internal norms, policies and practices in the institutions.

According to McGuire et al. (2002) proponents of the institutional theory state that there is need for congruence between the normative structure or practices within the organisation and the external environment otherwise the organisation become irrelevant. While external environment forces influence organisations, it is only those forces which are considered important have the capacity to change or influence institutional logics/ social patterns/ collective meanings.

Supporters of the institutional theory postulate that organisations mimic other organisations that are embedded in their social networks in order to improve their chances of survival. Organisation copy each other to achieve certainty and legitimacy resulting in homogeneity. In other words, organisation copy policies because of competitive pressures

from other organisations within their social networks or social proximity (Davis 1991; Palmer et al. 1993; Lee & Pennings 2002). The social networks facilitate diffusion or spill overs of information, knowledge policies, practices, values etc. This is because according to McGuire et al. (2002:8) “social networks function both as information conduits and as channels that embody conformity pressures”. In addition, McGuire et al., (2002:8) argues that “institutional pressures from the external environment will produce isomorphic effects and lead organisations to adopt similar sets of managerial practices”.

In conclusion this section of the chapter expounded on labour market theories. There was a discourse on human capital theory and institutional theory because the theories explicate the skills formation process and enable grasping of how and why skills shortages or skills surplus occur within the labour market. The theories also explicate how policies are either maintained or changed over time. Moreover, the theories are used by the opposing protagonists in the skills deficit debate to defend their points of view. For instance, proponents of the human capital theory postulate that skills shortages are being caused by lack or limited investment in the education system. Furthermore, the theories help in understanding how labour markets function. For instance, supporters of the institutional theory argue that policies are either maintained or changed because of collective meanings and institutional logics of the actors within the organisations. The extent to which the policy makers pay attention to the debate is dependent on the amount of pressure or the extent to which the debate challenges internal norms, policies and practices in the institutions. The next section of the chapter elaborates on the skills shortage debate. The protagonists of the skills shortage debate in the academia have been using concepts from the above theories to explain their points of view or to advance their arguments.

2.3. SKILL SHORTAGE DEBATE

Against this background of diverse labour market theories, the skills shortage topic has lately emerged as a contentious subject among scholars in the academia and practitioners. The theories are used by opposing protagonists in the skills deficit debate to defend their points of view. There are splitting opinions on the definition, existence, causes, measuring tools and indicators of skills shortage. Some supporters of the pro-skills shortage view adopt the human capital theory lens arguing that skills shortages are being caused by

under investment in education. They argue that the length of experience and training or education generates human capital advantages for organisations. However, Cukier (2003) is critical of the contemporary skills shortage debate, arguing that institutional discourses on the information technology skills shortage debate are biased towards computer science and engineering, excluding other disciplines and women.

The Bayer Corporation (2014) also acknowledges the existence of the debate, i.e. the conflicting views on the shortage of STEM workforce (science, technology, engineering and mathematics workers) in the US. The discourse on skills shortage comprises of two antagonistic schools of thought. The pro-skills shortage protagonists (employers, academia, consultancy firms, intergovernmental organisations) who postulate that skills shortages are global and pervasive (Osborne, 2012; Jackson et al., 2002; Stern, 2001; Dychtwald et al., 2006; Marriotti, 1997; Grasz, 2014; Clarke and Herrmann, 2007; Tiaki, 2014; McGrath-Champ et al., 2006; OECD, 2014; KPMG, 2014; Manpower Group, 2013; McKinsey Global Institutes, 2012; PricewaterhouseCoopers, 2012; Deloitte, 2011). On the other side, anti-skills shortage proponents (academia, governments, recruitment practitioners) who reject the former's views on pervasiveness and chronic existence of skills shortage (Salzman et al., 2013; Rothstein, 2012; Ozimek, 2013; Schied, 2014; Matloff, 2002; Benderly, 2014; Ryan, 2015; Murphy, 2014; McLaughlin, 2014; Cappelli, 2015; Freeman, 2006; Jones, 2013). The pro-skills shortage view claims that many employers consistently report difficulties in finding suitably skilled candidates because of skills deficits in certain occupations or regions. The opposing view states that contrary to the pro-skills shortage view claims, high unemployment rates should not be attributed to skills mismatch and there is no evidence that skills levels have collapsed during economic crises (World Economic Forum, 2014). The anti-skills shortage proponents further argue that the difficulties that organisations face in sourcing candidates are attributed to employers who have relinquished their traditional role of offering apprenticeships. The shortage is also attributed to employers who offer uncompetitive wages, unattractive working conditions, poor recruitment policies, inflexible practices (World Economic Forum, 2014). According to this view, there is adequate labour supply. The shortages that employers complain about are artificial shortages that can be addressed through changes in training and recruitment practices.

According to Van den Broek (2012), there are different types of labour shortages i.e. aggregate labour shortage (near full employment creating difficulties in finding employees to fill vacancies), mismatch between workers qualifications and the qualifications required for vacancies (subcategories of mismatch are qualitative mismatch, regional mismatch, preference mismatch, mismatch due to information deficits). In other words, the scholar categorises the skills shortages into qualitative and quantitative shortages. The scholar states that different types of labour shortages require different types of strategic responses e.g. expanding the dependency of labour (i.e. increasing recruitment activities, offering competitive employment conditions, employing from a different demographic, migrants minority) or reducing the dependence on labour (i.e. technological changes, structural changes, outsourcing, offshoring and increasing workers productivity) (Van den Broek, 2012). The success of the strategies depends on contextual factors e.g. organisational size, financial resources at the organisation's disposal, age distribution, turnover rates in the sector, time of implementation, organisational culture and the volatility or stability of the market (Van den Broek, 2012). In volatile markets, organisations usually opt for short-term solutions to quickly address the shortages. Whilst in stable markets, long-term strategic workforce planning is common (Van den Broek, 2012). The nature of the demographic composition also determines the approaches used, for example highly educated workers require a different approach from less educated workers (Van den Broek, 2012).

The skills shortage debate cannot be analysed independent of the contextual environment in which the organisations operate. According to the Pauwe (2004) model or contextually based human resources theory, the extent to which human resources management interventions succeed, depends on contextual factors like competitive mechanisms (product/market/ technology dimension), institutional mechanisms (social/cultural/legal-dimension) and configuration (organisational/ administrative/ cultural dimensions). Therefore, the skills shortages vary from one context to the other depending on the external and internal context variables of the organisation. Furthermore, the perspectives of the protagonists of the skills shortage debate are influenced by the context they operate.

2.4. ACADEMIC DEBATE ON SKILLS SHORTAGE

While the previous segment of the literature review was a synopsis of both the practitioners and academic perspectives, this part exclusively focuses on the skills gap debate in the academia. In the academia the antagonistic views are also apparent with some in favour of the pervasiveness of skills shortage while the others dispute the view. A summary of the opposing academic views is presented in Table 3 in APPENDIX 5. The first part of this section examines the academic literature that supports skills shortage view and the second touches on the contrasting view.

Scholars in the academia who have come out in support of the skills shortage view include Osborne (2012), Jackson et al. (2002) Stern (2001), Clarke and Herrmann (2007), Shah and Burke (2003) and (McGrath-Champ et al., 2006). The pro-skills shortage view explains the shortages as by-products of new technology, lagging education system, labour supply and demand imbalances, demographic factors, constant global economic restructuring etc. According to Hurrell (2016:609), “the blame game for skills deficit is typically directed at the supply side: (i.e. individuals, the family and the education system) rather than the demand side (i.e. employers). The responsibility for learning and developing the soft skills is solely placed on the individuals and the family (Hurrell, 2016). The scholar also argues that policy debates surrounding employability in the UK have very much placed the onus on the individual, relegating the employer’s role in the process (Hurrell, 2016:609). Van den Broek (2012:15-16) study in the Netherlands also supports this view and found respondents attributing quantitative shortages “to individual preference and parents not stimulating their children to enrol for education in certain fields”.

Shah and Burke (2003) posit that skills shortages are pervasive, citing the scarcity of information communication technology skills in Australia to substantiate the assertion. Watson (2007) study also supports the skills shortage view postulating that in the Australian construction industry, shortages are being caused by under-investment in education or skills training, reduction in number of people taking on apprenticeships and ageing population. Nuemark et al. (2011) also support the skills deficit view, projecting a shortage of health care workers and computer scientists in 2018 in the USA due to retirement of baby boomers. Shah and Burke (2003) further state that shortages are being

caused by imbalances in workers' supply and demand due to introduction of new technology that requires longer time to train the people, introduction of new products, ageing population, new workplace arrangements, changes in population's preference for a particular profession, reduction in apprenticeships etc.

Shah and Burke (2003) postulate that the two main ways of measuring skills shortages are; the use of market wide economic indicators (vacancy rates, hiring statistics, separation rates, relative wage movements, employment and unemployment changes) and employer-based surveys (individual employer experiences in hiring employees with specific skills where high degree of recruitment difficulty denotes skills shortage). Shah and Burke (2003) postulate that those who argue that skills shortages do not exist do not understand how the labour market system works, i.e. the oscillation of supply and demand in response to labour market needs. The shortages or imbalances are also caused by slow rate of adjustment due to lack of information about the developments in the labour market among the job seekers, employers and higher education institutions (Shah and Burke, 2003).

Adler (2002) concurs with the skills shortage view attributing shortages to political factors. The scholar posits that in South Africa, the prevailing skills shortage is a repercussion of past oppressive apartheid system that deliberately denied equal educational opportunities to black Africans and people from mixed race. During apartheid epoch, the education systems for black South Africans and people from mixed races were heavily underfunded. The result was that the quality and quantity of education provided to the majority of South Africans was poor, creating a deficit of skills in the market. Since then, the education system is yet to recover from the years of neglect under the apartheid (Adler, 2002). Mukora (2008) concurs with the skills shortage view arguing that in South Africa, the shortage of skills has been due to decline in apprenticeship training and the lack of long-term planning amongst employers. Kirlidog et al. (2018) postulate that the shortage of ICT skills in South Africa is a quantitative shortage i.e. low number of students enrolling and graduating in ICT programs at tertiary education level. Some of the reasons for lesser student enrolment in ICT courses is the negative perceptions that students have of the profession i.e. South African students regard the "ICT profession as boring... ICT jobs are less secure and the unemployment rate is high" (Kirlidog et al., 2018:5).

Gray et. al (2014) attest to the existence of skills shortages in the private and public sector and explain the causes of skills deficits from a macroeconomic point of view. The scholars support this view using the case of Zimbabwe where the department of medicine at the University of Zimbabwe experienced massive shortages of skills after an overwhelming loss of 69% of the staff to other countries because of the economic downfall. The policy intervention that was introduced to ameliorate the problem of high student to faculty ratio was to use team-based learning method. In the team-based learning method, the professors' duties were changed from presenting all course materials to preparing and moderating class activities, asking quizzes and assessing whether the key concepts had been grasped (Gray et. al, 2014). The students prepared beforehand by researching on assigned material before classroom sessions.

In Zimbabwe, the shortage of skills is not only evident in the tertiary institutions, but it is also ubiquitous in the public or civil service ministries (Mavhiki et al., 2013). The scholars attribute the shortage to migration, i.e. enormous brain drain caused by the economic crises which has left mostly unskilled and semi-skilled personnel in the public service (Mavhiki et al., 2013). One of the implications of the skills shortage was the failure to implement results-based management approach in the public sector because the trainers were not able to clearly explain the concept and the personnel were unable to implement it appropriately due to lack of the required skills and knowledge (Mavhiki et al., 2013).

Contrary to the situation in developing countries like Zimbabwe's case described above, where skills shortages in the private and public sector are attributed to economic downfall and brain drain, in developed countries like the UK, skills shortages have been attributed to the economic growth (Mackenzie et al., 2000). Caldwell (2013) states that it could take up to 20 years to resolve the skills gaps in the Cyber Security field as 85 % of the employers in the UK surveyed by National Audit Office complained about challenges in finding Cyber Security ICT professionals. Foster (2014) also postulates that there is a growing shortage of digital skills in the UK. Other causes include ageing population, introduction of new technology, skills gap, movement of employees to other industries, demand for new skills that are higher than what new entrants can offer, decline in

employment-based training etc. (Mackenzie et al., 2000; Agapiou et al., 1995; Gruneberg, 1997).

Cedefop (2010) postulates that there are genuine shortages in the ICT sector in the European Union (EU) due to growing, dynamic, international enterprises that require highly skilled workers. According to Cedefop (2010) the firms in the EU face challenges in finding applicants with the desired skills despite willingness to pay high wages. However, Cedefop (2010:17) states that while there are genuine skills shortages in ICT, between half and two thirds of the firms in the EU (excluding ICT field) who are experiencing challenges in finding skilled labour, face the problem because of other reasons and not shortage of skills. According to Cedefop (2010:17) the other reasons include “unattractive wages, bad job quality precarious contracts, employers’ unwillingness to commit to talent management”.

While the pro-skills shortage view argues that shortages are universal, it is important to note that the view also acknowledges that the causes of shortages vary from one sector to the other. Some causes are only unique to certain sectors. For instance, seasonal fluctuations in output are more characteristic of the construction sector in the UK than in other sectors. (Agapiou et al., 1995). Mackenzie et al. (2000) argues that the growth of subcontractors and self-employment within the UK is causing a significant reduction of apprenticeship training and indirectly causing skills shortages in the construction sector.

Zheng and Hu (2007) study of 211 multinationals companies in Taiwan and Singapore supports the ubiquity of ICT skills shortage. Findings revealed that despite governments’ successes in developing high level ICT skills, there were shortages of medium and low-level ICT skills. The reason being that Taiwan and Singapore governments led initiatives exclusively focused on developing high level ICT skills (Zheng and Hu, 2007). The result was an imbalance or missing link between government led initiatives and industry skills requirements. It is argued that “Asia's ICT skills shortage are worsening despite the ICT industry shedding jobs by the thousands” (Telecom Asia, 2009:15)

Intergovernmental organisations have also driven the skills shortage pervasiveness agenda. For example, an OECD (2014) survey in Canada concludes that there are massive shortages of the STEM (science, technology, engineering and mathematics) fields where

vacancy rates have significantly exceeded the number of job seekers in provinces such as Alberta and Saskatchewan. The report postulates that one of the reasons for the problem is the lack of recognition of foreign qualifications by the employers and lack of labour market information that enables job matching and informed education decision making (OECD, 2014). The other reason is high tuition fees for STEM fields compared to other fields, leading to a reduction in the number of students studying STEM fields at the universities (OECD, 2014).

Gimpel'son (2005) supports the skills shortage view using the case of Russia to substantiate the argument. The scholar's survey data shows that the combination of economic growth, low wages and reduction of apprenticeships is resulting in skills shortage problems in Russia (Gimpel'son, 2005). The Russian vocational education system is blamed for not being able to produce job specific skills (Gimpel'son, 2005). The scholar identifies low wages and reduction of job specific training of new graduates as the major causes of the deficits. He notes that employers' obsession with short term profits and rigid cost cutting measures are negatively impacting on the quality and quantity of skills in the labour market. In some instances, managers are not combining training efforts with competitive pay (Gimpel'son, 2005).

However, unlike other scholars, Gimpel'son (2005) acknowledges the existence of contextual differences among enterprises noting that enterprises in poor financial shape, who pay the lowest wages and experience uncertain prospects, face higher labour shortages and higher labour turnover than those who pay higher wages with sound financial standing. Russian State enterprises also face higher shortages than private enterprises (Gimpel'son, 2005). However, surprisingly, the private enterprises complain more about skills shortages than State enterprises. These findings demonstrate that skills shortages are highly contextual. Their existence depends on the strategies that companies are using to attract candidates. Gimpel'son (2005:44) also acknowledges that while the survey data depicts widespread skills deficits in the Russian labour market, "deeper analysis indicates that enterprises declared needs for additional skilled labour are at least partially imaginary". This statement not only displays the skills shortage debate but shows the paradoxical nature of the phenomenon i.e. the core-existence of contradictory conclusions due to contextual factors.

After careful examination of the literature covered so far, it seems the supporters of the pro-skills shortage perspective are recurrently advocating that skills shortages are ubiquitous. The perspective presents skills shortages as universal, i.e. all countries from the northern to the southern hemisphere of the globe seem to be grappling with this problem. Except for a few exceptions like Gimpel'son (2005), the pro-skills shortage view seems (for the most part) to ignore the contextual differences in as far as existence of shortages is concerned. As a result, the critics have argued that the pro-skills shortage view takes for granted that shortages are widespread. Furthermore, the standard one size fits all solutions (increasing training or apprenticeship, wages etc.) that the pro-skills shortage view proposes, ignores contextual differences in countries and results in its proposals being susceptible to criticisms of being too prescriptive.

The weakness of the pro-skills shortage view led to the advent of scholars in the academia who dispute the view such as Rothstein (2012), Ozimek (2013), Cappelli (2015), Freeman (2006), Sutherland (2012), Schied (2014) and Salzman et al. (2013) to name a few. The anti-skills shortage scholars argue that the pro-skills shortage view scholars take for granted that skills shortages are universal without proper scrutiny. Scholars such as Rothstein (2012) and Ozimek (2013) adopt a neoclassical theory approach, arguing that the skills shortage argument is artificial because supply is very responsive to wage increases which offsets the imbalance. On the other hand, Shah and Burke (2003) and Mackenzie et al. (2000) adopt Keynesian theory concepts to argue that increasing wages is not the solution in all circumstances because this causes inflation and increases the selling price of products to customers. Furthermore, they argue that wages are not always easily adjustable because of implications on existing staff, industrial relations arrangements, government regulations etc. In addition, in situations where new products or novel means of production requiring long term training are introduced, increasing wages will not immediately address skills shortages. Ho (2016) also argues that in situations where the labour market has reached its maximum employment level, raising wages and/or improving working conditions is not effective. In such cases, the shortages will persist for a long time if they are not accompanied by long term strategies such as training and bringing in foreign skilled workers.

One of the critics of the skills shortage view, Cappelli (2015:251) argues that in the USA “very little evidence is consistent with the complaints about skills shortages, and wide

range of evidence suggests that the complaints are not warranted”. The scholar argues that the claim that there is widespread shortage of engineers and information technology specialists is not warranted because according to the Bureau of Labour Statistics there is significant growth “of unemployed job seekers- most of them recently employed – far exceeding available job opportunities” (Cappelli, 2015:251). Cappelli (2015) also disputes Chambers et al. (1998) and Nuemark et al. (2011) projections that retirement of baby boomers will cause skills shortfalls. Cappelli (2015) and Freeman, (2006) mention that this assertion is misrepresenting the facts because the population and potential labour force in the USA is not shrinking. Freeman (2006:1) argues that the view “pays inadequate attention to the huge supply of qualified low wage workers in the global economy”. Furthermore, the proclamations made by Society of Human Resources Management (SHRM) in 2003 that there was going to be massive labour shortages by 2010 never happened in the USA (Cappelli, 2015). Therefore, it is not justified to argue that there is skills shortage in the USA. Though Cappelli (2015) disagrees with the view on the widespread existence of skills shortages in the USA, the scholar however, acknowledges that the number of students taking up skilled trades and vocational courses has declined considerably in the country.

Cappelli (2015) and Freeman (2006) identify weaknesses in the skills shortage arguments. Some of weaknesses are methodological problems and flawed assumptions that every job held by a college graduate requires the skills associated with the degree. Cappelli (2015) argues that skills shortage proponents use supply and demand concepts as well as the failure of education systems to equip students with the basic skills as the cause of labour shortages. However according to Cappelli (2015:253), the pro-skills shortage view often fails to develop a conceptual framework that enables one to clearly “understand the relationship between workers, their skills and employer needs”. The pro-skills shortage view often ignores the symbiotic relationship between the internal and external labour markets and their role in resolving the skill shortages in organisations (Jacoby 1983; Cappelli 2015). The later involves recruiting external candidates with general abilities and the former focuses on sourcing internally after training and developing the employee’s skills over a working lifetime. The other weakness is that the skills deficit argument defines skills in absolute terms i.e. seeing skills as coming with the applicant to the job and if they don’t have them then they cannot do the job (Cappelli 2015).

The debate is also evident in Canada where Hyslop-Margison and Benjamin (2003:11) argue that contrary to the claims of supporters of skills shortages view “on the national level, there is similarly scant evidence indicating widespread skills shortages among Canadian workers”. They support their view with assertions that the “Prime Minister's Advisory Council on Science and Technology (ACST) found no evidence of widespread skills shortages among Canadian workers” (Hyslop-Margison and Benjamin, 2003:11) Furthermore, Hyslop-Margison and Benjamin (2003) argue that contrary to the proclamations of the high-tech knowledge based economy rationale which argues that education systems need to reform because low skilled labour is disappearing, evidence in Canada shows that there is still growing use of low skilled labour market. Hyslop-Margison and Benjamin (2003:18) conclude that “it is at best a questionable, if not demonstrably false, claim that widespread knowledge and skills shortage is causing current labour market supply problems”.

King (1998:16) also acknowledges the existence of the skills shortage debate in the USA academia noting that the “University of California professor Dr Norman Matloff claims that the much-touted ICT labour shortage is a farce”. Critics such as Schied (2014) argue that the ICT skills deficit argument has been found wanting because it lacks specifics on who lacks what skills. The scholar argues that the “range of skills identified as deficient are similarly vague and wide” (Schied, 2014:555) The scholar adds that “there is ample evidence that shows that there is no skills shortage. There is substantial evidence that there is instead a job shortage” and quotes Vivek Wadhwa, a professor of Duke University’s Master of Engineering Management Program who states that “this whole concept of shortages is bogus, it shows a lack of understanding of the labour pool in the USA.” (Schied, 2014:556). Matloff (2002) also argues that the outcry for shortage of software engineers is not substantiated by reality because companies such as Microsoft only hire a very small percentage of the total supply of engineers i.e. 2% and this percentage is constant across the industry. The scholar argues that “If employers were that desperate, they would certainly not be hiring just a minuscule fraction of their job applicants” (Matloff, 2002:6).

Salzman et al. (2013) also disputes the pro-skills shortage view which claims that there is a shortage of STEM (science, technology, engineering and mathematics) workforce in the USA. Evidence from their study shows that 30% of the recent engineering graduates

surveyed mentioned that engineering jobs were not available, 30% stated that the job conditions were unfavourable and 50 % stated that they worked in other fields outside of the engineering field (Salzman et al., 2013).

Hurrell (2016) conceptualises the skills shortage debate differently. The scholar postulates that in some instances, employees with the right skills are hired but they deliberately withdraw their soft skills because of the poor quality of jobs i.e. long working hours, poor work-life balance, job insecurity, intensity of jobs, bad work environment, repetitive jobs, management style, lack of career growth prospects, low pay etc. In other words, such a view postulates that there is no shortage but attributes the perceived shortage to deliberate withdrawal of soft skills, because of dissatisfaction with poor working conditions. The situation is also aggravated by employers who are reluctant to offer formal training because soft skills are considered transferable on the job. The scholar reduces the skills shortage debate to employers' perceptions and recommends that managers reflect on unproductive practices in their organisations (Hurrell, 2016). The implications of these findings or recommendations on corporate policy making is not clear.

Supporters of the skills shortage view have been citing student under achievement as the cause of skills shortages in the USA (Loveless, 2012). Cappelli (2015) disputes this view citing that the number of graduates is not declining. Instead there is a 39% increase in bachelor's degrees between 2001 and 2011 and 69% increase in associate degrees during the same period (Cappelli, 2015). Contrary to the skills shortage view, Sutherland (2012) and Feldstead et al. (2013) studies show that in the UK, the problem of overqualification is a more widespread problem than skills shortage. Sutherland (2012) argues that policies that advocate for increasing skills and education are counterproductive instead policies should be aimed at increasing demand for skills. One of the reasons for this view is that the wage returns for overeducated individuals are lower compared to those whose educational qualifications are equal to the job requirements. Duncan and Hoffman (1981) and Ng (2003) cited in Cappelli (2015) also concur that overqualified individuals earn less in Canada. Vaisey (2006) findings also support the view that over qualification of the average worker in USA is a prevalent problem rather than skills shortage. In other words, credential inflation is more prevalent than skills shortage.

Supporters of the skills shortage argument cite structural change i.e. economic recession as the cause of skills imbalance or shortfalls in USA. However, critics of the skills shortage view such as Rothstein (2012) take a neoclassical theory approach arguing that the absence of skyrocketing wages (an indicator of tight labour market or shortfall in supply and demand) is an indicator that skills shortages are non-existent in the USA. The challenge in filling vacancies is attributed to ineffective recruitment strategies that firms are using to attract candidates and less efforts made by firms when searching for candidates rather than shortage of skills (Davis et al., 2012). Davis et al. (2012) support their assertions with evidence of the variations in firms' ability to fill vacancies.

The debate on skills shortage is not unique to the academia in developed countries but also extends to South Africa where research institutes and scholars are debating over the phenomenon as well and presenting conflicting findings (Breier, 2009). According to Breier (2009), studies by the Human Sciences Research Council and the Employment Equity Commission in South Africa shows that the argument regarding skills shortage in South Africa is not valid. This is because statistics show significant growth in supply of qualified workers and underutilization of qualified black South Africans by white controlled business due to negative perceptions and racial tensions emanating from past apartheid system. On the contrary public entities such as Sector Education and Training Authority in South Africa identify scarcity of skills in certain fields e.g. artisans, engineers, medicine and accounting. However, the implications of the debate and its influence on human resources policy decisions is not apparent.

The debate is aggravated by ambiguity and fluidity of the term "skills". The lack of a unified definition and approach to skills in the academia presents formidable challenges because the phenomenon is open to more than one interpretation. The term skill is used in the academia to allude to a broad range of requirements. It ranges from numerous generic employability skills (basic literacy numeracy skills, computer literacy, interpersonal skills, communication, teamwork, problem solving skills, reliability, motivation, punctuality etc.) to profession specific technical skills (Shah and Burke, 2003). Other scholars emphasise on the shortage of generic skills without mentioning profession specific skills. Nuemark et al. (2011) focus on profession specific skills, attributing shortages of health care professionals and computer science practitioners to retirement of baby boomers. Shah and Burke (2003:5) of Monash university also argue

that “there are different meanings attached to the phrase skills shortages”. Aaron and Capron (1959), Barnow, Trutko and Lemman (1998) all define skills in terms of disequilibrium between supply and demand, challenges in filling vacancies etc. However, some of the definitions do not distinguish between definition of skills shortages and causes of shortage. Richardson (2009) argues that the meaning of the concepts is not always forthright. Michaels et al. (2001), Gamble et al. (2010) and Ross (2013) use the vague term like talent. Therefore, it is not clear the skills shortage problem will be resolved given the lack of precision on what skills shortage means.

One thing that is clear from the academic literature above is that the debate is an ongoing discourse with no foreseeable end. Taylor (2005:213) also acknowledges that the problem with the contemporary skills shortage debate in the academia is that” while the notion of skills and particularly that concerning skills ‘shortage’ appears throughout the literature and the wider public discourse, it is rarely unpacked to instrumentally inform policy-makers”.

2.5. PRACTITIONERS’ VIEW ON SKILLS SHORTAGE DEBATE

A discourse on the skills shortage debate that exclusively concentrates on the perspectives of academia without looking at the practitioners’ views is an incomplete analysis. The practitioners’ views are very important for this study because the objective of the study is to explore the extent to which the debate in the academia is influencing and informing recruitment and training policies in the private sector. The other reason is that employers and consultancy firms are not only major stakeholders in the labour market but are the instigators of the skills shortage debate. Therefore, it is imperative that their views are captured. In other words, the debate exists in the academia because of the complaints made by employers. Furthermore, employers are the consumers of the skills that are produced by the education systems.

There are several articles that attest to the existence of the skills shortage debate among employers, practitioners and consultancy firms (Benderly, 2014; Ryan, 2015; Murphy, 2014; McLaughlin, 2014; Jones, 2013). The Bayer Corporation (2014) report is one of the accounts that acknowledges the existence of the skills shortage debate i.e. the conflicting views on the shortage of STEM workforce in the US. Consultancy firms such

as KPMG (2014), KPMG (2014b), Manpower Group (2013), McKinsey Global Institutes (2012), PriceWaterhouse Coopers (2012) and Deloitte (2011) produced reports predicting massive shortage of qualified candidates among various professions across developed countries. According to Slofstra (2006) industry experts in British Columbia, state that there is a shortage of ICT experts with business intelligence. Manpower Group surveys in USA, UK, Peru, India, Brazil, Turkey, Argentina and Japan posit that the highest shortage is among skilled trades workers (Manpower Group, 2014). Gavin (2009) study also shows that the skills shortage is not only an issue of the western world but is also a common problem in the Middle East. Gavin (2009) postulates that Gulf States such as Saudi Arabia, UAE and Bahrain in addition to using immigrant workers, launched training programs to equip the locals with the desired skills. In addition, the Gulf States also partnered with the private sector and universities in the western world for example Herriot Watt University in the UK to train Bahrain civil engineering graduates (Gavin, 2009).

Contrary to the assertions of other consulting firms outlined above, the Boston Consulting Group (2013) argued that there is little evidence that there is a shortage of workers in the USA. Other practitioners who have also come out fervently disputing the skills shortage claims by employers and consultancy firms include Benderly (2014), Ryan (2015) Murphy (2014), McLaughlin (2014) and (Jones, 2013). Accenture (2012) survey uses a different approach of surveying employees and not employers and produce findings that dispute the pro-skills shortage view. The firm establishes that one in five of the employees have not received on the job training in the previous 5 years, instead employers are relying on the formal education that the employees received in college (Accenture, 2012).

Cappelli (2015) critique of the consultancy reports shows foreseeable shortcomings of the reports on pro-skills shortage view. The scholar states that the validity of the Manpower Group (2014) results is questionable because information on sample size, response rates to the surveys, how questionnaires were developed or structured is not provided (Cappelli, 2015). Sampling bias is also likely as the firms conducted surveys among their clients (Cappelli, 2015). (Cappelli, 2015:261) argues that some of the results in the consultancy report are difficult to believe because they postulate difficulties in hiring for jobs with “no discernible skills i.e. drivers or other jobs that require no more than high school education” to represent a real shortage of skilled workforce. Murphy

(2014) argues that the skills shortage view is not warranted because there are 10 million unemployed people, yet employers still complain about finding the right skills in the USA.

In Canada, the skills shortage issue has also been raised by government e.g. during an address at the Inter-American Conference of Ministers of Labour (IACML), Dr K. Kellie Leitch, Minister of Labour and Minister of Status of Women in Canada stressed that the Canadian economy is facing skills mismatch challenges (Mena Report, 2013). However, Stanford (2013:1) disputes the skills shortage complaints arguing “that net new job creation in Canada has barely kept pace with population growth. The employment rate in Canada has been stagnant for almost three years, and stagnation in real wages is evidence that skills shortages are a myth. In this context of chronic unemployment and under-employment, it is jarring that so many employers, business lobbyists, and politicians continue to complain about a supposed shortage of available, willing, and adequately skilled workers”. Stanford (2013:1) argues that contrary to the skills mismatch and skills shortage claims in Canada the problem has been “persistent inadequacy of demand for labour on the part of employers. This has resulted in declining labour force participation, as discouraged qualified workers exit the formal labour market”. An article in the Star newspaper states that “detective work by economists, journalists, social media sleuths and investigators at the Parliamentary Budget Office proved that the federal government was using unreliable statistics to support its claim that Canada had plenty of jobs but no workers with the skills to fill them” (Goar, 2014:1).

The skills shortage debate among the practitioners is also susceptible to the same problem that confronts the debate in the academia i.e. the lack of a unified definition of skills shortages among the practitioners. Shah and Burke (2003:5) attests to this problem arguing that “employers, employees and policy analysts have varying perspectives on what skills shortages mean”. Bosworth, Dutton and Lewis (1992) cited in Shah and Burke (2003:6), also agree noting that “the term skill is open to several interpretations by employers. For some it may refer to the ability to learn tasks rather than an already acquired skill. Other employers may place a higher value on behavioural skills exhibited at an interview rather than on certified skills”. The lack of unified definition for skills shortage appears to be a lingering problem that can potentially inhibit labour market stakeholders’ capacity to resolve the issue.

2.6. POLICY INTERVENTIONS

The previous segments of the chapter elaborated on the academic and practitioners' views on skills shortage debate. The next section identifies recruitment and training policies that have been formulated to either prevent or alleviate skills shortages. The purpose of the section is not only to identify the policies but serves as the basis on which the discussions about the influence of the academic debate on recruitment and training policies in the private sector is made.

According to Shah and Burke (2003), skills shortages occur at two levels i.e. in the internal labour market (i.e. filling vacancies with existing employees within the organisation) and external labour market (i.e. filling vacancies with candidates from outside the organisation). Though the two labour markets are interlinked, policies can be introduced either to address skills shortages using internal labour market or the external labour market. The policy responses have a hierarchical structure i.e. categorisation into two levels i.e. micro or organisational level policies and macro or national or government level policies. Several studies in the academia cite myriad policy interventions that have been introduced in response to skills shortage. This section of the literature review will explore some of the interventions.

Supporters of the human capital theory argue that the solution to skills shortages lies on intensification of investing in training. Richardson (2009) and Jacoby (1983) states that some of the micro level policy interventions include increasing the average number of hours worked per employee, introducing formal and informal training in order to increase the supply system, job enrichment, bringing in qualified immigrant workers etc. According to Gamble et al. (2010), Griffiths University and Queensland University of Technology in Australia launched work-integrated learning programs. Forging partnership with business entities in order to place students during their study. The objective was to facilitate the school to work transitions through according students with "authentic real-world learning experiences" and equipping them with technical and soft skills (Gamble et al., 2010:535). Gamble et al. (2010) states that the reason for the introduction of work integrated learning program was that Australian employers were seeking young graduates with interpersonal skills, communication skills, analytical skills,

oversees work experience, an understanding of business practices in the global and local context, problem solving skills, cultural awareness, moral and ethical disposition, etc. that are not easily offered by university education (Gamble et al., 2010)

At the State level, the influence of the human capital thinking has been evident as well i.e. increased emphasis on investment in education to address skills shortages. Several governments established macro level policy interventions and invested in education to address the skills shortages at national level. For instance, the South African government launched the “Joint Initiative on Priority Skills Acquisition” (JIPSA) in 2006 (Maumbe and Wyk, 2011). It is a platform for government, business and organised labour to set skills priorities, align training and skills development efforts for the public and private sectors and to accelerate the provision of priority skills needed by employers. The Australian government formed The Department of Employment and Workplace Relations (DEWR) to conduct research and publish a list of professional and trade occupations in shortage (Shah and Burke, 2003). Mackenzie et al. (2000:854-855) states that the UK government introduced new policies in response to skills shortage in the construction sector such as the “new deal employment scheme” (financial incentives or training grant for employers who chose to train and retain new graduates), equal opportunities programs (encouraging employers to hire under-represented minorities and women), “Investors in People initiative” (encouraging employers to invest in training), marketing campaigns aimed at improving the reputation of construction sector e.g. “national construction week”.

According to Cappelli (2015), in 1994 the USA legislated “The School-to-Work Opportunities Act” which was aimed at building closer relationships between schools and employers in order to increase student skills and increase employability. Joyce and Neumark (2001) state that 64% of the schools were involved in school- to work program. The National Skills Standards Act of 1994 was also enacted to create a voluntary system of national standards for job skills by industry (Cappelli, 2015). This effort collapsed because of lack of consensus on the standards (Cappelli, 2015).

Governments in Asia have also been making efforts to address shortage of skills among recent graduates. For instance, the OECD (2002) report indicated that in 2002 the Korean government launched an internship program. Ho (2016) states that the Hong Kong

government injected additional funding into the private sector to encourage training and trade testing for prospective workers and to attract more people.

In Canada, several policy initiatives were also introduced to address the skills shortages. For instance, the Canada Job Grant operates based on a cost sharing principle between government and employers, where the latter determines who gets training and the type of training and in return receives a grant from the former (OECD, 2014). The grant is aimed at assisting small to medium enterprises that do not have enough resources for training their employees (OECD, 2014). The skills shortages among trades persons in Canada have also been attributed to low apprenticeship completion rates (OECD, 2014). In response, the government set up the “Canada Apprentice Loan” of up to CAD 4000 apprentice during training to alleviate the problem of financial barriers inhibiting completion. The other policy initiative is the “Red Seal Program” whose role is to harmonise inter-provincial apprenticeship programs including assessment methods because many apprentices from certain provinces were being rejected by employers in other provinces (OECD, 2014).

The government has also been making efforts to address inadequate numeracy and literacy skills through strengthening the remedial education in mathematics in polytechnics and colleges (Canadian Chamber of Commerce, 2013). Other policy initiatives are reformation of the immigration system. For example, the changes made to the 2002 immigration and refugee protection act IRPA and the Federal Skilled Worker Program (FSWP) for them to concentrate on long-term potential of economic immigrants (OECD, 2014). Other policy interventions aimed at addressing the skills shortages through reforming immigration system include 1999 Provincial Nominee Program (PNP), 2008 Canadian Experience Class (CEC), and Federal Skilled Trades Program (FSTP) (OECD, 2014). One of the challenges facing Canada is the non- recognition of immigrant qualifications and foreign experience by employers. To facilitate integration of immigrants the “Pan Canadian Framework for the assessment and Recognition of foreign Qualifications” was established “where employers, regulatory bodies, governments and organisations share best practices on assessment and recognition of foreign credential assessments” (OECD, 2014:127).

The effectiveness of all these policy interventions is not clear because according to the skills shortage view, the shortages and skills mismatch persist. Therefore, the extent to which the debate is instrumentally informing the policy makers is not clear. The impact of the equivocal nature of the term ‘skills’, conflicting theoretical findings on skills shortages existence and lack of measuring tools or indicators of skills shortages on the capacity to make effective recruitment and training policies is yet to be explored. On the other hand, according to Richardson (2009) if governments do nothing about the skills shortages, individual workers and employers will not be able to produce the skill levels and quantities that are required by the labour market. The reasons being that employers who operate in labour markets with scarce skills are reluctant to invest in sophisticated production methods and in turn, workers are less motivated to acquire higher-level skills because they are not needed to secure employment (Richardson, 2009; Booth and Snower, 1996). This leaves governments with no choice but to act or to be seen to be acting on the skills shortage problem. Some governments (e.g. 1999 Clinton administration) are however less interested in interfering in business affairs and leave it up to the market to resolve skills shortages (Cappelli, 2015).

It has also been argued that the problem with some of these policy interventions is that they mainly focus on increasing quantity and not so much on the quality of workforce. Whilst it can be assumed that the policy initiatives may be a response to the calls by pro-skills shortage view advocates, this assumption is not backed by empirical evidence. In addition, the contribution or influence of the anti-skills deficit argument on the policies is inconspicuous. In that respect, it is necessary to examine how policy makers arrive at the policy decisions.

The main question that emanates from reading the policy interventions above is what do policy makers in the private sector take into consideration when developing policies? From the policy interventions above, it seems that numerous contextual variables influence policy decisions e.g. national laws, existing resources at the policy makers disposal, confines in the environment, contextual factors, power dynamics etc. The nature of the policy responses to skills imbalance is also based on the magnitude or “size of the imbalance between supply and demand, the causes of the imbalance, and policy contextual settings” (Shah and Burke, 2003:18).

However, the challenge that the policy makers in the private sector face is that there are no straight forward indicators for skills shortage, therefore, various measures are used to develop policy responses (Shah and Burke, 2003). Shah and Burke (2003) and Cappelli (2015) state that policies are developed based on information generated from market economic indicators and adhoc employer-based surveys. Other sources of information that are used to identify or measure the shortages and overall tightness of the labour market include; hard to fill vacancy rates, unemployment statistics methods of analysis, production levels, flows of new entrants versus out flows of employees, training expenditures, overtime, change in relative wages; level of subcontracting, immigrant statistics etc. They state that several government initiatives have been developed based only on employer-based surveys which is problematic because it is difficult to make a distinction between anticipated shortages from actual shortages. Furthermore, findings from adhoc employer-based surveys are prone to bias and inaccuracies because of subjectivity of the employers and analysts (Shah and Burke, 2003). In that respect, the scholars argue that it is better to use market economic indicators when developing public policies because they are more objective (Shah and Burke, 2003).

International and national information exchange platforms (e.g. World Economic Forum, United Nations, OECD meetings etc.) have also emerged lately as the source of policy ideas. Ho (2016) states that in Hong Kong some of the initiatives aimed at addressing the shortages in the construction industry came about as a result of discussion forums between the government and industry stakeholders. The South African “Joint Initiative on Priority Skills Acquisition” (JIPSA) in 2006 is an example of such forums where the government and businesses collaborate and share information on the labour market (Maumbe and Wyk, 2011).

According to Cappelli (2015), consultancy surveys and reports such as KPMG (2014) and Manpower Group (2013), McKinsey Global Institutes (2012), Pricewaterhouse Coopers (2012) Deloitte (2011) are some of the sources of information used by policy makers to make decisions. However, the data from such reports is prone to weaknesses related to validity of findings, sampling bias and lack of transparency on data collection methods (Cappelli, 2015; Shah and Burke, 2003).

2.7. THE BARRIERS TO KNOWLEDGE TRANSFER BETWEEN ACADEMIA AND INDUSTRY

It is evident from the discussion thus far that one of the ways of alleviating the skills shortage problem and skills mismatch is through improving the collaboration between industry and academia. Despite some efforts being made by some governments to encourage partnerships between industry and academia, it appears there are some obstacles inhibiting stronger partnerships. The barriers are discussed below.

As the thesis seeks to examine whether the skills shortage debate in the academia is influencing policies in the private sector, it is pertinent that one also examines literature that explores the barriers to knowledge transfer between academia and practice. A discourse on these barriers is important because it enables conceptualisation of the obstacles deterring the forging of partnerships between academia and industry. Such barriers shape the nature of collaborations between industry and academia and are indirectly hindering the extent to which the private sector pays attention to the skills shortages debate in the academia.

According to Rynes et al (2001:340) “a substantial body of evidence suggests that private sector executives do not typically turn to academia or academic research findings when developing management strategies”. As a result, there are gaps between what academic research recommends and actual management practices in organisations. The prevalence of studies that show the academic research-practice gap has led to scholars such as Shrivastava and Mitroff (1984) to conclude that origins of the barriers are deeply ingrained dissimilar beliefs, values, ideologies, goals and frames of reference in terms of the type of information that is considered to be valid basis for taking action.

Despite numerous studies supporting the prevalence of academic research-practice gap, contemporary studies by Rynes et al (2001), show that private sector executives have become more receptive to academic journals because of intensified global competition for markets and constantly changing customer demands. Koman and Kundrikova (2016:608) also supports this view stating that “in this information economy where organisations compete on the basis of their ability to acquire, manipulate, interpret and use information effectively private companies are now relying on research and development (R&D) institutions from academia to achieve innovation required to stay competitive”. Koman and Kundrikova (2016) argue that universities to a large extent are involved in R&D activities, which companies don’t have capacities. Furthermore, “public policy has also changed in ways that encourage industry academic cooperation,

such as providing tax breaks for corporate funding of university research and developing funding programs that require industry university collaboration” (Rynes et al, 2001).

However, despite these developments, Fraser et al (2018:860)’s study found that “while there was a reasonable level of utilisation of academic material by practitioners, there are still some significant gaps”. Bruneel et al. (2010) explains that many barriers continue to plague the collaborations between industry and academia. According to Bruneel et al. (2010), the private sector and academia collaborations continue to face challenges because of barriers such as “differences in the orientations of industry and universities (e.g. orientation related barriers i.e. differences in institutional norms governing academia and those of private sector practices) and conflicts over intellectual property which continue to deter smooth knowledge transfer and fruition of the effective collaboration.

According to Bruneel et al. (2010), the internal dynamics governing academia are different from those governing the industry transactions. Academic Institutions are built on Mertonian norms such as communalism, universalism, disinterestedness and that knowledge should be shared openly so that the source of ideas can be acknowledged by the peers in the academic (Brown and Dugid, 2000; Bruneel et al., 2010). On the contrary, private sector is dominated by a closed system where knowledge is secretly guarded for the purposes of appropriating economic value and retaining competitive advantage (Teece, 1986). Furthermore, academic institutions are highly bureaucratic consequently resulting in slower response to environmental changes than private sector. These differences continue to deter effective collaboration between industry and academia. Bruneel et al. (2010) postulate that orientation related barriers can be mitigated through widening the breath of collaboration channels e.g. use of informal interactions in meetings, conferences and formal interactions such as establishing protocols on engagement. However, Bruneel et al. (2010) acknowledge that overcoming conflicts related to intellectual property ownership continues to be a challenge.

De Wit-de Vries et al. (2019) postulate that the factors that determine the extent of knowledge transfer between academia and industry are cognitive differences and institutional factors. Institutional factors are shared goals and cultural differences i.e. opinions, interpretation of knowledge etc., while cognitive difference refers to ambiguity and absorptive capacity (De Wit-de Vries et al.,2019). Ambiguity alludes to the extent to which the ideas or knowledge characteristics that are being recommended by the academia are inherent, uncertain, tacit in nature and difficult to transfer. The absorptive capacity refers to the industry’s capacity to recognise, learn and adopt the

new knowledge. De Wit-de Vries et al. (2019) state that the adoptive capacity is dependent on the shared knowledge base of the employers and academics. In line with this study, the extent to which the ideas raised by the skills shortage debate are adopted by policy makers in the private sector is dependent on institutional factors i.e. the extent to which the issues raised by the debate are aligned with the values of the organisation. If the ideas are significantly different from the values in the industry, it makes it difficult for the industry to trust and collaborate with academia. The absorptive capacity of the firm is also an important factor because if the company does not have the resources to adopt and assimilate new knowledge from the skills shortage debate it will not apply the concepts. Lastly, if the ideas from the debate are ambiguous and tacit in nature, it will be difficult for the firm to apply them when developing policies.

Like Bruneel et al. (2010) assertions, De Wit-de Vries et al. (2019) also postulates that social capital i.e. the closeness and frequency of interaction or communication determines knowledge transfer between academia and industry. The closeness builds trust and facilitates tacit knowledge transfer (Santoro and Gopalskrishnan, 2001). Similarly, if the skills shortage debate is to make any form of influence to the policies in the private sector, there is need for frequent interaction between academia and industry.

In conclusion, this section of the chapter has identified that barriers such as ingrained dissimilar beliefs, values, ideologies, goals and frames of reference between academia and industry continue to deter knowledge transfer between the two sides. This discussion on knowledge transfer barriers is relevant because if the skills gap debate is to make any meaningful contribution to the policies in the private sector, these barriers must be broken down. One of the ways of breaking down the barriers is through frequent interaction.

2.8. CONCLUSION

In conclusion, the literature review chapter elaborated on the skills shortage debate in the academia, public sector and among practitioners. The first segment of the chapter explored literature on the labour market theories e.g. human capital theory and institutional theory. The reason being that theories enhance conceptualisation of how skills are formed. In addition, the theories enlighten how and why skills shortages or skills surplus occur within the labour market and are mainly used by opposing views of the skills shortage debate to defend the divergent points of view. The other sections of

the chapter examined the literature that explores the skills shortage debate in the academia and among practitioners, highlighting the essential elements of the two opposing views. For instance, the pro-skills shortage view argues that skills shortages are universal because of everchanging customer needs and technology instigating a constant need for employee re-skilling. The shortages are aggravated by a slow rate at which education system adjust to the changes. The anti-skills shortage proponents argue that the pro-skills shortage view takes for granted that shortages are widespread without proper scrutiny. There was also a brief elaboration of the recruitment and training policy interventions that have been made at corporate level and national level. It was noted that despite the interventions, according to the pro-skills shortage view, shortages continue to plague the labour market. The last part of the chapter examined the literature on the barriers that are inhibiting knowledge transfer between academia and industry. Orientation related barriers and conflicts over intellectual property were identified as major barriers inhibiting the interaction between industry and academia. An analysis of the literature on barriers to knowledge transfer is important because such barriers might possibly deter skills shortage debate from influencing the policies in the private sector.

After exploration of the literature, weaknesses, gaps and ambiguous areas were identified which require further investigation. The gaps or ambiguous areas in current literature instigated the need for this study. For instance, the current literature does not explain the extent to which the skills shortage debate is instrumentally informing private sector policy makers. This is one of the gaps which this study seeks to address through exploring whether the debate is among the factors that are taken into consideration by policy makers in the private sector when developing recruitment and training policies. The current literature is silent on this issue. The contributions of the counter-skills deficit view to the policy decisions are not clearly explained in the current literature. Furthermore, past studies did not explore how private sector policy makers are responding to the ideas and knowledge raised by the skills shortage debate. The extent to which the private sector policy decisions are drawn from the academic debate is also inconspicuous in past literature. Past literature does not explore in detail the impact of the conflicting theoretical proclamations and ambiguity of the term 'skills' on private sector's capacity to respond to the issues raised by the debate (Taylor, 2005; McDaniel, 2015). This study seeks to address this gap by exploring the extent to which the ambiguous definition of skills affects the debate and influences policies. Taylor (2005) also confirms the existence of this gap

in the current literature. The scholar postulates that the extent to which the skills shortage debate is instrumentally informing policy makers is not clear in the current literature (Taylor, 2005). The current literature on skills shortage debate does not discuss whether the barriers to knowledge transfer between academia and industry are also affecting the extent to which the skills shortage debate is influencing recruitment and training policies in the private sector. In addition, previous studies do not expound on whether private sector policy makers are aware of the skills shortage debate. The exploration of these gaps that are not adequately addressed by past literature is the objective of this study. The next chapter will expand on the research methodology that was used to investigate these gaps.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. INTRODUCTION

The previous chapter was a discourse on past literature i.e. the gaps, limitations, controversies and ambiguous elements surrounding the skills shortage debate among practitioners and academia that require further investigation. In this chapter the primary objective is to discuss the research paradigm, research approach and research methodology that was used in conducting the study. There is a discourse on the reasons why certain research methods were chosen over others. The sampling methodology that was used during the study is also elaborated on including a comprehensive justification of the sampling approach that was chosen. The ethical considerations that governed the research are also disclosed.

3.2. RESEARCH QUESTIONS

In depth exploration of past literature on skills shortage has shown that there are gaps as it does not explain the extent to which the skills shortage debate is instrumentally informing private sector policy makers. It remains inconspicuous how private sector policy makers are responding to the ideas and knowledge raised by the skills shortage debate. For these reasons the objective of the study was to explore the follow research questions:

- Are human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers influenced by the skills shortage academic debate when making policy decisions?
- What do human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers take into consideration when developing recruitment and training policies?

3.3. RATIONALE OF THE RESEARCH METHODOLOGY

According to White (2000), the methodology refers to the approach or the philosophical basis on which a research is founded. The epistemological philosophy and methodological rationale that governed the research was predominantly interpretive philosophy. Interpretive philosophy is defined as an epistemological approach where the researcher focuses on the values and meanings of the social actors in order to understand the phenomenon (Blaikie 2000). The justification for taking the interpretive position is that the main objective of the research was not to assess the frequency of occurrence of skill shortages but to understand the social factors, political factors and psychological processes that influence policy makers when developing policies on skills shortages subject. The skills shortage debate was examined to determine the extent to which policy makers perceived it as instrumentally informing them when making decisions. Therefore, the researcher applied the interpretive philosophy because it was deemed the most relevant criteria for unearthing their perceptions on the topic under study. The research questions also determined the methodology. Scholars also concur that the nature of the research questions should determine the choice of the methodology (Hancke, 2009; Bryman et al., 2008; Grix, 2002). It was befitting to use a qualitative approach for this study because the objective was to explore participants' conceptualisation or interpretation of the skills shortages debate. Through the interviews and examination of available literature, the researcher identified contemporary policy interventions and asked the respondents to elaborate on rationale behind the policies. The objective was to establish the elements or factors that were taken into consideration when developing them. Consideration was given to the view that sometimes individuals or groups elicit similar behaviour, even though the rationale behind their actions are completely different (Ashby and Gott, 1998; Moynihan, 2008). The nature of the research questions required one to use an interpretivist approach because they required one to conceptualise beyond the positivistic "hard tangible, measurable behaviour" (counting or outlining policy interventions), to extracting the motives and values behind the policies. Positivism was not used in the research because it regards motives and values as "meaningless because they cannot be known with certainty" (Burrell and Morgan, 1985:4) (Thompson, 2004). On the contrary, it was noted that in order to gain a holistic or comprehensive understanding of the factors that policy makers took into consideration when developing

policies and to determine whether the academic debate played a role in any way, examining beyond the observable behaviour was necessary.

The interpretive approach was deemed suitable because the researcher's goal was to establish whether the private sector policy makers perceived the debate as a relevant factor that influenced their policies. The researcher identified a gap in the current literature noting that there were numerous quantitative studies that did not clearly explain in detail the implications of skills shortages debate on policy decisions. Taylor (2005:213) also acknowledges that the problem with the contemporary skills shortage debate in the academia is that "while the notion of skills and particularly that concerning skills 'shortage' appears throughout the literature and the wider public discourse, it is rarely unpacked to instrumentally inform policy-makers".

The aim of the study was to gather data and explore what it means. According to Lancaster (2005) the advantage of the inductive approach is the flexibility that is accorded i.e. the ability to develop theories based on observations thereby allowing the phenomenon under study to be studied from different angles with alternative ways of explaining the phenomenon. The inductive approach also allows "flexibility on research design, sample size and type of data" (Lancaster, 2005:26)

Scholars postulate that sometimes, positivistic approaches that use large samples do not clearly show "how an apparent relationship between variables has either been produced or developed" (Bryman, 2008:160) and (Gerring 2007). An in-depth qualitative approach was therefore needed for the respondents to reveal the complex relationship between the skills shortage debate and the policy decisions. The social actors' interpretations revealed the extent to which the skills shortage debate was either facilitating or limiting policy interventions. In that respect the interpretive ontological approach was considered most appropriate for the study because it allowed evoking "rich descriptions from participants and formally engaging in deliberate reflexive activities" (Banister, 1999:7). Furthermore, the other justification was that unlike in the logical positivism where universal scientific laws can be established for example in chemistry and physics fields, the same cannot be said about human beings because they engage in "autonomous reflection" plus contextual factors (diverse values, shared schema, past experiences etc.) influence outcomes.

When examining past literature, it was found that most studies concentrated mainly on identifying universal or consistent patterns across chosen places resulting in decontextualisation of situations. However, the study subscribed to Ross' (2013), Brixiova et al. (2009), Gimpel'son (2005) and McGrath- Champ et al. (2006) ontological assertions that the skills shortage phenomenon is ambiguous, fluid, complex, with no ultimate cause. It is highly contextual and subject to various interpretations such that a qualitative as opposed to a quantitative approach was the most suitable because it allowed in depth examination of the specific contexts. Whilst previous studies debate on the existence of skills shortages, most of the studies fell short in explaining the implications of such findings on policy decisions. The study's position was that the answer to the research questions above lay in exploring the ambiguous definition of skills and examining the reflections of the actors in the specific contexts. This helped in conceptualising the extent to which the debate in the academia was informing policy makers. This study applied Smelser's (2003:648) "cultural turn" concept that states that, a phenomenon can be understood better through focusing on the meanings that shape the actions of the participants. The qualitative study was more appropriate because it values contextual factors (Mason, 2005). In other words this study used the "Heiderggerian phenomenological approach which argues that the participant is the expert of the phenomenon under investigation and that while the researcher is knowledgeable of the literature and theories the researcher does not know the relevant dimensions of the contextual experience being reported by the participant" Giorgi 2006 cited in (Doody and Doody, 2015:1076).

However, it is important to note that the interpretivism is not without criticism. One of the main criticisms is the subjectivity of the researcher which interferes with the findings. In this study the researcher was aware of how the human resources background could potentially instil biased views, opinions values etc. However, the interpretivism proponents, for example, Howe (2006) argues that irrespective of the approach used, the social world can never be measured objectively as positivism postulates because the researcher's bias, value judgements and past experiences will always influence the research. In other words, the positivistic view that facts and values are distinct is a fallacy (Howe, 2006). Post-positivism also falls short because although it acknowledges the possibility of the researcher influencing the subjects under study it however, like

positivists, advocates for absolute objectivity in order to reduce the effects of biases (Colin, 2002).

The other criticism levelled against interpretivism is that findings are inconclusive because they are based on smaller sample sizes therefore making it difficult to make generalisations (Cohen et al.2000). However, the advantages of the smaller sampling size are that they allow in-depth study which was crucial for this research. Furthermore, the researcher's objective was not to make empirical generalisations but to make theoretical generalisations. Another criticism is that candidates accounts may not be true, because values and cognitive concepts are highly personalised. However, in the study the researcher, was mainly interested in understanding the phenomenon from the participants perspective. Furthermore, where possible, the researcher referred to available documentation in order to triangulate the information provided during the interviews. In order to ensure robustness and a more comprehensive study with authentic results, a comparison with previous studies was done in order to establish commonalities and differences.

3.4. RESEARCH DESIGN

The research design is defined as the framework that guides the collection and analysis of data (Bryman, 2016). It comprises of activities such as establishing aims of the research, selection of the appropriate methodology, data collection techniques, methods of data analysis, interpretation and how all these fit in with the literature (White, 2000:25). The research design for the study was a case study. The case study is defined “as a qualitative approach in which the investigator explores a real life, contemporary bounded system (a single case bounded by time and place), or multiple bounded systems (cases) over time through detailed in-depth data collection involving multiple sources of information (e.g. observations, interviews... documents, reports)” (Cresswell, 2007:97). In addition to using interviews this study also utilised documentary evidence to complement and for triangulation purposes. This study examined two cases (i.e. Zimbabwe and Canada) to shed some light into the skills shortage debate in line with Gerring's (2007:20) view that a case study “may incorporate several cases that is multiple case studies”.

There are several reasons why the case study research design was considered suitable for this study. For instance, its objective was not to reduce the diversified nature of organisations in the two countries under study and promote “unrealistic homogenizing assumptions” that are typical of large-N cross case research (Gerring, 2007:50). It was recognised that the organisations in the two countries under study were heterogeneous in many respects i.e. different organisational cultures, diverse historical trajectories, dissimilar resources, dissimilar products, diverse services, different experience etc. It was also acknowledged that not all companies in the countries experienced skills shortages.

Furthermore, organisations are affected differently and respond differently to labour market forces depending on contextual factors. The two contexts under study were also different i.e. a developed country (Canada) and a developing country (Zimbabwe). These settings are characterised by vast differences in culture and historical experience. Scholars also support using case study research design in such significantly heterogeneous circumstances postulating that it does not “make sense to lump poor and rich societies together...” ignoring the “vastly different cultures and historical trajectories is meaningless” (Gerring, 2007:53). In line with Hurrell’s (2016) argument the case study was considered more suitable because it allowed “inter and intra industry investigation” of the skills shortage debate and examination “of establishments with differing experiences of skills gaps”.

Sometimes large-N studies are not clear in explaining “how an apparent relationship between two variables has been produced by people whom research is being conducted” (Bryman, 2008:160). Gerring (2007) also concurs that the case study research design aids in conceptualising the causal mechanisms. The objective of the study was to examine the pathway or causal mechanism i.e. the factors that policy makers took into consideration when developing policies and not to explore the causal effects. In this regard the qualitative approach was deemed appropriate because it aided in exploring through semi-structured interviews the factors that policy makers take into consideration when developing policies on skills shortages. The objective of the study was to gather in-depth data that facilitates better conceptualisation of the phenomenon. This desired depth would not have been possible through administering questionnaires. The participants also furnished the researcher with in-depth data, revealing the extent to which the skills

shortage debate in the academia and among the practitioners was influencing their policies.

Furthermore, given the antagonistic conclusions in academia and among practitioners, it was important to assess if the participants perceived the debate as instrumentally informing them. Whilst there is evidence in the literature review that demonstrates the influence of the pro-skills shortage argument on policy interventions, the contributions of the counter-skills deficit view are not clear. The interviews therefore enabled the researcher to explore the participants' views on the role of the anti- skills deficit view. The qualitative approach enabled further probing, asking exploratory questions and seeking clarification on areas that needed further elaboration. Probing further would not have been possible if a quantitative approach had been used. The approach was deemed suitable because the researcher believed that the respondents would provide reliable information since they had knowledge of the reasons behind the policies in their own organisations. Unlike the quantitative approach, the qualitative approach enabled the use of multiple research strategies (Mason, 2005; Bouma and Ling, 2004). For instance, the qualitative approach enabled the use of a combination of documentary evidence and semi structured interviews. The interviews provided an opportunity to verify some of the information reflected in the documentary evidence.

3.5. CONTEXTUAL BACKGROUND

The study explored two cases, Montreal (Canada) and Harare (Zimbabwe) labour markets. The reasons for choosing Canada and Zimbabwe was that the skills shortage debate was also apparent in the two countries. The other rationale for selecting the two places was for personal reasons such as the researcher's proximity i.e. accessibility of the locations and the financial resources limitations that inhibited studying cities in other countries

In Canada, several policy concerns highlighted by the government prompted the need for conducting the study. For instance, the argument for the pervasiveness of skills shortages. The view claims that pervasive shortages are being caused by aging population, retirement of the baby boomers generation, the widening gap between the number of younger people entering the labour market and the number of people exiting the labour

market (Fields et al.,2017). The skills shortages are also attributed to ineffective immigration policies. Several scholars argued that there is need for reforming the immigration points system because there is a mismatch between the needs of the labour market and the supply of skilled immigrants (Aydemir, 2011; Omidvar and Lopes, 2012). OECD (2014) stated that there is in general an increase in vacancy rates for skills trades in Canada with the highest or soaring skills trades vacancy rates being in Alberta and Saskatchewan. The shortages in these regions were said to have been caused by the boom in the oil and gas sector (OECD, 2014). Alberta government stated that some investment projects had moved elsewhere because of lack of skilled workers (OECD, 2014).

The skills deficit argument also advocated for the need for strengthening the literacy and numeracy skills in Canada. According to a PIAAC survey in 2013, the average literacy score of adult Canadians between the ages of 16-24 was below the average of 23 countries that were surveyed during the same period (OECD, 2014). Canada's mathematics and numeracy ranking for the same age group also fell from 7th to 15th place. Possible reasons for the fall include upper secondary and post-secondary education contributing less to numeracy and literacy skills than in other OECD countries (OECD, 2014). The literacy and numeracy skills deficit argument has been advanced concurrently with a call to make the post-secondary education more responsive to the labour market demand (OECD, 2014). For instance, 46% of the employers surveyed in Canada reported that university graduates lacked soft skills e.g. teamwork, communication proficiency, problem solving skills and creative thinking for entry level positions (OECD, 2014).

On the other hand, McDaniel et al. (2015:99) dispute that while there are "pockets of skills shortage in some regions", there is no evidence of national labour shortage. In addition, between 2005-2010 period, Canada experienced the highest population growth of any G8 country. Therefore, there is no evidence that the aging workforce is pausing national labour shortages (McDaniel et al.,2015). McDaniel et al. (2015:99) posit that "data on job vacancies do not indicate a labour shortage". Gingras and Roy (2000:172) argue that "the shortage that employers report is a normal cyclical phenomenon and is attributed to a tightening labour market not a sudden aggregate shortage of skilled labour". McQuillan (2013:27) also argues that "Canada is not facing a widescale labour shortage and is unlikely to confront one in a foreseeable future". Evidence suggests that the skills of immigrants are underutilised because employers do not recognise foreign

credentials and skills of youth, aboriginal youth and disabled persons are underutilised as well (McDaniel et al.,2015). Statistics Canada (2013) also disputed the widespread skills deficit view, arguing that Canada has the second highest number of adults in the world, after Sweden. Statistics Canada (2013) also argued that Canada has one of the highest levels of problem-solving skills compared to other technology rich environments. Furthermore, the country has the highest rate of adult post-secondary education attainment amongst the developed countries (OECD, 2014). The skills shortage view required further scrutiny because according to OECD (2014) earning premiums for people with post-secondary education in Canada have remained stable since the later 1990s. Against this background the researcher wondered why the wages had not been pushed up if there was widespread skills shortage in the country.

The apprenticeship system in Canada is subdivided into 80-85 % on the job training component and 15-20% in-class technical training component that takes place in colleges, training centres, unions or online (OECD, 2014; Canada Apprenticeship Forum, 2013). The on-the job training part requires the apprentice to complete several hours under the supervision of a certified journey person (OECD, 2014.) When on the job training and technical training requirements are met the apprentice takes a written exam to become certified in a province (OECD, 2014.) However, the challenges confronting Canada include low apprenticeship certification completion rates and low participation rates (OECD, 2014). OECD (2014) postulates that skills shortages in Canada are being caused by low apprenticeship completion rates which are lingering at only 50%. One of the reasons for incompleteness of apprenticeship is lack of income during the in-class training part of the apprenticeship. In addition, employers are also' unwilling to release the apprentice to undertake in class training because of workload. Inter-provincial mobility of apprentices is low since in school training credits from pre-employment community colleges are not recognised by other provinces (OECD, 2014). Inconsistencies in apprenticeship training and certification requirements in Canada is impeding interprovincial mobility of apprentices" to regions where there are spiralling skills shortages (OECD, 2014:12). To alleviate the problem of financial barriers the government of Canada introduced interest free Canada apprenticeship loans of up to CAD 4000 for apprentices to complete the training (OECD, 2014). The initiative has succeeded in some province e.g. Nova Scotia but has not annihilated the skills shortage problems in other provinces (OECD, 2014).

Meredith (2011) questioned the perspective that there is a crisis in the Canadian apprenticeship system. The scholar states that while it is widely proclaimed that apprenticeship plays a central role in labour supply in Canada, “the actual contribution of apprenticeship to trades labour supply has never been determined (Meredith, 2011:326). The scholar argues that most of the studies that proclaim shortage of certified trades persons have limitations because they are “confined to broad generalities and aggregate level observations. This prevents closer analysis of how apparent demand for trades certification might vary in relation to other contextual factors such as employer characteristics” (Meredith 2011:327). Statistics Canada (2006) shows that high school graduates, less than high school, college graduates, sub baccalaureate and university degree graduates combined contributed 63% to trades occupations which is higher than the contribution of apprenticeship system. Furthermore, many studies on apprenticeship training in Canada only relied on “employer’s forecasts - a notoriously unreliable source” (Roy et al., 1996) quoted in (Meredith 2011:327).

“Canadian youth take on average eight years to transition from high school to work” (McDaniel et al.,2015:103). The experience of youth in Canada also supports the proclamations of youth transition theories e.g. navigation metaphor and the problem of warehousing of qualified youth that are asserted by Roberts (1995) and Howieson and Iaannelli, (2003). For instance, according to Bell and O’Reilly (2008) the transition of Canadian youth from school to work is no longer following the traditional linear trajectory as the search for full time jobs now takes longer than before. Many young graduates work in jobs that are not related to their studies. The scholars attribute the delays in youth transitions to the disconnection between qualifications and labour market needs as well as lack of accurate information about the labour market (Bell and O’Reilly, 2008). Furthermore, it has been argued that one of the reasons for the shortage is that Canadian employers’ support for training has not increased over the years despite an increase in population and many are reluctant to give training due to employee mobility (Goldenberg, 2006; Hurst 2008).

Furthermore, according to (McDaniel et al.,2015:103) “at times it seems government and employers are waiting for the other party to act on training”. According to OECD (2014:119) “public funded training in Canada is low by international comparison”. The

complexity of skills shortage debate in Canada is aggravated by the fact that there is no consensus on the definition of skills shortage (McDaniel et al.,2015). Several public policy interventions have been introduced e.g. government provision of additional funding to entities such as Statistics Canada for them to improve labour market data. McDaniel et al. (2015:101) warns that “policy should caution, however, to avoid overreacting to a perceived skills shortage, thus exacerbating future labour market challenges for Canadians”.

The second country understudy was Zimbabwe. The Zimbabwean schooling takes 13 years to complete. The education system comprises of 2 phases, i.e. primary schooling which takes 7 years and secondary schooling which takes 6 years. Secondary schooling is divided into 2 phases based on the Cambridge 2-tier model (Ordinary Level and Advance Level). National exams are administered by the Zimbabwe Schools Examination Council at the end of each phase. The first phase of secondary schooling takes 4 years and at the end a pass is required with a minimum of 5 core subjects (English, history, mathematics, science and a technical / vocational subject) to obtain Ordinary-Level. 2 additional passes are required to qualify for Advanced-Level. After completion of secondary schooling students, depending on the grades obtained can either opt to pursue vocational education in state- and privately-owned vocational training centres and polytechnic training colleges or tertiary education provided by 7 universities in the country.

The Ministry of Higher and Tertiary Education oversees the registration, accreditation, qualification assessments and operations of universities, technical, polytechnic and teacher training colleges and vocational training centres. The ministry regulates “Technical and Vocational Education Training (TVET) through provision of relevant and responsive curricula, validation systems, quality assurance systems, reliable examinations, trade test, skills upgrade and apprenticeship training” (Ministry of Higher and Tertiary Education, 2018:1), The ministry has also been mandated with developing policies and programs for human capital development. In 2006 the government established “The Zimbabwe Council for Higher Education (ZIMCHE) as another measure to guarantee quality and accreditation for university education through registration, audits and accreditation of all higher education institutions and their programmes/courses” (Garwe, 2014:4).

Lately Zimbabwe has been facing serious socio-economic crises since late-1990s which has led to massive closures of foreign owned companies subsequently leading to the collapse of the formal apprenticeship system (Kanyenze et al.,2011; Mwanza, 1999). Muchabaiwa and Muyambo (2017) postulate that recently the informal sector has taken over as main source of apprenticeship, in terms of human capital development in the country. The problem is aggravated by the reduction in quality of education due to teacher shortages, inadequate or dilapidated infrastructure in schools and the economic crises. Despite the measures that have been put in place by the government, according Muchabaiwa and Muyambo (2017:43) a debate that has emerged recently on skills shortage is that “the Zimbabwean education system has been criticised by industrialists for failing to produce graduates with practical and instrumental skills to be used in the industry”.

Academics such as Garwe (2014b) and Al-Samarrai and Bennell (2003) dispute the proclamations that the education system in Zimbabwe is producing unemployable graduates who lack the required skills. Garwe (2014) of The Zimbabwe Council for Higher Education (ZIMCHE) argues that contrary to the assertions above “universities in Zimbabwe are keeping abreast of the dynamic environment by continuously introducing new innovative degree programmes which address the gaps that exist in the labour market”. The scholar posits that “universities have enhanced their curricula by focusing on entrepreneurship and techno-entrepreneurship... therefore the country has utilised various ways to prepare graduates for future economic engagement. Crafting curricula that is relevant to economic and societal needs had the greatest impact. Exposing students to work related learning was also useful in nurturing future entrepreneurs as well as building successful careers in academia and industry. Government efforts to strengthen Small and Medium Enterprises (SMEs) and to promote internationalisation through scholarship programmes contributed immensely to improving graduate employment opportunities” Garwe (2014b:4). According to Garwe (2014b:3) a “study by Al-Samarrai and Bennell (2003) shows that most graduates in Zimbabwe... were in professional occupations that were directly related to their university training” except for a few. In other words, the academia in Zimbabwe dismissed the skills deficit and or skills mismatch argument which states that graduates are unemployable because they lack the required skills. The extent to which the debate is instrumentally informing policy makers is not

clear. The study therefore examined these two significantly different contexts to determine the extent to which the debate was instrumentally informing policy makers.

3.6. SAMPLING

The study was conducted among private sector companies in Montreal (second largest city in Canada) and Harare (largest and capital city of Zimbabwe). The main reason for targeting the cities was that the probability of finding large companies in the cities with well-established policies was higher given the size of the cities. The other reasons included accessibility or the researcher's proximity to the cities and cost implications. Other cities and countries were excluded because of limited financial resources at the researcher's disposal which prevented the researcher from conducting the study in other locations.

Large private sector companies in Montreal were purposely selected from the Manta company directory and "Canada's Top 100 Employers" companies' listings. The Manta directory estimates that the number of registered companies in Montreal is approximately 64,691 (Manta, 2018). The companies in Montreal that were rated as market leaders or "Montreal's top employers" according to Canada's Top 100 Employers, (a firm that evaluates companies based on the programs and initiatives they offer to attract and retain younger workers) were purposely selected. The companies were in the following sectors (banking, recruitment agencies, retail, hospitality, insurance, security services, health, ICT software development firms, ICT consultancy and management consultancy). The reason for excluding other companies and using the firm's results was that its selection criteria for top employers included (among other factors) the assessment of a company's ability to attract and retain younger workers as well as the existence of a robust training and skills development programs in the company. These elements were aligned with the objectives of the study. The researcher's assumption was that the companies that entered the competition were more likely to have well established recruitment and training policies in place. The focus was on large companies with at least 100 employees to increase the chance of finding companies with written policies. Furthermore, as market leaders in their industry the possibility of the companies having research and development departments as well as adopting the latest training, recruitment policies and practices on the market that are aligned with emerging trends was higher than other companies.

The other reason for targeting large or leading companies and exclusion of smaller or secondary companies was that the likelihood of the companies having documented recruitment and training policies, historical records, online company records etc. was higher than for other companies due to the resources at their disposal. Bishop (2012:507) postulates that “due to certain characteristics inherent to their small size, small firms generally display greater informality in their learning processes”. The objective of the researcher was not only to rely solely on interviews, but also to use documentary evidence as well to complement the interviews. Smaller companies were deliberately excluded from the study as previous literature has proven that most smaller companies lack formalised recruitment procedures (Carroll et. al, 1999). Therefore, the target was to use companies with formal or documented recruitment and training procedures for the purposes of triangulation.

Furthermore, the other assumption was that the companies with higher competitive position and pronounced visibility were more likely to interact with academia, government, research institutes, consultancy firms etc. The prospect of the leading companies receiving first-hand information, using multiple sources of information and being aware of latest research and findings in the academia and HR consultancy field was higher because of their proximity. The companies were identified through the Manta company directory to increase the pool of companies because not all market leaders accepted the invitations to participate in the study.

The sample selection method focused on leading companies because the assumption was that the possibility of finding companies who are involved in the skills shortage debate would be higher among leading companies than smaller/ secondary companies because of their labour market power. Small / secondary companies were excluded from the sample because the chances of them being involved in skills shortage debate was presumed lower. The study required respondents with an understanding of the skills gap debate. Their awareness of it was essential. Therefore, leading companies were purposely chosen to maximise the chances of finding the appropriate respondents for the study.

It was noted that the academia argued that one of the reasons for the skills shortages (which has already been explained in detail above) was the collapse of apprenticeship

system in Canada. The sample selection was also governed by the assumption that the financial resources at the disposal of leading companies enabled them to establish formal apprenticeship system than for small scale companies. It was also interesting to establish how policies on apprenticeship systems were being derived from the debate in the academia. While noting that leading companies may have different experience and perspectives from smaller companies, the sample selection also concentrated on one group i.e. leading companies for the purposes of achieving an in-depth study that is required for a qualitative study.

Scholars like Meredith (2011) and Roy et al. (1996) criticised studies that based their conclusions solely on unreliable or skewed information gathered exclusively from employers. Therefore, the researcher purposefully selected Recruitment Agencies and Human Resources Consultancy firms as well to capture multiple contextual voices or perspectives on the skills shortage debate. The objective was to capture the information from diverse angles and not allow one view to dominate the study. Human resources management consultancy firms were targeted because of their primary role of assessing the labour market, therefore the likelihood of the firms' familiarity with the debate and having up-to date information on the developments in the labour market was higher.

Literature that provided an estimate on the number of companies in Zimbabwe was not available. A possible reason for the lack of consolidated information on the number of companies could be that the economy was dominated by an informal sector i.e. unregistered small scale business (Muchabaiwa and Muyambo, 2017). A sample size of 9 companies from Zimbabwe (2 recruitment agencies from a phone directory and 7 companies from the 65 companies listed on Zimbabwe Stock Exchange) were purposely selected because the companies were market leaders in their industry. Historical records or information about the companies was accessible online, the possibility for the companies to adjust and use multiple sources of information when developing policies was higher due their visibility, market leadership position and the resources at their disposal. The 9 companies in Zimbabwe belonged to the insurance sector, financial sector, hospitality sector and recruitment agencies.

The whole sample comprised of 20 Human Resources Management practitioners in the corporate sectors (See Table 4 in APPENDIX 6). The Human Resources Management practitioners were from the companies purposely selected from the Manta company directory and “Canada's Top 100 Employers” companies’ listings. The study’s focus was limited to micro level private sector policies and not the national or public policies (See Table 4 in APPENDIX 6). The sample selection approach was purposive sampling which is defined as a process where the researcher “deliberately selects those who are likely to have most to say” (Newell and Burnard, 2011:73). The reason for applying purposive sampling was that the researcher was only interested in participants (Human Resources Managers and Human Resources consultants) who were knowledgeable and most likely involved in the development of recruitment and training policies. In addition, the study required people who had experience in managing apprenticeship systems. The respondents in Zimbabwe comprised of HR practitioners (HR Managers and HR Directors) from insurance sector, financial sector, hospitality sector and recruitment agencies. The firms were of different sizes ranging from 120 – 400 employees. All participants had experience in hiring ICT professionals. The participants’ years of professional experience in human resources management field ranged from 4 years to 22 years. The respondents in Canada comprised of HR practitioners (Recruitment Practitioners and HR Managers) from recruitment agencies, retail, software development firms and IT Consulting firms of different sizes. The biggest company had 300 employees. All respondents had experience in hiring and sourcing IT professionals. The participants’ years of professional experience in Human Resources field ranged from 3 years to 20 years.

The reason for targeting human resource management practitioners was that these were actively involved in developing recruitment and training policies. Therefore, were knowledgeable about the developments in the labour markets. Furthermore, Human Resources practitioners were in strategic positions to create and influence recruitment and training policy interventions and address labour shortages. The study required practitioners with experience in hiring ICT professionals because the discourse on skills shortage of ICT professional is also a contentious topic in Canada. Previous studies such as Asliturk, Cameron and Faisal (2016) and ICTC (2012), ICTC (2017) postulate that there is a persistent and continuing shortage of ICT workers in Canada. On the other end, Alexander Thomson et al. (2018) dispute this view stating that “any tightness in the ICT

labour market beyond the early 2000s may have been relieved by immigration”. The scholars also postulate that “it is argued that if there were shortages there would be symptoms such as increased real wages, increased hours worked per employee, increased overtime hours, decreased average tenure and decreased average worker age as firms adjust by bringing in new or younger workers”. (Van den Broek, 2012:12).

Hurrell (2016:609) argues that “managers are usually affected by biases and organisational politics when reporting skills deficits e.g. gender stereotypes, justification of training and recruitment budgets”. The scholar postulates that gathering information from recruitment /employment agencies provides more accurate results about the labour market. This research addressed this weakness by capturing the views of the recruitment consultants.

The Heiderggerian phenomenological approach postulates that the participant is the expert of the phenomenon under investigation and while the researcher is knowledgeable of the literature and theories, the researcher does not know the relevant dimensions of the contextual experience being reported by the participant” Giorgi 2006 cited in (Doody and Doody, 2015:1076). In line with the Heiderggerian phenomenological approach the researcher purposively selected Human Resources Managers and Human Resources consultants because they were regarded as the experts with contextual knowledge of the phenomenon under study because of the nature of their jobs i.e. establishing training and recruitment policies. The study required subject matter experts who were not only involved in the development and implementation of corporate recruitment and training policies but who also had accurate knowledge of the rationale behind the policy decisions in their companies. Based on this non-probability sampling method i.e. purposive sampling and snow balling approach were used. Random sampling methodology would not have yielded accurate results because not everyone is aware of the skills shortage debate and not everyone is involved in developing labour market policies. While critics argue that non-probability sampling method and snow balling approaches raise issues of bias, validity and generalisability of findings, the objective of the study was not to make empirical generalisations but was to gain deeper insight into the topic and generate rich data about the perspectives of the participants and contribute to the skills shortage debate.

A sample size of 20 in depth interviews was considered appropriate to facilitate good coverage and deeper understanding. This allowed reaching a point of saturation, where no other themes could be drawn to explain the rationale behind the policy decisions and determine the extent to which the academic debate was instrumentally informing policy makers. Charmaz (2006) and Cresswell (2007:157) also recommend sample size of at least “20 to 30 individuals in order to develop a well saturated theory but the number can be much larger”. Interviewing 20 participants from different entities facilitated in-depth capturing of diverse interpretations and contextual experiences of various participants who were involved or familiar with labour market policies. Therefore, purposively selecting the participants from diverse backgrounds facilitated capturing multiple contexts and diverse experience of the participants in the labour market.

Since there were two cases/ countries under study, the interviews were split taking into cognizant the differences in economic size. Since Zimbabwe had smaller number of companies compared to Canada, a sample size of 9 participants was drawn from Zimbabwe and 11 participants from Canada to facilitate understanding of the 2 contexts. Pragmatic reasons were also taken into consideration in determining the sample size i.e. the feasibility to interview more people given the time constraints vis-à-vis the thesis submission deadlines and the time it takes to transcribe each interview. Each interview took approximately 45 minutes to 1 hour. According to Pole and Lampard (2002) an hour’s interview takes approximately 7 hours to transcribe.

Access was negotiated through using the approach postulated by Silverman (2000) and Pole and Lampard (2002) i.e. through identifying the gatekeepers (i.e. directors or senior managers) in order to negotiate for physical access. The gatekeepers’ trust was gained through informed consent and providing reassurance that participation was voluntary, anonymous and that confidential information was not going to be disclosed. The gatekeeper was provided assurances that information that either puts their organisation into disrepute or threatens the organisation’s competitive position was not going to be disclosed. The researcher reiterated that the research was purely for academic purposes and provided proof through referring the gatekeepers to the University of Leicester website where the thesis title is displayed. This approach facilitated physical access. All participants were also provided assurance that their identity would be anonymised through coding. The rapport was established through citing the common ground between

the researcher and participants. For example, explaining to them how the study potentially benefited their organisations. Participants were also informed that the study facilitated development of beneficial policies and informed educationists about employer's needs. Lastly access to the participants was also made possible by assuring them that the topic under investigation did not involve investigating controversial or illegal practices. The researcher also capitalised on the familiarity with the cultures in the countries and being open about the researcher's human resources background facilitated establishing rapport and gaining access. This made the participants more willing to participate in the study.

3.7. DATA COLLECTION METHODS

The main source for data collection was semi- structured interviews (face to face and telephone) because "they allow a better understanding of the actor's reality (ontology). Interviewing, as opposed to using questionnaires, also provided the opportunity to conceptualise why and how organisations take certain policy decisions. They are flexible and can often be used to ask people about their attitudes, etc." (Loughlin, 2012:1).

The reason for using semi-structured interviews was that through proper engagement, the interviewee can provide in-depth information about their views (Collins, 1998 and Mason, 2005). The nature of the research questions required the use of interviews because they facilitated better understanding of the rationale behind the policies. In addition, semi-structured interviews and documentary evidence played a complementary role. For example, information in the policy documents was used to probe or seek clarification during interviews. The documentary evidence was useful in validating the statements provided by the interviewees.

One advantage of semi structured interviews that is mentioned by Collins (1998) is that participants can use their everyday language which is taken for granted by positivists. A measure of coherence is given to the chaotic phenomenon through reflexivity and interpretation during the interview. The existing studies on skills shortages phenomenon were also examined to see what type of instruments the scholars used. In addition, the semi structured approach was chosen in view of the way the data was to be analysed later. In general, it would have been difficult to know whether a respondent understood the questions if questionnaires had been used. However, in this case the interviewees had the

opportunity to clarify any ambiguities. Likewise, the interviewer probed further to evoke more detailed responses in cases where the response signalled lack of comprehension.

The semi structure interviews ensured that the discussions maintained direction in accordance with the research objectives at the same time allowed participants to disclose much more information than would have been shared if a structured interview had been used. Face to face interviews provided the opportunity to observe behavioural cues, an opportunity which would not have been possible if questionnaires had been used. In addition to the interviews, documentary evidence in the form of reports, policy documents, were used to complement the data and for triangulation purposes. The documentary evidence included policy documents or papers as well as website articles that explained recruitment and training rules and procedures of the companies. The policy documents served as evidence to affirm the statements made during the interviews or to provide additional information or insights into the context and policies of the organisations. This flexibility between data collection methods was necessary for this study to cater for unexpected findings.

There was no systematic approach in the selection of policy documents, rather the researcher asked for documentary evidence and relied on the respondents to voluntarily provide policy documents that described their recruitment and training policies and rationale behind the policies. Since the documents were provided by the participants this addressed concerns concerning the authenticity of documents.

3.7.1. THE RESEARCH INSTRUMENT - INTERVIEW QUESTIONS CONSTRUCTION

The researcher developed the interview questions after examining existing literature on the skills shortage debate and noted that there were gaps or areas that needed further investigation. The following gaps or ambiguous areas in current literature determined interview questions:

- Lack of clarity on the decision-making process i.e. how policy decisions are developed in response to skills shortages.

- The extent to which the debate is instrumentally informing policy makers is not clear (Taylor, 2005).
- The extent to which the decisions are drawn from the academic debate is also inconspicuous.
- It is unclear whether policy makers are aware of the skills shortage debate.
- The contributions of the counter-skills deficit view to the policy decisions are not clear
- Lack of clarity on how policy makers are able to respond appropriately and make effective decisions given the conflicting theoretical proclamations and ambiguity of the term ‘skills’ (Taylor, 2005; McDaniel, 2015)

The researcher also examined the interview questions and academic research questionnaires from previous studies on the skills shortage subject to determine areas that required further investigation. The approach used in developing the interview questions included categorising the questions by themes and providing rationale for asking the question as shown in the table 2 in APPENDIX 4. Above all, the research questions were the main guiding principles in the development of the semi structured interview questions. When developing the interview questions the researcher was mindful of biased questions and avoided leading questions that would sway the participants’ responses. The researcher also avoided loaded questions, ambiguous questions and complex jargon when constructing the interview questions. Sequencing effects were also taken into consideration i.e. the influence of preceding questions on the answers to the next question.

3.8. PILOT STUDY

The pilot study is defined as a “small scale version of the actual study- prior to the final study to identify, remove and avoid potential problems” (Truong, 2016:9). The researcher interviewed 3 pilot participants. The reason for interviewing 3 participants for the pilot study is that scholars such as Baker (1994) recommend pilot sample size of 10 -20% of the sample size of the actual study. The pilot study was also conducted because of various reasons outlined by scholars. For example, it helps to ensure that the interview instrument accurately aligns with the purpose of the study, the instrument collects the key elements that are required to answer the research question, determine the usability of the data that is collected through the instrument, eliminate ambiguity in the questions, estimate the

sample size of the actual study, remove unobvious mistakes in the research design and determine the suitability of the research design and analysis methodology (Truong, 2016) and (Doody and Doody, 2015). Pilot studies are also used to determine feasibility, risks, costs and time of the study (Truong, 2016; Doody and Doody, 2015). Doody and Doody (2015:1074) also state that the purpose of the pilot study “is to practice and to assess the effectiveness and feasibility of the planned data collection and analysis techniques”.

In addition to being guided by the reasons above the objective of the pilot study in this research was to determine whether the interview questions were comprehensible. The researcher wanted to detect and change misleading questions, biased questions, inappropriate questions and redundant questions.

The pilot study was used for these reasons:

- to test the research questions and refine those that were unclear.
- to identify and resolve issues that could affect the outcome of the main study
- to determine whether the questions need to be broadened or narrowed
- to enable the researcher to determine whether the sample to be interviewed were the right people
- to ensure that the style of interviewing allowed the participant an opportunity to display their own experiences and not the researcher’s own area of interest (Doody and Doody, 2015).

Like in Sampson (2004) and Kelly (2007) assertions the purpose of the pilot’s study was to identify potential ethical and practical matters that could derail the main study. The pilot study was also aimed at assessing the suitability of the sample-recruitment strategy (Hundley and van Teilingen, 2002). In other words, to assess whether Human Resources Managers and Human Resources consultants were an appropriate sample that would provide valid and relevant information that is aligned to the purpose of this study or whether a different group was needed. In line with the recommendations of Doody and Doody (2015), Guest and MacQueen (2008) and Pritchard and Whiting (2012) the pilot study was also used to practice and scrutinise the process that was to be applied in negotiating access during the main study. The purpose was to identify weaknesses and to enhance negotiation skills. Furthermore, the researcher wanted to find out whether the allocated time of 45 minutes to an hour per interview was realistic and adequate to collect

the required data. Consequently, it was useful in determining whether the skills shortage phenomenon could be understood within the planned timeframe of the full-scale study or whether a longitudinal study was required. The other objective was to practice the transcriptions process. Furthermore, through reflexivity, the researcher was mindful of the unintentional biases that can emerge from pilot studies data that may influence the interpretations during the actual study such as “expecting certain responses from participants” (Truong, 2016:11).

3.9. THE RESEARCH PROCESS

A total of 75 invitations were sent out, 11 participants from 11 companies in Montreal and 9 participants from 9 companies in Harare expressed interest in participating in the study. The interviewer conducted 20 interviews (telephone or face to face interviews). Telephone interviews were used to reduce the travelling expenses. The researcher used the approach that is postulated by Silverman (2000) and Pole and Lampard (2002) i.e. gaining overt or physical access through identifying the gatekeepers (i.e. senior directors or senior managers with the authority to grant access.). Several strategies that have already been explained above were used to gain access. The appointments were arranged through email and through telephone. The researcher briefly provided information about the research objectives to the gatekeepers. The letter of consent which contained information about the research objectives and duration of the interview was sent through email to the participants in order to give them enough time to reflect and decide on whether to take part in the interview or not. On the day before the interview, the researcher contacted the participant to confirm the venue, time, explain the interview process and accorded the prospective interviewee an opportunity to ask questions. Each interview session took approximately 45 minutes to an hour. The interviewer explained the objectives of the research and gave background information to facilitate informed consent. The introductory part of the interview was aimed at establishing rapport so that the interviewees would feel comfortable and disclose the needed information. The researcher reiterated anonymity and confidentiality at the beginning of every interview. The discussions were recorded using a recorder and notes on paper for the researcher to refer to the transcripts later when analysing the results. The interviewer asked questions

and at the same time allowed the participants to disclose as much information as possible and to ask for clarification if needed. The reflexive approach i.e. being mindful of one's own behaviour, thoughts and the possibility of them influencing the data collection and analysis process. For instance, as a Human Resources practitioner, the researcher knew that preconceived thoughts and assumptions based on past experience in relation to skills shortage topic could influence the researcher's ability to accurately capture the participants views. The researcher reflected on his experience and preconceived thoughts and tried to avoid as much as possible influencing the responses of the interviewees. There was need for skill on the part of the interviewer to avoid swaying the responses in a particular direction. At the end of the interview the interviewer explained the next steps that is summarisation of the interviews, respondent validation, analysis of interview transcripts, writing and submission of the thesis to the University of Leicester.

3.10. DATA ANALYSIS

3.10.1. INTERVIEWS TRANSCRIPTS ANALYSIS

Newell and Burnard's (2011) thematic content analysis approach was used to examine the data. Newell and Burnard (2011:121) defines the 'thematic content analysis' as a form of analysis that involves establishing emerging themes through reviewing the data and identifying "examples of utterances under each of these themes and cutting and pasting the data under these themed headings". One of the strengths of the approach is that it aids in organising, structure and analysing data that is drawn from interviews (Newell and Burnard, 2011). Doody and Doody (2015) also concur that the thematic analysis method is an appropriate method for analysing data generated through semi structured interviews. The following 6 stages outlined in Newell and Burnard (2011) schematic content analysis approach were followed:

- a) "Preparation of memos or short notes (on the margins of the interview transcripts) after each interview on an idea, topics talked about during the interview theory, mental activity that may have appeared or taken place during the research" (Newell and Bernard, 2011). The notes were used as reference point when writing the report.

- b) The researcher continued reading the interview transcripts and making notes with the objective of identifying general themes that emerged from the data in the transcripts.
- c) Thematic classification or “Open Coding” which involved recurrent reading, analysis of transcripts, writing words and phrases (on the margins of the transcripts) that summarised and categorised what the participants said resulted in reduction of text (Newell and Bernard, 2011:123). However, every effort was made to make use as much as possible all data in the transcripts. The researcher was cautious when applying Allan’s (2003) concepts on avoiding coding by microanalysis of the data as this could potentially lead to over conceptualisation and confusion due to overwhelming data quantity. Thematic classification continued until a point of saturation was reached, where no other themes could be drawn.
- d) The next step involved thematic consolidation which involved identification of categories that overlapped and merged them into one. The aim was to establish whether the codes can be lumped together under higher order codes. The researcher followed Newell and Burnard’s (2011:125) view that “the rule of thumb is not to have more than 12 final category codes”. The categories were further consolidated resulting in two main levels (external environment factors and internal environment factors that influenced recruitment and training policies) emerging.
- e) The researcher revisited the interview transcripts with a shortened list of category codes. Using different coloured, transparent ink marker pens to highlight key utterances, words or phrases that related to each of the themes. The units of analysis were utterances, words and phrases that defined skills shortages, descriptions of what policy makers took into consideration when developing policies on skills shortage, descriptions of the extent to which policy makers were influenced by the skills deficit debate when making policy decisions. The reason for establishing the unit of analysis was that not all divulged information was pertinent for the study. Other parameters included policy makers’ elaboration on the extent to which the conflicting theoretical proclamations on skills shortage were either enabling or hindering effective decisions. Each of the marker pens (or colour) was assigned to a single category code. All the text in the transcript was covered in different colours of the marker pens. “Vertical lines were drawn down

the edge of each page of each interview...to identify which passage of text from which interview once the pages were cut up. The first interview pages had one vertical line in the pages and the second interview pages had two vertical lines etc.” (Newell and Burnard, 2011:125-126). The pages of the interview were cut up according to coloured sections. A section contained, utterances, phrases, quotations etc. under a heading or similar colour code. “All pieces of text from a particular colour code were stapled together on pages and filed in a large lever arch file and each section was separated by labelled index cards.” (Newell and Burnard, 2011: 126).

- f) The organised data was then used to write the final report on the findings in a descriptive way. The researcher reported the findings and linked the findings with previous research. In the discussion chapter of the study there was theory articulation and consolidation of all themes and patterns to form a coherent whole. The researcher also established whether the themes answered the research question, provided new insights and or supported the existing theories. Consolidation occurred through identification of higher order commonalities called categories and concepts resulting in theory formulation (Allan, 2003).

3.10.2 DOCUMENTARY EVIDENCE ANALYSIS

The documentary evidence was also analysed using the Newell and Burnard (2011) thematic content analysis approach outlined above. The researcher read through the policy documents to identify content that answered the research questions.

- Are human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers influenced by the skills shortage academic debate when making policy decisions?
- What do human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers take into consideration when developing recruitment and training policies?

The researcher analysed the policy documents to identify relevant texts that explained the rationale behind recruitment and training policies. The relevant texts were highlighted using different coloured, transparent ink marker pens.

The next step included thematic classification or “Open Coding” which involved recurrent reading, analysing the policy documents, highlighting words and phrases in the documents that explained what policy makers took into consideration when developing recruitment and training policies.

The next step involved thematic consolidation which involved identification of categories that overlapped and merging them into one. The categories were further consolidated resulting in two main levels (external environment factors and internal environment factors that influenced recruitment and training policies) emerging.

The organised data was then used to write the final report on the findings. In other words, the process of analysing the documents produced several themes which were used to structure the results section. The data from the documentary evidence were then compared to the data from the interviews. The final step was theory articulation and consolidation of all themes.

The researcher kept an audit trail i.e. documenting in a codebook the development and evolution of the coding system. This aided in keeping track and analysing why and how the researcher made the decisions. The code book contained a list of the highlighted phrases and words.

3.11. RIGOR AND TRANSPARENCY

As has already been pointed out in the literature review most labour market studies that cover the skills shortage debate have been criticised by Heijike and Borghans (1998) and Cappelli (2015) because of lack of rigor. In this study, procedural rigor was ensured through ensuring trustworthiness i.e. ensuring that the research process was credible, dependable, and confirmable. Credibility was attained through rigorously analysing the data, reflecting, sifting, judging its relevancy and meaning and ultimately developing themes that accurately represented the participant(s)’ experience. Rigor was also ensured through respondent validation (member checks) and keeping a scrupulous audit trail (Weston et al., 2001; Banister, 1999). Birt et al (2016:1802) define respondent validation (also known as member checks in North America) “as a technique for exploring the credibility of the results through returning the transcript and or final results to the participants to check for accuracy and resonance with their experience”.

The respondent validation approach was deemed compatible with the research design of this study because the study adopted a subtle realist approach where the objective was for participants to report the reality from their perspective (Birt et al., 2016). The researcher's goal was to avoid exaggerated proclamations through accurately capturing the participants' interpretations of the skill shortage debate and its influence on the recruitment and training policies within their organisations and not to advance the researcher's biased views. Scholars postulate that respondent validation enhances the trustworthiness of the results (Birt et al., 2016). In this study Birt et al.'s (2016:1806) 5 step approach called the "Synthesised Member Checking" (SMC) was applied. The process involves sending back both the interview data and interpreted data to the participants for confirmation or disconfirming resonance with the analysed data (Birt et al., 2016). According to Birt et al. (2016), the 5 steps of the SMC are:

- a) Prepare the synthesised summary from emerging themes along with interview data quotes which represent the themes.
- b) Seek participants' consent to receive the SMC report.
- c) Send the SMC report along the Cover email (see attached APPENDIX 2) through email asking participants whether the report matches their experience, whether they would like to change anything or add anything.
- d) Gather Responses and added data e.g. written responses.
- e) Integrate findings.

The researcher shared the interview data and interpretive narratives with the participants in order to minimise misinterpretation of their meanings as much as possible. Torrance (2012) postulates that member checks aid in ensuring that the researcher's account is fair and reasonable representation of the situation as perceived by the participant. Following Morse et al.'s (2002) assertion, the respondent validation or member checks were strictly used for narrative inquiry only with caution because of the potential weakness of invalidating the work of the researcher.

In line with Morse et al. (2002) the researcher ensured rigor through recurrent verification on every step of the inquiry, correcting errors and reformulating the questions to enhance clarity so that the intended objectives would be achieved. Cappelli (2015) also criticised practitioners' assertions of skills deficit and doubted the credibility of the proclamations citing lack of transparency on how questionnaires were developed or structured as the

main weakness. The researcher ensured credibility through provision of a transparent account of the methodology followed so that examiners and other researchers can assess the quality of the work. Bryman et al. (2008) concur that transparency is a quality criterion.

In this study, the participants' ability to reflect on the motives, rationale and forces behind the policies they adopted in their organisations was considered. According to Finlay (2003:11) though this approach has a weakness of "potentially watering down the insights of the research", its main strength is that in this study it nevertheless provided an opportunity for the researcher to consider multiple voices. Quality was ensured through reflexivity. The researcher deliberately engaged in an on-going questioning of oneself and the research and how they may be influencing each other. In other words, the reflexivity involved critically examining oneself and assessing how personal values influenced the quality of the data and the way the knowledge was constructed. As a human resource practitioner, the researcher acknowledged that certain values and preconceived judgements on skills shortage which may have been instilled as a result of professional background and direct encounter or past experience on shortages in the labour markets under study could influence the way the study was conducted and the overall quality of the study. Whilst the human resources management background provided advantages in terms of the capacity to assess and conceptualise the phenomenon under study, the researcher was mindful of individual and domain specific biased assumptions. It was understood that the ingrained perceptions and values could also potentially place certain limitations on the work. The limitations of the study were acknowledged and elaborated at the end of this chapter.

3.12. ETHICAL CONSIDERATIONS

Several ethical dilemmas emerged as a result of conducting this research. Ethics in practice as well as the procedural ethics research standards set by the national jurisdictions and University of Leicester ethics committees were applied throughout the research in order to resolve the ethical dilemmas. The reflexive approach was useful in maintaining ethics in practice because national standards of ethical research, do not always aid in resolving all ethical dilemmas that emerge during the research process. (Wiles et al., 2007) and (Guillemin and Gillam, 2004). Reflexivity "stands for conscious and consistent

efforts to view the subject matter from different angles, strongly avoiding the a priori privileging of a favoured one” (Alvesson, 2003:25). Reflexivity enabled the researcher to be mindful of individual and to keep domain specific biased assumptions in check.

The participants gave their informed consent to take part in the interviews which is the core of ethical research. The researcher was guided by Kantian ethics principles of autonomy and respect for persons.

- a) All participants were adequately informed about the purpose, benefits and consequences of their participation in the research (Crow, 2002). The researcher outlined the research purpose, benefits and consequences in a LETTER OF CONSENT (Refer to the copy of the letter in APPENDIX 1). The letter of consent was sent by email and each participant was asked to sign as proof of their consent. The researcher did not use deceptive means or manipulate participants into consenting their participation in the interviews. The participants’ informed consent aided in obtaining valid information that was untainted by the researcher’s preconceived notions. During respondent validation, the interview transcripts and analysed data was shared with the participants for them to grant further permission for the results to be presented or for them to withdraw from participating if desired. The participants were asked to sign the RESPONDENT VALIDATION LETTER OF CONSENT (Refer to the copy of the letter in APPENDIX 2).
- b) The study raised power relations issues because when participants disclosed information, they lost control over how the information was to be used (Crow, 2002). This was resolved through disclosing as much information as possible about the research so that those who wished not to participate could opt out at any stage of the research. Participants were advised about the mandatory reporting requirement i.e. the plan to share the information they provided with the University of Leicester. The respondent validation was also derived from ethical considerations e.g. avoiding distressing the participants when direct quotes from the study are published (Torrance, 2012; Birt et al., 2016). The interview data and interpretive narratives were shared with the participants in order to minimise as much as possible misinterpretation of their meanings and avoid presenting misleading results. The objective of the respondent

validation was to give reasonable control to the participants to confirm or disconfirm the accuracy of the direct quotes and data interpretations.

- c) Issues of confidentiality and anonymity of the participants identified by Thompson (2004) and Banister (1999) were also considered during the study. The information provided by the participants was treated with uttermost confidentiality. Participants had the right to disclose and decide which information to be disclosed, whom to disclose and when it will be disclosed.
- d) Organisations and participants' anonymity were maintained through coding in order to ensure protection from physical, psychological or work-related harm. The researcher respected the participants' privacy. Private information that was gathered by the researcher during the study that either puts the participant or organisation into disrepute or threatened the organisation's competitive position was not disclosed. The interviews that were tape recorded and any documentation that was provided by the participants will be destroyed when the studies are successfully completed. Interview transcripts did not contain any mention of name of the participant or their organisation, and any identifying information from the interview was removed. The deontological approach was used to ensure that basic rights listed above will not be violated (Crow, 2002). The researcher adhered to the principle of beneficence that required the researcher to minimise the possibility of the participants being harmed while maximising the benefits from the research (Crow, 2002).
- e) Information included in the study was properly researched to ensure accuracy and free from fabrication. The work of other scholars and researchers was duly acknowledged in order to avoid plagiarism.
- f) Language that is discriminatory or demeaning was avoided when interviewing and reporting the findings. The researcher constantly engaged in a reflexive approach i.e. examining personal actions, behaviour, interview questions and ensuring constant respect of the participants' dignity.

3.14. CONCLUSION

In conclusion, this chapter elaborated on the objectives of the research, research methodology, rationale, research design, purposive sampling methodology, data

collection methods (interviews and documentary evidence), research process, data analysis, ethical considerations and limitations of the study. In the next chapter the researcher presents the findings.

CHAPTER 4

FINDINGS

4.1. INTRODUCTION

In the previous chapter there was a discussion on the research objectives, paradigm and research methodology that was used in conducting the study. In this chapter the researcher elaborates on the findings. The structure of this chapter comprises of sections with the research questions as headings. The first segment of this chapter elaborates on the findings on participants' definition and interpretation of the term skills. The reason being that, the term skills is a contested term with different meanings from one organisation or individual to the other. The divergent interpretations of the term influenced the answers to the research questions. In other words, the extent to which policy makers in the private sector conceptualised the concepts in the debate, applied the concepts or even paid attention to the debate was influenced by their definition of the term skills. The second segment is a discussion on what participants said vis-a vis the two sub-research questions listed below.

- Are human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers influenced by the skills shortage academic debate when making policy decisions?
- What do human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers take into consideration when developing recruitment and training policies?

The chapter presents the participants' perception of the extent to which the skills shortage debate was informing and influencing the recruitment and training policies in their organisations. Furthermore, there is deeper analysis and comparison of the findings among the sectors/firms within the countries.

4.2. DEFINITION OF SKILLS

The first section of the chapter expounds on how participants defined and described the term skills. The reason being that the definitions or meanings of the term skills used by policy makers predetermined their answers to the research question above. The researcher

also recognised that the term skill was a fluid term in Montreal and Harare. It was associated with different meanings from one organisation or participant to another. The diversified definitions of skills resulted in various answers to the research question i.e. the extent to which policy makers in the private sector perceived the debate as instrumentally informing them differed significantly from one participant to the other, depending on how each policy maker conceptualised the term skills. For instance, some participants who defined skills primarily from a firm specific point of view did not see the debate as instrumentally informing them because they felt that the debate was prioritising the development of generic skills over firm specific skills. The opposite was true of those participants who defined skills primarily from a generic skills point of view.

Another common finding in this study was that the ambiguity of the definition of skills was also evident in Canada (CAN) and Zimbabwe (ZW). Participants in Canada gave dissimilar definitions for example “*ability of the person to provide the service or job, soft skills*” (13CAN), “*what you have to do the job or bag of tricks or technical knowledge*” (17CAN), “*Skills is something you acquire as you do it*” (CAN 4), “*skill means hard and soft skills*” (2CAN). The findings in Canada were inconsistent definitions of skills e.g. some participants defined skills as hard or technical skills while others identified soft skills. However, in both countries the common finding was that the majority of participants gave vague descriptions i.e. describing skills as something or a thing that is intangible.

Unlike in the case of Montreal, participants (5ZW, 6ZW, 7ZW, 9ZW, 11ZW, 14ZW and 15ZW) in Harare despite being in different sectors, defined skills in somewhat a similar way i.e. focusing on “*abilities*” and “*competencies*” required “*to successfully execute tasks*”. However, the participants in Harare also defined the term skills in broad and vague ways that did not clearly elaborate on what the “*abilities*” or “*competencies*” were. This vagueness was an indication that the term skills was a contested and fluid concept that had various meanings depending on the context in which it was used i.e. the type of organisation, country, sector, culture etc. As the researcher dug deeper i.e. analysing each organisation in the countries, it was established that there were subtle differences. For example, on one end most participants’ e.g. in the hospitality and recruitment sectors provided definitions leaning more towards soft skills i.e. interpersonal skills, communications skills etc., on the other end a few software development firms who

focused on technical skills and numerical skills etc. In the middle of the spectrum were participants who referred to both soft and hard skills. However, in this study the broad and vague description of a skill as an “ability” was consistent in both countries. Therefore, the debate was not being taken into consideration by employers because skills meant different things to different individuals and differently from one context to the other. The definitions in the debate were not always aligned to the participants’ definitions. It was noted that the extent to which the debate was instrumentally informing policy makers was being inhibited by the fluidity and ambiguity of the definition of skills.

In relation to the second sub research question, the researcher noted that the participants’ definitions showed their parameters or boundaries set in terms of scope or range of factors they took into consideration when developing training and recruitment policies. The way skills were defined limited the number and type of opportunities that policy makers exploited to address the recruitment and training needs in their companies. For instance, some definitions leaned more towards description of generic skills whilst others referred to firm specific skills. A common finding amongst participants who emphasised firm specific skills e.g. (6ZW), (15ZW) and (17CAN) was the preference for vocational education and training systems. In situations where private sector policy makers defined desired skills primarily in terms of firm specific skills e.g. (6ZW) it was noted that it was also a challenge for the education system to address the company’s needs. The participants said that employer’s involvement in curriculum development was needed as the education system mostly produced generic skills. This resulted in shortages for those employers who needed firm specific skills.

On the other end, companies that defined skills mostly in terms of generic skills took into consideration the effectiveness of the education system in providing transferable skills. This can be illustrated in the cases of (1CAN), (8CAN), (13CAN), (7ZW) (9ZW) and (2CAN) who mostly defined skills in terms of generic skills e.g. literacy and numeracy skills. The common finding amongst the participants above is that they looked mostly up to the education system to provide them with the skills they needed and blamed the education system for skills mismatch problems. Participants in Zimbabwe and a few in Canada said that the education system was not always producing skills that were aligned to the firm specific needs. This skills mismatch situation resulted in employers complaining about the shortages of certain skills.

There were inconsistent results when trying to establish whether the capitalist model on skill formation followed by the country had a trickledown effect on the definition of skills i.e. in terms of generic or firm specific skills by the private sector companies. While Canada model follows the free market model where there is emphasis on formation of generic transferable skills, the capitalist model did not seem to influence participants' definitions of skills because the definitions varied significantly from description of generic skills (or transferable skills from one company to the other) to firm specific skills depending on context. The observation was that companies that defined skills in terms of firm specific skills took into consideration ways of improving apprenticeship system when developing training policies. The labour markets in Montreal were highly heterogenous such that participants were defining skills in line with the uniqueness of their contextual experience.

In conclusion, this section has explored how the concept of skills was defined by participants. The discussion on how the term skills was defined was pertinent for this study because the way the term was defined by policy makers predetermined their answers to the research questions. For instance, the employers' definitions determined what they took into consideration when developing recruitment and training policies. The findings revealed that the term skills was a contested concept without unified interpretation in Canada and Zimbabwe. It had different meanings to different companies depending on the context and was vaguely defined. When defining the term skills, it was noted that some firms defined skills primarily in terms of generic skills while others leaned more towards firm specific skills. The definitions showed participants' expectations in terms of solutions and the type of skills they expected from the labour market. Those companies who defined skills in terms of firm specific skills expected apprenticeship systems to address their skills needs. Those companies who defined skills in terms of generic skills expected universities and tertiary education systems to provide the desired transferable skills. The next section looks at whether policy makers were influenced by skills shortage debate when developing recruitment and training policies or not.

4.3. ARE POLICY MAKERS IN THE PRIVATE SECTOR INFLUENCED BY THE ACADEMIC DEBATE ON SKILLS SHORTAGE WHEN MAKING POLICY DECISIONS?

This section of the chapter elaborates on the findings pertaining to the core research question on whether policy makers in the private sector were influenced (either directly or indirectly) by the skills shortage debate when developing recruitment and training policies. The following three major patterns or categories were identified:

- The majority (who were familiar with the debate) who said that the debate was not influencing their policies
- A few participants (also familiar with the debate) who mentioned that the debate was influencing their policies
- A few participants who said that they were not familiar with the debate

The first category comprised of participants who said that the debate was not influencing their policies. These were the majority. Despite differences in terms of sectors of operation, contexts and opinions on the existence of skills shortages, most participants in Montreal and Harare said they did not perceive any relationship between the debate and the policies in their organisations.

Majority of participants in Montreal said that the debate was not influencing their policies. The executives said that they were not consulting academia or academic research when developing recruitment and training policies. For instance, (1CAN) said *“our reality is more important than the debate... the debate is not so relevant, our reality is more important”*. (2CAN) *“There is no relation between the debate and internal policies. We look more at the internal situation”*. (3CAN) *“the reality or experience of the organisation precedes the debate”* (17CAN) *“our experience is more important than the debate. what’s more important are our everyday experiences ...”*. In other words, participants said that the skills gap debate was not influencing their policies because it was not related to their daily experiences. The participants’ impressions were that the debate was distant from their everyday realities therefore did not consider it when developing policies. The respondents said that the situations within their organisations were more relevant than the issues raised by the debate. In other words, their organisations were facing other issues affecting them rather than the debate.

In some organisations the debate was not influencing policies because of internal communication challenges and lack of management support. For instance, one of the respondents from a management consultant firm acknowledged that though she was familiar with the debate and at some point, had tried to implement a training she had read from academic material. She was not able to introduce it in the company because senior management did not support it.

A common finding among (1CAN), (2CAN), (6ZW), (7ZW), (9ZW), (10ZW) and (12ZW) in the two countries was that though participants mentioned that they sporadically applied some academic concepts when developing strategies, they did not specifically refer to the issues/ideas raised by skills shortage debate in the academia. Whilst policy makers were assessing the courses and programs that were being offered by institutions of higher learning when deciding on whether to train internally or to source workers externally, most companies in Harare did not establish formal relations with higher education institutions. Therefore, they said they were not involved in the skills shortage debate.

It emerged from the interviews that some respondents were not consulting academic research when developing recruitment and training policies because their companies did not have confidence in the education system. The participants criticised the education system for not adequately developing the desired skills. The majority were in Harare compared to Montreal, where there were fewer complaints. Examples include (1CAN) who mentioned that *“sometimes the way of teaching is not effective for everybody”*, (9ZW) *“the education system is not adequately preparing graduates for new challenges”*. Participant (7ZW) who said that *“the level of attention universities give to students is not good enough. The lecturer to student ratio is imbalanced. Public universities are significantly underfunded such that they are relying more on enrolling more students to fund their programs. ... graduates lack basic communication skills... they lack business writing skills”*. As a result, participant (7ZW) said that his company resorted to training internally. In other words, some participants in Harare said they had more confidence in their internal training systems rather than the education system. Lack of trust in the education system deterred collaborations between companies and academia thus, resulting in the debate not influencing policies in the companies because there was limited interaction. A notable difference between the two cases was that contrary to the findings

in Montreal, the basis for lack of confidence in the education system among participants in Harare was the view that the system was inadequately funded which inhibited it from adequately skilling the students.

However, lack of application of the skills shortage debate was not always attributed to lack of trust in the education system but to other factors. Deeper examination of the findings in Montreal showed that participants from recruitment agencies and hospitality industry did not complain about inability of the education system in providing skilled graduates. They were simply not applying the debate when formulating policies because of lack of participation in the skill shortage discourse. Similarly, the hospitality firm and retail firm in Harare who did not complain about the education system were also not participating in the discourse. Therefore, were not applying it when developing policies.

Another reason why companies did not pay attention to the skills shortage debate was that some of them said they were finding it easier to find ICT professionals. The researcher established that the ICT departments in the retail and hospitality firms were small such that the need for highly skilled software developers (profession experiencing the highest shortages) was lesser than in other firms. The researcher also noticed that when the retail and hospitality firms required development of software programs, they outsourced the services from external companies. The participants said that the hospitality and retail firms mostly required ICT service or help desk workers who according to the participants in Zimbabwe were in abundance. In this case they mentioned other reasons for not applying the skills gap debate in policy making rather than the debate for example their contextual experiences.

The majority in Harare and a few in Montreal said that they were not relying on academia when developing policies because they felt that the education system was always trailing behind the developments in the industry. They said there was need for reforming the education system because it was not quickly adapting to their everchanging needs. They stated that the academia was not providing them with the needed skills stating that (12ZW) *“simulation-based learning is lacking in universities”* (17CAN) *“there is lack of academic programs that bridge the skills gap ...”*. (14ZW) *“ICT courses should be introduced in primary and secondary schools”*; (16CAN) *“schools should introduce basic coding in school curriculums”*; (15ZW) *“launch post-secondary co-operative education opportunities in ICT field”*. Participants said that the academia was

disconnected from the reality of the firms. (7ZW) *“Those universities that are saying that they are producing graduates with relevant skills do not know what they were talking about”*. -The respondents said that were not paying attention to the developments in the academia because they felt that the academia was slow at responding to their needs.

Some respondents said that the debate was not influencing their policies because companies were looking more at the strategies of competition or market leaders and drawing lessons from them. The participants said they were not willing to bear the risks associated with adopting new ideas raised by the academia but relied on either using the strategies used by market leaders or building on them. Participants in Montreal mentioned that practices in other organisations were important considerations. *“practices in other organisations, competition in the Silicon Valley, how big players (e.g. google) in the market recruit”* (3CAN), *“we look at successful practices in other organisations for example many other organisations use applicant tracking systems”* (17CAN). Documentary evidence showed that companies were paying attention to their competition. For example, in one of the software development firm’s recruitment policy documents, it was mentioned that the company’s aim was to remain competitive and stay at the top of the market. Therefore, it looked for highly motivated and innovative people who work efficiently in a fast-moving team environment and are committed to excellence. Evidence also suggested that there was diffusion of policies among the organisations e.g. (1CAN) said that lean management ideas were spreading through conferences. Similar findings were also evident in Zimbabwe where participants spoke about giving attention to competitors’ practices e.g. employee retention strategies used by competitors, salaries offered by competition and assessing the extent to which the policies were successful. *“we offer flexible competitive salaries in the market that facilitate retention of employees and to attract qualified employees”* (10ZW). Participants said the extent to which the strategies had been used elsewhere and succeeded was an important factor when making policy choices. There was evidence of diffusion of policies among competing organisations within the countries. For example, in Montreal, the use of e-recruitment software or applicant tracking systems by recruitment agencies was common in the sector than in other sectors.

In terms of training policies, companies in Montreal were also emulating each other with regards to offering tuition subsidies for their employees. However, offering tuition

subsidies was also consistent in other sectors studied except for recruitment agencies and management consultancy firms. Though, there was a difference in the tuition subsidy strategy. (13CAN) from a hospitality business in Montreal noted that the entity offered tuition subsidies for courses unrelated to employee's current position. Most of the firms said that they offered tuition for courses related to the job because it was an effective strategy for developing skills and retaining workers. However, a comparative analysis of the sectors in Harare showed that in a few instances, companies that were not competing against each other also had similar strategies. For example, participants in the banking sectors and insurance sectors said that they had leadership training and succession planning programs.

The participants in Canada said that there was minimum interaction between academia and their firms. In a few instances where there was interaction, the nature of interaction was mainly through informal means e.g. career fairs at universities or conferences, e.g. (1CAN) said that lean management ideas were spreading through conferences. In other words, there was not much interaction to discuss ways of improving internal recruitment and training policies.

There were similar findings in Zimbabwe where the overall view from the participants was that the skills shortage debate was not influencing the policies. For example (14ZW) said the *"debate is beyond the organisation... there isn't much the organisation can do about it"*. The debate was viewed as a distant, higher-level concept that is independent of private sector's policy formulation process. The discourse was considered independent from the practices in the companies i.e. a matter for governments and universities.

The skills gap debate in the academia was not influencing policies in the private sector because it was not a topic of discussion among the private sector executives in Harare (6ZW). *"It is a rare debate...people are not talking about it"*, In other words there was lack of communication between higher education institutions and industry

Like in Canada, the practical application of the concepts raised by the skills shortage debate was also minimal in Zimbabwe because there was minimal interaction between industry and academia. (5ZW) *"employers are doing what they are doing that has nothing to do with the debate"*. The debate was not influencing policies because participants did not have experience working with the academia. In other words, higher education

institutions and industry were acting as isolated islands and exchange of knowledge was limited. (6ZW) stated that. *“IT courses offered by universities should be developed in collaboration with tele-communication companies... employers should be sitting on university boards otherwise the “mismatch between the curriculum and the needs of the employers will persist”*. In other words, participants mentioned that there was not enough interaction between the academia and the industry to allow the debate to influence policies.

Though acknowledging that the debate was important, respondent (9ZW) said that *“I have not applied the debate in policy making”*. The participant said that the reasons for not applying the debate because of a busy schedule i.e. attending to daily operational matters such that there was no time to do some research on the latest academic research. The participant expressed that competing agendas was one of the reasons why the debate was not being considered when developing policies. In other words, balancing push and pull factors within the organisation and aligning multiple objectives was a challenge.

The second category comprised of participants who said that the debate was influencing the policies in their companies. The participants in Montreal referred to specific elements of the debate that pertain to immigration i.e. the argument on whether the immigration laws were effectively addressing the skills needs of employers in Montreal. A few participants in Montreal viewed the debate as influencing their recruitment and training policies. (13CAN) *“policies are influenced by the debate i.e. there is a discussion around the work permits, visa issues, the migrants points systems ... it is because of the debate that there is extensive use of social media e.g. LinkedIn to search for employees”*. (17CAN) *“Yes the debate is influencing the policies that is why there is so much discussion about the shortages and use of immigrant workers among companies”*. The minority in Harare said that the debate was influencing policies. (8ZW) *“I think policies are being influenced by the debate ...I can think of recent topics such as the war on talent”* The participant referred to a discussion on high employee turnover because of low salaries which was causing employers to review their remuneration packages to attract and retain highly skilled employees. A few participants in Zimbabwe also referred to the specific segments of the debate that talked about the shortages as being caused by migration of skilled labour to other countries.

The third category of participants (i.e. 20CAN and 10ZW) included those who said that they were not familiar with the debate. This finding was evident in Montreal as well as in Harare. (20CAN) *“I am not familiar with the debate...”* The researcher noticed that in such situations the participants had lesser years of experience in HR field. Which was possibly an indication of lesser exposure to the developments in the human resources field.

However, despite the debate being perceived as not influencing the policies, respondents in both countries acknowledged that the debate was valuable. Their views somehow typified the divergent views of the skills shortage debate. (3CAN) said that *“the debate is worth talking about given the impending retirement of baby boomers”*. In other words, the participant attributed the shortages in Montreal to the aging population and retirement of the baby boom generation. Some respondents said there was a widening gap between the number of younger people entering the labour market and the number of people exiting the labour market. At the same time, the majority in Montreal said there was no labour shortage. Respondents also viewed the debate as helpful because it facilitated discussion among employers and identification of one of the problems in the Canadian society. For example, underutilisation or non-utilisation of qualified immigrants in the Canadian labour market because of non-recognition of foreign qualifications. Respondents said the debate is vital because *“It’s probably going to change the perceptions and encourage employers to consider foreign qualifications. Maybe employers will start looking for people from other Canadian provinces or even other countries...”* (4CAN). Overall, participants in Montreal said the debate was important because it raised issues about current immigration laws. There were similar sentiments expressed by participants in Harare who said that the debate was important. (12ZW) *“it can help HR practitioners to understand the labour market”*. (10ZW) *“It helps the universities to channel graduates into the labour market that meet the needs of the employees”*. One participant in Harare mentioned that the debate was important because it would foster better collaboration between universities and employers. However, these responses were contradicting the everyday practices because though participants said the debate was important, they also said they did not apply the debate when formulating recruitment and training process.

In conclusion, this section of the chapter presented the findings on whether the debate was influencing recruitment and training policies in the private sector or not. The main finding was that most participants said that the debate was not influencing their recruitment and training policies at least not in a conspicuous way. The participants said the debate was not considered when formulating policies because there was no relationship between the debate and their everyday experience (reality). Participants said they were not paying attention to the development in the academia because the education system was not responding to evolving challenges. Other issues that came out during the interviews was that the frequency of interaction between the academia and industry was minimal. Other participants said they did not have confidence in the education system therefore were relying on their internal training systems. Some participants said that they were not familiar with the debate. The findings were a little bit perturbing taking into consideration that the debate raises pertinent issues that might aid employers in resolving shortages in some organisations. Nevertheless, there were a few in Montreal and Harare who acknowledged that the debate was influencing their policies. Given that most of the participants mentioned that the skills shortage debate was not influencing their policies, the researcher explored deeper to understand what private sector policy makers were taking into consideration when developing policies.

4.4. WHAT DO POLICY MAKERS TAKE INTO CONSIDERATION WHEN DEVELOPING RECRUITMENT AND TRAINING POLICIES?

The main finding of the study was that most participants said that the debate was not on the list of factors taken into consideration when developing recruitment and training policies. The participants indicated that they saw other external and internal environment variables outlined in **Table 1 below** as influencing their policies and being closer to their everyday experiences rather than the debate. The researcher categorised participant's responses into two main categories i.e. internal environment factors and external environment factors. However, it is important that one avoids exclusively adopting a dichotomous view of the internal and external forces because the two have a symbiotic relationship. There is none which takes precedence over the other. Furthermore, the intensity of pressure exerted by each factor on the organisation varied from one organisation to the other. This study separated the two to facilitate easier

conceptualisation of the phenomenon under study. **Table 1** below summarises what policy makers said they took into consideration when developing recruitment and training policies.

Table 1

What Policy makers take into consideration when developing policies	Internal or External Environment Factor	Zimbabwe (Harare)	Canada (Montreal)
Organisational Culture	Internal Factor	Value foreign Qualifications and Experience more	Value Local Qualifications and Experience
		Value loyalty/ long-term commitment when hiring	Participants did not mention loyalty
		Companies recruited workers who shared same values as company	Companies recruited workers who shared same values as company
Business Goals	Internal Factor	Corporate Vision/ plans to venture into new markets determined training and recruitment strategies	Corporate Vision/ plans to venture into new markets determined Training and recruitment strategies

		Soft skills required to achieve business goals	Soft skills required to achieve business goals
Rate of Employee Turnover	Internal Factor	High employee turnover forced most organisations to change recruitment and training approaches	Few companies mentioned rate of employee turnover
Financial resources	Internal Factor	Hiring and Training restricted by financial resources.	Financial resources not mentioned by participants
Viability of Existing Policies	Internal Factor	Job fairs discontinued because they were not viable	Companies relied on job fairs because they were considered viable
Extent to which Strategies used by competition succeeded	External Factor	Successful policies used by competition	Successful policies used by competition
Nature of the skills in the labour market	External Factor	Introduced management traineeship programs because most job seekers were young and lacked managerial skills	Few participants spoke of ageing population

Education systems and training opportunities were shaping policies/practices	External Factor	External Training opportunities influencing training in the companies. However, budget limited the extent to which opportunities were used.	Participants did not mention external training opportunities
Customer Needs or Characteristics	External Factor	Rate at which customers' needs changed	Searched for Bilingual workers because of their customers
Political/ Labour Laws	External Factor	Labour laws were not mentioned by participants	Participants mentioned Labour laws /immigration laws
Rate of Technology Change	External Factor	Rate at which technology is changing	Rate at which technology is changing
Employee Poaching	External Factor	Massive brain drain. Workers were leaving for jobs in other countries	Poaching of Employees by other companies
Economic Situation	External Factor	Economic Crises restricting training options/	Economic Growth causing need for reskilling

		recruitment practices	
--	--	--------------------------	--

The **table 1** above recapitulates the **internal and external environment factors** that were influencing recruitment and training policies. The **internal environment factors** that were influencing policies include: organisation culture, rate of turnover, corporate vision, business goals versus skills inventory, viability of existing policies and financial resources.

Out of the all the internal factors listed above it was more apparent that, in Harare the main internal factors that were mostly influencing recruitment and training policies and practices were financial constraints and the rate of employee turnover. Participants highlighted that they were not able to avail of training opportunities because of budget or financial limitations. Simultaneously respondents in Harare also said that their companies were experiencing high employee turnover which forced their companies to adopt recruitment strategies that were perceived as efficient/fast and enabled easier identification of intangible qualities such as employee loyalty/ commitment. Respondents said that their companies were experiencing challenges in recruiting highly experienced workers because of limited financial resources. On the contrary in Montreal, participants did not mention employee loyalty and financial resources limitations. Participants in Montreal highlighted company values and vision as important factors shaping their recruitment and training policies. There was an emphasis on recruiting workers who share the same values as those of their companies as well as adoption of training strategies that facilitate attainment of company vision and values. All respondents in both countries emphasised the importance of soft skills e.g. interpersonal skills, communication skills, managerial skills, problem solving skills. These skills influenced recruitment decisions and the content of training courses because they were vital for business's survival and maintaining competitive advantage. The policy documents also demonstrated that corporate activities and internal values influenced the recruitment and training policies.

The human resources practitioners also said that their policies were influenced by the company's **external environment context**. The factors in the external environment

include; strategies used by competition, political, labour laws, nature of skills in the labour market, rate of technological change, customer needs or characteristics, economic situation and education system.

The nature of the skills in the labour market were influencing the type of policies and strategies adopted by companies. Respondents in Harare emphasised that the education system was not producing the needed skills. Hence, they had introduced graduate trainee programs that were tailored to their needs to bridge the skills gap. They also highlighted that the economic crisis was restricting their ability to adopt various training and recruitment strategies. Furthermore, they said that employee poaching and brain drain were recurring problems which caused the constant need for reskilling and recruiting new workers. Companies in Harare had stopped using career fairs as a sourcing strategy because they were considered ineffective in finding workers with desired skills. On the contrary, participants in Montreal mentioned that career fairs were considered an effective strategy for sourcing employees. Participants in Montreal emphasised economic growth, the rate at which technology was changing and customer needs as major influencers of their policies. The extent to which strategies used by competition succeeded in influencing policies was a common factor influencing policies. Respondents in Montreal said they were constantly looking at strategies used by local competition and leading ICT companies in the Silicon Valley such as Google. Participants in Harare also mentioned that they considered the practices of their competition which included neighbouring countries. The policy documents also demonstrated that companies were adjusting their practices in accordance with latest technological trends and practices of the competition.

4.5. FINAL REMARKS

This section of the chapter explored the elements which policy makers in the private sector took into consideration when developing recruitment and training policies. The main finding was that the debate was not mentioned as the reference point for developing policies. Participants mentioned that they took into consideration other factors when developing policies and not the debate. The factors were classified into two main categories i.e. internal environment context (inside the company e.g. organisation culture, rate of turnover, corporate plans, business goals against skills inventory or competence of current employees, financial

resources) and external environment context (outside the company e.g. strategies used by competition, supply and demand, political, social and legislative factors, nature of skills in the labour market, rate of technological change, customer needs or characteristics, perceived threats in the external environment, education system,). In other words, the main finding was that the debate was not influencing the policies because other contextually tied variables were more relevant.

4.6. CONCLUSION

In conclusion, the main finding of the study was that the skills shortage debate is not directly influencing recruitment and training policies in the organisation. Instead, the participants stated that when developing recruitment and training policies they were taking into consideration other factors in the external and internal environment rather than the debate. Therefore, it appears from the responses that the debate was not conspicuously instrumentally informing policy makers in the private sector. The relationship between the debate and recruitment and training policies was not evident. The next chapter discusses further on how the findings relate to previous studies.

CHAPTER 5

DISCUSSION

The previous chapter presented the main findings of the study. This discussion chapter condenses the findings and compares them to academic literature on skills shortages. There is also a comparison of the findings in Harare and Montreal as well as a discourse on the reasons behind the findings. The structure of the discussion chapter is primarily guided by the research questions. There is an interpretation of the findings to determine what they reveal about the prevailing situations in Harare and Montreal with regards to whether the skills shortage debate is influencing recruitment and training policies in the private sector or not. It also explains the findings on the factors influencing recruitment and training policies in the private sector. In other words, the chapter explicates the main finding that skills shortage debate is not influencing policies in the two cases studied and attempts to explain the reasons for the findings.

Several insights can be gleaned from the findings. The common finding being that the skills shortage debate is not influencing recruitment and training policies of the companies in Montreal and in Harare. A comparative analysis of the findings shows that despite the two cases being significantly diverse in terms of culture, values, economic paths, political trajectories, there are some similarities between Harare and Montreal. At the same time, there are visible differences between Montreal and Harare in terms of the factors that influence training and recruitment policies as well as the reasons why the debate is not influencing policies which are discussed below.

A common explanation why the debate was not influencing recruitment and training policies in Montreal and Harare was that the internal contextual factors were influencing the recruitment and training policies rather than the debate. The practices were influenced by internal factors such as organisational culture, business goals, rate of employee turnover, financial resources and viability of existing policies.

The consistent finding in Montreal and Harare is that the skills shortage debate is a distant discourse, detached from the daily or immediate realities confronting companies. The realities being the obstacles and challenges the companies were facing daily. Therefore, human resources practitioners are not paying attention to the debate because it is deemed

insignificant in determining the organisations' competitive position. This finding can be explained partly by the resource-based theory cited by Barney and Clark (2007:46) which postulates that "when firms cannot obtain systematic exceptional advantages from an analysis of the competitive characteristics of their external environment... they try to obtain such advantages by turning inwardly and analysing information about assets the firm already controls". In other words, the findings show that the debate was not influencing human resources policies because executives did not relate to it.

The findings also reveal that whilst there are some similarities in Montreal and Harare in terms of the nature and extent to which the internal factors influence policies, there are also visible differences. For instance, the impact of employee retention challenges on policy choices are more conspicuous in Harare than in Montreal. Unlike in Montreal findings in Harare reveal that training is moulded around socialising newcomers, encouraging, motivation and fostering loyalty to the company because of high employee turnover. This quest for loyalty among employers in Harare fits into the human capital theory taxonomy which stresses the significance of intangible human capital traits such as social capabilities i.e. reliance on loyalty, cooperativeness and trust in order to improve productivity and maintain competitive advantage (David and Lopez, 2001). The findings in Harare attest to the existence of placing more emphasis on procedural capabilities such as problem-solving, leadership, flexibility, capacity to adapt to change due to volatility of the labour market when developing training programs and recruitment strategies. Such differences in findings in Montreal and Harare demonstrate the importance of considering the contextual background when examining cases. The factors influencing policies are neither universal nor static as they dependent on the labour market situation. The overall findings in Harare support Pauwe (2004) contextually based human resources theory and Van den Broek (2012) proclamations that policies adopted by companies depend on contextual factors e.g. organisational size, financial resources at the organisation's disposal, age distribution, time of implementation and organisational culture.

Unlike in Montreal, the findings in Harare demonstrate that the company's internal absorptive capacity is a crucial factor that determines the extent to which the ideas and concepts raised by the debate are adopted by companies. Though there is sense of acknowledgement that the debate is important, the extent to which it is considered when developing policies is dependent on whether internal structures are adequately equipped

to absorb and assimilate the recommendations from the debate. For instance, the effect of a younger inexperienced workforce and limited financial resources are recurring challenges deterring companies in Harare from implementing measures raised by the debate. Such findings can be interpreted from a historical institutionalism theoretical view postulated by Steinmo, et al. (1992) which states that the extent to which the policy makers adopt the issues raised by the debate is dependent on the congruency between the topics raised by the debate and the existing policies and organisational structures established at the inception of the institution as these have persistent influence over company's behaviour for the remainder of its existence.

The findings in Harare and Montreal demonstrate that organisational culture is a major internal factor that determines the extent to which human resources practitioners paid attention to the debate. The results show that the extent to which private sector recruitment and training policies were influenced by the debate depended on the strength of deeply entrenched cultures within the institutions and the congruency between the ideas raised by the debate and internal culture. This is because organisations are social structures that have achieved a high degree of resilience that is built on cultural-cognitive, normative, and regulative elements. These elements can either inhibit change or facilitate the change. In line with the institutional theoretical view, the extent to which the firms paid attention or were influenced by the debate depended on the extent to which the issues and solutions raised by the debate were aligned with the contextual values, norms /practices established by the institutions. Institutional factors such as culture of the companies determined the extent to which the debate influenced policies in the private sector. For instance, companies upheld values and norms that were perceived to be beneficial to their organisations.

Whilst the findings demonstrate that the fluidity of the definition of skills is more apparent in Montreal than in Harare, the consistent factor is that the term skills is vaguely defined which inhibits conceptualisation of the skills shortage debate. The findings also show that the debate is not influencing policies in Harare and Montreal because the term skills is ambiguous and fluid. Shah and Burke (2003:19) also concur that full conceptualisation of skills shortages discourse is not easy because it's dependent on "the definition of skills that has been adopted, including its aggregation, time and geographical dimensions used...". Previous scholars also support this view Schied (2014), Taylor (2005),

McDaniel (2015), Attewell (1990) and Green (2011) also noted different interpretation of the term skills when positivists, ethnomethodological, Weberian, and Marxists discuss skills. The findings in Harare and Montreal demonstrate that these ambiguous meanings of the term skills transcend the academic circles as they prove that pinpointing an exact definition of the concept is a difficult undertaking. Like previous studies, the findings also demonstrate that inconsistent definitions are problematic because if the skills are to be considered as a core object for policy interventions, then in-depth conceptualisation of the meaning of the skills is imperative. Incomprehensibility of the term skills is consequently preventing the human resources practitioners from applying the concepts of the debate.

There are consistent findings in Montreal and Harare in terms of lack of involvement of the private sectors in the skill shortage debate in the academia. In other words, key stakeholders in Harare and Montreal are not participating in the skills shortage discourse in the academia. This finding supports the anti-skills shortage proponents view who attribute the shortages to defunct collaborations between tertiary institutions and employers (Benderly, 2014; Ryan, 2015; Murphy, 2014; McLaughlin, 2014; Jones, 2013). However, contrary to the findings in Montreal, in Harare the main cause of the dysfunctional collaboration between industry and academia is lack of financial resources. Such limited collaboration could be the reason why the shortage debate was not influencing recruitment and training policies.

Another common finding in Montreal and Harare, though to a lesser extent is unawareness of the debate which attests to the limited interaction between education and industry. This finding is an indication that knowledge is not smoothly transferring between the academia, public and professional practice. This situation is problematic because employers should be proactive stakeholders in the skills gap discourse in order to exploit the knowledge created by the academia. According to Heijike and Borghans (1998) policies can only be effective if the links between education and labour market opportunities are transparent to all stakeholders. These concealed workings of the links can be revealed if good quality information based on rigorous research is readily available to all actors of the labour market. This problem of limited information flow was also identified by Shah and Burke (2003). The scholars postulate that information is not

flowing smoothly between tertiary institutions and employers resulting in skills mismatch.

While transfer of knowledge through informal interaction e.g. conferences is evident in Montreal than in Harare (which supports Sugiyama's (2008) proclamation that policies diffuse through international conferences and through technocrats who spread ideas universally), it is more apparent in Harare that there is little interaction between academia and industry. This is the main reason for the lack of knowledge transfer on the skills shortage debate in the academia. Bruneel et al. (2010) and De Wit-de Vries et al. (2019) postulate that social capital i.e. the closeness or frequency of interaction or communication influences knowledge transfer between academia and industry. These findings support Rynes et al (2001:340) proclamations that "a substantial body of evidence suggests that executives do not typically turn to academia or academic research findings in developing management strategies and practices". Contrary to the findings in Montreal, evidence in Harare suggested one of the reasons for lack of interaction between academia and industry was cynicism surrounding the quality of the education system. Confidence in higher education was lower in Harare compared to Montreal. Findings in Harare reveal that few employers had forged relations with tertiary institutions which exacerbates lack of trust in the education system. Santoro and Gopalskrishnan (2001) also support this view stating that closeness builds trust and facilitates transference of tacit knowledge. Consequently, the debate in the academia is not influencing human resources practices in Harare because frequency of interaction between academia and industry is either limited or non-existent.

Institutional characteristics also play a pivotal role in knowledge exchange between industry and academia. From an institutionalist theoretical point of view, a possible reason why the debate is not being considered in Harare and Montreal by human resources practitioners when developing policies is that other contextual forces are more powerful at influencing cultural practices and policies of the companies rather than the debate. Proponents of the institutional theory state that whilst external environment forces influence organisations, it is only those forces which are considered important that have the capacity to change or influence institutional logics/social patterns/collective meanings. In relation to this institutional theory argument, the findings show that the skills shortage debate is not considered an important external environment force to influence

institutional logics (i.e. recruitment and training policies) in the companies in Montreal and Harare.

The findings in Harare and Montreal also showed that in addition to the internal contextual factors, the policy formulation process in the private sector was mediated by other external environment factors rather than the debate. Findings revealed that external contextual realities confronting the organisations took precedence over the issues raised by the debate. The discovery of the relationship between the corporate sector human resources policies and the external environment factor is not new. Scholars such as Van den Broek (2012), Pauwe (2004), Osbone (2012), Jackson et al. (2002) Stern (2001), Clarke and Herrmann (2007), Shah and Burke (2003), Hurrell (2016), Gray et al. (2014), Mavhiki et al. (2013) and Mackenzie et al.(2000) also identified various components in the external environment (i.e. volatility of the labour market, rate of change in new technology, education system, labour supply and demand imbalance, demography, economic structural, legislation, time of implement, competition etc.) and their relation with skills shortages topic.

Findings in Montreal show that policy choices are being influenced by practices of their competition. It is evident in Montreal that companies are emulating policies of their competition e.g. practices of companies in Silicon Valley. These findings can be explained using an institutional theory approach which postulates that organisations mimic other organisations that are embedded in their social networks in order to improve their chances of survival. Findings shows that the skills shortage debate was not considered relevant within the social networks of the companies in Montreal and Harare.

However, findings also demonstrate stake differences between Harare and Montreal in terms of the nature of the factors influencing recruitment and training policies. For instance, the study shows that external training opportunities and predominantly younger demographic composition in the labour market are major influencers of policies in Harare and not in Montreal. On the contrary the findings in Montreal expose that, in a few instances the ageing population in the labour market is influencing the nature of recruitment policies in the private sector. In other words, the findings support the contingency theory which according to Donaldson (2001) states that management approaches and policies are dependent on contextual differences within and outside the

organisations. Whilst findings support Van Den Broek (2012)'s assertion that demographic factors have a profound influence on recruitment and training policies in the two cities, an in-depth analysis of findings show differences in human resources management approaches adopted by companies which are closely tied to the contextual situation in Harare and Montreal.

Similar to the proclamations of the human capital theory policy stated by Coff and Raffiee (2015), the findings from the policy documentation and interviews of this study show that companies are looking for opportunities to increase workers productivity by developing hard and soft skills such as workers' attitude, numeracy skills, communication through focusing on quality of training etc. External training opportunities are shaping strategies and policies used by companies in Harare. There was evidence of the desire to integrate the innovative ideas raised by the debate in Harare. However, the capacity to apply the ideas in their policies was restricted by financial resources and organisation culture.

The findings in Harare reveal the influence of the human capital theory thinking. The human capital theory posits that length of experience and training or education is a good predictor of expertise or future productivity. In a similar way, the findings in both countries support the linear continuum between education system, work and productivity that is postulated by human capital theory (Marginson, 2019). However, when comparing the two cases, it is evident that the belief in credentials is predominantly influencing recruitment policies in Harare than in Montreal. Like Coff and Raffiee, (2015), it is evident in Harare that formal qualifications (foreign university degrees) have a signalling effect i.e. they are used by employers to confirm whether human capital had been acquired. In other words, the institution where education is attained coupled with the level and years of schooling are more important factors influencing recruitment approaches rather than the debate.

Previous scholars such as Maguire (1991) and Biggart (2002) argue that there is a relationship between macro level economic forces in the company policies. Like these theoretical proclamations, the findings in Montreal and Harare expose the relationship between macroeconomic structural forces and corporate policies. Findings in Harare reveal that the economic crisis and massive migration of experienced workers are significantly influencing training and recruitment strategies. However, one of the major findings from this study is how significantly contrasting macroeconomic conditions in

the two countries are resulting in a somewhat similar outcome that is skills shortages (for some companies in Montreal). The low wage flexibility in Zimbabwe is causing shortages as skilled workers migrate to other countries. This finding in Harare supports the claims of the human capital model of migration which argues that migration occurs due to individuals' expected returns/ net economic advantages resulting from the move compared to staying (Kan, 1999; Khwaja, 2002; Korpi et al., 2011). In other words, experienced workers are migrating to other countries because of expected returns/ net economic advantages. In contrast, lack of technical skills in Montreal is neither attributed to economic crunch nor brain drain but to economic growth which was driving rapid technological change. There is a visible dichotomy in terms of contexts of the countries (culture, economic trajectory, social, political, geography, etc.). On one end of the spectrum there is economic crunch in Zimbabwe and on the other economic growth in Canada.

Last but not least, whilst the relationship between the skills deficit debate and the recruitment and training policies of companies in Montreal and Harare is inconspicuous, the findings in Harare seem to typify (in a subtle way) the pro-skills shortage view which argues for the pervasiveness of shortages as evidenced by employee retention challenges. The findings in Harare support the neoclassical job search theory. According to Krynska and Kopycinska, (2015) the job search theory states that job seekers will reject the job offer if wages being offered by companies are below the reservation wage (lowest wage the worker or job seeker is willing to accept. In other words, findings seem to suggest that shortages are pervasive in Harare because highly skilled workers are not willing to take up jobs as the wages are below reservation wage. The behaviour of the job seekers in Harare can be explained in terms of marginal costing i.e. comparison of lost earnings or costs of not taking a job that does not meet their wage expectation vs additional income expected to be earned once a better job is found in another country (Krynska and Kopycinska, 2015). On the contrary, the findings, in Montreal were inconsistent signifying that the labour market was highly segmented.

In conclusion, the preceding sections of the chapter discussed the findings in relation to the previous academic studies on skills shortages and labour market theories. The main finding is that the skills shortage debate seems not to be instrumentally informing policy makers. Several reasons for this finding were discussed in detail such as knowledge

transfer barriers between industry and academia, organisational culture, limited/lack of collaboration between academia and industry, lack of participation of key stakeholders, lack of awareness of the debate and ambiguity of the definition of the term skills etc. As a result, the skills debate is not directly influencing recruitment and training policies in the private sector. It was also noted that the debate is not influencing the policies because there are other various influences and immediate contextual realities that were perceived as more important than the debate. The internal and external contextual realities that included factors such as labour turnover rates, economic situations, education system, labour supply and demand, competition and demographic composition influenced policies. Therefore, the relation between the debate and the policies was not conspicuous. From a theoretical standpoint of view, it was evident that the human capital theory thinking was predominantly influencing policy formulation process as many respondents emphasised the significance of training and investment in education systems. The next chapter (conclusion) discusses the implication of these findings on the professional practice and academia as well as future research.

CHAPTER 6

CONCLUSION

6.1. INTRODUCTION

In the previous chapter there was a discussion on the findings and a comparison with academic literature on skills shortages. In this concluding chapter there is a summary and a synthesis of the main findings in relation to the research questions. There is also a delineation of the main theoretical contributions, areas for future research and the limitations of the study.

This research aimed at exploring the extent to which the skills shortage debate is instrumentally informing policy makers in the private sector. The main finding vis-à-vis the first research question was that the skills shortage debate in the academia was not influencing training and recruitment policies of the companies in Harare and Montreal. The reason was that other internal and external factors were considered more pertinent when developing policies, not the skills shortage debate in the academia. The common finding in Montreal and Harare was that the following internal factors were influencing policies; organisational culture, business goals/vision, viability of existing policies. There were also similar findings with regards to the external factors influencing recruitment and training policies in Montreal and Harare. For example, the study uncovered that the extent to which strategies employed by competition succeeded, nature of the skills in the labour market, customer needs, rate of technological change, employee poaching, economic situation, education systems were the important external factors that were shaping recruitment and training policies and practices in Montreal and Harare. The policy formulation process was mediated by various immediate internal and external contextual variables. In other words, the debate was not influencing policies because there were other contextual variables that were deemed more relevant than the debate.

While there were some similarities in Montreal and Harare in terms of the factors influencing policies, the study also revealed some differences as well. Unlike in Montreal, the rate of employee turnover, brain drain, financial resources were major influencers of recruitment policies in Harare. Deeper analysis exposed the fact that though some factors that were taken into consideration appeared to be similar on the surface, there were subtle differences entrenched in their practices. For example, though the common factor was

that companies in Harare and Montreal were considering the viability of the policies as a main criterion for choosing policies, in-depth analysis showed that some recruitment practices that were considered viable in Montreal e.g. using job fairs to source employees, were considered ineffective in Harare. Another example was the paradoxical role of the economic situation in influencing policies. For instance, while skills shortages were attributed to economic crisis in Zimbabwe, in Canada the skills shortages were attributed to economic growth. Such differences bring to the fore that the factors influencing recruitment and training policies are highly contextual in nature.

The study established that there are several other reasons why the debate was not influencing policies. One of the main reasons was the fluidity of definition of the term skills. Findings in both countries showed that the term was either defined in a vague way or referred to multiple traits making it unclear on how educationists and governments will accurately determine the skills required by employers. In most situations, the definitions were broad, referring to a plethora of both soft and hard skills thus making it difficult for one to deduce the precise meaning. The vagueness of the definition of the term is problematic because it can potentially deter conceptualisation of skills shortages. The conclusion of the study is that if the debate on skills is to be resolved, clearer definition(s) are needed.

Furthermore, the findings in Harare and Montreal showed that the debate is not influencing policies because there is lack of participation of employers in the skills shortage discourse. The discourse is taking place at higher echelons of policy formulation (government level) beyond the employer level. This exclusion of employers is detrimental because labour related issues, be it labour legislation passed by governments, type of skills supplied by educationists etc., have an impact on private sector operations. The exclusion also causes skills mismatch. Ho (2016) also concurs that for the skills shortages to be resolved, all stakeholders need to be involved. Shah and Burke (2003) and Gimpel'son (2005) also concur that when information is not efficiently flowing between academia and industry, the resolution of skills shortages is a bigger challenge. Lack of participation of employers in the skills shortage debate will either delay or inhibit the education system from responding to the constantly changing needs of the labour market. This finding also disproves the initial assumption of this study that companies with higher competitive position and pronounced visibility are likely to interact with academia

The study also exposed that one of the reasons why skills deficit debate is not instrumentally informing policy makers in the private sector is because there are barriers that are deterring the knowledge transfer between industry and academia. Though most of the HR practitioners in Montreal and Harare were aware of the debate, the findings showed that they were not paying attention to academic research when developing their policies. There was lack of active engagement in knowledge transfer activities between academia and industry. Thus, lack of interaction was the reason why the debate was not instrumentally informing private sector policy makers. Findings also showed lack of awareness in some instances in Montreal and Harare, signifying that information was not reaching the practitioners. There are information barriers which are causing a lag in time; for training institutions to recognise shortages in the market and redesign curriculums or introduce new courses, for workforce to recognise the need for reskilling and pursuing training, for employers to timely recognise an impending shortage of certain skills in the market and introduce training or make wage adjustment etc., consequently slowing down the process of preventing skills shortages (Shah and Burke, 2003; Gimpel'son, 2005).

6.2 CONTRIBUTIONS

The study contributes to Hatos' (2015) skills mismatch theory by postulating that the resolution of skill mismatch challenge lies in improving the communication channels and enhancing collaboration by academia, industry, public sector and other stakeholders. This is because valuable information that will enable all stakeholders in the labour market to address skills mismatch is slipping through the fissures. There is evidence of global diffusion of human capital theory thinking in Harare where there was emphasis on the importance of mending the defunct collaborations between tertiary institutions and businesses through involving the companies in the development of the curriculum. From a human capital theoretical lens the findings show that the debate is not influencing private sector policies because there is not enough investment in the relationship between industry and academia.

This study contributes to the academia because it makes a distinction between quantitative and qualitative shortages. It shows that quantitative and qualitative skills shortages do not always coexist. According to Taylor (2005), the weakness with numerous previous

studies is that they do not always make this distinction between quantitative and qualitative shortages when exploring skills shortages. This study clearly showed that the shortages in Harare were mainly qualitative rather than quantitative shortages.

Another contribution of this study is that it brings out a critical problem which is impeding conceptualisation and resolution of skills shortage i.e. lack awareness and or limited involvement of human resources policy makers in the debate. This lack of awareness potentially aggravates skills mismatch and results in a sluggish response to the evolving needs of the labour market by the education system. In-depth conceptualisation and the resolution of shortages lies in a proactive and inclusive approach so that more ideas are shared. Though this was beyond the scope of this study, there is need for further exploration on what is causing this lack of participation.

One of the key contributions of this study is that it advances conceptualisation of the framework and the rationale behind recruitment and training policy decisions. The conceptual framework includes consideration of contextual factors such as the macro economic environment, organisational culture, financial resources, employee retention rates, customer needs, existing skills gaps etc. The study has provided evidence-based information that will inform human resources processes. The study facilitates conceptualisation of the knowledge transfer process between industry and academia and the reasons why embedding the valuable ideas of the skills gap debate in the private sector policy making process continues to be a challenge.

The study uncovered that the relationship between the debate and policies in companies should not be assessed independently of the contextual external and internal forces affecting policies in the organisations. The reason being that the variables acted as barriers deterring the knowledge transfer between industry and academia. For instance, the economic crisis in Zimbabwe was a barrier inhibiting collaboration between academia and industry because many companies did not have the funds to do so. The limited financial resources at the organisations' disposal restrained the absorptive capacity of the organisations. Absorptive capacity refers to the capacity to recognise, assimilate and apply the new knowledge from the academia (Cohen and Levinthal, 1990). Consequently, the skills gap debate in the academia was not influencing policies because of limited collaboration between industry and industry as well as restricted absorptive capacity.

The strength of the study is that the findings contribute to the academia because they reveal information about the Zimbabwean labour market. A labour market which is not easily understood because of limited historical academic literature (Muchabaiwa and Muyambo, 2017). Therefore, this is an important contribution that enables the academia to better conceptualise shortages in the Zimbabwean labour market. Scholars postulate that it has been taken for granted that skills shortage are pervasive (Cappelli, 2015; Schied, 2014). The study's findings were like Stanford's (2013) findings in the sense that it was established that shortages were not widespread in Canada. The findings in Montreal also support Gimpel'son (2005) proclamations that the existence of shortages is contextual i.e. varying from one organisation to the other. Possible differences in Montreal could be explained by differences in the type and intensity of forces affecting the sectors, type of ICT skills desired by the companies, the extent to which the type of skills sourced matched the needs of the organisation etc.

Finally, this study not only contributes to scholarly works through revealing the reasons and consequences of the vague definition of skills shortages but reveals that the extent to which the skills shortages debate instrumentally informs policy makers is being constrained by ambiguous definition of skills, lack of empirical tools for measuring skills shortage, knowledge transfer barriers between industry and academia, exclusion of some stakeholders or actors in the labour market and the lack of participation of all labour market stakeholders in the discourse. The extent to which the skills shortage debate is considered by private sector policy makers depends on the extent to which the issues raised by the debate are aligned to the values of the company. It also contributes through enhancing conceptualisation of the rationale behind the recruitment and training policy decisions. Furthermore, it enhances understanding of the heterogenous, unique contextual factors within and outside the organisations that influence policies.

6.3. FUTURE RESEARCH

Whilst findings from this study complement previous studies, there are areas beyond its scope that require further exploration in the future studies. For example, the impact of the emerging dynamic employment contractual terms in the labour market (prevalence of self-employment, online or virtual workers and part time workers) on the nature of the

skills required, recruitment and training policies as well as on the skills shortage debate is needed. Richardson (2009) also concurs with this assertion stating that employers have different contractual terms of employment (i.e. part time, full time, working during the weekends or during the week, diverse pay rates, various management experience demands, employee attributes expectations) etc. Such broad range of different contractual terms make it difficult to use demand as the measure for skills shortage because it yields inaccurate results. In addition, the impact of recurring global disease pandemics such as coronavirus COVID-19 on labour market skills, the skills shortage debate, recruitment and training policies requires further exploration.

6.5. LIMITATIONS OF THE STUDY

While information was drawn from multiple sources, the study focuses on a single or defined period. It would be interesting to see the extent to which results would differ if a longitudinal study was to be conducted. However, due to thesis submission deadlines and time constraints it was not possible to conduct a longitudinal study and identify patterns and changes over time. Furthermore, it would also be valuable for a similar study to be conducted in other countries and regions to establish the extent to which the debate is influencing policies in those settings. The study acknowledged that studies based on self-reports from participants may have some limitations e.g. biased reporting. In some instances, participants refused to provide documentary evidence because of their confidentiality policies and preferred to only give interviews. This inhibited the researcher from validating their statements. However, such bias did not significantly affect the results of the study because in most cases, the researcher used multiple data sources provided by the participants such as online reports, policy documents etc. Furthermore, while the study limited its focus on large private sector organisations, it is also important for future studies to explore smaller companies and informal sector entities who may have experiences or perspectives that are different from the entities who participated in this study as this would enhance conceptualisation of the influence of the skills shortages debate on smaller companies.

6.6. FINAL REMARKS

In conclusion, the chapter discussed the findings in Harare and Montreal vis-a-vis the extent to which the skills shortage debate is instrumentally informing policy makers. The

main finding was that the debate was not directly influencing policies in most firms. The relationship between the debate and recruitment and training policies was unclear. The main reasons why the academic skills shortage debate was not influencing private sector policies was that the human resources practitioners placed more importance on internal and external contextual forces (everyday realities) that were affecting their businesses rather than the debate. Contextual factors that came out during the study are macro-economic environment, organisational culture, financial resources, employee retention rates, customer needs, existing skills gaps etc. These factors were influencing the policies more conspicuously than the debate. Another main finding was that the ambiguity of the definition of skills aggravated the situation because each organisation had a different meaning attached to the concept making it difficult to conceptualise the debate. One of the reasons why the academic skills shortage debate was not influencing their policies was that there was limited interaction between academia and industry. The study established that lack of information flow, lack of participation of all stakeholders potentially caused lack of awareness and slow response to the skills needs of the employers.

REFERENCES

- Accenture (2012) *Solving the skills paradox: Seven ways to solve your critical skills gap*. Available at: <http://www.accenture.com/SitecollectionDocuments/Pdf/AccentureSolving-the-Skills-Paradox.pdf>. (Accessed: 8 February 2017).
- Adler, J. (2002) 'Global and Local Challenges of Teacher Development', In J Adler and Y Reed (eds) *Challenges of teacher development: An investigation of take-up in South Africa*. Pretoria: Van Schaik.
- African Development Bank Group (2011) *Human Capital and Skills Development: African Development Report*.
- Agapiou, A., Price, A.D.F. and McCaffer, R. (1995) 'Planning future construction skill requirements: understanding labour resource issues', *Construction Management and Economics* 13 (2), pp.149-161.
- Allan, G. (2003) 'A Critique of Using Grounded Theory as a Research Method', *The Electronic Journal of Business Research Methods* 2(1), pp. 1-10.
- Alpert, A. and Auyer, J. (2003) 'Projections: How Accurate Were They,' *Occupational Outlook Quarterly, Spring*, 1, pp.3-21.
- Al-Samarrai, S. and Bennell, P. (2003), 'Where Has All the Education Gone in Africa? Employment Outcomes Among Secondary School and University Leavers', *The Journal of Development Studies*, 43 (7), pp. 1270-1300.
- Alvesson, M. (2003) 'Beyond Neopositivists, Romantics, and Localists: A Reflexive Approach to Interviews in Organizational Research', *Academy of Management Review* 28 (1), pp. 13–33.
- Amable, B. (2003), *The diversity of Modern Capitalism*. Oxford: Oxford University Press.

Anonymous (2014) *What does 2014 hold for the recruitment industry?* Available at: <https://www.rec.uk.com/help-and-advice/corporate-blog/what-does-2014-hold-for-the-recruitment-industry> (Accessed: 19 March 2015).

Arrow, K., and Capron W. (1959). "Dynamic Shortages and Price Rises: The Engineer-Scientist Case." *Quarterly Journal of Economics*, 73(2), pp. 292–308.

Ashby, F. G. and Gott, R.E. (1998) 'Decision Rules in the Perception and Categorization of Multidimensional Stimuli', *Journal of Experimental Psychology: Learning Memory and Cognition* 14 (1), pp. 33-53.

Asliturk, E., Cameron A., and Faisal S. (2016) *Skills in the Digital Economy: Where Canada Stands and the Way Forward*. Ottawa: Information and Communications Technology Council.

Attewell, P. (1990) 'What is Skill?', *Work and Occupations* 17 (4), pp 422-448.

Auditor General (2006) Audit Report No 49, 'Performance Audit, Job Placement and Matching Services, Department of Employment and Workplace Relations', Commonwealth of Australia, Canberra.

Aydemir, A. (2011) 'Immigrant Selection and Short-Term Labor Market Outcomes by Visa Category', *Journal of Population Economics*, 24, pp. 451–475

Baker, T.L. (1994) *Doing Social Research* (2nd Edn) New York: McGraw-Hill Inc.

Banister, E. M. (1999) 'Evolving Reflexivity: Negotiating Meaning of Women's Midlife Experience', *Qualitative Inquiry* 5(1): 3-23.

Barney, J.B., Clark, D.N. (2007) *Resource Based Theory Creating a Sustainable Competitive Advantage*. Oxford University Press: Oxford.

Barnow, B.S., Trutko, J. and Lerman, R. (1998) *Skills Mismatches and Worker Shortages: The problem and Appropriate Responses*. Washington DC.: Urban Institute Policy Memorandum prepared for the US Department of Labor.

- Baum, T. (2006) 'Reflections on the nature of skills in the experience economy: challenging traditional skills models in hospitality', *Journal of Hospitality and Tourism Management*, 13(2), pp.124–135.
- Bayer Corporation (2014) 'The Bayer Facts of Science Education XVI: US STEM Workforce Shortage—Myth or Reality? Fortune 1000 Talent Recruiters on the Debate', *Journal of Science Education and Technology*, 23, pp.617–623
- Bell, D., and O'Reilly E. (2008) 'Making Bridges Visible: An Inventory of Innovative, Effective or Promising Canadian School-to-Work Transition Practices, Programs and Policies', *Ottawa: Work and Learning Knowledge Centre of the Canadian Council on Learning*, pp. 1-233.
- Benderly, B. L. (2014) *Skill shortage or ineffective hiring?* Available at: http://sciencecareers.sciencemag.org.ezproxy4.lib.le.ac.uk/career_magazine/author/bery-l-lieff-benderly (Accessed: 20 February 2015)
- Biggart, A. (2002) 'Attainment, Gender and Minimum Aged School Early Routes in the Labour Market', *Journal of education and Work*, 15(2), pp.145-162.
- Birt, L., Scott, S., Cavers, D., Campell, C. and Walter, F. (2016) 'Member Checking: A Tool to Enhance Trustworthiness or Merely a Nod to Validation?', *Qualitative Health Research*, 26(13), pp.1802-1811.
- Bishop, D. (2012) 'Firm size and skill formation processes: an emerging debate', *Journal of Education and Work*, 25(5), pp. 507-521.
- Blaikie, N. (2000) *Designing Social Research: The logic of Anticipation*. Cambridge: Polity Press.
- Booth, A. Snower, D. (1996) *Acquiring Skills: Market Failures, Their Symptoms, and Policy Responses*. Cambridge: Cambridge University Press.

Boston consulting Group (2013) *The U.S. skills gap: could it threaten the U.S. manufacturing renaissance?* Available at:
https://www.bcgperspectives.com/content/articles/lean_manufacturing_us_skills_gap_could_threaten_manufacturing_renaissance/. (Accessed: 3 July 2017)

Bosworth, D., Dutton, P & Lewis, J (eds.) (1992) *Skill Shortages: Causes and Consequences*, Avebury, Aldershot.

Bouma, G.D. and Ling, R. (2004) *The Research Process*, (5th edn., reprinted 2005). South Melbourne, Vic.; Oxford: Oxford University Press.

Bowles, S. and Gintis, H. (1975) 'The Problem with Human Capital Theory--A Marxian Critique', *The American Economic Review*, 65(2), pp. 74-82.

Brannick, T. and Coghlan, D. (2007) 'In Defence of Being "Native": The Case for Insider Academic Research', *Organisational Research Methods*, 10(1), pp. 59-74.

Breier, M. (2009) *Skills Shortages in South Africa*. Cape Town: Human Science Research Council Press.

Brixiova, Z., Li, W., and Yousef, T. (2009) 'Skill shortages and labor market outcomes in Central Europe', *Economic Systems*, 33(1), pp. 45– 59.

Bronfenbrenner, M (1982) 'Segmented Work, Divided Workers: The Historical Transformation of Labor in the United States', *The Journal of Economic History*, 42(4), pp.958-959

Brown, J.S., Duguid, P. (2000) *The Social Life of Information*. Harvard Business School Press: Boston, Massachusetts.

Bruneel J., D'Este, P. and Salter A. (2010) 'Investigation the Factors That Diminish The Barriers To University-Industry Collaboration', *Research Policy*, 39, pp 858-868.

- Bryant, L. and Jaworski, K. (2011) 'Gender, embodiment and place: The gendering of skills shortages in the Australian mining and food and beverage processing industries', *Human Relations*, 64(10), pp. 1345-67.
- Bryman, A. (2016) *Social Research Methods*. Oxford University Press: Oxford
- Bryman, A., Becker, S. and Sempik, J. (2008) 'Quality Criteria for Quantitative, Qualitative, and Mixed Methods Research: A View from Social Policy', *International Journal of Social Research Methodology*, 11(4), pp.261-276.
- Burrell, G. and Morgan, G. (1985) *Sociological Paradigms and Organisational Analysis Elements of the sociology of Corporate Life*, (Reprinted edn.) Aldershot: Ashagte.
- Caldwell, T. (2013) 'Plugging the cyber-security skills gap', *Computer Fraud & Security*, (7), pp. 5-10.
- Canadian Chamber of Commerce (2013) *Upskilling the Workforce: Employer-Sponsored Training and Resolving the Skills Gap*, October.
- Cappelli, P. H. (2015) 'Skill GAPS, Skill Shortages, and Skill Mismatches: Evidence and Arguments for the United States', *ILR Review*, 68(2), pp. 251-290.
- Carroll M., Marchington M. and Earnshaw J. (1999) 'Recruitment in small firms Processes, methods and problems', *Employee Relations*, 21(3), pp. 236-250.
- Cedefop, (2010). *The skill matching challenge – Analyzing skill mismatch and policy implications*, Luxembourg: Publications Office of the European Union.
- Chambers, E. G., Mark, F.H., Handfield, J., Hankin, S.M. and Michaels, E.G. (1998) 'The War for talent', *McKinsey Quarterly*, (3), pp. 44–57.
- Charmaz, K. (2006) *Constructing Grounded Theory*. London: Sage.
- Clarke, L. and Herrmann, G. (2007) 'Skill shortages, recruitment and retention in the house building sector', *Personnel Review* 36 (4), pp. 509-527.

Coff, R. and Raffiee, J. (2015). 'Toward A Theory of Perceived Firm-Specific Human Capital', *Academy of Management Perspectives*, 29(3), pp.326–341.

Coetzee, M. and Harry, N. (2014) 'Emotional Intelligence as a predictor of employees' career adaptability', *Journal of Vocational Behavior*, 84, pp.90-97.

Cohen, L., Manion, L. and Morrison, K. (2000) *Research Methods in Education*, (5th edn.). London; New York: Routledge Flamer.

Cohen, W. M., & Levinthal, D. A. (1990) 'Absorptive capacity: A new perspective on learning and innovation', *Administrative Science Quarterly*, 35(1), pp 128–152.

Colebatch, H. (1998) *Policy*. Buckingham: Open University Press.

Coles, B. (1995) *Youth and Social Policy*. London: UCL Press.

Colin, R. (2002) *Real World Research. A Resource for Social Scientists and Practitioner-Researchers*, 2nd edn. Malden: Blackwell.

Collins, P. (1998) 'Negotiating Selves: Reflections on 'Unstructured' Interviewing', *Sociological Research Online* 3(3). Available at:
<http://www.socresonline.org.uk/3/3/2.html> (Accessed:10 March 2015)

Creswell, J. (2007) *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (3rd edn.): 'Philosophical Assumptions and Interpretive Frameworks', pp. 15-41. London: Sage.

Crow, I. (2002) 'The Power of Research', in D. Burton (ed.) *Research Training for Social Scientists: A Handbook for Postgraduate Researchers*, pp. 68-80. London: Sage.

Cukier W. (2003) *Constructing the IT skills shortage in Canada: the implications of institutional discourse and practices for the participation of women*. Available at:
<https://dl.acm.org/doi/abs/10.1145/761849.761853> (Accessed: 27 July 2019).

Davis, S., R. Faberman and J. Haltiwanger (2012) 'Recruiting Intensity During and After the Great Recession: National and Industry Evidence', *American Economic Review*, *American Economic Association*, 102(3), pp.584-88.

David, P. and Lopez, J. (2001) *Knowledge, Capabilities and Human Capital Formation in Economic Growth. Treasury Working Paper 01/13*. Available at: <https://www.researchgate.net/publication/5203947> (Accessed: 16 October 2019).

Davis, G.F. (1991) 'Agent without Principles? The Spread of Poison Pill Through the Intercompany Network', *Administrative Science Quarterly* 36, pp. 583 – 613.

Deloitte (2011) *Boiling point? The skills gap in US manufacturing*. Available at: http://www.themanufacturinginstitute.org/~/_media/A07730B2A798437D98501e798c2e13AA.ashx. (Accessed: 17 September 2016).

De Wit-de Vries, E., Dolfsma, W. A., Van der Windt H. J. and Gerkema M. P. (2019) 'Knowledge transfer in university–industry research partnerships: a review', *J Technol Transf* 44, pp. 1236–1255.

Doody, O. and Doody, C. (2015), 'Conducting a Pilot Study: Case Study of a novice researcher', *British Journal of Nursing*, 24(21), pp.1074-1078

Duncan, G. and Hoffman, S. (1981) 'The incidence and wage effects of overeducation', *Economics of Education Review*, 1(1), pp. 75–86.

Dychtwald, K., Erickson, T. J. and Morison, R. (2006) 'Workforce Crisis: How to Beat the Coming Shortage of Skills and Talent', *HR Magazine* 53(7), pp. 28

Fairholm, R. (2009) 'Understanding and Addressing Workforce Shortages: Estimates of Workforce Shortage' *The Centre for Spatial Economics*, pp. 1-37

Feldstead, A., Duncan, G., Francis, G., and Hande, I. (2013) *Work Intensification in Britain: First Findings from the Skills and Employment Survey 2012*. London: Centre for learning and life chances in knowledge economies and Societies.

Fields, A., Uppal, S. and LaRoche-Côté, S. (2017) *The impact of aging on labour market participation rates*. Statistics Canada, Government of Canada.

Finlay, L. and Gough, B. (2003) *The Reflexive Journey: Mapping Multiple Routes: 'Reflexivity: A Practical Guide for Researchers in Health and Social Sciences'*, pp. 3-20. Oxford: Blackwell Science.

Foster A. (2014) 'Initiatives', *Business Information Reviews*, 31(3), pp. 174–190.

Fraser, K., Tseng B.T.L., and Denge, X. (2018) 'The Ongoing Education of Engineering Practitioners: How Do They Perceive The Usefulness Of Academic Research', *European Journal of Engineering Education*, 43(6), pp. 860–878.

Freeman, R. (2006), 'Labour Market Institutions Without Blinders: The Debate Over Flexibility and Labour Market Performance', *International Economic Journal*, 19, pp. 129–145.

Fuller, A. and Unwin, L. (1998) 'Reconceptualising Apprenticeship: Exploring the Links between work and Learning', *Journal of Vocational Education and Training*, 50(2), pp. 153-173.

Garwe, E. C (2014) 'Quality assurance in higher education in Zimbabwe', *Research in Higher Education Journal* 23, pp. 68-76

Garwe, E. C (2014 b) 'Holistic initiatives for enhancing graduate employability in Zimbabwe', *Research in Higher Education Journal* 23: 1-12.

Gavin, J. (2009) 'Gulf tackles skills shortage: with rising unemployment, regional governments are making increasing efforts to give nationals the skills they need to find jobs in the local construction industry', *MEED Middle East Economic Digest* 53(18.) Available at:

<https://link.gale.com/apps/doc/A202705772/EAIM?u=leicester&sid=EAIM&xid=6bf3a75>. (Accessed: 27 Sept. 2018).

Gerring, J. (2007) 'Case study versus large-n cross-case analysis', pp. 37-63 in *ibid.*, Case Study Research. Principles and Practices. Cambridge: CuP.

Giorgi, A. (2006) 'Concerning variations in the application of the phenomenological method', *The Humanistic Psychologist*, 34(4), pp.305-19.

Gimpel'son, V. (2005) 'Skills Shortages on the Russian Labor Market Supply Shortages. Demand Constraints, or False Signals from Employers', *Problems of Economic Transition*, 47(9), pp. 21-47.

Gingras, Y. and Roy, R. (2000) 'Is There a Skill Gap in Canada?', *Canadian Public Policy / Analyse de Politiques*, 26, pp. 59-174

Goldenberg, M. (2006) *Employer Investment in Workplace Learning in Canada*. Ottawa: Canadian Policy Research Networks.

Green, F (2011) 'What is Skill? An Inter-Disciplinary Synthesis', Centre for Learning and Life Chances in Knowledge Economies and Societies. Available at: <http://www.llakes.org> (Accessed: 21 November 2020).

Green, F. Machin, S. and Wilkinson, D. (1998) 'The meaning and determinants of skills shortages', *Oxford Bulletin of Economics and Statistics*, 60(2), pp. 165-187.

Guest, G. and MacQueen, K.M. (2008) *Handbook for Team-Based Qualitative Research*. AltaMira Press, Plymouth.

Gamble, N. Patrick, C and Peach, D. (2010) 'Internationalising Work-Integrated learning creating Global Citizens to meet the economic crises and the skills shortage', *Higher Education Research and Development*, 29(5), pp.535-546.

Goar, C. (2014) 'How the myth of a Canadian skill shortage was shattered', Available at: www.TorontoStarReprints.com (Accessed: 24 May 2017).

Grasz, J. (2014) 'Companies Losing Money to the Skills Gap', CareerBuilder Study. Available at: <http://www.careerbuilder.com/share/aboutus/pressreleasesdetail.aspx?sd=3/6/2014&id=pr807&ed=12/31/2014> (Accessed: 17 February 2015).

Gray, J. Golden T. F. Thomas B. C. James G. H. Margaret Z. Borok and Eva M. A. (2014) 'Feasibility and Sustainability of an interactive team-based learning method for medical education during a severe faculty shortage in Zimbabwe', *BMC Medical Education* 14(63): 1-5

Grix, J. (2002) 'Introducing Students to the Generic Terminology of Social Research', *Politics*, 22(3), pp.175-186.

Gruneberg, S.L. (1997) *Construction Economics-An introduction*. Macmillan, London

Guillemin, M. and Gillam, L. (2004) 'Ethics, Reflexivity and "Ethically Important Moments" in Research', *Qualitative Inquiry*, 10(2), pp. 261-280.

Hancké, B. (2009) *Intelligent Research Design: A Guide for Beginning Researchers in the Social Sciences: 'constructing a research design'*, pp. 35-58. Oxford: Oxford University Press.

Harkin, D.W., Beard, J.D., Shearman, C.P. and Wyatt, M.G. (2015) 'Predicted Shortage of Vascular Surgeons in the United Kingdom: A matter of debate?', *The Surgeon* 14, pp.245-251.

Hatos, R. (2015) 'Skills Mismatch of The Young People at The European Level', *Annals of the University of Oradea: Economic Science* 25(1), pp.431-439.

- Henkens, K., Remery, C., and Schippers, J. (2008) 'Shortages in an ageing labour market: an analysis of employers' behaviour', *The International Journal of Human Resource Management* 19, (7), pp. 1314–1329.
- Hill, J.P. and Monks, F.J. (eds) (1977) *Adolescence and Youth in Prospect*. IPS Science and Technology Press: London.
- Ho, P. H.K., (2016) 'Labour and skill shortages in Hong Kong's construction industry', *Engineering, Construction and Architectural Management* 23(4):533-550.
- Howe, K. R. (2006) 'Closing Methodological Divides: Toward Democratic Educational Research', *Philosophy and Education Book Series Vol. 11*. Netherlands: Springer.
- Howieson, C. and Iannelli C. (2003)' The effects of low Attainment on Young People's Outcomes at Age 22-23 in Scotland', paper presented at the Transitions in Youth Conference, Competencies and Careers, 4-6 September 2003, Funchal, Madeira.
- Hundley, V. van Teilingen, E. (2002) The role of pilot studies in midwifery research', *RCM Midwives* 5(11), pp. 372-374.
- Hurrell, S. A. (2016) 'Rethinking the soft skills deficit blame game: Employers, skills withdrawal and the reporting of soft skills gaps', *Human Relations*, 69(3), pp. 605-628.
- Hurst, M. (2008) 'Work-Related Training', *Perspectives on Labour and Income*, 9(4), pp.12–21.
- Hyslop-Margison, J. E. and Benjamin, H. and Welsh, B. H. (2003) 'Career Education and Labour Market Conditions: The Skills Gap Myth', *The Journal of Education Thought*, 1, pp. 5-21.
- Information and Communications Technology Council (ICTC) (2012). "Impact of Immigration on Canada's Digital Economy: A Situational Analysis." Available at: https://www.ictcctc.ca/wp-content/uploads/2012/06/ICTC_IEP_SA_National_EN_03-12.pdf. (Accessed: 25 January 2019)

Information and Communications Technology Council (ICTC) (2017) 'The Next Talent Wave: Navigating the Digital Short-Outlook 2021', Available at: https://www.ictc-ctic.ca/wp-content/uploads/2017/04/ICTC_Outlook-2021.pdf. (Accessed: 25 January 2019).

International Labour Organisation (2020) 'Labour Market Segmentation', Available at: <https://www.ilo.org/global/topics/employment-security/labour-market-segmentation/lang--en/index.htm> (Accessed: 5 August 2020).

Jackson, D., Mannix, J. and Daly, J. (2002) 'Nursing workforce shortages: Issues in Australian Residential Aged Care', *Australian Journal of Advanced Nursing* 21(1): 42-45.

Jacoby, S. (1983) *Employing Bureaucracy: Managers, unions, and the Transformation of Work in the 20th century*. New York: Columbia University Press.

Jiang, B., Baker, R.C., Frazier, G.V. (2009) 'An Analysis of Job Dissatisfaction and Turnover to reduce Global Supply Chain Risk: Evidence from China', *Journal of Operational Management*, 27, pp.169-184.

Jones, D. (2013) 'Talent Shortage – Really?', Available at: <http://www1.halogensoftware.com/hr-raging-debates-2013>. (Accessed: 20 March 2015).

Jovanovic, B. (1979) 'Firm-specific capital and turnover', *Journal of Political Economy*, 87(6), pp. 1246–1260.

Joyce, M., and Neumark, D. (2001) 'School-to-work programs: Information from two surveys', *Monthly Labor Review*, 124, pp.38–50.

Kan, K. (1999) 'Expected and Unexpected Residential Mobility', *Journal of Urban Economics*, 45(1), pp.72-96.

- Kahn, L.M. (2015) 'Skill Shortages, Mismatches, and Structural Unemployment: A Symposium', *ILR Review*, 68(2): 247-250.
- Kanyenze, G. Kondo, T., Chitambara, P. and Martens J. (2011) *Beyond the enclave: Towards a pro-poor and inclusive development strategy for Zimbabwe*. Harare: Weaver Press.
- Kelly, B. (2007) 'Methodological Issues for Qualitative Research with learning disabled children', *International Journal of Social Research Methodology*, 10(1), pp.21-25.
- Khwaja, Y. (2002) Should I Stay or Should I go? Migration Under Uncertainty: the real options approach, DP 02-10, Economics and Finance Section School of Social Sciences, Brunel University London.
- King, J. (1998) 'Are hiring managers just being too picky?', *Computerworld*, 32 (3), pp. 16.
- Kirlidog, M., Van der Vyver, C., Zeeman M. and Coetzee W. (2018) 'Unfulfilled need: reasons for insufficient ICT skills In South Africa', *Information Development*, 34(1), pp. 5–19.
- Koman, G. and Kundrikov, J. (2016) 'Application of Big Data Technology in Knowledge Transfer Process between Business and Academic', *Procedia Economics and Finance* 39 pp. 605 – 611.
- Korpi, M., Clark, W.A.V., and Malmberg, B. (2011) 'The urban hierarchy and domestic migration: the interaction of internal migration, disposable income and the cost of living, Sweden 1993–2002', *Journal of Economic Geography*, 11(6), pp.1051–1077.
- KPMG (2014) *UK is facing major skills shortage in construction*. Available at: <https://www.consultancy.uk/news/1021/kpmg-uk-is-facing-major-skills-shortage-in-construction> (Accessed: 27 January 2017).
- KPMG (2014b) *Key Questions for Challenging times*. KPMG.

KPMG (2017) *Labour Migration in the Hospitality Sector: A KPMG report for the British Hospitality Association*. KPMG

KPMG (2019) *Romania's shortage of labour and the hiring of foreign workers – how can we overcome these challenges?* Available at: <https://home.kpmg/ro/en/home/events/2019/04/kpmg-breakfast-labour-shortage-foreign-workers-challenge.html> (Accessed: 27 September 2019).

Kryńska, E. and Kopycińska, D. 2015 'Wages in Labour Market Theories', *Folia Oeconomica Stetinensia*, 15(2), pp.177-190.

Lancaster, G. (2005) *Research Methods in Management*. Elsevier Butterworth Heinemann: Oxford

Lazear, E. P. (2003) Firm-specific human capital: A skills-weighted approach. nBeR Working Paper no. 9679. Cambridge, MA: National Bureau of Economic Research.

Lee, K. & Pennings, J.M. (2002) 'Mimicry and the Market: Adoption of a New Organisational Form', *Academy of Management Journal* 45, pp 144 – 162.

Loveless, T. (2012) 'Brown Center Report on American Education: How Well Are American Students Learning?', *Brown Center on Educational Policy*, 3(1).

Loughlin, N. (2012) 'The Benefits and Disadvantages of Post-positivism in International Theory', Available at: <http://www.e-ir.info/2012/01/20/what-are-the-benefits-and-disadvantages-of-post-positivism-for-international-theory/> (Accessed: 5 January 2016).

Mackenzie, S., Kilpatrick, A.R. and Akintoye, A. (2000), 'UK Construction Skills Shortage Response Strategies and An Analysis of Industry Perceptions', *Construction Management and Economics*, 18(7), pp. 853-862.

Maguire, M. (1991) 'British Labour Market Trends' David Ashton and Graham Lowe (eds) *Making their way: Education, training and the Labour Market in Canada and Britain* Milton Keynes: Open University Press.

Mcdaniel, S. & Wong, L. & Watt, B. (2015) 'An Aging Workforce and the Future Labour Market in Canada', *Canadian Public Policy*, 41, pp. 97-108.

McQuillan, K. (2013) 'All the Workers We Need: Debunking Canada's Labour-Shortage Fallacy.' *University of Calgary School of Public Policy Research Papers*, 6(16), pp.1–29.

McGuire, D., Garavan, T., O'Donnell, D. & Dineen, D. (2002) 'Labour Market Flexibility: An Institutional Theory Perspective', Presented at the Irish Academy of Management Conference, Waterford Institute of Technology, September 2002

Manpower (2014) 'The Talent Shortage Continues', Available at:
http://www.manpowergroup.com/wps/wcm/connect/0b882c15-38bf-41f3-8882-44c33d0e2952/2014_Talent_Shortage_WP_US2.pdf?MOD=AJPERES (Accessed: 09 April 2015).

Mason, J. (2005) 'Designing Qualitative Research', *Qualitative Researching* (2nd edn.), pp. 24-47. London: Sage.

Manta (2018) *Companies in Montreal, undefined*. Available at:
<https://www.manta.com/world/North+America/Canada/Quebec/Montreal/> (Accessed: 05 March 2019)

Marginson, S. (2019) 'Limitations of human capital theory', *Studies in Higher Education*, 44(2): 287-301.

Marriott J. (1997) *Is there really a Shortage of Talent or are companies downsizing out of action?* Available at:
<http://web.b.ebscohost.com.ezproxy3.lib.le.ac.uk/ehost/pdfviewer/pdfviewer?sid=e1fe8>

[032-6331-4b87-9640-0de4c18197c0%40sessionmgr111&vid=1&hid=109](https://www.youtube.com/watch?v=032-6331-4b87-9640-0de4c18197c0%40sessionmgr111&vid=1&hid=109) (Accessed: 9 April 2015).

Mason, J. (2002) *Qualitative Researching*. 2nd ed: 'Planning and Designing Qualitative Research', pp. 24-47. London: Sage.

Matloff, N. (2002) 'Debunking the Myth of a Desperate Software Labor Shortage', Available at <http://heather.cs.ucdavis.edu/svreport.html> [Accessed on 9 June 2018]

Maumbe, K. C and Van Wyk, L. (2011) 'Addressing the Skills Shortage Problem of the South African Tourism and Hospitality Industry: An Evaluation of the Effectiveness of the 2007/2008 SA Host Training Program in the Western Cape Province', *Urban Forum* 22:363–377.

Mavhiki, S., Nyamwanza, T., and Linnet, D. (2013). 'An Evaluation of RBM implementation in the Civil Service Sector in Zimbabwe', *European Journal of Business Management*, 5(32), pp.1-5

Mena Report (2013) *Canada's Minister of Labour addresses Canada's skills shortage during a labour conference in Colombia*. Available at: <http://www.menareport.com> (Accessed:22 October 2017).

Meredith, J. (2011) 'Apprenticeship in Canada: where's the Crises', *Journal of Vocational Education and Training*, 63(3), pp.323-344.

McCracken, M., Currie, D. and Harrison J. (2016) 'Understanding graduate recruitment, development and retention for the enhancement of talent management: sharpening 'the edge' of graduate talent', *The International Journal of Human Resource Management*, 27(22), pp. 2727-2752.

McGrath-Champ, S., Rosewarne S. and Rittau, Y. (2006) 'From One Skill Shortage to the Next: The Australian Construction Industry and Geographies of a Global Labour Market', *Journal of Industrial Relations*, 53(4), pp. 467-485.

McGuire, D., Garavan, T., O'Donnell, D. and Dineen, D. (2002): *Labour Market Flexibility: An Institutional Theory Perspective* Presented at the Irish Academy of Management Conference, Waterford Institute of Technology, September 2002. Available at: <http://eresearch.qmu.ac.uk> (Accessed: 21 May 2019).

McKinsey Global Institute (2012) *The world at work: Jobs, pay and skills for 4.5 billion people*. Available at: www.mckinsey.com/mgi. (Accessed: 3 January 2017)

McLaughlin, L. (2014) *The IT Talent Shortage Debate*. Available at: <http://www.informationweek.com/strategic-cio/team-building-and-staffing/the-it-talent-shortage-debate/d/d-id/1317128> (Accessed: 16 April 2015).

Michaels, E. Handfield-Jones, E and Axel Rod, B. (2001) *The War of Talent*. Boston: Harvard Business School Press.

Ministry of Higher and Tertiary Education, Science and Technology Development (2018) *Ministry of Higher and Tertiary Education, Science and Technology Development, Function*. Available at: <http://www.zim.gov.zw/government-ministries/ministry-higher-and-tertiary-education-science-and-technology-development> (Accessed: 27 January 2018)

Morse, J. M., Barrett, M., Mayan, M., Olson, K. and Spiers, J. (2002) 'Verification Strategies for Establishing Reliability and Validity in Qualitative Research', International Journal of Qualitative Methods 1(2). Available at: www.ualberta.ca/~ijqm/ (Accessed: 12 February 2015)

Murphy, C. (2014) *Is There Really a Skills Gap?* Available at: <http://www.inc.com/magazine/201404/cait-murphy/skills-gap-in-the-labor-force.html> (Accessed: 17 April 2015).

Mourshed, M., Isherwood, T., Jaffer, A., Lim C., Cardoso, B., Fennell, S. and Castro, C. D. M. (2014) 'Policy Debate | Education and Employment Mismatch', International

Development Policy | Revue internationale de politique de développement [Online], 5.3.
Available at: URL: <http://poldev.revues.org/1802>; DOI: 10.4000/poldev.1802
(Accessed: 27 July 2017).

Moynihan, D. P. (2008) 'Learning under Uncertainty: Networks in Crises Management',
American Society for Public Administration 68 (2): 350-365.

Muchabaiwa, W. and Muyambo T. (2017) 'The informal apprenticeship miracle: a case
for Mbare-Magaba informal industry, Zimbabwe', *Eastern Africa Social Science
Research Review*, 33(2), pp.43-56.

Mukora, J. (2008). *Scarce and critical skills research report*, Pretoria: Department of
Labour.

Mwanza, A. (1999) *Social Policy in an Economy Under Stress: The Case of Zimbabwe*.
Harare: SAPES.

Nafukho, F. M., Hairston, N. and Brooks, K. (2004) 'Human capital theory: implications
for human resource development', *Human Resource Development International*, 7(4), pp.
545-551

Neumark, D., Hans, J., and Marisol, C.M. (2011). Future Skills Shortage in The U.S.
Economy? NBER Working Paper no. 17213. Cambridge, MA: national Bureau of
Economic Research.

Newell, R. and Burnard, P. (2011) *Research for Evidence-Based Practice in Healthcare*.
West Sussex: Blackwell Publishing.

OECD (2002). *Economics and management of knowledge*. Available at:
<http://www.oecd.org/redirect/oecd/pages/home/displaygeneral/%200,3380,EN-about-619-5-no-no-no-619,00> . (Accessed: 03 January 2016).

OECD (2003) OECD Employment Outlook, OECD Publishing, Paris.

OECD (2014) *OECD Economic Surveys: Canada 2014*, OECD Publishing.

Omidvar, R. and Lopes, S. (2012). Canada's future success closely linked to a successful immigration program. Policy Options. Available at: <http://policyoptions.irpp.org/wp-content/uploads/sites/2/assets/po/policy-challenges-for-2020/omidvar.pdf>. (Accessed: 10 July 2017).

Osborne, T. (2012) 'Skills Shortage', *Aviation Week & Space Technology*, 174 (45), pp. 29.

Ozimek, A. (2013) *An Alternative Theory of the Skills Shortage*. Available at: <https://www.forbes.com/sites/modeledbehavior/2013/04/24/an-alternative-theory-of-the-skilsshortage/#74bdd7107e4a> (Accessed: 24 May 2017).

Palmer, D.P., Jennings, D. & Zhou, X. (1993) 'Late Adoption of the Multidivisional Form by Large U.S. Corporations: Institutional, Political and Economic Accounts', *Administrative Science Quarterly* 38, pp.100 – 131.

Pauwe, J. (2004). *HRM And Performance: Achieving Long Term Viability*. Oxford: Oxford University Press.

Piechota, J. (2016) 'A case study on ICT skills shortage and skills gap in Ireland through Training Networks Programme', *University of Dublin*, pp. 1-81.

Pole, C. J. and Lampard, R. (2002) 'Suitable Samples: Selecting, Obtaining and Profiting from Them', *Practical Social Investigation: Qualitative and Quantitative Methods in Social Research*, pp. 32-69. Harlow: Prentice Hall.

Pricewaterhouse Coopers (2012) *Facing the talent challenge: Global CEO Survey*. Available at: <http://www.pwc.com/gx/en/ceosurvey/2012/key-findings/hr-talent-strategies.jhtml>. (Accessed: 15 June 2018).

- Pritchard, K. and Whiting, R. (2012) 'Autopilot? A reflexive review of the piloting process in qualitative e-research', *Qualitative Research in Organizations and Management: An International Journal*, 7(3), pp. 338-353.
- Richardson, S. (2009) 'What is a Skill Shortage', *Australian Bulletin of Labour*, 35 (1), pp. 326-354.
- Robert, N. and Burnard, P. (2011) 'Research for Evidence-Based Practice in Healthcare', John Wiley & Sons. Available at: <http://ebookcentral.proquest.com/lib/leicester/detail.action?docID=822493> (Accessed: 29 April 2018).
- Roberts, K. (1995) *Youth and Employment in Modern Britain*, Oxford: Oxford University Press.
- Rothstein, J. (2012) 'The labor market four years into the crisis: Assessing structural explanations', *ILR Review* 65(3), pp. 467–500.
- Ryan, L. (2015) *The Truth About the Talent Shortage*. Available at: <http://www.forbes.com/sites/lizryan/2015/01/08/the-truth-about-the-talent-shortage/2/> (Accessed: 13 January 2015)
- Rynes, S.L., Bartnek, J. M., Daft, R. L. (2001) 'Across the Great Divide: Knowledge Creation and Transfer between Practitioners and Academics. (Statistical Data Included)', *Academy of Management Journal*.44(2), p.340-355.
- Rosewarne, S. (2010) 'Globalisation and the Commodification of Labour: Temporary Labour Migration', *The Economic and Labour Relations Review*,20(2), pp. 99-110.
- Ross, S. (2013) 'How definitions of talent suppress talent management', *Industrial and Commercial Training*, 45 (3), pp. 166 -170.
- Roy, R., H. Henson and C. Lavoie (1996). 'A Primer on Skill Shortages in Canada.', R-96-8E, *Applied Research Branch, Strategic Policy, Human Resources Development Canada*, pp. 1-68.

Salzman, H., Daniel, K., and B. Lowell, L. (2013). Guest workers in the high-skill US labor market. EPI Briefing Paper no. 359. Washington, Dc: Economic Policy Institute.

Sampson, H. (2004) 'Navigating the Waves: The usefulness of a pilot in qualitative research', *Qualitative Research*, 4(3), pp.383-402.

Santoro, M. D., and Gopalakrishnan, S. (2001) 'Relationship dynamics between university research centres and industrial firms: Their impact on technology transfer activities', *The Journal of Technology Transfer*, 26(1–2) pp 163–171.

Shah, C. and Burke, G. (2003) 'Skills shortages: concepts, measurement and implications', *Australian Bulletin of Labour*, 31(1), pp. 1-44.

Schied, F. M. (2014) 'Critical Perspectives on the Skills Debate: Implications for Adult Education', *Procedia - Social and Behavioral Sciences* 142. pp, 553 – 55.

Schofield T. (2013) 'Critical Success Factors for Knowledge Transfer Collaborations between University and Industry', *The Journal of Research Administration*, (44) 2, pp, 38-56.

Shrivastava, P. and Mitroff, I. I. (1984) 'Enhancing Organizational Research Utilization: The role of decision makers' assumptions', *Academy of Management Review*, 9. pp 18-26.

Silverman, D. (2000) *Doing Qualitative Research*. London: Sage.

Slofstra M. 'Skills shortage coming soon, according to CIPS, SHRC', Computing Canada, Available at: <https://link-gale-com.ezproxy3.lib.le.ac.uk/apps/doc/A163486712/EAIM?u=leicester&sid=EAIM&xid=6150f98a>. (Accessed 1 February 2020).

Smelser, N. J. (2003) 'On comparative analysis, Interdisciplinary and Internationalization in Sociology', *International Sociology*, 18(4), pp. 643-657.

Spence, M. (1973) 'Job market Signalling', *Quarterly Journal of Economics*, 87(3), pp 355-374.

Stanford, J. (2013) 'Canada's sluggish labour market and the myth of the skills shortage', *Academic Matters OCUFA's Journal of Higher Education* (2), pp.1-28

Statistics Canada. (2013) *Skills in Canada: First Results from the Programme for the International Assessment of Adult Competencies*. Available at: <https://www150.statcan.gc.ca/n1/daily-quotidien/131008/%20dq131008b-eng> (Accessed: 08 October 2018).

Steinmo, S., Thelen K. and Longstreth F. (1992) *Structuring Politics: Historical Institutionalism in Comparative Analysis*. Cambridge: Cambridge University Press.

Stern, A. L. (2001) 'Bridging the workforce shortage', *Trustee*, 54(7), pp.8.

Sugiyama, N. B. (2008) 'Theories of Policy Diffusion: Social Sector Reform in Brazil', *Comparative Political Studies* 41(2), pp. 193-216

Sutherland, J. (2012) 'Qualifications mismatch and skills mismatch', *Education and Training* 54(7), pp.619–32.

Taylor, A. (2005) 'What employers look for: the skills debate and the fit with youth perceptions', *Journal of Education and Work*, 18(2), pp.201-218.

Teece, D. (1986) 'Profiting from technological innovation: implications for integration collaboration, licensing and public policy', *Research Policy* 15, pp.285– 305.

Telecom Asia (2009) 'Asia's ICT skills shortage worsens even as the IT industry sheds jobs by the thousands. (movements)', *Telecom Asia*, 20(3), pp.15

Tiaki, K. (2014) 'Skills shortage list clarification', Nursing New Zealand. Available at: <http://www.nzno.org.nz/services/journals - kai tiaki/kai tiaki nursing new zealand> (Accessed: 13 January 2015).

Thompson, P. (2004) 'Researching Family and Social Mobility with Two Eyes: Some Experiences of the Interaction Between Qualitative and Quantitative Data', *International Journal of Social Research Methodology*, 7(3), pp. 237-257.

Thomson, A. & Veall, M. & Sweetman, A. (2018). Is There Evidence of an Information and Communication Technology Labour Shortage in the Canadian Labour Force Survey? Canadian Public Policy 44(1), S1-S12. University of Toronto Press. Retrieved July 22, 2019, from Project MUSE database.

Torrance, H. (2012) 'Triangulation, Respondent Validation, and Democratic Participation in Mixed Methods Research', *Journal of Mixed Methods Research*, 6(2), pp.111-123.

Truong, K. 2016) 'Pilot Studies: When and how to conduct them when conducting user studies', *Get Mobile: Mobile Computing and Communications* (4), pp. 8-11.

Twinomurinsi, H., Schofield, A., Hagen. L., Ditsoane-Molefe, S. and Tshidzumbae, N. A. (2017). 'Towards a shared worldview on e-skills: A discourse between government, industry and academia on the ICT skills paradox', *South African Computer Journal* 29(3), pp 215–237

US Bureau of labour Statistics (1999) *Can Occupational Labor Shortage be identified using available data?* Available at: www.bis.gov/opub/mir/1999. (Accessed:28 August 2017).

Van den Broek, Y. (2012) 'Labor shortage solutions: which, when and why?', *Tilburg University*, pp.1-45

Wang, H. C., & Barney, J. B. (2006). 'Employee incentives to make firm-specific investments: Implications for resource-based theories of corporate diversification', *Academy of Management Review* 31(2), pp.466–478.

Wang, H. C., He, J., & Mahoney, J. T. (2009). 'Firm-specific knowledge resources and competitive advantage: The roles of economic- and relationship-based employee governance mechanisms', *Strategic Management Journal* 30(12), pp.1265–1285.

Wachsen, E. and Blind, K. (2016) 'More Labour Market Flexibility for more innovation? Evidence from employer-employee linked micro data', *Research Policy* 45:941-950.

Watson, M. (2007), "Concerns for skills shortages in the 21st century: a review into the construction industry, Australia", *The Australian Journal of Construction Economics and Building* 7(1), pp.45-54.

Watson, D., Webb, R., and Johnson, S. (2006) 'Influence costs and the reporting of skills Deficiencies', *Human Relations* 59(1), pp. 37-59.

Weiss, A. (1995) 'Human capital vs. signalling explanations of wages', *Journal of Economic Perspectives*,9(4), pp 133-154.

Weston, C., Gandell, T., Beauchamp, J., McAlpine, L., Wiseman, C. and Bauchamp, C. (2001) 'Analysing Interview Data: The Development and Evolution of a Coding System', *Qualitative Sociology* 24(3), pp. 381-400.

White, B. (2000) *Dissertation skills for Business and Management Students*. London: Thomson Learning.

Wiles, R., Crow, G.; Charles, V., Heath, S. (2007) 'Informed Consent and the Research Process: Following Rules or Striking Balances?', *Sociological Research Online* 12(2), pp.1-12.

World Economic Forum (2014) *Matching Skills and Labour Market Needs Building Social Partnerships for Better Skills and Better Jobs*. Davos: World Economic Forum.

Xu, D. Fletcher, J (2017) 'Understanding the Relative Value of Alternative Pathways in Postsecondary Education: Evidence from the State of Virginia' in Chapter 14 Shah, M. and Whiteford, G.(eds). *Bridges, Pathways and Transitions*. Cambridge, Chandos Publishing pp.227-257

Zheng, C. and Hu, M. (2008) 'Challenge to ICT manpower planning under the economic restructuring: Empirical evidence from MNCs in Singapore and Taiwan', *Technological Forecasting & Social Change* 75(6), pp.834-853.

.....

APPENDIX 1

LETTER OF CONSENT

Thesis Title: To What Extent Is the Skills Shortage Debate Instrumentally Informing Policy Makers?

Doctorate in Social Science

University of Leicester

You are being invited to participate in a research study on the impact of the skills shortage debate on the policy decisions in your company. A brief background of the debate is that there are two main opposing views. One line of argument states that, skills shortages are pervasive because employers cannot find workers with the skills they need. The view states that job seekers lack technical knowledge, experience, numeracy skills, interpersonal skills, communication skills, problem solving skills, motivation etc. The reasons for the shortages are many but also include brain drain, constant change in technology, collapse of the formal apprenticeship system, mismatch between the needs of the labour market and the supply of skills from tertiary institutions etc. The opposing view argues that there is no shortage citing that employers' expectations or requirements too stringent, ineffective recruitment practices, etc. I am interested in examining the extent to which this skills shortage debate in the academia and among practitioners is generating labour market information that is being meaningfully used by your organisation to develop effective recruitment and training policies.

This research will require about 1 hour of your time. During this time, you will be interviewed on your interpretation, experiences, policies and practices within your organisation. The interviews will be conducted wherever you prefer and will be typed and tape-recorded. The researcher will ask for documentation on the policies if available.

There are no anticipated risks or discomforts related to this research. Rest assured that any private and confidential information gathered by the researcher during the study that either puts your organisation into disrepute or threatens your organisation's competitive position will not be disclosed.

By participating in this research, your contributions may benefit the academia, Human Resources Management field and facilitates better conceptualisation of the corporate organisations' experiences.

Several steps will be taken to protect your anonymity and identity and that of your organisation. While the interviews will be tape recorded, the tapes and any documentation you provide will be destroyed in line with University of Leicester policy i.e. after successful completion of the studies. The typed interviews will NOT contain any mention of your name or the organisation, and any identifying information from the interview will be removed. However, the participant information may be shared with the University of Leicester Ethics Committee if requested. Except for the parties mentioned above only the researcher will have access to participant information. Only the researcher will have access to the typed interview reports.

Your participation in this research is completely voluntary. However, you may withdraw from the study at any time for any reason.

The results of the study i.e. the final thesis will be presented in writing to the Doctorate Programme Board of the University of Leicester. At no time, in the thesis will your name be used, or any identifying information be revealed. If you wish to receive a copy of the results from this study, you may contact the researcher by telephone number or email given below.

If you require any information about this study, or would like to speak to the researcher, please call Tadiwa Muradzikwa at + 1 514 7160782 or tadiwamuradzikwa@yahoo.com. If you have any other questions regarding your rights as a participant in this research, you may also contact University of Leicester at +44 (0) 116 252 2522 or dsocsci@leicester.ac.uk

I have read (or have been read) the above information regarding this research study on to What Extent Is the Skills Shortage Debate Instrumentally Informing Policy Makers and consent to participate in this study.

(Printed Name) _____

(Signature)

(Date)

APPENDIX 2
RESPONDENT VALIDATION LETTER OF CONSENT

Thesis Title: To what extent is the skills shortage debate instrumentally informing policy makers?

Doctorate in Social Science

University of Leicester

Following our interview regarding the thesis study titled **to what extent is the skills shortage debate instrumentally informing policy makers?** I am attaching my interview report and the analysed data for you to review and advise whether the report matches your experiences. Please feel free to advise if you would like to change anything or add anything.

I would like to reiterate that your participation in this research is completely voluntary and you may withdraw from the study at any time for any reason.

The results of the study i.e. the final thesis will be presented in writing to the Doctorate Programme Board of the University of Leicester. At no time, in the thesis will your name be used, or any identifying information be revealed. If you wish to receive a copy of the results from this study, you may contact the researcher by telephone number or email given below.

If you require any information about this study, or would like to speak to the researcher, please call Tadiwa Muradzikwa at + 1 514 7160782 or tadiwamuradzikwa@yahoo.com. If you have any other questions regarding your rights as a participant in this research, you may also contact University of Leicester at +44 (0) 116 252 2522 or dsocsci@leicester.ac.uk

I have read (or have been read) the interview report and the analysed summary report regarding this study on to What Extent Is the Skills Shortage Debate Instrumentally Informing Policy Makers and consent to the presentation of the findings in this study.

(Printed Name) _____

(Signature) _____

(Date) _____

APPENDIX 3

Interview Questions

Thank you for agreeing to participate in the interview. The purpose of the interview is to establish your interpretations of the extent to which the skills shortage debate in the academia and among practitioners is generating labour market information that can be meaningfully used by policy makers to develop effective recruitment and training policies. Do you mind if I tape record the interview? The data collected from the interview is for the purpose of academic research for my doctoral thesis with the University of Leicester. It is voluntary, anonymous and it will be kept in strict confidence.

Section A – Demographic Information

1. Tell me about your background (i.e. highest educational qualification, professional experience)?

2. Which description best suits your position in the organisation (Official Title)

☐ Company director ☐ senior management ☐ Middle management ☐ junior management (544) ☐ Supervisor ☐ Other professional ☐ Clerical/administrative ☐ Skilled manual ☐ Unskilled manual ☐ Other, please specify

3. How many years of experience do you have in the professional field?

4. How many years of experience do you have in your organisation?

5. Gender ☐ Male ☐ Female

6. Which of the following describes best your age group?

☐ 20- 25 ☐ 26-30 ☐ 31-35 ☐ 36-40 ☐ 41-45

☐ 46-50 ☐ 51-55 ☐ 56-60 ☐ 61-65 ☐ 66-70

Section B – Organisation Information

7. In which sector does your organisation belong to?

8. How many people are employed by your organisation?

Section C – Filling Vacancies

9. Do you recall of a time when your company experienced prolonged difficulties in finding qualified applicants for ICT entry level vacancies?
10. *(If the answer to question 6 above is Yes).* In which professional fields did your organisation experience difficulties in finding qualified applicants?
11. *(If the answer to question 6 above is Yes).* What were the academic qualifications and competencies requirements for one to successfully work in those hard to fill vacancies?
12. *(If the answer to question 6 above is Yes)* In your opinion, what were the reasons for the difficulties?
13. *(If the answer to question 6 above is No).* Why do you think it is fairly easy for your company to find and attract qualified applicants?
14. What does your company do internally to ensure an adequate supply of qualified ICT human resources that meet your business needs?
15. What does your company do externally to ensure an adequate supply of qualified ICT applicants to meet your business needs?

Section E – Policies

16. Reflecting on the recruitment and training policies within your organisation in your opinion what influenced the policy choices that were made by your organisation?
17. Did your company think of any internal factors when developing the policies?
18. Did your company think of any external factors when developing the policies?
19. To what extent do you think they have been effective in enabling your organisation to maintain the skills needed by your organisation?

Section F – Skills Shortage Debate

20. Have you heard of the skills shortage debate?
21. To what extent are the policies in your organisations influenced by the debate?
22. Can you think of specific examples of policies within your organisation that were influenced by the debate?
23. Do you think the debate is providing your organisation with information that is useful for your organisation?

24. What do you understand by the term skills?
25. Looking at the development in the sector in which your organisation operates do you foresee skills shortages recurring in the future?
26. To what extent do you think the apprenticeship system in the country or province is effective in providing the skills that are required by your organisation.
27. In your opinion, do you think there is a shortage of ICT workers?

APPENDIX 4

INTERVIEW QUESTIONS- RATIONAL TABLE

THE EXTENT TO WHICH THE SKILLS SHORTAGE DEBATE INSTRUMENTALLY INFORMING POLICY-MAKERS.

Table 2

Interview Question	Rationale for Asking the Question	Research Question
<p>Tell me about your background (i.e. highest educational qualification, professional experience)?</p> <p>Which description best suits your position in the organisation (Official Title)?</p> <p><input type="checkbox"/> Company director <input type="checkbox"/> senior management <input type="checkbox"/> Middle Management <input type="checkbox"/> junior management <input type="checkbox"/> Supervisor <input type="checkbox"/> Other professional <input type="checkbox"/> Clerical/administrative <input type="checkbox"/> Skilled manual <input type="checkbox"/> Unskilled manual <input type="checkbox"/> Other, please specify</p> <hr/> <p>How many years of experience do you have in the professional field?</p>	<p><i>Introduction of the interview, establishing rapport, gathering participant information to determine professional background</i></p>	N/A
<p>In which sector does your organisation belong in?</p> <p>How many people are employed by your organisation?</p>	<p><i>Part of the Introduction, determine sector of the organisation and</i></p>	N/A

	<i>whether the organisation is large in line with the target of the research</i>	
<p>Do you recall of a time when your company experienced prolonged difficulties in finding qualified applicants for ICT entry level vacancies?</p> <p><i>(If the answer to question 6 above is Yes).</i> In which professional fields did your organisation experience difficulties in finding qualified applicants?</p> <p><i>(If the answer to question 6 above is Yes).</i> What were the academic qualifications and competencies requirements for one to successfully work in those hard to fill vacancies?</p> <p><i>(If the answer to question 6 above is Yes)</i> In your opinion, what were the reasons for the difficulties?</p> <p><i>(If the answer to question 6 above is No).</i> Why do you think it is fairly easy for your company to find and attract qualified applicants?</p> <p>What does your company do internally to ensure an adequate supply of qualified ICT</p>	<p><i>To determine whether the organisation recruits ICT professionals and to identify the recruitment and training strategies the organisation uses</i></p>	<p>First and second sub-research questions focus on ICT workers</p>

<p>human resources that meet your business needs?</p> <p>What does your company do externally to ensure an adequate supply of qualified ICT applicants to meet your business needs?</p>		
<p>Reflecting on the recruitment and training policies within your organisation in your opinion what influenced the policy choices that were made by your organisation?</p> <p>Did your company think of any internal factors when developing the policies?</p> <p>Did your company think of any external factors when developing the policies?</p>	<p><i>Identify the organisation's policies and determining the rationale, causes and forces behind them.</i></p>	<p>What do human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers take into consideration when developing recruitment and training policies</p>

<p>Have you heard of the skills shortage debate?</p> <p>To what extent are the policies in your organisations influenced by the debate?</p> <p>Can you think of specific examples of policies within your organisation that were influenced by the debate?</p>	<p><i>Determine the level of awareness of the debate and establish whether the participants think the debate is influencing in anyway specific policies and practices in their organisation</i></p>	<p>Are human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers influenced by the skills shortage academic debate when making policy decisions?</p>
<p>What do you understand by the term skills?</p> <p>Do you think the debate is providing your organisation with information that is useful for your organisation?</p>	<p><i>Determine whether the proclamation by scholars that there are various definitions and ambiguity in the term skills is also evident in the cases or contexts under study and the implications of this on the organisation's response, policies and practices.</i></p>	<p>Are human resources management policy makers in the private sector organisations in Harare (Zimbabwe) and Montreal (Canada) that hire ICT workers influenced by the skills shortage academic debate when making policy decisions?</p>

	<p><i>Determine whether the participant feel that the debate is enabling them to respond and to adapt to changes in the labour market</i></p>	
--	---	--

APPENDIX 5

Table 3 Summary of the Skills Shortage Debate

Pro-skills shortage Argument	Anti-skills Shortage Argument
There are pervasive qualitative and quantitative skills shortages. Employers are recurrently experiencing difficulties in finding skilled workers	There is no evidence that skills shortages are widespread. The skills shortage view is not warranted because there are 10 million unemployed people, yet employers still complain about finding the right skills in the USA.
There is a pervasive mismatch between employees' qualification and employers' needs.	There is no credible evidence to substantiate views that high unemployment is attributed to skills mismatch.
The skills levels have collapsed because of global economic restructuring.	There is no evidence that skills levels have collapsed. There is no evidence of skyrocketing wages an indicator of tightening labour market.
Skills levels have depreciated because education systems are not adequately preparing students	The pro-skills shortage view takes for granted that shortages are widespread without proper scrutiny. Some of weaknesses of the skills shortage arguments include methodological problems and flawed assumptions that every job held by a college graduate require the skills associated with the degree.
There are widespread soft skills gaps. Job seekers lack soft skills such as problem-solving skills, leadership skills, communication skills etc	Qualified job seekers have deliberately withdrawn their skills because of the unattractive working conditions. The pro-skills shortage view fails to realise that workforce supply is enough however

	some employers are finding it difficult to recruit because of uncompetitive wages, poor recruitment policies, unattractive working conditions, segregation of qualified minorities, migrants and young people, stringent selection processes etc.
The hard skills gaps are pervasive because job seekers lack technical skills that are required for the jobs	The pro-skills shortage view fails to recognise that labour supply is very responsive to wage increases which offsets the imbalance
Skills mismatch is a universal problem because of lack or inaccurate information about the labour market.	The pro-skills shortage view ignores the symbiotic relationship between internal and external labour market. It fails to explain the conceptual frameworks that helps one to understand the relationship between workers, their skills against the employer's needs
There are widespread shortages because of technological change, economic growth and introduction of new products	The pro-skills deficit view fails to recognise that large ICT companies like Microsoft only recruit less than 2% of the engineering graduates.
One of the causes of chronic shortages is long training period and slow rate of adjustment of training systems to enable workers to learn the new skills	The pro-skills deficit view lacks specifics on who lacks what skills. Some of the reports are difficult to believe because they postulate difficulties in hiring for jobs with “no discernible skills i.e. drivers or other jobs that require no more than high school education” to represent a real shortage of skilled workforce.
There are ubiquitous shortages because of under investment in education	The pro-skills shortage view has a weakness of defining skills in absolute terms i.e. seeing skills as coming with the

	job applicants and if an individual doesn't have them, she or he can't do the job
The demographic issues of the labour market are causing pervasive shortages migration, and imbalances caused by individual preferences	There is no evidence of shortages because the number of unemployed job seekers has increased and exceeds job opportunities
The anti-skills shortage proponents fail to understand how the labour market system works i.e. supply and demand oscillation	Most of the skills shortages view arguments emanate from employer-based surveys that are prone to bias and inaccuracies because of subjectivity and political interests of the employers and analysts
There are widespread shortages because of ageing population	There is no evidence that there is a widespread shrinkage in labour force. On the contrary the number of graduates is increasing
There are pervasive shortages because employers have relinquished their role of offering apprenticeship	Some of the pro-skills shortage arguments suffer from methodological problems and flawed assumptions that every job held by a college graduate requires skills associated with the degree.
There are widespread shortages because of reduction in the number of people taking up apprenticeships	
	The pro-skills shortage view has weaknesses for instance it fails to develop a conceptual framework that enables one to clearly "understand the relationship between workers, their skills against employer needs". (Cappelli 2015).

APPENDIX 6

Table 4 Participant Information

Participant #	Gender	Years of HR Experience	Location	Education Level	Functional Title	Sector or type of company
1	Female	10 Years	Canada	BA Degree	HR Administrator	Management Consultants
2	Female	4 Years	Canada	B. Com Degree	Recruiter	ICT Recruitment Agency
3	Female	10 Years	Canada	HR Diploma	HR Manager	Software Development Firm
4	Male	15 Years	Canada	BA Degree	Recruitment Consultant	Recruitment Agency
5	Male	21 Years	Zimbabwe	BA Degree	HR Manager	Hospitality Industry
6	Male	15 Years	Zimbabwe	MBA Degree	HR Director	Banking
7	Male	22 Years	Zimbabwe	MSc Degree	HR Director	Insurance
8	Male	6 Years	Canada	BA Degree	HR Consultant	ICT Consultant Firm
9	Male	5.5 Years	Zimbabwe	MSc. Degree	HR Business Partner	Banking
10	Female	4 Years	Zimbabwe	LLB Degree	HR Officer	Retail
11	Male	13 Years	Zimbabwe	BA Degree	HR Officer	Security Services Company
12	Female	18 Years	Zimbabwe	MBA	Deputy HR Director	Insurance
13	Male	8 Years	Canada	MSc Degree	HR Manager	Hospitality Industry

14	Female	7 Years	Zimbabwe	BA Degree	Talent Acquisition Advisor	Recruitment Agency
15	Female	11 Years	Zimbabwe	BA Degree	Recruitment Specialist	Recruitment Agency
16	Male	17 Years	Canada	MA Degree	HR Director	Retail
17	Male	20 Years	Canada	MA Degree	HR Officer	Software Development Firm
18	Female	15 Years	Canada	MSc Degree	HR Consultant	Management Consultant
19	Male	8 Years	Canada	MSc Degree	HR Manager	Software Development
20	Female	3 years	Canada	BA Degree	HR Officer	Retail

APPENDIX 7



University Ethics Sub-Committee for School of Business

04/06/2018

Ethics Reference: 16590-tm290-ss/bu: management&organisation

TO:

Name of Researcher Applicant: Tadiwa Muradzikwa

Department: Labour Market Studies

Research Project Title: To what extent is the skills shortage debate instrumentally informing policy makers?

Dear Tadiwa Muradzikwa,

RE: Ethics review of Research Study application

The University Ethics Sub-Committee for School of Business has reviewed and discussed the above application.

1. Ethical opinion

The Sub-Committee grants ethical approval to the above research project on the basis described in the application form and supporting documentation, subject to the conditions specified below.

2. Summary of ethics review discussion

The Committee noted the following issues:

Thank you for your application. Please remember that if your research design alters substantively you will need to revisit ethical approval.

3. General conditions of the ethical approval

The ethics approval is subject to the following general conditions being met prior to the start of the project:

As the Principal Investigator, you are expected to deliver the research project in accordance with the University's policies and procedures, which includes the University's Research Code of Conduct and the University's Research Ethics Policy.

If relevant, management permission or approval (gate keeper role) must be obtained from host organisation prior to the start of the study at the site concerned.

4. Reporting requirements after ethical approval

You are expected to notify the Sub-Committee about:

- Significant amendments to the project
- Serious breaches of the protocol
- Annual progress reports
- Notifying the end of the study

5. Use of application information

Details from your ethics application will be stored on the University Ethics Online System. With your permission, the Sub-Committee may wish to use parts of the application in an anonymized format for training or sharing best practice. Please let me know if you do not want the application details to be used in this manner.

Best wishes for the success of this research project.

Yours sincerely,

Dr. Chris Grocott

Chair