# The Management of Demographic Change: A Study of Three German Industrial Sectors

**Hilary Drew**

BA (Hons), MA, MBA, MSc, PGCE HE/FE

**A Thesis Submitted in Fulfilment of the Requirements for the Degree of Doctor of Philosophy of Cardiff University**

**Human Resource Management Section, Cardiff Business School, Cardiff University**

**1st submission: October 2010**

**Resubmitted: February 2012**

**Abstract**

Repercussions of the demographic shift for firms include issues such an incremental rise in the average age of the workforce, unequal inflows and outflows of labour and managing organisational skill levels. In the case of Germany, organisational responses to demographic change are exacerbated by a predominant *early exit culture*, legislation which protects against the dismissal of older employees and related provisions set out in collective bargaining agreements. The aim of the research is to examine how demographic shifts impacted on German companies in the steel, chemicals and utilities sectors. After discussing these challenges, the thesis analyses measures implemented by these firms and explains differences in the responses between the sectors.

The empirical findings clearly indicate that far more was being done to prepare for, and to counter, the effects of demographic developments than the extant academic literature suggests. Companies which responded most proactively to demographic change issues perceived this to be part of their role as a responsible and caring employer.

The end to the financial support of early retirement by the German government was found to be an important catalyst for firms to develop measures to accommodate older workers, instead of offering them an early exit from the company. Nevertheless, a failure to respond effectively to the end of state-funded support for early retirement, as well as the tendency of some firms to ignore deep-seated motivational issues in older workers, suggests that companies have some way to go before they can be described as effectively tackling demographic change. Hence, this thesis is unable to prove conclusively that critics of the German management of demographic in organisations are wrong in pre-empting that German firms run the risk of falling into a *demographic trap* (Thun *et al*, 2007).

The thesis frames demographic change within a wider context of organisational shifts, by examining external and internal drivers of change. Variations in responses between sectors are explained by drawing attention to drivers of change within the three industrial sectors which have shaped the behaviour of firms, including past experiences of organisational restructuring.

Finally, the thesis makes a number of important theoretical, empirical and practical contributions to the academic literature. The most important contribution is to provide qualitative, empirical data on how firms in Germany are dealing with demographic developments to address gaps in the literature on company responses to demographic change.

## Acknowledgements

There are many people who deserve to be acknowledged for the role that they played in helping me reach the end of my doctoral thesis. First and foremost, I would like to thank my primary supervisor, Professor Jonathan Morris. Additionally, I express my thanks to my second supervisor, Dr Marco Hauptmeier.

I was extremely fortunate to be funded for this research project. I received financial support from the Economic Social Research Council (ESRC) through their 1+3 programme. The Hans Böckler Institute in Düsseldorf made me a recipient of the Hans Böckler Doctoral Fellowship Award, which enabled me to spend four months at the research centre, in order to conduct my fieldwork in autumn 2008. At the Hans Böckler Institute, I would especially like to thank Martin Behrens for his comments and ideas, both during and long after my stay in Düsseldorf. I also thank the Max Planck Institute for the Study of Societies (MPIfG) in Cologne for allowing me to spend three months at the institute in autumn 2009, as a visiting researcher.

I have to thank all the mangers and other organisational members in Germany who took time out of their busy schedules to do the interviews with me. Further thanks go to the BMFSFJ and BAGSO for helping me to gain a greater insight into demographic developments in Germany and for pointing me towards other sources of data. I am also grateful to the Düsseldorf branch of the chemical trade union IG-BCE, especially to Rolf Erler, for allowing me to spend some time at their offices.

Other thanks go to the staff at Cardiff Business School, especially to Elsie Phillips, Laine Clayton and Sara Bragg. I would also like to thank Jürgen Heil for being supportive and giving me a place to stay in Germany, as well as for his invaluable help with translating and proofreading. Thank you to my new colleagues at UWE, especially to Dominic Page and Lin Lovell. Thank you very much, Steve Lowe, for your support, patience and unbelievable resilience in the face of Microsoft Word! To Laura Williams, thank you for being a good friend and a great fellow PhD student over the past five years.

Of course, the person who deserves the greatest thanks is my mother, Glenys. Apart from everything else that she has done, and continues to do for me, she will always believe in me.

**Table of Contents**

# CHAPTER ONE

# INTRODUCTION

## 1.1 Introduction

The European Commission's 2002 report, *Increasing labour force participation and promoting active ageing*, stated that tackling the issue of promoting active ageing and increasing labour market participation rates for the over fifty-fives are key concerns for all European governments. The year 2012 has been designated the *European Year for Active Ageing* by the European Commission. Amongst the aims of this initiative are improving working conditions and increasing labour market participation for older people. For companies worldwide, including firms in Germany, an adequate response to demographic shifts involves changes to working conditions, job tasks, organisational cultures and beliefs, as well as strategies to bring more skilled young people into work.

Firms in Germany have responded to demographic challenges in different ways. Responses range from the implementation of practices to promote a greater exchange of knowledge between older and younger workers to decisions taken to continue to accommodate older workers, despite their failure contribute directly to success of the organisation. Hence, the overarching aim of the research is to consider the reasons behind this diversity of responses. The thesis proposes two main explanatory factors for the variation in practices implemented; the history and general nature of the industrial

sector, alongside the recent history of the organisations, in particular, the way in which firms have been organised following experiences of restructuring.

Managing demographic developments has become topical; yet the literature tends to be both predominantly practitioner-focused and prescriptive, with a lack of emphasis on how demographic change is perceived and managed at organisational level. Thus, the thesis is interested in addressing this gap in the literature and examining responses to demographic change at the organisational level. This is done by uncovering how demographic developments affect companies and how employers are responding to the challenges that ageing employees and a future decline in young people entering the labour market bring.

To begin the process of outlining the findings and contributions of this study, this first chapter provides a background to demographic change, in order to set out the challenges faced by companies. Sections 1.3-1.5 discuss the context of the research and the research questions. Section 1.6 describes the structure of the thesis.

## 1.2 Demographic Change in Germany

The demographic shift encompasses the issue of an ageing population, which is not offset by the birth rate. Rather, a decrease in the birth rate mortality rates has been visible since the 1970s with the end-effect that every generation is smaller than one before it, but each new generation will live longer than its predecessor (Henseke and Tivig, 2009). This

demographic phenomenon is a trend more closely associated with advanced industrialised nations, such as Germany.

As elsewhere in Western Europe, Germany has a rapidly ageing population which is coupled with a fall in birth rate (Buck and Dworschak, 2003; Henseke *et al*, 2009; Kirpal and Kühl, 2006; Thun et al, 2007). It has been estimated that, between the years 2000 and 2035, Germany will witness a sixty percent increase in the number of people aged sixty-five and above (Kirpal and Kühl, 2006). In 2009, twenty percent of the population was aged sixty-five and above; this is expected to rise to just over thirty percent, with every seventh person being eighty years old or above in the coming decades (Destatis, 2009). In 2009, the population of Germany was 82 million; this is estimated to sink to sixty-five million in 2060 (Destatis, 2009). Henseke *et al* (2009) argue that the influx of foreign workers[1] over the past thirty years artificially raised population figures. However, immigration in Germany has not reached the same peak as in other industrialised economies, such as Canada[2].

A decrease in the death rate, as people continue to live longer, and a simultaneous decline in the birth-rate are expected to lead to a rise in the average age of workforces and a long-

---

[1] Germany has welcomed immigrants since the postwar period, beginning with the *Gastarbeiter* in the 1950s, who came from Italy. Today, immigrants from the new Eurozones come to Germany in search of work.

[2] Canada already counts amongst one of the most ethnically diverse countries in the world and a massive immigration-led demographic shift could alter Canada's economy (Hernandez, 2004).

term decline in the working population (Köchling, 2003). For firms in Germany, evidently, the issue of managing older workers is not a new concern. Prior to 2010, firms tended to rely upon early retirement packages as a method of managing labour shedding, nevertheless, with the end to government financial support of these schemes, this strategy has become less feasible and change is needed. As a consequence, companies have begun to re-think their strategy for managing elderly employees. Furthermore, this German *early exit culture* has been underpinned by the fact that German workers anticipate early retirement and managers face the challenge of reversing these expectations of retirement in order to promote longer working lives.

### 1.2.1 Impact of Legislation

The shifting demographic situation for German employers is further compounded by factors including legislation, which offers a high degree of job protection. Older workers are guaranteed certain rights under the Basic Law and are further protected by the German legislative framework, including an anti-discrimination clause in the Works Constitution Act (Müller *et al*, 2009; Teipen and Kohli, 2004). The Works Constitution Act also enables works councils to promote the employment of the over-fifties, especially in terms of gaining more opportunities for training and part-time working (Bispinck, 2005). For these reasons, the displacement of workers aged fifty-five and over becomes both difficult and expensive and, in times of economic downturn, it becomes increasingly problematic for German firms to manage their staffing needs.

Unlike in the United Kingdom, European Union (EU) laws have had far less of an impact within Germany (Müller *et al*, 2009). In fact, the extent to which the 2006 EU Employment Equality (Age) Regulations may be described as a pressure towards a convergence on the part of Germany towards a European-wide standardisation of policies and practices towards anti-ageing is debatable.

### *1.2.2 Early Exit Culture*

German nationals tend to retire earlier than their other European counterparts (Teipen and Kohli, 2004), especially due to the existence of an *early exit culture*, meaning that older employees look forward to, and aspire towards, early retirement (Teipen and Kohli, 2004). An *early exit culture* is based on a social contract between the generations. The younger people accept the senior principle, by which they accept lower wages in the understanding that their wages will go up as they rise in seniority. The older generation accepts the moral principle that they must leave in order to create vacancies for younger staff. In previous times, organisations were able to manage employees aged fifty and above by offering early retirement, which carried generous severance packages (George, 2000). In other words, early retirement was a *soft landing* for older workers (Delsen, 2003). This *early exit culture* was supported by the German state, in order to adapt the labour market to a process of economic transformation, as well as to evade conflicts between the social partners.

*1.2.3 Early Retirement*

Early retirement has been supported by the German pension system and through legislation. Many firms made use of the Old-Age Part-time Act (Altersteilzeitgesetz), a law introduced in 1996, which makes it possible for employees to reduce their working hours by fifty percent, thereby reducing the number of older workers (Reday-Mulvey, 2005). Originally, the law only applied to workers aged between sixty and sixty-five, but the law was amended in 1998 to include workers aged fifty-five and above (Reday-Mulvey, 2005). The aim of the law was to create more space within the labour market so that older workers could retire and new, younger workers could enter work. The Old-Age Part-time Act was accepted as a socially responsible instrument to reduce the workforce by most of the trade unions and later collective agreements, also in the public sector, included using the Block Model (Reday-Mulvey, 2005). The Block Model extended the possibilities for partial retirement set out in the Old-Age Part-time Act in that, instead of working part-time for five or six years and then retiring, employees could work full-time for two and a half years and then enter into full retirement (Reday-Mulvey, 2005).

Despite the benefits for firms who were looking to reduce their workforce, the partial retirement options set out in the Old-Age Part-time Act were never an inexpensive method of shedding labour (Muller et al, 2009; Reday-Mulvey, 2005). Arrowsmith and McGoldrick (1997) argued, nonetheless, that most firms implemented the system.

Under the partial retirement system, although an employee only worked part-time, the employer is legally obliged to pay seventy percent of the original salary and the largest proportion of pension insurance contributions (Müller *et al*, 2009). In order to promote flux in the labour market, the German government then covered any further costs if the organisation agreed to recruit an employed person or a newly qualified trainee to fill the vacant position (Müller *et al*, 2009; Reday-Mulvey, 2005). However, the provisions set out by the *Altersteilzeitgesetz* came to an end in 2010 after the government declared that it would no longer offer financial support to firms which opt for this method of labour displacement (Müller *et al*, 2009).

### 1.2.4 Pensions

Helmut Kohl, the German Chancellor during the 1980s and 1990s, famously spoke of Germany as having the oldest students and the youngest pensioners in the world; this situation remains unchanged in Germany. Nevertheless, since the 1990s, it has been clear that the existing system disadvantages the younger working generation whose contributions finance current pensions, instead of being reinvested to grow future pensions. The demographic shift will, thus, result in a shrinking pool of workers to finance a growing number of pensioners. Commentators may argue that, in terms of gravity, the pension situation in the USA and the UK are very similar. Yet, neither country offers such generous benefits for senior citizens as Germany, nor is the working population ageing as quickly in the USA or in the UK as in Germany.

*1.2.5 Apprenticeships*

The German apprenticeship system has attracted much attention for its guarantee of a constant influx of new qualified labour into firms, which is one of the main measures suggested by the literature to control demographic effects. However, with a decline in the number of apprenticeships offered, and a limited number of young people receiving training in fields such as engineering and science, it is unclear whether or not Germany is better equipped to deal with the decline in the birth rate than other countries in Europe.

## 1.3 Research Rationale

Two areas should be addressed when outlining the rationale for this research, namely, the justification for selecting the topic of demographic change been selected and the reasons behind choosing Germany for the focus of the study.

To begin with the second part of the question, Germany was selected as the focus of this empirical work because of its importance within business management literature, especially regarding cross-cultural research which seeks to understand and compare, inter alia, international employment systems, organisational and work behaviour. Germany, alongside the USA and Japan, has been considered one of the predominant variants of capitalism (Garten, 1993) and, additionally, has been recognised as a best practice model

(Smith and Meiksins, 1995). Within the Varieties of Capitalism (VofC) literature[3], Germany is an example of a Coordinated Market Economy (CME), underpinned by "strategic interaction among firms and other actors [and] depend more heavily on non-market relationships" (Hall and Soskice, 2001: 8). Aside from responding to global shifts, as well as to changes within labour markets and to the organisation of work which are impacting upon all industrialised economies, German companies have been particularly affected by the pressures of demographic developments. This was described above in section 1.2. Consequently, this research is both interesting and useful, in that it may add to the literature on Germany, especially through offering significant insights into how German organisations have responded to the global challenge of demographic shifts.

To move on to considering the rationale for selecting demographic change as a topic for this doctoral research, the phenomenon of demographic change affects every industrialised nation. Likewise, the implications of the demographic shift for companies are an ever-growing topic within the literature. The number of journals (for example, *Experimental Aging Research*, *Ageing & Society*, *Aging and Social Policy* and

---

[3] According to the *varieties of Capitalism* debate, the "systems of labour market regulation, of education and training and of corporate governance" depend upon "the presence of regulatory regimes that are the preserve of the nation state" (Soskice and Hall, 2001: 4). Taking these elements, a distinction is made between how they function and fit together in liberal market economies (LMEs), such as the USA and the UK, and in coordinated market economies (CMEs), such as Germany. Soskice and Hall (2001) question the traditional view of globalisation as a catalyst for change, highlighting, instead, that national differences play the greatest role in explaining how organizations operate from country to country.

*Psychology and Aging*) devoted to the topic is evidence of the extent to which this is a pertinent topic to be researched. However, the majority of previous studies on ageing workforces in Germany have taken a wide perspective on the issue and little work has been done to uncover *how* companies respond to demographic shifts. Hence, the overarching objective of this thesis is to add to the academic literature on how demographic change is perceived and managed at organisational level. To locate the empirical research on demographic developments within the context of organisational change and to describe the factors driving organisational responses to demographic change, the thesis also discusses the role played by industrial sectors in shaping practices and attitudes. Furthermore, the thesis also considers the impact of restructuring, in order to assess the extent to which company responses to demographic shifts have been shaped by the past experiences of firms.

## 1.4 Research Questions

Despite the empirical research already undertaken on demographic change in Germany, several avenues remain open. Chapter two will highlight gaps in the extant literature; in particular these involve research at organisational level to uncover practices implemented by organisations to manage demographic developments. The research questions are:

- What are the problems associated with managing demographic change?

- What are the management responses to demographic change?

- Why do some firms do more to prepare themselves for the effects of demographic change than others?

- To what extent do the effects of industrial sector and organisational restructuring impact on the management of demographic change?

## 1.5 Scope of the Research

The research scope is described in terms of research setting and the unit of analysis. In terms of research setting, the study was conducted in three industrial sectors in Germany. Data was collected from HR managers who were interviewed about the extent to which aspects of demographic change were a problem within their organisation, how any implications were addressed and what kind of drivers of change, at both macro and meso level, impacted on the way in which their organisations responded to change. In terms of the unit of analysis, the data collected corresponds to individual organisations.

## 1.6 Structure of thesis

The thesis is divided into nine chapters. This first chapter has provided a background to the research project, including the research questions and overall objective. Chapter two, which is the literature review, provides the theoretical foundation for the issues which are addressed in the thesis and presents the key literature on demographic change. The third chapter explains the methodology of the study. It provides an understanding of the population and sample, as well as presenting, and critically evaluating, primary and

secondary data collection, and further, discusses any issues that have arisen within the chosen methodology.

Chapters four to six explore the challenge of demographic change for managers, as well as solutions put forward by researchers, in order to minimise the impact of demographic developments on firms. Chapter four sets out the key issues connected with demographic shifts evidenced by the empirical study, chapter five discusses organisational responses and chapter six ties the empirical findings together, identifying that problems faced by employers in managing the ageing workforce tend to be exacerbated by the issues directly related to the organisational restructuring and the way in which the industrial sector shapes organisational decision-making and culture. This key finding forms the basis of chapter seven, which brings together primary and secondary source data to provide an overview of reorganisation and the influence of sector, in order to place the empirical data of this research within a framework.

Chapter eight presents three case studies, one from each of the sectors, in order to respond to the third research question - *what extent do the effects of industrial sector and organisational restructuring impact on the management of demographic change?* The objective of the case studies is to focus on clearly on the organisational level. The case studies provide insights into the problems associated with managing the ageing workforce, how management deals with these problems, as well as the extent to which

the effects of organisational restructuring and sector impact on the management of demographic change.

Chapter nine, the final thesis chapter, summarises the study, its findings and outlines the empirical, theoretical and practical contributions to the literature made by this study. Chapter nine also makes suggestions as to possible future studies of the issues raised in this thesis.

## 1.7 Conclusion

This initial chapter has introduced the research topic and described the layout of the thesis. The next chapter is a literature review and is tasked with providing an introduction to the topic of demographic change.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

Chapter one introduced the topic of the demographic shift, which has been identified as a trend across the industrial West and Japan for the past two decades. It was discussed that although global populations are living longer, birth rates remain low and these demographic shifts have serious ramifications for firms. The aim of this chapter is to draw upon the academic literature, in order to establish how organisations have been affected by a number of corresponding demographic trends and what have been typical responses.

### 2.1.1 A Multi-disciplinary Field

It should be stated at the outset that to make a comprehensive review of the literature on demographic developments is a far from straightforward task. This is due to the fact that a huge body of literature has grown up around the topic (Siegenthaler and Brenner, 2001), including gerontological, medical, psychological, business management and economic research. Moreover, there is a plethora of practitioner literature also. Hence, it is necessary to engage with these different bodies of literature. Nevertheless, as Rhodes (1983) has argued, most studies on ageing share a common failing; longitudinal studies are not necessarily representative because many participants may have retired before the

research has ended. This may debatably compromise the generalisability of research on ageing workers.

### 2.1.2 Key Bodies of Literature

In terms of academic studies from the field of business management, the nascent body of literature on managing the ageing workforce falls largely into two categories: Firstly, *demo-economics* literature addresses issues such as pension and healthcare provision and labour market factors, including productivity and participation (see, for example, Börsch-Supan, 1999; Faruqee, 2002; Leibfritz *et al*, 1995; Skirbekk, 2004). Secondly, there is a broad body of empirical and non-empirical studies which aim to establish key challenges for organisations presented by the demographic shift. Typically, studies which fall into this category set out the issue of demographic change and proceed to analyse the kinds of negative effects it will have for organisations. Within this body of literature, solutions to address changes in the working age population including knowledge management, training and healthcare provision, are outlined (see, for example, Buck and Dworschak, 2003; Frerichs and Taylor, 2005; Kirpal and Kühl, 2006; Leyhausen, 2009; Müller-Camen *et al*, 2009).

Indeed, much of the research on managing demographic change since the 1990s has centred upon recognising the adjustments that need to be made, in order to enhance the rate of employment for all age groups, not only elderly workers (Ilmarinen, 2001). Employability becomes a key focus of this rather prescriptive literature, seeking to

improve the working conditions of all workers, both young and old, in a move to address the demographic problem more holistically (Ilmarinen, 2001). Issues addressed by the broad category of *employability* include age discrimination, health, exit policies, training and organisational policies (Ilmarinen, 2001). The conclusions reached by research from the 1990s onwards, therefore, argue for more fitness programmes to be offered by firms, ergonomically designed workplaces, new technology and better awareness of ageing and its effects on workers for supervisors and line managers (Ilmarinen, 2001).

### 2.1.3 Gaps in the Literature

Whilst the extant literature has made a valuable contribution to the academic understanding of the management of the ageing workforce, it suffers from an important weakness, namely the lack of attention to the analysis of demographic change from the organisational level. There is a dearth of empirical, particularly qualitative, studies on the management of demographic change in Germany, both in English and in German. In addition, disseminated work on organisational impacts on demographic change tends, on the whole, to be largely prescriptive. Aside from research carried out by Müller-Camen *et al* (2009), Streb *et al* (2009) and Thun *et al* (2007), the majority of articles published on managing the ageing workforce in Germany are also based on secondary source data.

Nevertheless, even recently published work uses datasets which are outdated. Verworn and Hipp (2009), for example, have used the German Community Innovation Survey

from 2001, Göbel and Zwick (2009) and Henseke *et al* (2009) use IAB Panel data also from 2001 to make conclusions about the ageing of the current generation of workers.

The remainder of this chapter is structured as follows: section 2.2 discusses how the impact of demographic change on companies is portrayed within the academic literature and section 2.3 considers how firms have responded to challenges. Finally, this chapter also presents the arguments from the academic literature pertaining to why there might be diversity in responses to demographic challenges from various organisations.

## 2.2 Organisational Impacts of Demographic Change

This section presents the implications of demographic shifts within the academic literature. Academic and practitioner literature from a variety of fields indicates a number of the primary problems associated with the demographic shift. Figure 2.1 summarises the matters of concern for managers discussed in the literature. As this section demonstrates, changes to patterns of ageing, declining birth-rates, as well as employer and employee expectations of ageing, have important ramifications for how firms will typically respond to these challenges;

| **Loss of knowledge through the exit of skilled experienced older workers.** |
|:---|
| Lack of knowledge transfer between young and old. |
| Health implications related to a decline in physical strength and/or fitness levels. |
| Changes in the expectations and behaviour of workers as they age, especially related to motivation and commitment. |
| Discrimination. |
| Ensuring a supply of skilled labour to replace retiring workers. |

**Figure 2.1: Problems for management brought about by demographic shifts (source: academic and practitioner literature)**

### *2.2.1 Ageing Workforce*

In the first instance, the literature emphasises how the labour force is growing older and elderly workers have needs and expectations which must be met, in order for this demographic group to continue to work productively and effectively until retirement (Blickle and Witzki, 2008).

### *2.2.1.1 "Operationalising" Age*

Having said this, a fundamental issue within the literature on the demographic challenge is operationalising what constitutes an ageing workforce. Rhodes (1983) suggested that "age is the most consistent and strongest predictor of attitudes and behaviors" (p. 356). The literature argues that defining an ageing workforce is an important stepping stone to being able to manage it; yet does not agree upon how to define *elderly workers* (Sterns

and Miklos, 1995). Ilmarinen (2001) perceived functional decline to occur from the age of thirty onwards, when workers start to feel the physical demands of their task and refers to those aged over forty-five to be categorized as ageing workers. Hansson and Mikkelsen (1997) pointed to the age of forty years as the threshold for being categorized as an older worker; their justification was that "[t]his age presents a psychological milestone for many" (p. 202). Following Ilmarinen (2001), Sonnenfeld (1989) chose forty-five and above as the marker. Sonnenfeld (1989) stated that workers in their mid-forties reached a peak in morale, performance and job mobility. On the other hand, according to the definition of the Organisation for Economic Cooperation and Development, *older workers* are employees aged fifty years and above (OECD, 2006).

Finally, Sterns and Doverspike (1989) proposed five ways to categorise older workers - chronological, functional, psychosocial, organisational and life-span. This classification remains influential in the literature on ageing workforces. It is useful to expand upon the Sterns and Doverspike (1989) classification because it allows for the possibility of understanding how and why different perceptions of ageing are employed by academics and organisations, as well as, in some cases, the background for choosing the various methods of operationalising age in the organisation. In particular, Sterns and Doverspike (1989) emphasised that these different ways of operationalising ageing make it possible to consider elderly workers in relation to the context of work and of the organisation.

The functional approach is a performance-based definition of age; research which adopts a functional stance measures health and physical ability, cognitive ability and the link between age and performance. Thus, employees may be termed as older or younger than their real age, based upon what they can and cannot do (Sterns and Miklos, 1995). Research on employability, ergonomics and work design also contributes to a functional definition of ageing.  Recommendations for firms include job appraisals for older workers, minimising work hazards and the promotion of employee-friendly workplaces (Sterns and Miklos, 1995).

Psychosocial ageing refers to how attitudes and expectations may alter in response to how particular ages is perceived by society, for example, as a child, a worker, a spouse or a parent (Rhodes, 1983).  In terms of its importance for business management literature, biological ageing studies have been referred to, in order to assess the extent to which anatomical and physiological changes affect the ability to work productively and safely in advancing years. A psychosocial perspective of ageing has important implications for organisations because they address the issue of employee values and expectations, which have changed considerably over the past decades.  Psychosocial impressions of ageing underline that ageing is not only physical but it is also linked to human perceptions of ageing and what constitutes being 'old' (Fernández-Ballesteros et al, 2010). Research has shown that employees' goals may not change as they age; however, the employees' expectations of reaching these goals may decrease (Sterns and Miklos, 1995).

A psychosocial perspective of ageing may be beneficial for organisations to adopt because it emphasises the value of employing older people, as well as the qualities that older workers typically have, such as experience (Avolio and Waldman, 1989). Cleveland and McFarlane Shore (1992) argue that subjective age is more important than chronological age because workers who perceived themselves to be old tended to display more organisational commitment and job satisfaction. Hence, this viewpoint strengthens against negative stereotypes about older workers.

Organisational and life-span ageing appear to share some similarities with chronological ageing. Organisational ageing focuses on job tenure, career stages and skills obsolescence; hence an "organisation may be perceived as old because of the average age of its members" (Sterns and Miklos, 1995: 258). Life-span ageing posits that there might be behaviour or lifestyle changes during the life-span, by taking into consideration career patterns. Within this approach, levels of job satisfaction and involvement are shown as not being rigid; instead, they make change over the course of the career (Rhodes, 1983).

A life-span perspective on ageing moves beyond the chronological approach because research points towards a movement away from the traditional concept of a single career[4]

---

[4] The end to traditional career trajectories in the developed West is contentious within the literature on careers and career management. On the one hand, it is suggested that the end to bureaucratic organisational structures has led to the death of the traditional career (Adamson *et al*, 1998; Herriot *et al*, 1994; Strunk *et al*, 2004). On the other hand, it is suggested that bureaucratic career forms (see Kanter, 1989) were only a reality for a small number (Arnold, 1997). New career forms are portrayed within the literature as *protean* (Hall, 1996), *free-form* (Leach and Chakris, 1988) or *post-corporate* (Pepierl and Baruch, 1997) and share

in a lifetime. In the UK and the USA, multiple career paths are commonplace; in the German case, however, changing careers is far less widespread. Apart from working women, who may return to a lower paid job after having children, Germans tend to spend their whole career with one company. Having said this, technical change, reorganisation and economic downturn will lead to an end to a single career path in Germany; hence, a life-span perspective of ageing becomes very interesting.

### 2.2.1.2 Declining Participation of Older Workers

Participation rates of older male workers in the German labour market have been in decline since the 1990s, with the trend towards early retirement gaining momentum as more and more employers have chosen to implement the Old-Age Part-time Act (*Altersteilzeitgesetz*) as an effective, cost-efficient and socially responsible method of labour displacement (Chassard, 2003). Moreover, this *early exit culture* was traditionally supported by the German state in order to adapt the labour market to a process of economic transformation, as well as to evade conflicts between the social partners.

### 2.2.2 Decrease in Numbers of Younger Employees

The ageing workforce is not being offset by an influx of new workers; older workers, for example, will enter retirement without being replaced by a new generation of employees.

---

characteristics of flexibility, discontinuity, present-oriented, skill-based and underpinned by a need for ongoing personal development (Wilton, 2011).

Practitioner literature shows that German industries are ageing rapidly because the largest group of employees in a firm are neither the oldest nor the youngest workers. For this reason, the middle-aged employees make up the biggest demographic because they are static - in that they are not entering or leaving the firm – and, consequently, the average age of the firm rises by one year each year (Henseke *et al*, 2009). The findings of Henseke *et al* (2009) correspond with those of a comparative study of primary, secondary and tertiary industries in Japan and Australia by Orzechwska-Fischer (2004).

Aside from the dearth of younger workers, the slow rate of labour growth has led to skills gaps and positions which cannot be filled (Köchling, 2003). Firms cannot afford to lose skilled workers early and with high numbers of employees retiring, firms face the threat of a loss of institutional knowledge. Most firms recognize the need to improve training, as a means of overcoming some of these changes. Workplace training, itself, has, nonetheless, been affected by the need to cut costs during the economic downturn, ever-changing knowledge requirements, as well as pressures to deliver training more quickly and more effectively for older employees.

According to Buck (2007), ageing populations will have the further consequences for organisations, including an increase in skill gaps between regions, especially in technology and engineering. With a smaller available labour market, competition amongst companies to recruit younger workers may increase, with a corresponding rise in salary costs as young workers demand higher wages.

### 2.2.3 Skills, Knowledge and Training

The formerly-held view (for example, Wechsler, 1958) that old age is accompanied by a decline in intelligence has disappeared; yet the literature presents a mixed picture regarding productivity and performance levels of older workers. Recent studies argue against a decline in mental skills and loss of knowledge in older workers (for example, Kanfer and Ackerman, 2004). Studies suggest that older workers require ongoing training in order to ensure their ongoing productivity[5]. Nevertheless, the literature points to an ongoing decrease in investment for training within companies at all levels[6].

Consequently, German organisations may face a future skills gap as a result of a decline in investment in training (Kirpal and Kühl, 2006; Kuwan and Thebis, 2004; Verworn and Hipp, 2009). It is further posited that employees aged fifty-five and above are less healthy

---

[5] For example, the Chartered Institute of Personnel and Development (CIPD) 2011 survey on managing older workers suggests that the majority of older workers do not receive the training nor performance management which they require, despite the fact that ignoring the training needs of this group may lead to overall reduced organisational performance.

[6] Finegold and Soskice (1988) cite pressures to cut costs, which may affect the extent to which companies can invest in up-skilling their employees. Furthermore, over the last decade, there has been a decrease in apprenticeships (Bosch and Kalina, 2008; Thelen, 2009; Zwick, 2007). Evidently, apprenticeships are very expensive for firms and some academics have questioned whether the apprenticeship system remains economically viable (Zwick, 2007; Wolter *et al,* 2006; Booth and Zoega, 2004; Harhoff and Kane, 1997). Certainly, as far as small firms are concerned, the majority cannot afford to train (Thelen, 2009).

than their younger colleagues and are markedly less open to accepting training (Arrowsmith and McGoldrick, 1997; McGregor and Gray, 2003).

*2.2.3.1 Impact on Organisational Knowledge*

Scholars agree that the ageing workforce will lead to a loss of know-how as older workers leave the firm and take their knowledge and skills with them (Stam, 2009; Davidson *et al*, 1996; Delong, 2004; Dychtwald *et al*, 2004; Henseke and Tivig, 2009). This point is pertinent for both blue and white collar employees; the loss of talent, nevertheless, begs the question of whether the innovation process may be sustained in German firms (Henseke and Tivig, 2009). Germany's ability to compete globally has been largely dependent on its ability to produce quality products for specific markets, often niche-markets (Harding and Paterson, 2000), thus, the retention of skills and knowledge to support innovation is arguably of significance[7]. Henseke and Tivig (2009) postulate that innovation is not currently threatened by demographic change, nor will it be in the immediate future. Conversely, in fields where innovation is important and are very technologically intensive, younger inventors outperform older inventors. This finding is of consequence for high export industries such as the automobile sector, where production techniques are more experience-based. On the other hand, Dychtwald *et al* (2004) argue that there is a tangible time space between the demand for skills and the

---

[7] Diversified Quality Production (DQP) is the production system most identified with the Germany. Ubiquitous, for example, within the German automobile industry (Jürgens, 2004), DQP allows for firms to compete in world markets through diversified products that were manufactured by highly skilled, well-paid workers in flexible post-Fordist working systems (Jürgens, 2004).

ability of the education system to fill these skill gaps and this will lead to a skill shortage in innovative fields.

For this reason, knowledge transfer between old and young is important (Burke and Ng, 2006; Köchling, 2000), regardless of whether this knowledge is directly related to work or to social competency (Köchling, 2003). The fact that firms tend to have few formalised programmes in place to facilitate such transfers exacerbates the issue (Burke and Ng, 2006); however, Kuhn and Hetze (2009) posit that the problem of transferring knowledge will be compounded by a decline in the birth-rate. The demand for knowledge transfer between old and young may wane because, if there are lower numbers of younger workers, there will be no impetus to encourage the older members of the workforce to pass on their know-how and, additionally, less training may take place (Stam, 2009; Kuhn and Hetze, 2009).

### 2.2.4 Health and Employee Well-being

According to the literature, there are a myriad of problems which older workers bring in terms of health in the workplace, including short-term memory problems (Bruggmann, 2000). Kanfer and Ackermann (2004) argue that the effects of biological ageing, especially memory and reasoning, impact upon motivation because of the increased effort that these changes require to be put into sustaining ability and performance. Schirle (2007) illustrates the extent to which health problems are an issue amongst older workers by showing that amongst the fifty-five to sixty-four age group, it is highly skilled or

educated males who continue to work. This is opposed to lower skilled, or blue-collar, males who have exited the labour market due to work-related health problems (Heywood and Siebert, 2009). Yet, health management tends to be overlooked by business management journals (Streb *et al*, 2008).

### 2.2.4.1 Blue and White-Collar Employees

Whilst some studies may concentrate on a particular industrial sector, thereby clearly indicating whether the particular employees may be blue or white-collar, much of the literature on demographic change tends to speak generically of employees aged fifty and above. Nevertheless, it is important, especially for the findings of this research, to be clear about which elements of work organisation impact on white-collar staff and which elements may be more pertinent for blue-collar employees. Working-time is one area, for example, which may have a greater negative effect on blue-collar labour than white.

### 2.2.4.2 Shift-working

Shift-working remains a normal method of organising working time for blue-collar workers and is demanding for an older worker due to the irregular working hours, which are typical of the continental shift pattern used in the majority of firms, including the steel and chemical sectors in Germany (Bonneford *et al*, 2006; Kandolin *et al*, 2001; Knauth and Hornberger, 2003). Irregular hours impact on sleeping patterns, which generally may become more uneven as workers age, and this may lead to higher stress and a

corresponding decline in health amongst older workers (Bonnefond *et al*, 2006). In addition, although job tasks do not change, as workers age, an elderly workforce may become physically less able to perform tasks well (Illmarinen, 1999).

Research by Bonnefond *et al* (2006) finds that older workers found it more difficult to maintain performance during night work. Again, this finding is more pertinent for blue-collar employees on evening shifts. Moreover, older workers require more opportunities to rest at work (Illmarinen, 1999). Furthermore, Thun *et al* (2007) argue that, in terms of physical conditions and operational processes, modern working environments are not suited to the needs of an ageing workforce. Having said this, Waldmann and Avolio (1986) did not find support for the argument that job performance declines with age. On the contrary, experienced older workers demonstrated an equal or higher level of performance to their younger colleagues (Waldmann and Avolio, 1986).

*2.2.4.3 Workplace Health and Safety*

Related to the topic of health is that of work environment and ergonomics, which is a well-researched field because it is a broad one which encompasses, not only preventative health measures (Streb *et al*, 2008), but also work place design and job rotation. Additionally, it is connected to the research conducted on perceptions of age (see Cleveland and McFarlane Shore, 1992).

## *2.2.5 Attitudes to Learning*

Continually changing customer demands, markets, production systems and workplaces demand that firms invest in training, to the ends that employees may be able to adapt to these diverse challenges (Verworn and Hipp, 2009). Yet, older workers may find using new technology, especially information technology, challenging (Sharit and Czaja, 1994; Sterns, 2005). These types of technology require the brain to exhibit quickness to process information, as well as strong memory skills (Sterns, 2005). Younger workers are deemed more likely to adapt more quickly because they are more likely to have been exposed to IT before working; therefore, this explains their readiness to accept technological change in the workplace (Morris and Venkatesh, 2000).

Older workers may also perceive themselves to be less able to make decisions about implementing new technology and tend, instead, to apply traditional (low technology) solutions to problems[8] (Morris and Venkatesh, 2000). This latter finding emphasizes the importance of introducing an information sharing environment within the organisation, in that older workers feel comfortable consulting younger employees. A study by Morris and Venkatesh (2000) found that younger workers are more open to the introduction of new technology into their workplace than their older colleagues. However, after a short period, the senior employees accept the new technology and their attitudes to working

[8] For HR practitioners, the importance of understanding how employees learn and how learning needs change (for example, as employees age) plays a key role in designing training and development initiatives. There is an extensive body of literature which deals with this aspect of Human Resource Development (see, for example, Brookfield, 1986; Brown and Duguid, 1991; Gold *et al*, 2010; Honey and Mumford, 1996; Kolb, 1984)

with it are not measurably different to those of the younger workers (Morris and Venkatesh, 2000). This finding suggests that organisations must be aware that initial reactions on the part of older employees towards the implementation of new technology may be hostile. Nevertheless, if adequate training and support are offered, these primary apprehensions will quickly disappear. Moreover, Morris and Venkatesh (2000) suggest that fear of using new technology is a problem that will disappear of its own accord in the future, as subsequent generations of workers will be more competent and used to technological change in the workplace.

### 2.2.6 Attitudes to Work and Retirement

Achieving a positive work-life balance has relevance for managing the ageing process at work (see, for example, Harrington, 2001); yet Siegenthaler and Brenner (2001) argue that little has been written about the extent to which older workers seek more flexibility in their working lives. People are opting to work into their sixties and a correspondingly large body of literature examines individual reasons for post-retirement work (see for Deller *et* al, 2007 for an overview). This literature is important for the study of the demographic shift in organisations because it allows employers an insight into the expectations of older workers regarding their job.

The willingness of workers to consider early retirement may be categorized by *push-pull* factors such as expectations of retirement, career history and physical condition (*push* factors), as well as hobbies and leisure pursuits and the size of the pension (*pull* factors)

(Davidson *et al*, 1996). Many studies, for example, provide evidence that older workers are motivated by the need for mental stimulation and a drive to pass on knowledge and experience to the next generation (Calo, 2005). These studies indicate that many older people prefer to continue working and have both the mental and physical capacity to do so. Nonetheless, in Germany, internal labour markets and a training system which invests predominately in apprentices and younger employees, impede the opportunities for unemployed older workers to re-enter work (Buchholz, 2006).

Research from the USA, dating from before Siegenthaler and Brenner's (2001) paper, also indicates sustained expectations to continue working. It is suggested that older workers would prefer flexible working solutions to mandatory early retirement, including the option to work part-time (Commonwealth Fund, 1993). Research on American workers[9] in their fifties and sixties indicated that older employees would work past retirement if they received adequate training from their employer, as well as continued pension contributions (Commonwealth Fund, 1993). Fernández-Ballesteros *et al* (2010) make a link between the concept of 'ageing well' and 'active', 'productive' and 'positive' (p.42). Research by Fernández-Ballesteros *et al* (2010) finds that older persons across different cultures share the similar impressions of positive ageing as being associated with health, independence and close ties with friends and family. Interestingly, learning

---

[9] The German retirement age of sixty-five was set by General Bismarck, in order to remove ineffectual generals from the army (Paul and Townsend, 1993); however, as Dychtwald *et al* (2004) point out, the age of sixty-five has different connotations today than it did in the past.

new skills was not rated as being of importance for elderly persons (Fernández-Ballesteros *et al*, 2010). This finding calls into question other research which suggests up-skilling motivates older workers.

### 2.2.7 Motivation at Work

In terms of providing an overview of the academic literature regarding motivation and commitment levels of workers related to ageing, again, studies reveal a mixed picture. Many of the older studies point to empirical evidence for an increase in organisational commitment amongst older employees (see, for example, the studies cited by Rhodes, 1983). Since the 1990s, the consensus in the literature is that older workers display a higher degree of organisation commitment, which is interesting in comparison to earlier work on generational differences at work. Writing about American attitudes to work in the 1970s, Buchholz (1978), for example, argued that younger workers had a stronger work ethic than their older counterparts. Later studies, especially those which focus on attitudes of older employees towards training, conclude that the older the employee, the less likely he or she is to be interested in, or to accept, training (Armstrong-Strassen and Templer, 2005; Leisink and Greenwood, 2007).

Having said this, motivation is, itself, problematic to define; Atkinson (1964) and Vroom (1964) differed respectively, for example, on whether or not motivation is an influence on direction or a process which may govern choice amongst other forms of voluntary action. In the German case, motivation has, in all probability, been damaged because of the

tendency to offer early exit routes to older people; this will be addressed by the empirical research. Dychtwald *et al* (2004), for instance, suggests that phased retirement benefits employees because they can take time to adjust to a new way of life. Moreover, their company profits from retaining the experience, skills and knowledge of their employees for longer (Streb *et al*, 2008).

This section has addressed the issues described in the academic literature associated with demographic change. The next section discusses how previous research has described the ways in which organisations have responded to demographic challenges.

## 2.3 Organisational Responses to Demographic Change

With the loss of the traditional methods of managing older workers, as well as the need to be prepared for the demographic shift, organisations have had to consider what kind of measures they can implement, in order to manage the impact of these changes and upheavals (Kirpal and Kühl, 2006; Leyhausen, 2009; Streb *et al*, 2009). Indeed, the literature argues that firms run the risk of falling into a *demographic trap* (Thun *et al*, 2007). Studies argue that, despite the fact that managers are aware of the problem of demographic change, they do not perceive it to be a matter of immediate urgency (Kirpal and Kühl, 2006; Müller-Camen *et al*, 2009; Thun *et al*, 2007). This is an argument that comes across widely through the disseminated work on demographic change; the majority of researchers suggest that firms are not doing enough, or even anything, to prepare themselves for the changes in the labour market demographics.

There are, however, two studies which point to some efforts being made by German companies to address the demographic shift.  The aforementioned Commerzbank study *Abschied vom Jugendwahn* (*Farewell to the Obsession with Youth*) (2009) offers insights into how large and small firms react to the challenge of the demographic shift. The Commerzbank (2009) found that over eighty percent of firms were concentrating on offering more training options for younger workers, but only forty percent were tackling issues related to older workers. This study highlights that, in terms of measures to tackle demographic challenges, what was being done was mostly within the realm of knowledge management.

Despite concentrating solely on the car industry, some elements of the study by Streb *et al* (2009) are similar to those of this thesis.  The research by Streb *et al* (2009) aimed to analyse how organisations understood, as well as practiced, the management of the ageing workforce. Additionally, as this thesis also does, Streb *et al* (2009) used qualitative research methods. The research by Streb *et al* (2009) is of value for being one of the very few studies to analyse demographic change at organisational level, as well as for some of the original insights that it offers into how the management of the ageing workforce is perceived by employers.

The research indicated that the concept of the ageing workforce was understood by managers to be underpinned by the notion of competitiveness. Streb *et al* (2009) found

that the German managers in their sample were largely unconcerned about the age of their workforce or how to organise the workplace in order to accommodate them. The explanation for this was that the cost of labour remained a chief concern and the push for competitiveness directly affected, and was, in turn, affected by, the age of the workforce. The research found that, because older workers in Germany are expensive and difficult to dismiss, they were frequently relegated to doing jobs that did not create value, but were easy to perform.  The researchers reported that there was "a contradictory relationship between managerial measures and efforts to achieve competitiveness and the factors and issues linked to age that could conflict with this goal, resulting in a vicious circle" (Streb *et al*, 2009: 21).

As already emphasised, research on ageing workforces examines a myriad of factors including age-related differences in attitudes and behaviour at work, health and performance, successful ageing and career paths. The next subsections will summarise organisational responses to demographic shifts.

### *2.3.1 Skills, Knowledge and Training*

Knowledge transfer may be improved through wider organisational communication channels.  Research conducted by Davenport *et al* (2002) on knowledge workers suggests that managers tend to embrace fads and trends when attempting to increase employee interaction.  Whilst the attempt to nurture more social contact may improve overall satisfaction with the firm, Davenport *et al* (2002) did not find that it has any positive

effect on improving relations between workers. In their research, Streb *et al* (2009) found that sixty-eight percent of firms believed that there should be a more intensified transfer of knowledge between older and younger workers.

*2.3.1.1 Knowledge Transfer*

Research postulates that firms run the risk of a decline in knowledge transfer. One of the major reasons cited for a lack of exchange of information between older and younger members of organisations is a generational gap which exists in many companies. The demographic make-up of a firm may impact upon communication, in that people within organisations tend to communicate more with those who resemble themselves (Kanter, 1977; Pfeffer, 1983). Thus, older workers will be more likely to interact with other seniors and younger workers with their similar-aged colleagues.

Early research (for example, Dearborn and Simon, 1958; Katz and Kahn, 1966 and March and Simon, 1958) showed that frequent interaction between individuals leads to the development of a shared language or coding system. Consequently, the longer the individuals, who develop a shared pattern of communication, work together, the more likely it becomes for them to develop their own form of communication, from which other organisational members may be excluded (Zenger and Lawrence, 1989). Besides, employee attitudes and beliefs may be influenced by communication outside the company (Rhodes, 1983; Zenger and Lawrence, 1989); thus, a communication pattern

amongst workers with young families may develop as a result of a commonalty they share beyond the workplace. McCain *et al* (1983) identify that the exclusion of other groups within the firm, due to communication frequency based on factors such as age, may lead to power struggles and discontentment with the organisation. In terms of enhancing knowledge-sharing between old and young, the above research indicates that firms need to encourage better communication.

*2.3.1.2 Ensuring Skill-sets*

Enhanced training programmes are suggested to ensure a supply of skilled labour within organisations, as well as to manage the loss of skills and knowledge. Rainbird (2005) makes a distinction between training for the purpose of the firm and training for the needs of the employee. Understanding this distinction is important because it helps to envisage how, as the literature suggests, training can have a dual purpose in the management of demographic effects. Ongoing training will not only improve the ability of older workers to continue to be employable, but raises motivation levels; age may negatively affect participation in training but this can be counteracted by belief in self and benefits of training (Maurer and Rafuse, 2001).

*2.3.1.3 Managing Training Needs of Older Workers*

In order to link training with the other objectives of the firm – in the case of managing demographic change, to encourage a better integration between older and younger

workers – all employees should be encouraged to participate in training and clearly informed of the importance of ongoing training (Maurer and Rafuse, 2001). The literature agrees that training should be structured to suit the needs of different aged learners (Leisink and Greenwood, 2007; Morris and Venkatesh, 2000; Sterns, 2005). Younger workers, for example, need to be convinced of how the new technology will improve productivity or make a contribution to enhancing another part of the working experience (Morris and Venkatesh, 2000). Without a doubt, the literature points to a lack of training being offered to older workers (Maurer and Rafuse, 2001; Sterns and Miklos, 1995).

Sterns (1986) suggests five areas which should be taken into account when designing training programmes for older workers (see figure 2.4).

| 1. Motivation |
| 2. Structure |
| 3. Familiarity |
| 4. Organisation |
| 5. Time |

**Figure 2.4: Designing Training Programmes for Older Workers (Sterns, 1986)**

Incorporating and creating incentive is important because older workers need to be motivated to participate in order to overcome any possible fear of failure or past bad experiences of learning (Leisink and Greenwood, 2007). Additionally, older employees

need to be persuaded that the new technology will be easy to use[10] (Morris and Venkatesh, 2000).

The training should have a clear structure and Sterns (1986) suggested basing it on real job tasks, in order to underline the value of the training, as well as its applicability to real life. In their study of training in the steel sector, Leisink and Greenwood (2007) found that workers complained about training which they felt was unrelated to, or not useful for, their jobs. Familiarity should also be considered; elderly employees perform better when they have the opportunity to build on past abilities (Sterns, 1986). Furthermore, the retention of new skills by elderly workers can be enhanced if older workers are given the opportunity to practice these skills often; this is especially the case with IT (Sterns, 2005). Additionally, older people are more motivated by job tasks which allow for self-affirmation (Kanfer and Ackermann, 2004). According to Sterns (1986), older learners find it more difficult to organise materials effectively; thus, learning needs to be well structured. Training older workers in IT should take place in a location which is quiet, well lit and trainers should consider using larger font sizes (Morris and Venkatesh, 2000). Finally, older workers learn more slowly than younger workers (Sterns and Doverspike,

---

[10] This is highlighted in a study by Sterns (2005) illustrating that older adults can be successfully trained to use new technology. The experiment reported by Sterns (2005) involved adults being taught to use personal digital assistants (PDAs); the difficulties involved in mastering this type of digital device are similar to problems encountered by individuals who do not possess basic IT skills, but need to use computers. Sterns (2005) found that the older adults who were most successful in mastering the PDAs were those who expressed an interest in learning to use the device.

1989), however, once training has been carried out, older workers can perform tasks with the same level of ability as their younger co-workers (Sterns, 1986).

### 2.3.2 Health and Employee Well-being

Although encouraging older workers to stay on in work and to remain healthy and productive is a key aim of organisational schemes to raise health and safety levels, promoting employee well-being is depicted within the literature as important for the company as a whole. Wilton (2011) highlights an ethical principle behind health and well-being; employers have a social and moral duty to secure the health and safety of the workforce and to look after the welfare of the workers. Yet, whilst the majority of employers suggest that their rationale for promoting well-being is based in social responsibility, Wilton (2011) suggests that it is the business case for the effective management of health and well-being at work which prevails. The business principle argues that, whilst safety at work reduces accidents and associated costs of absence, insurance claims and legal action, healthy workers are more productive, engaged and motivated at work (Wilton, 2011). Consequently, absenteeism may decline as a result. Finally, promoting employee well-being is the sign of a good employer, which may positively affect recruitment and retention (Wilton, 2011).

A plethora of studies focus on the impact of occupational stress on the health and psychological well-being of employees and the repercussion for their employing organisations (see Dewe *et al*, 1993; Zapf *et al*, 1996; Sonnentag and Frese, 2003). As

figure 2.5 shows, employer schemes to manage employee stress become aligned to measures which generally impact upon the health and well-being of the workforce. Stress reduction initiatives can be typically divided into primary, secondary and/or tertiary measures (Clarke and Cooper, 2000).

| *Primary* | *Secondary* | **Tertiary** |
|---|---|---|
| Primary interventions focus on organisational causes of stress by making macro changes within the workplace.<br>Examples:<br>• Redesign job task<br>• Redesign the working environment<br>• Introduce participative management style to improve organisational culture/structure.<br>• Employee forum<br>• Employee suggestion scheme | Secondary measures focus on the individual through programmes that encourage more healthy lifestyles. In particular, they aim to enhance the coping strategies of individuals and to replace older strategies with more effective ones:<br>Examples:<br>• Risk assessments<br>• Stress counselling<br>• Workplace well-being advisor | Tertiary initiatives aim to lessen the symptoms of stress on an individual. Workers are encouraged to learn new ways to relax and become healthier.<br>Examples:<br>• On-site fitness facilities<br>• Seminars on healthy eating or giving up smoking<br>• Health checks<br>• Healthier onsite eating options<br>• 'Cycle to work' schemes |

**Figure 2.5: Employee Well-being Measures (adapted from Clarke and Cooper, 2000 and Wilton, 2011)**

Clarke and Cooper (2000) posit that, although primary initiatives have a greater impact on the overall health of the organisation, secondary and tertiary measures are most likely to be implemented by managers because they are faster and cheaper. Whilst this might call into question the effectiveness of secondary and tertiary measures, research by

Walters *et al* (2005) indicates that measures set up in consultation with workers to promote health and well-being tend to have the greater instances of success.

*2.3.2.1 Older Workers' Health Requirements*

Practices to promote health and well-being amongst older workers may still require special attention (Bound *et al*, 1998). Aside from focusing on preventing and tackling stress, the literature highlights the importance of managing the physical health of older employees, focusing on, inter alia, musculoskeletal disorders (Griffiths, 1999; Griffiths, 2000).

Streb *et al* (2009) find that the main instruments developed to cope with the demographic shift linked health initiatives with measures to make employees more committed to the organisation and to their job. The changing nature of work has lead to a decrease in physically demanding work, especially in traditional sectors, as well as the obsolescence of some jobs (Park, 1994). Some firms may not offer organisation-wide health initiatives because these may not be viewed a cost-effective in times when enterprises are trying to save money (Thiehoff, 1998). However, the demographic change literature suggests that companies should support their employees in the management of their health.

*2.3.2.2 Flexible Working*

Dychtwald *et al* (2004) suggested that organisations should offer more flexible working options for older employees. This is especially of note because flexible working tends to be targeted at female workers (Dychtwald *et al*, 2004) and part-time work in Germany tends to be the domain of women[11]. Moreover, companies need to rethink how to recruit older workers (Dychtwald *et al*, 2004). Streb *et al* (2008) argue that globalisation has opened up the recruitment market and made it even more difficult for firms to get the best people. As Davenport *et al* (2002) argue, young people want work to be interesting.

### 2.3.3 Mixed-age Firms

Having a mixed-age organisation means being a more attractive employer; therefore, older workers must become better integrated into the organisation, in order for them to receive their full potential in terms of innovative ability and productivity (Wolff *et al*, 2001). In-company events, including projects and social gathering may strengthen bonds between old and young within the organisation (Sepehri, 2002).

---

[11] The conservative-corporatist capitalist model of Germany (Esping-Anderson, 1990) has been critiqued for the way in which it has shaped working practices, especially for women (Bosch and Kalina, 2008; Gottfried, 1999). German society remains underpinned by the male breadwinner model, with females expected to leave the world of work when they become mothers, only to return when their children are older and, then, to take up part-time, lower paid jobs (Cousins, 1999; Gottfried, 1999; Yeandle, 1999). Even though females make up less than forty percent of the German workforce as a whole, almost sixty-five percent of all low paid workers are women (Solow, 2008). Low paid work amongst women began to rise after the Hartz Commission reform, Hartz II implemented the mini-job (*geringfügige Beschäftigung*). The *geringfügige Beschäftigung* limits an employee's income to a maximum of four hundred Euros per month; however, the bonus effect of this mini-job is that there is neither tax nor social insurance to be paid (Winkel, 2004). For women with family responsibilities, mini-jobs are the most suitable types of work because these are tax exempt (Solow, 2008) and allow mothers to return home in time for the end of school[11] (Yeandle, 1999).

Morris and Venkatesh (2000) emphasize the importance of opinion leaders in the workplace and how they may be utilized by managers to cultivate a change in the organisational mindset. This is particularly important when it comes to the introduction of new ways of working, which may be initially opposed by the older members of the firm.

### 2.3.3.1 Team-working

Mixed-age work teams have been suggested as a tool to manage the effects of demographic shift, especially a better relationship between demographic groups and knowledge transfer (Braedel *et al*, 2002). There is no evidence to suggest that older employees are less able to work well in teams than younger workers (Braedel *et al*, 2002). As far as empirical evidence to support the effectiveness of age diverse teams is concerned, there are a dearth of studies which emphasise that mixed-age teams are the most effectual way of increasing performance and employing older workers productively.

Moreover, as Leonard and Levine (2003) posit, too much diversity within a team can damage communication channels and group cohesion. Nevertheless, teams which contain a mix of male and female workers, have better attendance records (Leonard and Levine, 2003); this finding is interesting in terms of the importance of employing more women in the workplace as a means of protecting against skills shortages.

*2.3.3.2 Positive Attributes of Older Workers*

Other papers related to age differences within firms focus on demonstrating the value and importance of looking after older workers, pointing to the benefits that they bring to their organisations in terms of work ethic, leadership skills, loyalty, knowledge and experience (Thun *et al*, 2007). This, it is suggested, should be communicated through the workplace. Dychtwald *et al* (2004) perceived a connection between meeting the changing needs of employees and creating a better relationship between the different demographic groups of workers and exhorted companies to design an organisational culture which values age and experience.

This section has described the responses taken by organisations; the next section considers why there is diversity in the choice of methods employed.

## 2.4 Divergence in Responses

It has been seen that there are a series of issues related to demographic shifts for employers. Similarly, the literature has demonstrated diversity in the types of practices on offer to managers to address problems, including a loss of knowledge and declining health and motivation amongst ageing workers. What is striking about the literature on demographic change is that, despite the fact that there has been a large amount of research carried out on the ageing workforce, the literature recognizes variation between employer attitudes to older workers. Moreover, myths and preconceptions continue to prevail about ageing at work. The aim of this section is to focus more clearly on why

diversity in responses to demographic challenges may exist, in order to preempt the findings for the research question: *why do some firms do more than others to manage demographic change?*

### *2.4.1 Attitudes, Behaviours and Stereotypes Connected to Ageing*

In as far as looking at the diverse responses and attitudes of managers, some authors suggest that these are based on a lack of understanding of how behaviours and attitudes may influence attitudes to working, as well as change over time. Rhodes (1983), for example, conducted a comprehensive overview of the empirical findings of studies on the relationship between age and job satisfaction from the 1970s and initial years of the 1980s. The milestone work of Rhodes (1983) continues to be cited by the majority of articles which discuss the concept of understanding the relationship between age and work. Research on ageing from 1970s and early 1980s was inconclusive in terms of explaining age-related differences in attitudes and behaviour at work, although it had been demonstrated that ageing affected employee attitudes towards job satisfaction, job involvement, motivation and commitment (Rhodes, 1983). Nevertheless, further research needed to be done to explain the diversity between attitudes, behaviours and values and the importance of examining ageing in the workplace within the framework of individual life cycles. The importance of these findings, Rhodes (1983) argued, would be instrumental in creating better working environments.

A decade after Rhodes' work was published, Paul and Townsend (1993) reported a number of findings about the attitudes of workers in their fifties and sixties towards working. Paul and Townsend (1993) argued that elderly workers enjoy first-rate health, are open to both further training and flexible working hours, and that they wish to continue as active members of the labour force. These findings were described by the authors as "dramatic", even though many of the articles cited by Rhodes (1983) had already indicated an increase in organisational commitment amongst older employees.

Examining articles, books and papers from the first decade of the twenty-first century, the literature indicates a persistence in negative stereotypes regarding elderly worker's performance and productivity levels (for example, Burke and Ng, 2006). The most recent work points to a continuing lack of further training opportunities for older workers (for example, Armstrong-Strassen and Templer, 2005) and firms still run a risk of making no differentiation between the needs of different demographic groups within the organisation (Morris and Venkatesh, 2000). As Arrowsmith and McGoldrick (1997) indicated, "older workers produce older products with the older technology" (p.109); there is little to suggest that this picture is changing as quickly as it should. A decade earlier, Paul and Townsend (1993) also pre-empted the skills gap and a growing dearth of skilled labour; they suggested that restructuring, downsizing and economic downturn, and a corresponding tendency to rely upon early retirement as a labour displacement tool, could lead to a future labour shortage as these elderly workers are not replaced. As the literature shows, these are the issues that organisations are currently facing. Streb *et al* (2009)

found that labour displacement continues to be suggested as a viable solution by managers interviewed, especially in firms where there is a surplus of older workers. The negative repercussions of redundancies for an over-fifties age group, such as discrimination, legal ramifications and/or loss of know-how appear to be overlooked by many German managers (Streb *et al*, 2009).

In the prescriptive literature, there has been a fundamental aim to dispel some of the myths surrounding older workers which may be held by employers, including a decline in ability with age, the need to promote compulsory retirement to make room for younger workers and a desire on the part of the majority of people to retire as soon as possible (Paul and Townsend, 1993; Siegenthaler and Brenner, 2001). In their empirical study, Streb *et al* (2009) found that, whilst older employees were perceived as bringing distinct benefits to the organisation - including know-how and competencies - managers in almost half of the firms they visited believed that an ageing workforce hampered innovation and led to higher costs, especially through salary and social security payments.  Maurer and Rafuse (2001) reported that older workers may not be included in training as a result of beliefs held by their employers.  In particular, they suggest that older workers are overlooked for training because it is believed that this age group cannot or do not want to learn, or because it is assumed that senior employees will retire soon, thus reducing returns on investments (Haywood and Siebert, 2009; Maurer and Rafuse, 2001).

*2.4.2 Impact of Firm Size and Sector on Managing Demographic Change*

Nevertheless, individual managerial perceptions of ageing at work do not go far enough to explain why some firms may respond differently to demographic challenges or why some firms do more to manage the effects of the shift than others. Consequently, the literature offers further suggestions to explain the divergence, for example, the importance of firm size and industrial sector.

A study by Fougère *et al* (2007) establishes the importance of sector when examining demographic effects. The effects of population ageing upon economies and labour markets leads to changes in demand and slow labour force growth (Fougère *et al*, 2007). Hence, some sectors will see a decline in jobs, whilst other sectors will experience growth. Henseke *et al* (2009) analysed the process of ageing in services and manufacturing and found that, whereas the service sector tends to have younger employees, there appeared to be a more rapid ageing of the workforce than in manufacturing. This can be explained by examining variables such as gender and job tenure. Service sector workers tend to be primarily aged thirty or below and the majority of these workers are part-time (Wilton, 2011); furthermore, certain tertiary sector work, for example call centres, have a particularly high labour-turnover rate. Consequently, Henseke *et al* (2009) concluded that firm size was a better indicator of the extent to which demographic change poses a threat to companies. Organisational size is, thus, an important factor to be considered in this thesis.

Studies comparing organisational size and opportunities and/or conditions for older workers reveal opposing arguments regarding whether larger or smaller firms provide better options. Nägele (2001), for example, found that the size of the firm in Germany is of importance because the smaller the firm, the better the employment opportunities were for older workers. On the contrary, the Commerzbank (2009) study found that firms with over two hundred and fifty employees were more likely to implement measures to prepare for the demographic shift than smaller firms. Evidently, in a smaller firm, relationships between organisational members are closer and employees may enjoy benefits of a more informal relationship with management (Mankin, 2009). Larger firms, on the other hand, tend to have more established HR policies and practices to support older workers, as well as a greater availability of job roles and tasks to facilitate, for example, job rotation.

Significantly, the measures implemented by the larger firms in the Commerzbank (2009) study which were presented as being targeted at improving working conditions for older employees, tended to be related to further training. The study indicated that forty-four percent of larger companies were investing in further training for older workers. Many authors, for example, Göbel and Zwick (2009), suggest that variations between how German companies seek to increase the productivity of older workers or make use of the skills and know-how of senior employees may explain how responses to managing demographic shifts differ between firms.

## 2.5 Conclusion

The literature review describes the previous research which has been carried out on the organisational implications of demographic change and the typical employer responses to these problems. In particular, issues such as health, knowledge transfer, skills, a division between old and young are shown to be pertinent. Figure 2.6 summaries the findings of the literature review.

| Demographic Issue | Proposed Solution |
|---|---|
| Loss of skills and knowledge | Training; mixed-age work teams; better in-company communication |
| Lack of Integration Between Older and Younger Employees | Mixed-age work teams; enhanced communication channels; organisational culture change; participation in the design of training and new work schemes |
| Health Issues of Older Workers | Ergonomic work places; job rotation; health and fitness facilities |
| Changes in Employee Behaviour, Attitudes and Expectations | Mixed-age work teams; changing expectations of ageing; offering alternatives to early retirement e.g. reduced working time |
| Motivation and Commitment Levels | Training; job enrichment |
| Ensuring a supply of skilled labour | Up-skilling; transfer of knowledge between old and young; more attention to recruitment; job enrichment |
| Discrimination | Better design of HR policies, especially recruitment |

**Figure 2.6: Summary of Organisational Challenges of Demographic Change and Solutions Proposed**

Figure 2.6 will be revisited in chapter six, in order to make a comparison between the literature and the empirical findings pertaining to the demographic challenges for managers in the sample and the measures implemented.

This chapter also presents some of the possible arguments to explain why firms choose different ways to manage demographic change; are they constrained by the size of the firm? Or do other factors, such as sector, play a role? The chapter has highlighted some enduring preconceptions held by employers regarding older workers which may or may not influence the types of measures implemented. It will be interesting to uncover whether or not this will be the case in the German firms visited.

The literature posits that German organisations are not doing enough to manage the challenges of demographic change, so whether or not the findings from this research project are consistent with the literature will also be of particular value. It is possible that the research will be more aligned with the work of Streb *et al* (2009), not only because of the parallel timeframe of the project, but also because the starting point for both this research and that of Streb *et al* (2009) are similar. However, it is intended that study goes beyond that of Streb *et al* (2009), in order to achieve a more in-depth examination of demographic change from an organisational level, as well as to link it with wider external factors. Furthermore, it is anticipated that firms will already have problems associated with demographic developments because the literature has clearly pointed to Germany as

having some of the oldest workers. Methods for managing the demographic shift are expected to be consistent with the extant literature.

The chapter has additionally revealed some gaps in the literature, which this thesis aims to contribute to filling. In particular, there is the question of the extent to which German firms are falling into a *demographic trap* (Leyhausen, 2009; Thun *et al*, 2007). As reiterated in the above paragraph, this has already been somewhat refuted by Streb *et al* (2009) for the Germany car industry. Therefore, it will be of interest and of note to examine what has been occurring in the steel, utilities and chemical sectors. As it has been discussed, aside from the study by Streb *et al* (2009), there is a dearth of research which focuses on the actual measures and practices developed and implemented in German organisations. This is especially true of qualitative-based research focusing on the role of the HR practitioner. Thus, this thesis aims to contribute to filling this gap, by describing the responses by German managers within the steel, utilities and chemical industries, examining the extent to which these have been useful, as well as the rationale behind the development of measures.

This chapter has reviewed the literature on demographic change. The next chapter sets out the methodology of the study.

# CHAPTER THREE

# METHODOLOGY

## 3.1 Introduction

The aim of this third chapter is to present the methodology of the thesis and to introduce the sample. The chapter begins by contextualising the study through a description of the contribution to knowledge, which this study attempts to make. After this, the research questions are discussed and the philosophical assumptions, which have framed the research and influenced the evolution of the research process, are presented. Section 3.4 sets out the research design chosen and attempt to justify the choices made in terms of approach, as well as in terms of the data collection tools employed. The chapter introduces the industrial sectors, presents the firms in the sample and explains why these companies were chosen. Finally, the steps involved in the collection of data are described, as well as the evaluation of the data. In short, the following chapter discusses the design of the empirical methodological process; the what, why and how questions pertaining to the choice of research methods and their relationship with the reliability, validity and generalisability of the research conducted.

## 3.2 Contribution to Knowledge

There is a dearth of empirical, particularly qualitative, studies on the management of demographic change in Germany. This is true both in the English and German languages. Moreover, much of the literature which does exist is predominantly prescriptive, as opposed to descriptive, especially at the organisational level. Most work concentrates on one sector only (for example, Streb *et al*, 2009) or makes a broad overview of sectors (for example, Henseke *et al*, 2009). Aside from the research by Streb *et al* (2009), this is the only study which places the demographic shift directly within the context of restructuring. This research, therefore, aims to contribute to knowledge in a number of different ways and will add to the knowledge base, both theoretical and empirical, in demographic change, human resource management, organisational analysis and international business and management. The contribution to knowledge will be re-evaluated in chapter nine, after the research findings have been presented and discussed.

## 3.3 Research Questions

The research seeks to examine how firms respond to the challenges of demographic change and to establish why there is diversity between theses organisational responses. As part of the discussion on divergent responses, the study offers a sectoral comparison, which allows for the discussion of whether or not demographic change is managed differently between sectors.

The criteria for the design of research questions has been informed by Bryman (1988), in that they are clear and unambiguous; flexible, but not too wide, and are able to be researched. The research questions are as follows:

- What are the problems associated with managing demographic change?

- What are the management responses to demographic change?

- Why do some firms do more to prepare themselves for the effects of demographic change than others?

As it is discussed at the end of chapter six, the empirical findings on demographic change highlight a divergence within the issues associated with, and the responses to, demographic change. The background against which the organisations in the sample were operating seemed to shed light on the reasons why firms were responding differently. In particular, it was noted that experiences of restructuring, as well as the particular conditions created by the individual sectors, required further examination. Hence, a fourth research question was later added, in order to allow for this. The fourth research question is:

- To what extent do the effects of industrial sector and organisational restructuring impact on the management of demographic change?

## 3.4 Research Design

Approaches to research design can be summarised in three main categories: exploratory, causal and descriptive (Churchill and Iacobucci, 2002; Zikmund, 2000; Malhorta, 1996).

This classification is driven by the nature of the research problem (Zikmund, 2000). This study uses an exploratory approach because the nature of the research problem in this study was shifting and it was the best fit for this thesis because the issues examined are relatively recent (Mason, 2002). Exploratory research methods are associated with qualitative research and assist in answering some of "the answers to *who, what, when, where* and *how* questions". This method has, nevertheless, limits in identifying *how many*, which may lead to limitations in terms of generalisability (Zikmund, 2000: 50). As far as this study is concerned, the research adds to that which has already been done by Streb *et al* (2009), albeit in a different sector of German industry.

## 3.5 Research Assumptions

Ontology refers to the way in which reality is perceived by the researcher (Saunders et al, 2007), whereas epistemology concerns the relationship between knowledge and reality and how the researcher understands reality (Hughes and Sharrock, 1997). In other words, ontology can be equated with an individual's "beliefs about the nature of the social world and what can be known about it" and epistemology represents "the nature of knowledge and how it can be acquired" (Snape and Spencer, 2003:1).

Ontological and epistemological assumptions are intertwined, due to the fact that the existence of an objective reality will invariably lead to issues that deal with how knowledge of the world can be achieved (Morgan and Smircich, 1980). Additionally, social science research cannot be divorced from the epistemological and ontological

perspectives of the researcher because the way in which the world is perceived impacts on the way in which research on organisations is carried out and these assumptions, or paradigms, are significant since they impact directly on the choice of research method (Alvesson and Deetz, 2000; Burrell and Morgan, 1979; Morgan and Smircich, 1980).

For these reasons, the understanding of epistemological and ontological questions forms an important basis for how the interpretation of academic literature pertaining to organisational theory is approached (Sisson, 1994).

The ontology of the researcher is constructivist and the researcher's epistemological position is that of interpretivism. These stances merit further exploration, in order to understand how they have shaped the creation of this empirical study. Hence, the philosophical assumptions will be considered in more detail in the next subsections.

### 3.5.1 Constructivism

This approach suggests that understanding and explaining the nature or rationale behind human actions is not possible because the researcher is unable to collect complete and objective sets of data covering all the drivers that give rise to them (Harrison and Laberge, 2002). Therefore, a subjectivity of the social world indicates that multiple interpretations of social phenomena exist and, in this way, constructivism assumes that the social and physical world is not 'given', but, instead, is constructed through the action and interaction of humans (Orlikowski and Baroudi 1991). Within a constructivist study,

the researcher examines how management concepts and issues are transformed and altered and how actors organise.

The constructivist paradigm influenced this thesis because it offers an inside view of how different organisations in various industries deal with the challenges of demographic change and it renders equal importance to the experience and interpretation of different actors, as well as the historical, economic, social and organisational context in which the implementation takes place (Alvesson and Willmott, 1996). In addition, the role of the researcher in the gathering and creation of data is not underplayed by the constructivist approach; the tacit knowledge and an attachment to the subjects being researched are of importance (Mir and Watson, 2000). In this case, the researcher brings tacit knowledge to the study, having lived and worked in Germany.

### 3.5.2 Interpretivism

As it can be seen from Burrell and Morgan's (1979) model, functionalism and interpretivism are represented in direct opposition to each other. The functionalist approach is rejected because the researcher does not subscribe to the viewpoint that there is only one reality, which can be measured and analysed. Functionalism, or, positivism, postulates scientific knowledge as the only true knowledge and only though the execution of a rigorous scientific method may truth be exposed (Giddens, 1974). In social sciences, the same principles which are applied to natural sciences are adapted to form a

'science of man' (Giddens, 1974) and, through the use of quantitative methods, laws may be created to explain social phenomenon (Benton and Craib, 2001).

Instead of accepting this approach, the researcher identifies an alignment with the interpretative paradigm, which endows people with the status of "*self-interpreting* beings; […] we attach meanings to what we do" (Buchanan and Huczynski, 2004: 5). In this way, the constructionist interpreter is actively involved in the creation of data (Hatch, 2006) and the researcher may discover how organisations are socially constructed, as well as understand how organisational culture is created and shared amongst organisational members (Gephart, 2004). The extent to which the interpretative paradigm influenced the research project is especially apparent during the fieldwork stage. Wherever possible, an attempt was made to interview more than one individual at a company, in order to gain a deeper understanding of the processes of change within the firm and its impact on working practices and the employees.

## 3.6 Nature of Research

The study follows an inductive approach because the research is primarily exploratory (Frankfort-Nachmias and Nachmias, 1996) and, within this approach, the theory is the outcome of the data collected (Bryman and Bell, 2003). Initially, the research questions were shaped by the existing body of literature. However, as the fieldwork was underway, themes and issues which were raised by the interviewees were often introduced into the

discussion at subsequent interviews[12].  Moreover, the semi-structured interviews were designed to elicit the responses and ideas of the managers' interviews, whilst minimising bias coming from the researcher.

## 3.7 Cross-sectional Design

The use of a cross-sectional design, which is a popular strategy in business management study, was followed in this thesis.  A cross-sectional design facilitates the collection of a large quantity of data from a large population; in this way, the collection of data may be carried out economically (Saunders et al, 2007).  Within this approach, a particular phenomenon is studied at a particular time point in time (Saunders et al, 2007).

The semi-structured interviews took place between October and December 2008 and the timing of the interviews is significant in terms of the global financial crisis, which first became prominent in September 2008 with the instability of several large American financial institutions.  These events had an impact on the nature of the findings of this

---

[12] The strategy for organising the semi-structured interviews was based on techniques developed by the researcher throughout her experience as a language teacher. As a language teacher, the researcher constantly set up oral exercises with her students, whereby they were encouraged to engage with the words or phrases on the cue cards.  This approach minimized the input of the teacher but increased the output of the students; hence, it was decided to follow a similar approach in the interviews. This method of interviewing came to have an additional, unexpected advantage. In many cases, the interviewees engaged very quickly with cards and began to place the cards at angles to each other on the table.  In this way, the respondents were identifying corresponding issues and laying them out, in order to form a kind of map, which outlined the casual patterns of change within the company.

study, especially in terms of the data on employee-friendly practices. It can be seen, for example, that HR managers, participating in the interviews between mid November and December 2008, were more likely to mention redundancies and the need to introduce more flexible labour-use practices, especially reduced working time, than the managers interviewed in October and early November 2008.

There was a second stage of interviews in autumn 2009, but these were predominantly interviews with government and trade union officials, amongst others. These latter interviews sought to add to the empirical findings on external drivers of change. Additionally, they were aimed at filling in the gaps of knowledge about how unions and the state are supporting firms in the management of the demographic shift. Consequently, these second interviews did not contradict the cross-sectional design.

## 3.8 The Sample

Sampling issues in qualitative research need to be considered carefully, due to the fact that qualitative research does not emphasize the need for conclusions to be drawn which should be statistically valid (Ghauri and Grønhaug, 2002). Instead, there is an emphasis on using the generated data to describe and explain phenomenon and this involves the researcher considering who might possess knowledge about the phenomenon (Ghauri and Grønhaug, 2002).

Three industrial sectors were chosen because it was difficult to make accurate comparisons when there were only two subjects from which to choose. All companies within the sample had over five hundred employees, in order to allow for increased generalisabilty of the study. The selection of sectors was based on the aim of achieving a sectoral analysis, as well as on the fact that, due to their high labour intensity, these industries would be most likely to have undergone significant changes and the most likely to be faced with the challenges of managing the demographic shift. Moreover, the three sectors are old, established and traditional industries, which are most likely to employ older workers (Buchholz, 2006).

The steel industry was chosen primarily as a test case because, as a traditional branch of industry, the literature shows that this sector has been particularly vulnerable to international competition, changes in consumer demands and global economic factors. It was expected that the steel industry would also be more likely to retain the elements of paternalism and to employ the highest number of older workers. In order to ensure that the sample provided a representative picture of the steel sector, companies belonging to the German major steel groups were approached.

Germany ranks second amongst the major European steel producers and Germany is the seventh largest world-wide producer[13] (Stahl-Zentrum, 2007). Production is predominantly concentrated in the Ruhr region and the Saarland (see figure 3.1). Major steel producers in Germany include Arcelor, ThyssenKrupp and Salzgitter. ThyssenKrupp Stahl is the largest German steel company, as well as the largest producer of crude steel (see figure 3.1) and is at number six in the global ranking of steel producers (Stahl-Zentrum, 2007).

**Crude steel production 2008**   Status: January 2009

| Group/company | million t | Group/company | million t |
|---|---|---|---|
| (1) ArcelorMittal Hamburg | 0.9 | (11) ArcelorMittal Ruhrort | 1.3 |
| (2) ArcelorMittal Bremen | 2.7 | (12) ThyssenKrupp Nirosta | 1.1 |
| (3) Benteler | 0.6 | (13) Deutsche Edelstahlwerke | 1.0 |
| (4) Georgsmarienhütte Holding | 1.3 | (14) Edelstahlwerke Buderus | 0.5 |
| | | (15) Stahlwerk Thüringen | 1.0 |
| (5) Salzgitter | 5.3 | (16) ESF Elbe-Stahlwerk Feralpi | 1.0 |
| (6) Brandenburger Elektrostahlwerke | 1.2 | (17) BGH Edelstahl | 0.3 |
| | | (18) Trierer Stahlwerk | 0.4 |
| (7) Hennigsdorfer Elektrostahlwerke | 0.9 | (19) Dillinger Hüttenwerke | 2.6 |
| (8) ArcelorMittal Eisenhüttenstadt | 2.1 | (20) Saarstahl | 2.5 |
| (9) ThyssenKrupp Steel | 10.5 | (21) Badische Stahlwerke | 2.2 |
| (10) HKM | 5.2 | (22) Lech-Stahlwerke | 1.2 |

Electric steel works and rolling mills

Integrated iron and steel works
(Blast furnace, steel works and rolling mill)

**Figure 3.1: Steel Production in Germany by Firm and by Region (source: Stahl-Zentrum, 2009)**

---

[13] The major world producers of steel are: China (1st), Japan (2nd), USA (3rd), Russia (4th), India (5th) and South Korea (6th) (Stahl-Zentrum, 2007).

The companies which made up the sample for the steel sector (see figure 3.2) were mainly large steel companies with a presence in the Rheinland area, except Steel Firm I, which was in the Saarland.

Although the Ruhr region is dominated by several steel giants, some of the companies within the sample were also independent segments or joint venture firms. There were some common threads within the firm groups, in that subsidiaries, or holdings, were similar in terms of their strategies and, importantly for this study, personnel management styles. Nevertheless, in many cases, significant differences were found between organisational structure and the instruments developed to tackle the demands made by the current economic climate.

| | | *Products* | *Interview Respondent* |
|---|---|---|---|
| **Firm A** | | Hot rolled steel products – main customer is German Rail | Head of HR |
| **Firm B** | | Major steel producer with 21% share of European steel market. | Head of HR<br>Works Councillor |
| **Firm C** | | Carbon flat steel. | Head of HR<br>HR team coordinator<br>Works Director |
| **Firm D** | | Hot rolled steel tubes for a wide number of industries including oil, construction and automobile. | Head of HR<br>HR manager |
| **Firm E** | | Hot rolled narrow strip for cold rollers, automotive manufacturers and ancillary industries. | Head of HR |
| **Firm F** | | Process production of crude steel sold for the manufacture of rolled steel products & tubes. Produce 11% of crude steel in Germany. | HR manager |
| **Firm G** | | Seamless tubes, seamless and spiral-welded large-diameter pipes, stainless tubes and precision tubes, medium line pipes. | Head of HR<br>HR manager<br>HR manager |
| **Firm H** | | Input material production of steel with all necessary process steps - pig iron production, including coking plant and sintering plant, up to crude steel production and production of slabs and round steel bars in the continuous casting process. Produce about 9% of the crude steel manufactured in Germany. | Head of HR |
| **Firm I** | | Steel for the automotive construction, power, engineering, aerospace industry and general mechanical industries. | Head of HR |
| **8 Firms** | | | **15 Interviews** |

**Figure 3.2: Overview of Firms in the Steel Sample (source: Company websites)**

The next step was to select two further categories which could be compared to the steel industry and would add to the validity of the study. The chemical industry was selected because the German chemical and pharmaceutical industry plays a significant role in the German economy and is one of the biggest employers in the country (Bathelt, 2000). As with the steel industry, the chemical industry has also been hit hard by changes in demand and foreign competition and has needed to become far more cost conscious. Therefore, it was expected that this sector would be less likely to invest in changing the workplace to fit elderly workers.

The chemical branch is largely dependent on international markets (Badunenko, 2007), with exports accounting for more than one half of revenue (Bathelt, 2000). The sector has come to be concentrated in a few regions of Germany, especially Leverkusen, Cologne and Düsseldorf (Bayer and Henkel), Frankfurt and Wiesbaden (Hoechst) und Mannheim (BASF) (Bathelt, 1997). These industrial centres for chemicals are linked by transportation routes offered by the German rail and the river Rhine (Aftalion, 2001) and, the companies, particularly the "Big Three" (Bayer, BASF and Hoechst), continue to display attachment to their locality[14] and perceive themselves as regional employers (Vitols, 2002).

---

[14] Bayer, for example, has sponsored the German football club *Bayer 04 Leverkusen* since its beginnings in 1904 (Vitols, 2002).

Eleven companies were chosen from the chemicals/pharmaceutical sector. All were located in the Düsseldorf-Cologne region. Apart from **Chemical Firms F** and **G**, all companies were visited in 2008. Figure 3.3 provides an overview of activity.

Relationships between chemical producers and suppliers are close (Bathelt, 2000). Long-term supplier relations are vital for the procurement of quality raw materials; a switch to a different supplier could result in a change in raw materials which could have an adverse effect on the quality and outcome of the product (Bathelt, 2000). In addition, raw materials suppliers tend to be fixed; therefore, it is not an easy matter to switch (Bathelt, 2000).

|  | **Products** | **Interview Respondent** |
|---|---|---|
| **Firm A** | Pharmaceuticals | Head of HR |
| **Firm B** | Household & personal care products, adhesives | Head of HR |
| **Firm C** | Pharmaceuticals | Head of HR |
| **Firm D** | Pharmaceuticals | Head of HR |
| **Firm E** | Paints, plastic coatings | Head of HR |
| **Firm F** | Inks and print products. | Head of HR |
| **Firm G** | Adhesives, plastic coatings | Head of HR |
| **7 Firms** | | **7 Interviews** |

**Figure 3.3: Overview of Firms in the Chemicals Sample (source: Company websites)**

Finally, the third group of companies falls under the umbrella of *utilities*. The firms in this industry are providers of electricity, water, sewage, natural gas, waste disposal and public transport. The majority of firms visited for data collection purposes were public

utilities companies (*Stadtwerke*), but there were some water management firms which were public/private partnerships.  Figure 3.4 summarises the firms visited.

This branch of industry also has a long history, is highly regulated but, unlike the other sectors, union presence is at its weakest.  In many parts of the sector, wages tend to be lower and there are more jobs for unskilled workers, nevertheless, there still exists a demand for highly skilled workers.  The sector is especially volatile, with widespread rationalisation following the deregulation of the energy market.  Whereas in the other two sectors the firms are competing in foreign markets, in the utilities sector, the customers tend to be predominately domestic. This makes for a further interesting comparison point between the sectors.

|  | Products | Interview Respondent |
|---|---|---|
| Firm A | Municipal utilities | Head of HR |
| Firm B | Water management | Head of HR<br>Works director<br>HR manager |
| Firm C | Municipal utilities | Head of HR |
| Firm D | Water management | HR manager |
| Firm E | Municipal utilities | Head of HR |
| Firm F | Municipal utilities | HR manager |
| Firm G | Municipal utilities | HR manager |
| 7 Firms |  | 9 Interviews |

**Figure 3.4: Overview of Firms in the Utilities Sample (source: Company websites)**

The ubiquitous municipal utilities firms (*Stadtwerke*) are horizontally diversified, responsible for providing local areas with electricity, water, gas, recycling and waste disposal, swimming pools and, in some cases, the *Stadtwerke* also provides local public

transport (VKU, 2009; Wüstenhagen and Bilharz, 2006).   The public utilities firms also tend to be large regional employers (VKU, 2009).  Unlike in the UK, the energy market in Germany is self-regulated (Coen *et al*, 2002). The interests of the municipal utilities firms are represented by the Association of Local Utilities (*Verband kommunaler Unternehmen/ VKU*) which offers its members both legal support and networking opportunities and maintains close links with the government at both regional and national levels (VKU, 2009).

The water companies which took part in the interviews were public/private partnership companies, supported by the public sector in their projects and, in some cases, received public sector investment (Bode, 2005). The water firms were all located in the Ruhr area of North Rhine Westphalia. This is a heavily industrialised area, which meant that water is used for industry, as well as private consumption (Pfeiffer and Simon, 1997; Teichgräber and Hermanns, 1996).

Some of the natural waterways, which were originally diverted to serve the needs of the coal and steel plants, have needed to be carefully managed since the decline of heavy industry in the Ruhr area (Interview: **Utilities Firm B**). Since the beginning of the twentieth century, efforts have been made to improve the quality of the river water. Advances in technology since the 1960s have led to the building of water treatment plants throughout the region (Teichgräber and Hermanns, 1996), despite the fact that Germany has the lowest rates of tap water consumption in Europe (Bode and Lemmel, 2001).

Aside from managing the waterways and water quality, the water firms visited were responsible for flood management.

## 3.9 Data Collection

Qualitative research methods allow for a focus on "social meanings, or interpretations, or practices or discourses" (Mason, 2002: 3) which fit with the inductive approach of the research. Semi-structured interviews were the data collection tools employed in this research. The organisations targeted for this study were among the most important in their industrial sectors; hence, the managers who participated in the study had many commitments and limited space in their diaries. Semi-structured interviews were, therefore, deemed to offer a good balance between structuring the course of the enquiry within a particular time-frame and maximising respondent input.

Semi-structured interview questions are designed to be open, allowing for a reaction to the information given by the interviewee (Mason, 2002). Using open questions is an attempt to avoid interviewer bias (the *Brenner effect*) through the researcher's own framing of the questions (Mason, 2002). There are no leading questions and each question is self-contained (Mason, 2002), in that it is be perfectly possible to switch the sequence of questions (Newell, 1993). Semi-structured questions bring validity to the data collected because there is scope for detail and depth and for difficult issues to be clarified (Mason, 2002). On the other hand, however, the *social desirability effect* may

cause respondents to answer in a specific way, as well as to be suspicious of opening up to an outsider (Bryman and Bell, 2003). This latter point is interesting in light of a claim by Streb *et al* (2009) that the topic of demographic change is a sensitive issue for management to discuss.

The appendix provides a list (with an English translation) of the themes which structured the interview. The interviews were conducted in the German language and the interviews were taped with the consent of the respondents. The interviews lasted between one and two-and-a-half hours and were recorded to aid transcription. At the beginning of each interview the interviewee was given a copy of the consent form and the confidentiality of the proceedings was reiterated. Managers provided candid responses and very were open to sharing their thoughts and opinions. The interviews were followed up with emails and phone calls for clarification purposes.

Data collection occurred in two stages. The first phase took place between October and December 2008 whilst the researcher was based at the Hans Böckler Stiftung in Düsseldorf. Twenty-seven semi-structured company interviews were carried out with middle and senior managers in HR departments. In the utilities sector, nine interviews took place in eight companies (see Figure 3.4). In the chemical sector, there were five interviews with four firms participating (see Figure 3.3). Finally, in the steel sector, the sample contained six firms (see Figure 3.2). Here, thirteen interviews were carried out

and one additional interview was conducted with a works councilor of one of the steel firms. For background purposes, the manager of a temporary worker placement agency was also interviewed. This agency predominantly placed temporary staff in the steel industry; therefore this interview was especially helpful in clarifying the extent to which firms are using this type of labour and whether or not temporary workers were represented to the same degree as permanent contract workers.

The second stage of data collection occurred between October and December 2009, whilst the researcher was based at the Max Planck Institute for the Study of Societies (MPIfG) in Cologne. The objective behind entering the field for the second time was to dig deeper into the issues surrounding the management of demographic change. The 2008 interviews had revealed a discrepancy between the literature – that German companies *were* developing tools to manage the ageing workforce and to harness a loss of organisational knowledge. However, the extent to which this would be impeded by the need to respond, in the first place, to the economic crisis was also important to uncover because this would be indicative of how seriously firms were preparing themselves for the effects of the demographic shift. Four interviews were carried out with HR managers; one in the steel sector, one in the utilities sector and two in the chemicals sector. The interviews were organised in the same way as in stage one.

In order to further research how demographic change was managed within organisations, a number of background interviews were organised with various social and industrial partners. Two interviews were conducted at the Bundesministerium für Familie, Senioren, Frauen und Jugend (Federal Ministry for Family, Seniors, Women and Youth), two interviews were carried out at the IGBCE, and short meetings were held with a representative from the lobby group Bundesarbeitsgemeinschaft der Senioren-Organisationen (BAGSO/ Federal Association of Senior Citizens' Organisations) and the director of a project aimed to promote more active engagement in society for senior citizens in Cologne.

The researcher was also given access to company reports, training folders, manpower plans, as well as employee handbooks, training brochures and, for example, at **Steel Firm D**, was allowed to view the organisation's intranet. In addition, company websites were also visited. This secondary source data has been incorporated into the thesis, especially into the empirical chapters.

### 3.10 Data Analysis

The analysis for data collected from these questions followed Miles and Huberman's (1994) components for analysing qualitative data. The data was reduced into manageable pieces; this began in the early stages of fieldwork stage and involved selecting, focusing,

simplifying, abstracting and transforming the data in the notes and interview transcripts (Miles and Huberman, 1994). From the outset, codes were assigned to the transcripts based on description; this was done by re-playing the recordings of the interviews and transcribing them.

The resulting notes were then organised into a table, in order to look for synthesis in the responses and to pinpoint any themes. The original codes were subsequently refined as analysis proceeded through reviewing field-notes and interview data; since the research was inductive, and did not aim at testing any predetermined theory or propositions, this approach worked well. It is important to note that the data was analysed manually, as opposed to through qualitative data analysis software, such as NVivo. The reason for this was that the researcher felt that a manual analysis of the data was more in line with her epistemological and ontological stance. The data had been collected and constructed by her, therefore, she wanted to retain the close connection with it throughout the interpretation and analysis stage.

The next step of the analysis process was to generate a *data display*, through the use of simple graphs or other diagrams; some of these figures have been quoted directly in the thesis, in order to indicate the existence, or non-existence, for example, of demographic change management practices. A list of verbatim responses was also made, which were incorporated into the findings chapter to add emphasis to particular points (Fielding,

1993).  The quotations from the interviews were translated into English from the original German by the researcher and the translations of the comments were checked by a German native speaker, in order to ensure that the original meaning had been correctly captured.

## 3.11 Validity, Reliability and Generalisability

It has been argued that the nature of qualitative research negates the possibility of applying the concepts of generalisability, reliability and validity which are inherent in quantitative analysis (Bryman and Bell, 2003; Mason, 2002; Lincoln and Guba, 1985; Richie and Lewis, 2005).  Thus, the criteria set out by Lincoln and Guba (1985), who present *trustworthiness* as an alternative approach to assessing qualitative research, is a useful alternative for the qualitative researcher.

## 3.12 Ethical issues

The research design was shaped by Code of Conduct and Ethical Guidelines set down by the Ethics Committee at Cardiff Business School.  Ethical approval for this research was sought from the Cardiff Business School Ethics Committee (see Appendix).

**3.13 Conclusion**

This chapter has set out the methodology for the thesis. Epistemological and ontological issues have been discussed and an attempt has been made to illustrate how these have influenced the methodology of the research. The research questions and the thesis' contribution to knowledge have been outlined, in that the objectives of the thesis are clearly depicted. The generation of the research topic has been discussed in some detail, as well as the way in which the semi-structured interviews were conducted. The chapter also describes the data collection and analysis tools chosen and explains why other methods were rejected by the researcher. Finally, the validity and generalisability of the study have been considered and the ethical implications raised.

# CHAPTER FOUR

# DEMOGRAPHIC CHALLENGES

## 4.1 Introduction

This thesis adds to the qualitative body of literature on demographic change. Chapter one provided a general background to the issue, before the review of the literature in chapter two outlined the implications of demographic developments for companies. Chapter three set out the methodological considerations for this thesis. This fourth chapter is in the first in a series of five empirical chapters which explore the challenges of demographic developments for German organisations, how firms respond to these challenges and discuss the explanations for a divergence within organisational responses.

The findings discussed in this first empirical chapter describe the demographic challenges faced by German organisations and addresses the findings related to the research question *what are the problems associated with managing the ageing workforce?*

## 4.2 Demographic Challenges in the Workplace

The first task of the fieldwork was to indicate whether or not managers were aware of the problems associated with the demographic shift and whether or not these issues already had implications for their organisations. As a lead-in to the topic of demographic change,

respondents were invited to consider the extent to which demographic change been an issue for their firm.  Figure 4.1 indicates that every company, except one (**Utilities Firm B**) agreed that their firm had already been affected.
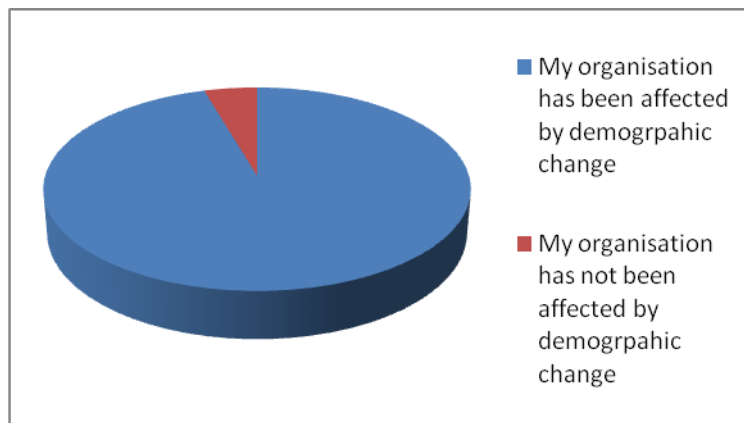


**Figure 4.1: Average Age of the Workforce (source: company interviews)**

Managers were also invited to comment on the types of issues which they felt were connected with the demographic shift.  Figure 4.2 summarises the issues which managers mentioned and these correspond with the problems emphasised by the academic literature in chapter two.
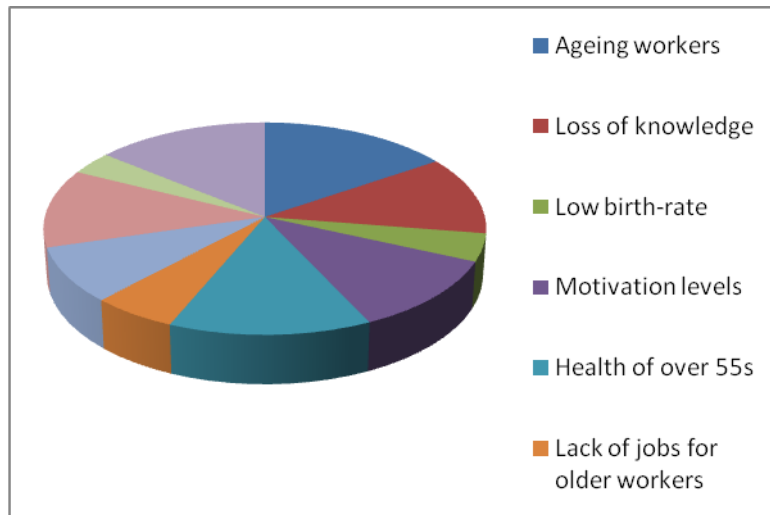
**Figure 4.2: Demographic Issues Affecting Firms (source: company interviews)**

As figure 4.2 illustrates, ageing workers, motivation and health were shown to affect the majority of organisations. These topics will be discussed in more detail in this chapter.

## 4.3 Patterns of Ageing

The extent to which the issue of an ageing workforce is a pressing concern for German organisations becomes clear when the statistics for the mean age of employees in three samples are presented. The average age for the three sectors was forty-three years old (see figure 4.3).
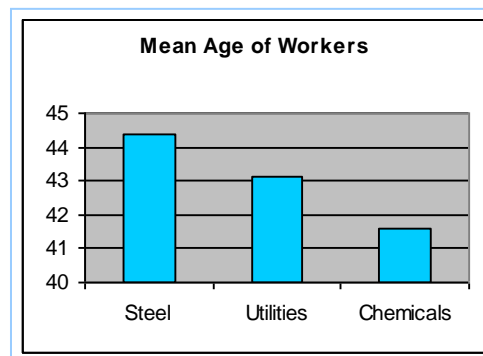


**Figure 4.3: Average Age of the Workforce (source company interviews)**

To put these figures into context, Dixon (2003) estimates the average age of the UK workforce to be thirty-nine years. This variation between Germany and the UK is consistent with Frerich and Taylor (2005), who argued that the German working population will age faster than the working population of the UK. Workers in the steel sector, with a mean age of 44.4, were the oldest. At **Steel Company G**, the HR manager said that the average age of the production workers had already reached fifty years, meaning that the firm already exhibited an old-age concentrated ageing structure (see figure 4.4). In the utilities firms, the average age was 43.1 years and, finally, the chemical organisations had the lowest mean age of 41.6 years.

On the one hand, forty-three may appear a reasonable figure for the average age of a workforce. If, on average, employees begin their working life as a trainee aged eighteen and continue to work until their early sixties, then the mean age of employees would be around the mid-forties. This is in line with Henseke *et al* (2009), who argued that the largest group of employees in a firm is neither the oldest nor the youngest workers. On the other hand, in view of the fact that the German working population should age faster than the working population of the UK (Frerich and Taylor, 2005), it is to be expected that the average age of German employees would continue to rise. Significantly, as this chapter will go on to discuss, German companies were experiencing difficulties with the intake and retention of young people. Hence, this finding also goes to suggest that, over the next decade, the average age of many firms will be higher than forty-three.

### *4.3.1 Ageing Structures*

The structure of the organisations in the sample depicted a concentrated (*konzentriert*) age structure[15] (see figure 4.3) which is brought about by few young workers entering the organisation and high numbers of workers aged fifty-five and above being targeted for early retirement. The result is a concentration of middle-aged workers, which will result in future problems as this middle band of workers reach retirement. High numbers of employees simultaneously reaching retirement age will not only be costly and difficult for an organisation to manage, but the issue will be exacerbated by few younger workers replacing those leaving.
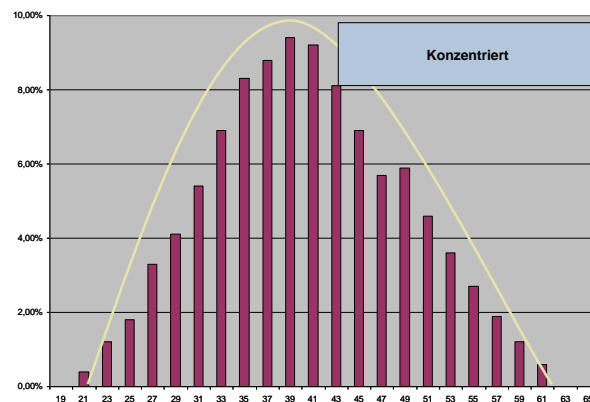


**Figure 4.4: Concentrated Ageing Structure (source: IG-BCE)**

Fieldwork interviews indicated that the steel, chemicals and utilities companies had targeted older workers for early retirement during the 1990s and early 2000s and offered

---

[15] Many types of demographic structures are possible in organisations and these differences in structures will depend on a number of factors, including the industrial context and the extent to which firms have offered early retirement to older workers. The ideal age structure for an organisation is a balanced ageing structure, where the firm has an equal in-flow and out-flow of employees.

generous severance packages. These years were characterised by managers across the three sectors as periods in which their companies underwent widespread reorganisation, accompanied by cuts in staffing numbers. However, in the present period, the steel firms, which had the greatest numbers of the older workers, also had the largest percentage of workers aged fifty-five and above. The most common reason given for a greater number of elderly workers in the steel sector was linked to good progress in the past, when large numbers of low-skilled workers were taken on during boom times in the 1970s.

In the companies visited, these unskilled workers had long since been displaced, especially during periods of organisational restructuring during the 1990s and early 2000s, or retrained. The exception was at **Steel Firm A**, where small numbers of low skilled workers remained. Having said this, these workers, who were largely taken on during the 1970s, had now reached their sixties and were almost at the end of their working lives. Nonetheless, these groups of employees did not possess up-to-date skill-sets.

All the steel managers, when asked about the mean average of their workers, said that they thought that their firm was typical for the sector. Only one manager said that he thought the average age was "ok" and, significantly, this was at the steel company which had the highest average age, at forty-seven years. This would suggest that, in the steel industry, managers did not perceive a high number of older workers to present a challenge. This argument is at odds, not only with responses to the initial interview

question (see figure 4.2), but also with research presented in chapter two which indicates that older workers represent a distinct issue for management. Furthermore, as this section goes on to demonstrate, it is within the steel sector that the greatest issue of apathy amongst workers over fifty-five towards further training was reported. The most likely reason behind this response is that, whilst ageing workers *did* present a challenge, steel firm managers were aware of demographic trends in their sector and did not perceive their company to be in a different position to that of the competition.

### 4.3.2 Explaining Sectional Variations in Ageing

The lower numbers of older workers in the chemicals and utilities sectors could, in the first place, be partly explained by the fact that many of these firms tended to be smaller than the companies in the steel sample.  This could be also seen in the difference between chemicals and utilities firms.  Although the utilities firms had a higher mean age of employees than the chemical sector, the number of employees aged fifty and above was actually lower. This is mainly because the organisations in the chemicals sample tended to be proportionally larger than the utilities sample.  The smallest firms were in the utilities sample.

Another reason to explain the variation between ageing in the sectors was connected to rationalisation measures.  In the steel industry, these had been largely undertaken in the past and were now over, thereby stabilising the number of elderly workers.  The utilities companies had also implemented wide scale labour shedding, but other downsizing

measures, including the creation of new smaller, independent business units, meant that ten to fifteen years later, the number of older workers was considerably lower than the other two sectors.

In the chemical sector, labour shedding was ongoing; managers in the chemicals industry reported continued restructuring processes and these were cited as having a tangible impact upon how demographic change was being managed.    The industry was facing similar problems to the steel industry, in terms of numbers of older workers to accommodate, creating the right balance between outgoing (old) and incoming (young) workers and the threat of a loss of skills and knowledge, but the fact that many firms were still downsizing in response to the economic downturn, curtailed the extent to which organisations had the resources to devote to addressing the challenges of demographic developments.

As far as reducing the number of older workers was concerned, the majority of firms were still using early retirement.  In almost all of the steel and chemical firms, older employees were still offered an early retirement route; this was less widespread in the utilities sample because firms were smaller and the number of older workers was lower. Continuing with early retirement after 2010 was perceived by many interviewed as a costly solution to the issue of accommodating an ageing workforce; nonetheless, many managers said that their firm had agreed to continue offering it because they had not yet found a suitable alternative.

In as far as improving labour market participation amongst older workers was concerned, on the one hand, the elimination of the Old-Age Part-time law had gone some way in getting German companies to rethink early retirement. Firms had been presented with a tangible impetus to press forward in the search for better methods of responding to demographic change. On the other hand, many of the companies investigated continued the practice of early retirement of older workers and managers continued to argue that targeting older workers for dismissal was socially responsible because it safeguarded the future for younger Germans. This called into question the extent to which companies were tackling the matter of the ageing work force effectively.

The figures for the ageing workforce indicate that the demographic shift was affecting all of the firms in the sample because the average age of workers was pointing to a movement towards an old-age concentrated ageing structure. With the largest number of older workers, it would be expected the steel sector would be faced with the biggest difficulties associated with accommodating them and promoting longer worker lives.

Furthermore, the firms in the chemical industry, which were continuing to undergo structural changes, would be expected to have significant obstacles, in terms of resources, to manage the challenge of the demographic shift effectively. Finally, the utilities firms, with the smallest percentage of ageing workers would be expected to have the least problems and, hence, to be the companies which were the least likely to develop

measures to combat the effects of demographic change. These issues will be expanded in the next subsections.

### 4.3.3 Attitudes to Ageing

Chapter two drew attention to the common stereotypes and perceptions held by managers towards older workers. The majority of managers interviewed in this study argued that their company took a proactive approach to the topic of demographic change. Nevertheless, aside from continuing with the practice of early retirement, the interviews revealed that three-quarters of the managers who participated in the study had reservations about the ability, attitudes and behaviour of the older members of the workforce.

Figure 4.5 summarises the attitudes of HR managers and indicates an age bias coming from the managers because younger workers were repeatedly referred to during the fieldwork interviews as exhibiting qualities such as greater flexibility and a wider openness to accepting training. These qualities tended to be associated much less with the older members of the workforce.

| Potential Ability | Younger Workers | Older Workers |
|---|---|---|
| Experience | + | +++ |
| Creativity | +++ | + |
| Readiness to be trained | +++ | + |
| Ability to be trained/learn | +++ | + |
| Reliability | + | +++ |
| Loyalty | + | + |
| Ability to work in a team | ++ | ++ |
| Leadership qualities | + | +++ |
| Flexibility | +++ | ++ |
| Physical capability | +++ | + |
| Mental capability | ++ | ++ |
| Ambition | +++ | + |

+++ = mentioned frequently, ++ = mentioned, + = rarely mentioned

**Figure 4.5: Managerial Attitudes to Older and Younger Workers (adapted from Richenhagen and Meyer-Falcke, 2005; source: company interviews)**

Similarly, HR managers across the three sectors expressed doubts about the extent to which older employees could be productive. For associated characteristics such as ability and readiness to be trained, older workers were repeatedly referred to as being either resistant to training or difficult to train. This was in contrast with younger workers. Similarly, managers indicated that a physical decline in blue-collar workers over fifty years of age was an issue for management.

On the other hand, positive characteristics, such as experience, reliability and team-working, were associated with the older members of the workforce. There was no marked difference in the extent to which workers were perceived as exhibiting loyalty; figure 4.5 represents old and young workers on an equal footing because, in neither case, did most managers talk about a high commitment on the opposite ends of the age scale.

Managers said that they tried to create loyalty amongst younger workers through their training schemes.

> "It's hard to find the right people from the external labour market […] so it's better for us to have the people we have trained as apprentices because they will stay with the company, get to know the firm and how to do their job here".

(HR Manager, **Utilities Firm F**)

The academic debate surrounding the operationalisation of the term *older worker* did not play a role during data collection. In the workplace, *older workers* were ubiquitously depicted by managers as being aged fifty and above. In seeking to operationalise the term *older worker*, managers referred to older workers as being aged fifty and above because these workers were deemed to be more likely to have changing needs, in terms of health and the ability to do the same job, once they reached this milestone age. This would suggest that, taking into account the classification of ageing by Sterns and Doverspike (1989), most of the German managers in the sample were continuing to adopt a chronological view of ageing because they based their assumptions on how the performance and ability of older workers would decline after fifty years of age. A widespread problem, mentioned by managers across sectors, was that older blue-collar employees had health issues resulting from lifting and bending at work which brought an added burden to the HR departments. Health and well-being factors will be discussed in the next subsection.

The fact that firms were developing measures to improve working conditions for older employees, or were at least conscious of the need to address the problems associated with an ageing workforce, suggested a movement away from the chronological view of ageing. Was this indicative of the fact that managers were beginning to base their perceptions of older workers on a functional approach? The company visited had invested in ergonomics and employee-friendly workplace, which the literature suggests contribute to a functional definition of ageing. Avolio and Waldman (1989) recommended that firms benefit from taking a psychosocial perspective of ageing because this underlines qualities associated with seniors, such as experience and knowledge.

Nevertheless, the study found little evidence to support an argument that either a functional or a psychosocial perspective of ageing was developing. Although, on the whole, a proactive approach to managing demographic developments appeared to be taken at many organisations, some managers exhibited reservations about the ability, attitudes and behaviour of their senior workers. As figure 4.5 shows, the study found evidence which corresponded with the existence of stereotypes about older workers described by Paul and Townsend (1993) and Siegenthaler and Brenner (2001). Having said this, no evidence was found to suggest that the respondents agreed with preconceived notions that older workers did not perform as well as younger workers or that sixty-five was the optimum age for retirement.

*4.3.4 The Early Exit Culture*

Nonetheless, the strong *early exit culture* in the minds of the workforce had not shown signs of dissipating. Instead, managers reported no indications amongst the over-fifties of resisting the offers of early retirement and or rejecting the notion that the consideration that retirement was a deserved reward for a long working life. Indeed, the continued existence of a strong *early exit culture* in the minds of their workforces was frequently cited in the fieldwork interviews as defence for continuing with the practice of early retirement over the interim period. Managers reported a limited turnaround in the attitude of the older members of the current workforce to embrace a longer career. On the contrary, workers still wanted to finish early and, amongst those who continued to work into their late fifties and above, managers complained that there were issues of apathy towards up-skilling and a tendency to want to take work at a slower pace.

## 4.4 Health and Well-being

In the majority of companies, work was predominately organised into shifts, which was reported as being physically demanding for the older employees. In all three sectors, the firms which reported the highest figures for absence due to illness occurring in this age group were firms which still operated the shift system. Significantly, managers in the steel sector – where there is arguably the greatest incidence of physically demanding work - referred to an increase in health problems amongst the over-fifties, including back pain and repetitive strain injuries. Thus, on top of having to secure the jobs for older

workers, there was the extra pressure of having to assign them less physically demanding work, but often without being able to find a suitable person to fill their previous role. Consequently, changing the workplace to fit the needs of an ageing workforce was high on the agenda in most firms.

For white-collar employees, managers reported that older employees were generally in good health. In some firms, especially in the *Stadtwerke*, managers referred to figures for absence due to poor health as justification for their claims that their white-collar staff exhibited above satisfactory levels of health. In other cases, it was unclear where management had got their information. This is important in light of research indicating that the older the employee, the more likely he or she is to report excellent physical health (CIPD, 2011). This finding suggests that employees may not disclose poor health, in order to protect their job.

## 4.5 Resistance to Training and Demotivation

In most firms, managers stated that effective instruments to fight against the apathy of older workers were not available to them. Although chapter two referred to training as an important tool to manage motivation, this was less implemented in that training was generally not offered to older workers, especially blue-collar workers (see figure 4.6). At **Steel Firm A** and **Utilities Firm A**, training for elderly workers was not offered, but during the interviews at both firms, managers spoke at length about a lack of motivation being heavily entrenched in workers over sixty. Managers in **Chemical Firms A**, **B** and

**D**, which were firms that had undergone widespread reorganisation, spoke of having to sit down and explain to the workforce that a lack of motivation was no longer acceptable. Yet these three firms were not offering training to their older workers.

White-collar staff aged fifty-five and above, in contrast, continued to receive training. In the first instance, nonetheless, they received less training than their younger counterparts (source: company interviews) and, in the second instance, this training was often informal and ad hoc. White-collar employees were trained in computer-related tasks, for example, new operating systems or finding data on company servers. In many cases, these kinds of training need were self-reported and enquiries for training did not even reach the HR department because, especially in administration, older employees asked younger staff for assistance (fieldwork interview, HR manager, **Chemicals Firm A**).
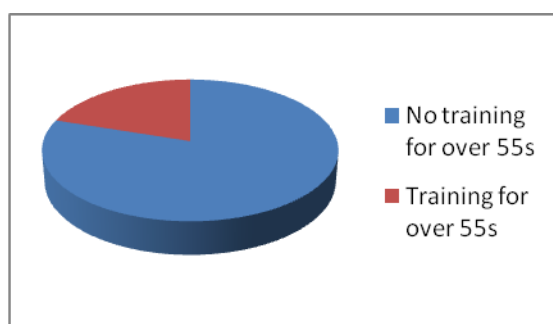


**Figure 4.6: Training for Over-55s (source: company interviews)**

The empirical findings did not indicate a sectoral difference between the attitudes of older workers, primarily blue-collar workers, towards upskilling. Managers in all sectors recognised a lack of motivation and apathy to working past the age of sixty in their elderly employees. What was interesting, however, was that it was agreed by most HR

managers that decreased motivation amongst older workers was not a problem that was likely to persist and, despite the academic literature, managers posited that in the future much of this apathy would disappear. Managers saw these barriers to working after fifty-five as being a generational issue which would come to an end with this final generation of older workers.

The issue of an anticipated shift towards more self-reported (demand-led) training needs assessments and a greater acceptance of training repeatedly came up in interviews in all three sectors. It was predominantly linked to firms not having the resources to change the mindsets of their older workers. Instead, managers stated that the focus of their company was on creating new organisational norms which reflected longer working lives.

> "Younger workers today are aware that a job for life is no longer true so they are more open to getting new skills. Also the next generation will be working until they are sixty-seven and so this mentality of 'I'm almost sixty; I have to slow down' won't be an issue anymore. […] Also the idea of 'old' has changed. People are living longer, they are more active in old age […]".

(HR manager, **Utilities Firm B**)

The extent to which this perspective on ignoring apathy may be dismissed as wishful thinking is discussed in chapter eight. The importance of safeguarding skills was a repeated concern; this is discussed in the next subsection.

## 4.6 Loss of Knowledge and Skills

Many managers repeatedly used English expressions during the interview when discussing the topic of a loss of knowledge and skills[16]. Phrases such as *knowledge management* and *life-long learning* were used, as if to emphasize their understanding of the importance of the issue, not only for the firm, but also as a wider issue affecting organisations. The use of these key expressions in English, and by at least eight different managers, nevertheless, had the effect of suggesting them to be jargon, possibly taken from prescriptive management literature.

Nonetheless, the loss of skills and knowledge which accompanies early retirement was cited by managers across the three sectors as a prime concern. **Steel firm I** had even rehired some white-collar staff in early retirement on short-term contracts because it was realised that, after these workers had gone, they had taken important knowledge with them, for example, information about contacts and other firms with which their company did business. At **Steel Company A**, the HR manager struggled with the loss of knowledge involved in targeting older employees for early retirement. The organisation had learnt from the past mistakes of the displacement of skilled workers in downturns, only to have hire and train new people when demand rose. The strategy at **Steel Company A** was to find which out of the workers aged fifty-five or over would be interested in early retirement. This meant that the HR department had a better idea of

---

[16] The interviews were all held in the German language.

which employees to target for training and which skills were likely to be lost by the organisation in the future.

Across the three sectors, a common problem seemed to be that many employees in their fifties and sixties did not have the skills to work effectively elsewhere in the company. This finding was not surprising because, as figure 4.6 shows, training for older workers was not being offered. Managers reported that the problem of a lack of skills was one area which would require the most attention in the future. Managers argued that offering early retirement to older workers had meant that firms could focus their attention on up-skilling for workers in their thirties and forties. With early retirement no longer being a viable option for companies, most managers thought that targeting the skill levels of the over-fifties and making them understand and accept the importance of life-long learning was to increase in importance. Nevertheless, none of the managers were able to outline tangible organisational plans to introduce more training for employees aged fifty-five and above.

Aside from the issue of a loss of skills and knowledge, as a result of older employees leaving the firm, companies in the sample had become increasingly less unable to keep the majority of apprentices after they had completed their training. Not only did this mean a waste of resources, but also that skilled workers were leaving the firm. Moreover, an ageing workforce also meant that these workers had to be accommodated for longer working lives, resulting in an incremental decline in the number of vacancies

for new workers entering the firm.  The impact of this challenge is described in detail in the next subsection.


## 4.7  Selection: Old over Young

As already discussed, past experiences of restructuring were frequently cited by managers across the sample as having impacted directly impacted on the way in which the firm was managed in the present.  This effect was also pertinent, as it has been seen, on how firms were affected by and responded to demographic challenges.


In the main, restructuring had led to redundancies and, in many firms, to a dearth of new vacancies.  Similarly, as older employees left the firms, their jobs were either replaced by new technology, or phased out completely. For managers in the chemicals sector, the current circumstances were forcing them to move around existing jobs and to relocate existing employees when their jobs were under threat.  For that reason, HR managers reported constantly choosing older employees over recruiting new workers because it was more difficult and expensive to dismiss workers who had been with the firm for a long time.


### 4.7.1 An Organisational Paradox

Choosing older over young had a detrimental effect on the ability of companies to retain apprentices after training. In the steel industry, development in production methods, and in new technology, had also led to the disappearance of jobs, especially positions which

would usually be filled by older workers. At **Steel Firm C**, the manager commented on the fact that the removal of jobs was due to changes in the production methods and this had a negative impact on the recruitment of new, younger workers because it interfered with the natural flow of labour turnover.

As vacated positions in the firm disappeared, and no new jobs were created in their place, there were limited vacancies for newly qualified apprentices. Hence, perhaps the most serious aspect of managing demographic change within the firms in the sample consisted of the inherent paradox surrounding the older and the younger members of the workforce. As already established, managing the demographic shift does not only include the consideration of older employees, but also the preparation for a decline in the number of young people to enter the labour market. As the literature suggests, firms need to address the question of whether they have made provision for a steady influx of younger workers. On the other hand, German legislation is more protective of workers with a long tenure; thus, getting rid of older workers was a difficult and expensive task.

Consequently, in the interviews, HR managers reported that, when job cuts had to be made, they were often forced into the situation where they would have to choose to save the jobs of the older employees over recruiting new, younger staff or offering more trainees a permanent job. The problem was compounded by the fact that organisations set much store in their position within the locality as a socially responsible employer, as well as the duty that they had to their employees. As a result, in the majority of cases,

despite economic downturn, firms had continued to train apprentices despite the fact that they were no longer in a position to retain them all.

> "The over fifties are no longer the most vulnerable group in society. We have to protect our younger staff".

(HR manager, **Steel Firm C**)

Even though German firms received some financial incentives from the government if they agreed to offer training, managers denied that this drove their company to continue to train beyond their needs.   Instead, training continued to be presented as a matter of having a responsibility to the stakeholder.

### 4.7.2 A Decline in Apprenticeships

As the above subsection indicated, although firms stated that they recognised the importance of training and of offering apprenticeships, training for younger organisational members and apprentices had faced cuts. Figure 4.7 shows the percentages of apprentices retained in the steel sample. In the steel sample, five of the firms (**Steel Companies A**, **B**, **C**, **H** and **I**) reported retaining all their apprentices.  The interviews revealed a skewed reality.  Over the last five years, these five companies had reduced the number of apprenticeships offered. As a result, more trainees could be retained after the apprenticeship had ended and companies were able report positive retention figures for apprenticeships.  **Steel Firms D**, **E** and **F**, as well as retaining fewer trainees, had also cut apprenticeships.   **Steel Firm G**, the smallest firm in the sample, had dispensed with training all together.

**Percentage of Apprentices Retained in the Steel Industry**
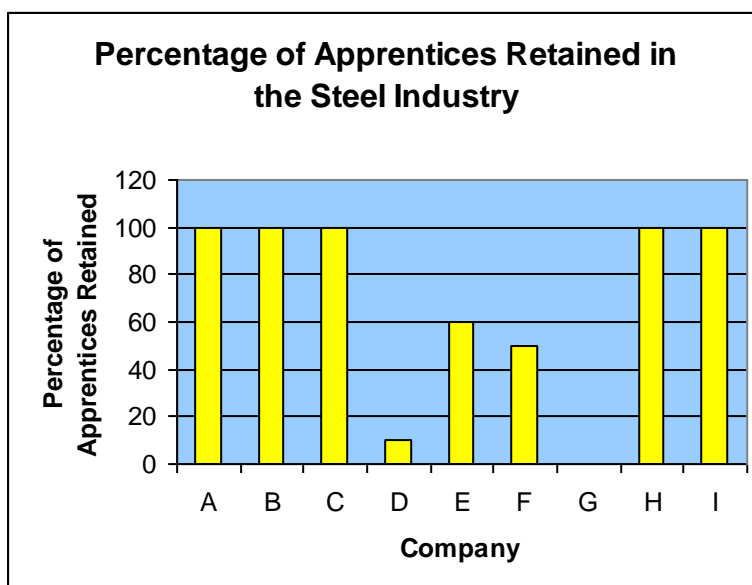
Figure 4.7: Percentage of Apprentices Retained in the Steel Industry (source: company interviews)

Apart from at **Steel Company G**, which was not training, all steel firms in the sample reported that they were training school-leavers on a constant annual basis and apprentices were used to cover recruitment needs and to provide a constant supply of skilled workers. Whereas attitudes to training apprentices centered upon it being part of the organisational responsibility to the stakeholder, some managers in the steel sector indicated that apprenticeships were also an area where cost reductions could be made. **Steel Company C** had one of the lowest numbers of trainees per year and admitted to having reduced the number of apprentices they trained by at least fifty percent since the 1990s. This was done, primarily, by reducing training in specific jobs, for example, in welding, and, if new welders were needed, they were recruited from within the company group.

**Steel Company G** offered no training themselves but "purchased" trained employees for the firm within the group which trained apprentices. This system of training apprentices across a group of companies was done in two further steel companies visited and had a number of benefits. Firstly, as far as the company was concerned, training was standardised so when employees were transferred between firms within the group, they had the same knowledge and qualifications.

Secondly, it was easier to keep training costs lower if large groups of apprentices were trained together and the content and effectiveness of the training programmes could be more efficiently monitored. Thirdly, this system gave companies within the group the space to assess where they needed new employees and which gaps needed to be filled, so that trainees could be integrated into the firm more effectively. As far as the apprentices themselves were concerned, the training experience became more enjoyable if they were part of a larger circle of trainees and good contacts for their future working lives could be made.

Despite the fact that the literature suggests that there is a decline in the number of apprenticeships offered, it was the actual recruitment and selection of trainees, in the first instance, which had become an issue for some steel companies. **Steel Firm A**, as the smallest company in the sample, found themselves in direct competition for the best young people with the larger steel producers. Only at **Steel Firms B**, **C**, and **H**, which

were the largest firms, did managers have less of a problem attracting the highest calibre applicants for their apprenticeships.
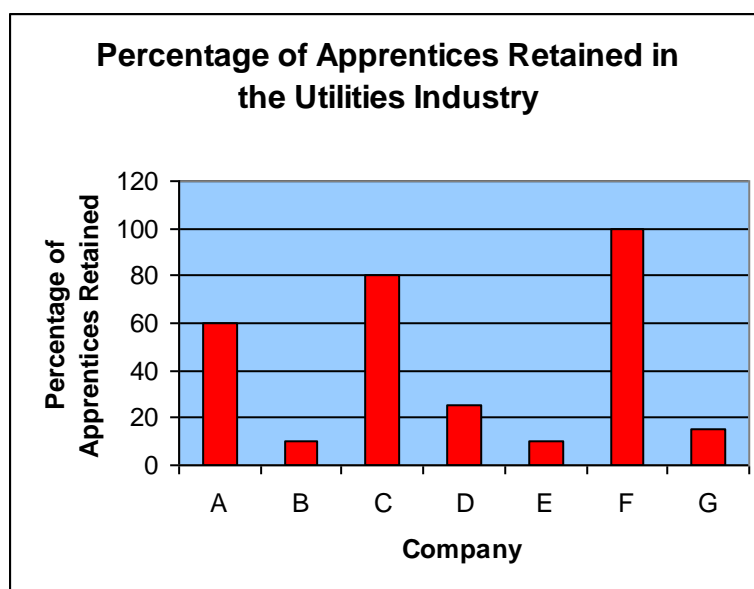


**Figure 4.8: Percentage of Apprentices Retained in the Utilities Industry (source: company interviews)**

Figure 4.8 presents the number of apprentices retained in the utilities sector. In the utilities sector, managers of the service provider firms declared that they had increased the number of apprenticeships over the past ten years.

The explanation behind the increase in apprenticeships was twofold. Firstly, many firms had created new apprenticeships, in order to encourage an influx of young skilled labour into the company. Secondly, firms in this sector maintained a close link with the community; therefore, utilities managers tended to speak at length during the interviews about their responsibility to provide training to young local people. As in the steel

sample, contrary to the academic literature, the reason for a decline in apprentices was not coming from the firms themselves, in an effort to save money, but from a lack of applications from young people.

All utilities companies admitted that, in comparison to previous years, they were no longer able to retain the same number of trainees as in latter years. Nevertheless, they continued to train over and above their own needs out of a social responsibility to their local area. At **Utilities Company B**, where the managers reported a decline in the number of jobs available for new workers, the head of HR admitted that, despite the fact that the company could only manage to offer permanent contracts to four apprentices per year, the firm actually trained forty apprentices. The justification was that "this is a part of our image as a supportive employer" , as well as part of their responsibility to serve the people of the local area.

At **Utilities Company F**, the training of apprentices had become a direct instrument to fight demographic change. The firm tried to offer places to as many apprentices as possible because it was difficult to recruit from the external labour market, especially for specialist jobs, such as electricians. Management decided that to fill all vacancies with employees who had entered the company as apprentices would ensure commitment from the workers, as well as that the workforce had the necessary skills. **Utilities Company F** was also designing a trainee scheme to encourage university graduates to apply to the *Stadtwerke* to cover highly skilled professions, as well as to step into management roles.

Figure 4.9 presents the number of apprentices retained in the chemicals sector. As far as apprenticeships in the chemicals firms were concerned, this sector offered the bleakest picture of all.

**Percentage of Apprentices Retained in the Chemical Industry**
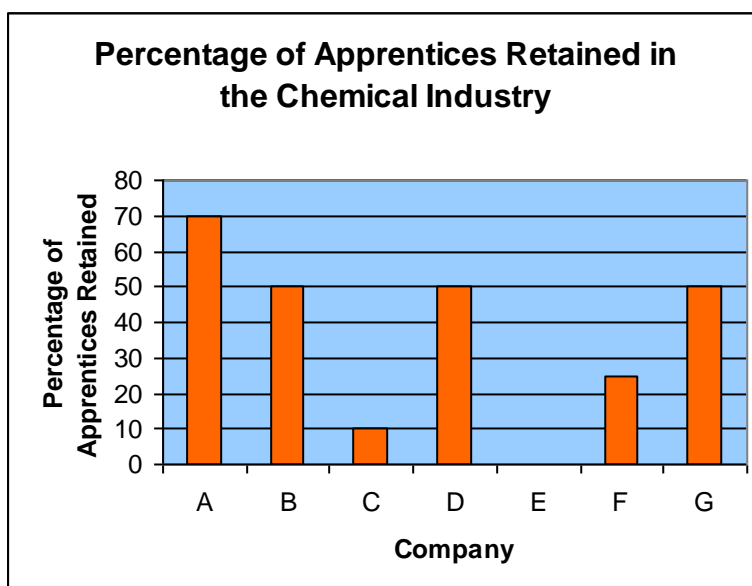


**Figure 4.9 Percentage of Apprentices Retained in the Chemicals Industry (source: company interviews)**

Whereas, in the utilities sector the number of training places had been increased, the opposite had occurred in the majority of chemical companies. All of the companies, except Chemicals **Company E** were continuing to train apprentices, but the chemical organisations were, at the time of interviewing, unable to offer jobs to the majority of trainees after the apprenticeships are completed. **Chemicals Company A** was training eight hundred young people, but three hundred apprentices would have to look for jobs after their training was finished. **Chemicals Company E** had kept ninety-five per cent of

trainees in the past, but could not keep any of the current applicants. Similarly, **Chemicals Company B** also reported a previous retention figure of ninety-five per cent of trainees, but gave a new estimation of fifty per cent:

> "We always kept all of them but it's difficult at the moment because we are cutting jobs. […] So naturally we won't be able to keep all of them as we did in the past. […] I suppose we can keep about half".
>
> (HR Manager, **Chemicals Company B**)

**Chemicals Firm D** found themselves in a position to only retain a selected group of trainees. The manager called these, "the best ones" and when asked to clarify how many trainees constituted this group, he replied that this would be fifty per cent, but the rest stood a good chance of finding employment because the company had a good reputation as a trainer. **Chemicals Company C** envisaged that only ten per cent of apprentices would be offered contracts in the foreseeable future because the firm was still recovering from its restructuring process and job cuts were continuing.

## 4.8 Conclusion

This chapter has set out the issues related to demographic challenges, in order to present the findings to respond to the first research question. In line with the literature, the organisations in the sample were facing issues regarding the management of their older employees. In particular, motivation, attitudes towards training and health-related problems were frequently mentioned in the interviews. The chapter also considered how

the managers themselves regarded their older employees and considered whether or not the managers in the sample displayed an age bias.

The empirical findings indicated further issues related to creating a balance of different ages within the firm. due to the extent to which the jobs of older workers was protected, there were fewer vacancies for younger employees. In addition, the chapter discussed the decline in apprenticeships which could have further negative connotations for the future in terms of demographic shifts.

Within the empirical findings presented so far, there is an indication of sectoral pattern in the results. Numbers of older workers differed between sectors and this, in turn, impacted on the type and intensity of the demographic issues revealed in the interviews. The steel sector had particularly high numbers of older employees and was, subsequently, the most affected by demographic issues. This suggested difference between sectors requires further examination.

The next chapter discusses the measures implemented by the organisations to address the challenges set out in this chapter.

# CHAPTER FIVE

# ORGANISATIONAL RESPONSES TO

# DEMOGRAPHIC CHANGE

## 5.1 Introduction

The previous chapter set out the challenges reported by managers in the sample pertaining to ageing workforces, declining birth-rates and other elements associated with demographic change. The aim of this chapter is to discuss the measures undertaken by the companies in the three sectors to address the challenges of the demographic shifts. In particular it provides a response to the research question *what are the management responses to demographic change?*

In line with the Commerzbank (2009) study, tools developed by the firms in the sample tended to be generally related to training, with the impetus to train driven by the need to ensure a pool of skilled labour. Nevertheless, as it has been indicated, the extent to which retaining the apprentices was a possibility, was affected by a number of factors, including whether or not vacancies existed in the firm. The chemical and steels firms seemed to be doing the most to focus on managing older employees. The utilities firms were also addressing the challenges of demographic developments, but the tools implemented complimented the practices already in place to ensure the satisfaction and motivation of

the workforce. As well as practices implemented to respond to the need to manage skills and training, the study finds that two further coping strategies were developed and implemented by the managers. Overall, measures to manage the demographic shift may be categorised as follows:

- Accommodating the immediate needs of the older members of the workforce;

- Alternatives to redundancy;

- Managing skills and training.

The next sections will examine each of the strategies in turn.

## 5.2 Accommodating Older Workers

Fieldwork interviews, in-company observation and access to company documents indicated that organisations were developing a mix of practices designed to accommodate the immediate needs of the older members of the workforce, as well as to prepare for future developments. What was striking, however, was that the majority of systems and proposals put in place to manage future demographic shifts were intended to meet wider organisational objectives, as opposed to just being tools to address demographic change. In some cases, measures discussed in fieldwork interviews by management explicitly as demographic change tools served other purposes because these measures had not been introduced and/ or intended for the purpose of addressing demographic developments.

Consequently, were firms *actually* effectively addressing demographic change? Or, as the literature (Kirpal and Kühl, 2006; Müller-Camen *et al*, 2009; Thun *et al*, 2007) suggests, were managers aware of the problem but simply employing a kind of rhetoric?

### *5.2.1 Employee Well-being Measures*

As the previous chapter identified, managers reported that, on the whole, their older white-collar workforce was in good health. But blue-collar workers required support to continue with their work safely. Consequently, modifying the workplace to fit the needs of an ageing workforce was high on the agenda in most firms, in order to ensure the continued well-being of both white and blue-collar employees. Measures discussed targeted both older and younger employees and, in some cases, as it is described in this section, initiatives were also intended to bridge a gap between older and younger team members. As chapter two indicated, a distinction may be made between primary, secondary and tertiary measures to reduce organisational stress and promote employee well-being (Clarke and Cooper, 2000; Wilton, 2011). Figure 4.10 summarises practices introduced by the firms in the sample to enhance the well-being of the workforce.

As figure 4.10 indicates, firms offered a primary, secondary and tertiary measures and the managerial interviews indicated that employees had responded well to this mix. The majority of fieldwork interviews were accompanied by a tour of the organisation, therefore, in just over half of the firms visited, the researcher was able to visit sport

centres, canteens and observe that employees seemed to be taking advantage of the facilities.

| Primary | Secondary | Tertiary |
|---|---|---|
| Redesigning job tasks | Fitness programmes | Cancer screening |
| Team-working | Online knowledge-sharing portals | Personal care courses |
| Changes to shift-patterns | Ergonomic work station testing | Stop smoking support |
| Flexible working | | Production workers exercising together in teams |
| Ergonomic office lay-out | | Health checks for employees, immunization against influenza |
| Employee suggestion scheme | | Healthy eating |
| Ergonomic office design | | Reduced membership fees at local leisure centre |

**Figure 4.10: Employee Well-being Measures Implemented by Firms in Sample (source: company interviews)**

Furthermore, access to company literature, which specified the health and wellbeing programme for workers, was also useful in identifying which health initiatives were particularly popular. For instance, the number of drop-in sessions for smoking, health-screening offered across the sample, especially in the steel firms, suggested that these schemes were being used by workers.

*5.2.1.1 Primary Measures*

Primary measures, as explained in chapter two, are normally applied to the organisation as a whole. As a result, primary measures are most likely to be successful because they represent a commitment on behalf of the company to improve employee well-being at all levels and this is rooted in both an ethical principle, as well as a business case for a healthy workforce (Wilton, 2011). This seems to be a likely explanation for the extent to which primary initiatives were implemented in the firms in the sample because managers discussed, at length, the measures undertaken by their firm to keep their workers fit and healthy. Moreover, in the interviews, employee well-being was presented by managers as being something which concerned all organisational members, not just workers aged fifty-five and above.

In line with Clarke and Cooper (2000), the redesign of job tasks and the introduction of team-working and flexible working, are measures which fall into the category of primary initiatives to manage organisation well-being. A common problem related to health was that employees, especially shift workers or those employed in production, would not be able physically to do the same job when they reached sixty-five years old. Yet, many employees in their fifties and sixties did not have the skills to work effectively elsewhere in the company. Solutions already taken to address this problem included introducing job rotation, and some firms were developing a traffic light system for management to audit

jobs and to check that older workers were not only active in positions which might place demands on their health.

At all companies, managers explained how, for the white-collar workers, offices had been redesigned to be ergonomic. At three-quarters of the *Stadtwerke* visited, the employees had been involved in creating ergonomic office spaces which made the workplace a safer and more comfortable place to be. Offices had special chairs designed to improve posture and desks had rests to minimise repetitive strain injury when using the computer. Very few of the utilities companies visited were located in new buildings; therefore, the extent to which production spaces could be overhauled was limited. Instead, at the majority of utilities firms, employees were being matched to particular workstations, in order that they were only working in areas that corresponded to their training levels, as well as to their physical ability.

Evidently, the increase in ergonomic offices was not intended only to benefit older employees, but, instead, had wider implications for the health and safety of workers of all ages. Nevertheless, managers indicated that ensuring the comfort and changing requirements of employees aged fifty-five and above had become deeply ingrained in the decision to promote an ergonomic workplace and that employees were conscious of how a healthy working environment could improve and extend their ability to do their jobs.

*5.2.1.2 Secondary and Tertiary Measures*

Companies identified the promotion of employee well-being as part of general their responsibility and this was emphasised by their readiness to offer health initiatives, especially secondary measures. Secondary measures represent dialogue between the organisation and the individual; in other words, sport and fitness courses, knowledge-sharing schemes and work station testing are proposals which require the input of employees, not only in the design of the measures, but also commitment towards making effective use of them (Wilton, 2011). Hence, it is to be expected that secondary initiatives will have the greatest impact on workforce well-being. As figure 4.10 shows, tertiary measures implemented worked well to compliment the secondary level tools to manage health. As chapter two indicated, tertiary schemes are quicker and most cost-effective to implement but because they are normally introduced at the behest of management – often as a quick-fix solution to manage stress – they may not be so quickly accepted and used by employees (Wilton, 2011).

At **Steel Firm D**, where the average age of the workforce was forty-four, the HR department, in partnership with the company's health centre, embarked on a special health initiative designed to promote their increased attention to maintaining fitness. This programme offered examinations, cancer screening and courses on how to take care of the body after working, for example, how to shower properly. The firm ran sport courses, which carried an annual subscription of ten Euros. The fee was so nominal that no profit

was made; however, the justification for the low cost was that people were more serious about something when they had to pay for it. If workers attended seventy percent of sports courses, then the fee was reduced to five Euros. The idea behind these initiatives was that "healthier people do a better job".

At **Steel Firm B**, the introduction of team-working replaced shift working reduced burdens on older workers. For this reason, **Steel Company B** claimed to promote health and fitness as underpinning the success of the firm. Out of the two thousand and four hundred employees in the organisation, one thousand and two hundred were members of the on-site gym. The gym offered state-of-the-art exercise equipment and regular exercise classes. Moreover, the management had taken the idea of promoting employee health one step further and encouraged the production workers to exercise together in their teams before beginning their shifts, in order to strengthen team bonds and to break down barriers within the team. Additionally, the canteen offered health classes and a budget healthy meal option.

In the utilities sample, even though managing the older employees' health was mentioned by managers as central to looking after the ageing workforce, the firms were not investing in any provisions for their employees. As stated above, creating ergonomic workspaces tended to be the main pathway, in which the utilities firms were investing. The exception was at **Utilities Company B**, which was a model firm for offering health and exercise options. The onsite fitness centre offered courses which allow employees to

try out different activities such as Nordic walking and there were health initiatives advertised regularly in the firm to raise awareness of work related injuries, cancer and heath issues related to smoking and alcohol consumption.

> "We've had good health management for several years so people will be healthier and we want to encourage staff to exercise. […] Other firms don't think about the future; management has only one idea and that is to cut costs. […]".

> (HR Manager, **Utilities Company B**)

The chemicals sector fell between steel and utilities in terms of its use of healthcare measures as a means to combat demographic change. Having said this, the same sense of urgency that occurred during the steel and utilities interviews was not given to the topic of managing health in the chemicals sector. Indeed, many chemical firms, for example **Chemicals Firm A**, had cut provisions for employees to exercise at the expense of the organisation. Nevertheless, the firm still demonstrated its commitment to caring for the health of its workers; the company had negotiated special rates for workers who took advantage of the sports and leisure facilities organised by the city's leisure centre.

According to the website of **Chemical Company D**, sport and fitness were a key aspect of managing their employees' welfare. In the interview, the manager said that the firm encouraged exercise but they did not have onsite facilities to offer exercise courses. All the same, the organisation offered health checks for employees, immunisation against influenza and ergonomic work station testing. **Chemicals Firm B** was the only chemicals firm which had not cut back on its health and wellbeing facilities. It continued

to offer a gym alongside its other core facilities for employees, including a library and a budget-priced healthy meal.

Evidently, at all companies smoking was not allowed in production areas for reasons of health and safety. Nevertheless, some firms had extended their smoking ban to include all areas of the works site and had installed designated smoking areas to accommodate smokers. This was the case at **Steel Firm C** and **D**, **Chemical Firm A** and **Utilities Firm B**, where managers also were offering support for workers who wanted to give up smoking.

### *5.2.2 Variations in Sectoral Responses to Health and Well-being*

Differences between the three industrial sectors were visible in provision of well-being schemes and fitness and exercise programmes; this was linked to the fact that healthcare and exercise initiatives tend to be cut in uncertain times (Thiehoff, 1998). This was the case in the utilities and chemicals sector. The variation between the responses to fitness and exercise can be explained by differences between the three sectors. In the case of the steel firms, there were the highest numbers of workers aged fifty-five and over, hence, targeting strategies to improve their working life and to reduce the burden created by shift working was a chief consideration. As Bonneford *et al* (2006) argued, shift-working increased levels of stress for older workers.

Furthermore, the steel sector was only beginning to feel the first effects of recession at the time of data collection; therefore, steel firms could still afford to invest in guaranteeing certain aspects of employee well-being. The chemicals sector was seen to be facing difficulties at the time of data collection and activities that were not deemed to be immediately value-adding, such as perks or non-job related training, were cut.  In the utilities sector, the notion of responsibility to the stakeholder was repeated in all of the interviews, nevertheless, the sector faced difficulties following the deregulation of the energy market which prompted firms to make cuts similar to those of the chemicals sector.  Moreover, the utilities firms had the lowest number of older workers, thus, it is not surprising that the companies would have far less measures aimed at improving the health of senior workers than the steel organisations.

Within the firms which offered sports, fitness and health options, the provision of sports and health facilities was already a normal feature of the organisation, completely unconnected with the development of aims to manage the demographic shift, which had existed for many years.  **Steel Company B** was a leading example of a company which promoted the success of the firm as being underpinned by a healthy and fit workforce, suggesting that health and exercise provision, in many German organisations was already seen as part of the responsibility of the employer to create a positive working environment.

## 5.3 Alternatives to Redundancy

With the end to the Old-Age Part-time law in 2010, firms admitted to being under pressure to find an alternative to early retirement as the first step in labour displacement.

### *5.3.1 Continuing Early Retirement*

Many organisations still saw no choice but to continue offering early retirement until they had either found alternate solutions, or until large numbers of older workers had left the firm and the number of workers aged fifty-five and above stabilised. The early retirement route was less widespread in the utilities sample because companies were smaller and the number of older workers was lower.

The costs involved with early retirement had, nevertheless, pushed many firms to start considering alternatives. One of the most commonly cited measures implemented as a starting point to replace early retirement was the use of demographic checks. In line with the suggestions of the IG-BCE, in their collective agreement on demographic change, many firms, not only within the chemicals sector, were implementing a demographic check. The demographic check at **Steel Company C**, for example, revealed that from 2013 and 2014 onwards, around six hundred and fifty workers would be retiring every year. Aside from working on up-skilling the employees, the company has considered recruiting from outside the organisation and the parent group.

### 5.3.2 Team-working

In an attempt to accommodate more elderly workers, **Steel Company B** had created some vacancies in the organisation which could be taken up by older workers. During the process of reorganisation, **Steel Firm B** had introduced teams in place of the traditional shift working pattern. The new team-working model made it possible for the organisation to function with fewer workers but, at the same time, had benefits for managing the effects of demographic developments. Firstly, team-working created a strong bond between the groups, thereby helping to break down any barriers between old and young workers and encouraging a sharing of knowledge. Secondly, the teams created vacancies because, under the new system, employees worked less hours, therefore, the firm had the opportunity to employ more people. The works council had had to agree to a reduction of working hours and a corresponding drop in wages, but the manager and works councillor at **Steel Firm B** reported that workers were happy under the new system, especially because they preferred the new working environment and had got used to working less. A final benefit was that the reduced working hours allowed older employees, who were employed in physically demanding jobs, to be able to remain in active employment for longer. They needed to take less rests and the burden of some of the more difficult task was reduced and could also be shared out more amongst the team.

### 5.3.3 Job Rotation

If older workers were no longer to be offered early retirement, but, instead, were to be retained until sixty-seven years of age, firms had to judge which changes to make in order

to ensure that the well-being of elderly employees was taken into consideration. For companies with large numbers of older workers, for example, in the steel firms, the need to accommodate the changing requirements of this demographic group was a major consideration for firms. As managers pointed out, if they were going to keep the older workers, then these employees needed to be productively employed.

Hence, at some firms, where motivating employees was flagged up as a significant problem, HR had incorporated job rotation for elderly workers. In view of the fact that the employees would be physically unable to do the same job when they reached sixty-five years old, being able to rotate job tasks gave employees the opportunity to reduce the number of physically demanding roles or to allow them to rest between jobs. Furthermore, by being able to carry out a number of different skilled tasks, workers would find their jobs more interesting and enriching. This added to the attempt to create a positive image of the older workers as productive members of the workforce. Attempts had been made to encourage older employees to accept further training, in order to be able to carry out a number of tasks instead of being able to only work at one job.

Having said this, as described above, re-skilling had met with resistance from older workers in many organisations. This strategy had been followed in only two out of six of the steel companies, for example. **Steel Firm B** was one of the firms which reported some success in rotating jobs for older workers and encouraging the corresponding training. This firm had a very good training record and job rotation was an integral part

of the team-working, which had been introduced after restructuring had taken place. Nevertheless, the manager at **Steel Firm B** still reported that there was some apathy amongst the over sixties.

## 5.4 Managing Skills and Training

In line with the literature, firms were focusing on areas of knowledge management and communication as important tools to address demographic developments. Building on the existing attention to up-skilling and training, which were already the norm in most firms, new measures developed included information databases, interviews with skilled workers and mentoring schemes intended to aid knowledge transfer to new employees and to make sure knowledge was not lost when employees left the organisation.

Collaboration between the management and works council at **Steel Firm B** had resulted in the creation of four key aims which the organisation would monitor as indicators of success. *Training and Qualifications* was the third goal alongside *output*, *quality* and customer satisfaction and the works councillor interviewed explained that making the acquisition of skills one of the cornerstones of the organisation sent a strong message to the employees that up-skilling was a key objective of the firm.

**Steel Firm C** was developing online training programmes called "Learning on the Net" for their employees over the company intranet. These programmes were specifically designed to teach special skills. At company **Chemicals Firm E**, the organisation was

involved in a project organised by the chemicals and energy trade union, IG-BCE, to develop instruments to tackle demographic change. At the time of interviewing, the project had been sidelined due to the more pressing issue of the financial crisis. Nevertheless, the manager described the project as rewarding for the firm and spoke of how the IG-BCE was a supportive partner in dealing with the challenges of demographic change.

**Chemicals Firm D** had taken a proactive approach to combating demographic change, which went beyond the parameters of the organisation. They had made an analysis of the labour market and, aside from picking up on the threat of demographic change, the company had noted the scale of unemployment in the area. In response, the firm developed new areas in the company to tackle these issues and to use them to the benefit of their organisation. New sub-departments of talent management and demographic management were created in HR and, within these newly-created departments, HR was developing instruments that would make them able to continue doing business in the future.

One example of these tools was the targeting of people who were normally ignored by employers; these were people who, under-represented in the labour market because they did poorly at school and did not get an apprenticeship, found themselves out of work. Unemployed workers like these were invited by **Chemicals Firm D** to spend a few

weeks at the firm, where they were given practical work experience and a certificate and then had the ability to return to the labour market.

> "This is a new approach to talent management and an innovative way to fight demographic change. […] Preparing for demographic change begins at the bottom. If we don't have people to operate our machinery, there is no firm and then we don't need to hire university graduates. Our project is to build the future core of the firm [i.e. blue-collar workers] and the future is here, so we have brought in fifty-five year people. These are people we would never have thought of employing before."
>
> (Head of HR department, **Chemicals Company D**)

In line with the *Varieties of Capitalism* literature on the importance of training to acquire a continued supply of skilled, young labour CMEs (Hall and Soskice, 2001), investment in workplace training and apprenticeships continued to be found at the majority of companies. Pressure on firms across the sectors to reduce personnel costs, as well difficulties in recruitment, meant that ensuring that workers were proficient in a number of different skills had become increasingly necessary. Managers spoke of having to make certain that there was a broad level of qualification, especially in the production area, so that a whole shift did not have to be cancelled if one person was absent.

Overall, there was a continued emphasis on training; yet in terms of demographic change management, this was perceived as being an important step in accommodating longer working lives. In line with an emphasis on functional flexibility, workers needed to be able to master more than one task in their job, as well as needing to be up-skilled to meet changes in technology or to cover employee shortfalls.

As already stated, the interviews pointed to disillusionment amongst older workers across the sectors with expectations of flexibility and up-skilling. Antipathy towards having to continue with training after the age of fifty years old was also a chief concern. Although managers claimed that this aversion to training amongst older employees would not continue, in most cases, companies had decided that it did not make economic sense to train some men, who in their late sixties, were on the brink of retirement and would represent a waste of the training budget if they were not prepared to learn or demonstrate new skills.

As already established, managers posited that, unlike their older counterparts, the upcoming generations of workers were aware that a job for life was no longer the certainty that it was in the past and so they were keener to learn new skills. It was also indicated that a lot of jobs had changed so rapidly in the last fifteen years that the workers were used to having to keep their skills up to date. Thus, management suggested that the workers were increasingly able to see a clear connection between the need for training and changes in the organisational and wider economic area.

In this way, the twin aims of creating a skilled workforce and motivated employees was perceived as being important in terms of managing the effects of the demographic shift.

The head of HR saw a clear overlap between training and development and motivation[17], and, unlike the other companies in the sample, they had successfully used training to manage apathy. Aside from offering a varied range of training opportunities designed to serve both organisational and employee benefit, **Steel Company E** had also devised a strategy to manage situations where employees were apathetic.  The firm had been tolerant of workers who had actively expressed their reluctance to be up-skilled and were prepared to accept the consequences:

> "There are also some workers who say to us that they don't want to do any more training […] they are too old and are happy to accept less money and not torment themselves".

(Head of HR department, **Steel Company E**)

Training in the utilities sector was mentioned by all managers as playing a pivotal role in the success of the company, not just in terms of having a skilled workforce or fighting demographic change, but also to having "the right kind of people".  This was interesting in terms of the widely held managerial viewpoint that subsequent generations of workers would be open to be re-trained as they grew older and less inclined to believe in, and aspire to, the *early exit culture*.  Consequently, "the right kind of people" carried an underlying indication that these workers would be more aware of the significance of demographic shifts.

---

[17] Investment in training and development is linked with beneficial outcomes for organisations, including positive psychological contracts, enhanced job satisfaction, employee motivation and commitment (Lee and Bruvold, 2003).

In all of the utilities firms, employees were encouraged to take the initiative for assessing their own training needs; however, the channels open to them differed. At **Utilities Firms A**, **B** and **G**, ensuring that the channels of communication remained open was a focus within the organisations. For this reason, employees were encouraged identify their own training needs and to approach their line manager directly. At the other companies, training needs were discussed with employees in the annual appraisals, which also dealt with setting objectives and performance rewards.

### 5.4.1 Training and Development

The literature points to a disinvestment in training. The study found that some companies had cut back on training, but there was also widespread evidence of continued training interventions in the firms visited. The sectors offered a mixed picture in terms of content of training, frequency of training and targeted groups for training initiatives.

All of the steel firms in the sample offered primarily job specific training. The exception to this was **Steel Company E**, which also offered training options under the umbrella of personal development. The majority of steel managers stated that personal development was not offered because it was not perceived as bringing any tangible benefits to the firm and training was limited to courses which would ensure that the workers did well in their jobs. At **Steel Company B**, seventy percent of the workforce was actively engaged in some kind of job specific training and HR had set a goal with the company that, ideally, every employee should gain one new qualification per year. The justification for this

goal was that the workforce was ageing; therefore, HR wanted to promote ongoing learning within the firm. At **Steel Firm C**, production workers were required to attend annual seminars which gave them an overview of all the different stages of the production process. The aim was to help employees to have a better understanding of the production process in a holistic sense, so that they could appreciate their own impact, as well as the input of their colleagues. In terms of adding to the elimination of the effects of the demographic shift, this strategy was also intended to strengthen team bonds between mixed age teams.

In steel firms, such as **Steel Firms C** and **D**, rather than investing heavily in the lengthy training of existing staff, the decision had been taken to recruit new employees from within the parent group who already had the necessary qualifications or skills. This had the effect of increasing job mobility for workers within the parent group and, to some extent, creating vacancies.

At **Steel Firm E**, training was rated the most important task of the HR department and a cornerstone of the company's philosophy. In fact, of all the steel companies in the sample, **Steel Firm E** had invested the most in training and offered its workforce the broadest palette of training activities, including non-specific education opportunities. Training was underpinned by two aims:

- Training for the good of the firm – to gain qualified, competent workers and to continually monitor and assess the firm's training needs.

- Training for the good of the workforce – to give the workforce the opportunity to develop themselves outside their working sphere.

The head of HR at **Steel Company E** admitted that the courses for personal development presented a huge financial cost to the company but this was justified:

> "To be motivated, the worker has to think that the company thinks they are important, that the company values them and offers them something beyond a wage".

(Head of HR department, **Steel Company E**)

**Utilities Firm B** also invested very intensively in staff training and was the only one of two firms, out of the total visited, which had retained a very extensive range of non-job specific training courses for staff. It was clear that within the utilities firms, the measures associated with limiting the effects of the demographic shift tended to be linked to managing other aspects of the workforce. **Utilities Firm B** illustrated this because its health management initiative was part of its wider aim of maintaining employee satisfaction:

> "We want to offer benefits for our workers for as long as we can, but we do it not only to make the workers say that this is a great place to work but because the workers say that this is a great place to work".

(HR Manager, **Utilities Company B**)

Despite the focus on skills, the extent to which training was being cut back differed from firm to firm within the utilities sector, with some managers comparing the former training opportunities available to employees with the current, more job-oriented offer. **Utilities**

**Firm G** was bringing its training programme in line with the change in the organisational structure. Whereas in the past the departments had had some autonomy regarding assessing training needs and carrying out necessary training, the HR department's 2006 audit showed that some departments were underperforming and there were skills gaps, which could traced clearly back to a mismanagement of training. Therefore, since mid 2008, the HR department at **Utilities Firm G** had regained complete control for the assessment and delivery of training. A skills audit was planned for the end of 2009.

As with findings in the other sectors, training in the chemicals was described as being valued within the companies; nevertheless, three of the six companies were cutting back on training. This was directly related to needing to find fast solutions to reducing organisational costs during a period of economic uncertainty. Whereas, in the utilities industry, there was some emphasis on employees taking the initiative for up-skilling, in the chemicals sector, firms only offered very job specific training and the employees who received the training were chosen by their immediate managers. In other words, employees in the chemical sector, as in the steel sector, had limited input in training decision-making.

Only in **Chemical Firms D** and **E** had training had not been an area singled out for costcutting and **Chemical Firm E** was the only chemical firm in the sample which was still offering non-job specific training because it was attempting to build the importance of training as an organisational norm. Moreover, the HR manager at **Chemical Firm E**

explained that this was one of the first steps in the organisation's knowledge management programme. Training was to be used as a primary tool against demographic change, therefore, the organisation wanted to present life-long learning as something "empowering" for the employees.

**Chemical Firms D** and **E** shared a further similarity in that they were using their training opportunities to give back to the stakeholder, that is, to the wider community. Furthermore, both firms were supported in their initiatives by the trade union. The IG-BCE had launched a project to allow young people without apprenticeships and with poor school grades the opportunity to be informed about working in the chemicals branch. **Chemical Company E** had joined the project and was offering taster apprenticeships. **Chemical Firm D** was offering work experience to local people who were either long-term unemployed or had been denied the opportunity to gain vital job skills because of their below-average academic background. Chemical/pharmaceutical companies were also supported by the IG-BCE to invest in training as a tool to combat demographic change.

### 5.4.2 Managing Apprenticeships

Organisations were trying to continue to attract new trainees even though many companies could not manage to keep the young people on after their training ended. The findings imply that some firms were deliberately trying to inflate their figures for the retention of trainees by pointing, for example, to a one hundred percent retention rate,

whereas, in reality, the real number of trainees had decreased year by year. Again, possible reasons for presenting a positive quota of trainees could be related to social responsibility, for example, striving to create a favorable impression of the firm to the stakeholders and customers. This point ties in with the claim made by many managers that they trained over and above their needs out of social responsibly and a duty to the local young people.

As it has been stated above, in three sectors, firms reported that there were more apprentices than apprenticeships, which meant that companies are not yet facing a decline in new workers. However, the recruitment and selection of apprentices in all three sectors had become an issue. The decline in apprenticeship training raised questions about the extent to which demographic developments would affect German companies in the future if they were currently reducing openings for new entrants into the company.

For the smaller firms in the sample, HR managers spoke of being in direct competition with the bigger, more internationally and nationally well-known firms for the best young people. Siemens was constantly referred to by utilities managers as the biggest competition for the apprentices. At **Utilities Firm A**, the manager explained that Siemens' recruitment programme was effective because the company had better resources for advertising:

"Siemens has got a big poster on the motorway and they spend
a lot on advertising, they put up posters in the trains and buses.
We've got posters, of course.  But nothing like Siemens".

(HR Manager, **Utilities Company A**)

The manager at **Utilities Firm F** added that Siemens offered higher wages than most *Stadtwerke*, therefore, young people preferred to apply to Siemens first. But across the three sectors, the biggest problem for HR departments was linked to the calibre of the applicants; HR managers expressed dissatisfaction at the attitudes of the apprentices, as well their basic skills levels acquired at school.  The head of HR at **Chemical Firm B** explained:

"The German school system is failing young people…they
just aren't prepared to enter the world of work.  […] I have
seen a decline in the quality of our apprentices".

(Head of HR department, **Chemical Company B**)

Aware of the issue of a drop in the standards of the applications for apprenticeships, **Utilities Firm G** had already taken steps to address this.  The company was in a process of redesigning its apprenticeships, in line with a perceived deterioration in the quality of the current apprentices. Instead of offering the traditional-style apprenticeships, which offered young people a broad background in their chosen field, the new-style apprenticeships were to be watered-down and should concentrate on teaching expertise in one particular field.

Some managers referred to the lack of applications for apprenticeships from girls. **Utilities Firms F**, **D** and **C** stated that they were very concerned about the lack of female applicants for apprentices and that, when girls did apply to the company, "they only want to do 'bright, attractive' things like HR and marketing" (Interview:  HR Manager **Utilities Firm C**).

At **Steel Firm A**, the HR department was especially concerned about the lack of females in the company, where only four percent of workers were women.  As a proactive measure, the firm organised an annual *Girls' Day*, aimed at introducing the company to potential female apprenticeships. The event first took place in 2005; however the HR manager was not convinced that the event had overcome the lack of interest in the steel industry:

> "This year only thirty girls came.  […] Half of them looked as if I'd asked them to undress, the rest were chewing their fingernails…..one girl put up her hand and everyone looked at her, so she put it down again. […] The girls come in and look at the workplace and don't want to work here".

(HR Manager, **Steel Company A**)

A *Girls' Day* was also organised by **Chemicals Company A**, as a method of encouraging more females into a predominantly male organisation.   However, the HR manager believed that this event had a positive impact in raising the profile of the firm to potential female candidates.

## 5.5 Conclusion

This fifth chapter has addressed the second research question regarding organisational responses to demographic problems and finds, to a large extent, a consistency between the suggested solutions to demographic change presented in the academic and practitioner literature and the empirical findings of this study.

The next chapter provide a discussion of the findings on demographic change presented in this and the previous chapters.

# CHAPTER SIX

# DISCUSSION OF EMPIRICAL FINDINGS ON DEMOGRAPHIC CHANGE

## 6.1 Introduction

As it has been established, this study finds that organisations in Germany were faced with the implications of the demographic shift and the issues pertinent to an ageing workforce. Moreover, a decrease in birth rates were already evident in the companies visited. The previous chapters set out the challenges and responses to the demographic shift which were indicated by the empirical evidence of this study. It was established that some of the measures which fell under the umbrella of the management of demographic change were pre-existing, as well as the fact that other issues, especially motivation and the end of the *Altersteilzeitgesetz*, were not being effectively tackled.

The aim of this sixth chapter is to draw the empirical findings of chapters four and five together; these findings are summarised in figure 6.1. This chapter is structured as follows: section 6.2 presents a comparison of the empirical findings of this study and the academic literature. Despite the fact that the findings of this study are primarily consistent with extant research, some demographic issues which are only pertinent to

German organisations are raised in this research. The next sections discuss each of the important findings on demographic shifts. 6.3 describes the findings on decreased motivation between older workers; section 6.4 discusses the training of older employees; section 6.5 focuses on workplace adjustment for older workers.

In section 6.6 the issues surrounding older versus younger employees are examined. This section presents the overall findings on training and development within the firms in the sample and explores the findings on apprenticeships, knowledge management and skills.

| Research Question | Empirical Findings |
|---|---|
| *What are the problems associated with managing demographic change?* | Loss of skills and knowledge, health issues of older workers, changes in employee behaviour, attitudes and expectations, motivation and commitment levels, ensuring a supply of skilled labour. |
| *What are the management responses to demographic change?* | Continued use of early retirement options, investment in training, healthcare initiatives, team-working, shorter working hours and long-term working account, more female labour, linking of pay with training, knowledge-sharing initiatives. |

**Figure 6.1: Summary Findings for the Research Question** *what are the problems associated with managing the ageing workforce and how does management deal with these problems?*

## 6.2 Differences between the Empirical Findings and the Academic Literature

The problems associated with demographic change found in this research were largely consistent with the academic literature. This is illustrated in figure 6.2. Firms were, for instance, concerned about the loss of skills and how to ensure a supply of skilled labour,

and since firms in the steel and chemical sectors were affected by an ageing workforce, many firms were trying to control the effects of this phenomenon. Having said this, in some instances, especially in the chemical companies, mitigating the effects of demographic developments was frequently overshadowed by the need to respond to the economic crisis. Moreover, the findings emphasise that, contrary to the literature, German firms *are* developing and implementing tools to manage demographic change. Figure 6.2 makes a comparison between the findings of this research and those of the academic literature.

As Figure 6.2 highlights, both the literature and the empirical findings are consistent on several points, including maintaining skill levels, creating an appropriate working environment and accommodating the changing needs and perspectives of older and younger employees. Three differences between the academic literature and this study can be identified. These will be discussed in the following subsections.

| Demographic Change Issue | Proposed Solution (Academic Literature) | Firm Responses (Empirical Findings) |
|---|---|---|
| **Motivation and commitment levels** | Training; job enrichment. | Apathy and lack of motivation will disappear of its own accord as new generations of older workers understand the importance of flexibility and longer working lives. Explain apathy is no longer acceptable. |
| **Health issues of older workers** | Ergonomic work places; job rotation; health and fitness facilities. | Ergonomic work places; health and fitness facilities; job rotation (to lesser degree); reduced working time options. |
| **Changes in employee behaviour, attitudes & expectations** | Mixed-age work teams; changing expectations of ageing; offering alternatives to early retirement e.g. reduced working time. | Retention of traditional job titles as token gesture; investment in health & fitness provision & ergonomic workplaces support workers to have better working experience; further training linked to pay increase (for older workers); ignore apathetic behaviour in over 55s. |
| **Lack of integration between older & younger employees** | Mixed-age work teams; enhanced communication channels; organisational culture change; participation in the design of training and new work schemes. | Mixed-age work teams; enhanced communication channels; organisational culture change; participation in the design of ergonomic and employee-friendly workplaces; knowledge-sharing online portals |
| **The loss of financial support for early retirement** | Not mentioned in the literature. | Promoting longer working lives through change to organisational norms (especially early exit culture); reduced working hour options. Problem still not fully addressed because end of financial support recent event. |
| **Discrimination** | Better design of HR policies, especially recruitment. | Not mentioned by managers. |
| **Loss of skills and knowledge** | Training; mixed-age work teams; better in-company communication. | Team-working; up-skilling; reduction of apprentice places to ensure all trainees can retained; re-hiring retirees to compensate for lost know-how; training. |
| **Motivation and commitment levels** | Up-skilling; transfer of knowledge between old and young; more attention to recruitment; job enrichment. | More attention to recruitment; special recruitment events; training apprentices above current needs; training disadvantaged members of labour market to raise local skill levels; sponsoring university places. |
| **Ensuring a supply of skilled labour** | Not mentioned in the literature. | Reduced working hours to create more vacancies; move people to different parts of company; continue to train above actual firm needs. |
| **Dearth of job vacancies** | Training; job enrichment. | Apathy and lack of motivation will disappear of its own accord as new generations of older workers understand the importance of flexibility and longer working lives. Face-to-face contact with workforce to explain apathy is no longer acceptable. |

**Figure 6.2: A Comparison of the Issues and Solutions Found in the Academic Literature and the Empirical Study**

### *6.2.1 Discrimination*

Firstly, whereas discrimination is presented in some of the literature as an issue to be managed, this topic was not mentioned by the respondents in the interviews.  This may *be* explained by three factors: Firstly, American literature tends to focus more on anti-discrimination legislation than European literature; secondly, as Muller *et al* (2009) argued, discrimination does not play such a big role in the German workplace and thirdly, managers would hardly confess to the existence of discrimination in their workplace.

Although managers did not mention discrimination, it cannot be ruled out that it did not exist.  The interviews revealed instances which suggest that the German employers had specific ideas which could lead to the existence of indirect discrimination.  Managers held ideas that their older workers would want to take early retirement if this was offered and the majority of managers supported targeting older workers over younger members of the workforce, when job cuts needed to be made.  However, the rationale for the latter action was social responsibility; many managers spoke of their company having a responsibility to offer work to young people, as well as recruiting and training young people, in order to safeguard the skill levels of the firm. Hence, it could be argued, instead, that instead of displaying outwardly discriminatory behaviour, managers in the sample were guilty of holding stereotypical views.

### 6.2.2 End to State-funded Early Retirement

The second difference between the literature and the empirical findings, regarding the issues arising from the management of demographic developments, is a loss of financial support for early retirement. This issue was widely raised by managers, but not present in the literature, because these are problems which were specific to Germany, as well as sector specific. The end to the Old-Age Part-time law has been widely documented. The state's decision to withdraw financial support for early retirement was expected to place burdens on firms to find new and innovative ways to manage their older employees but, at the same time, was expected by the German government to act as a step forwards in promoting the value of older workers for organisations.

This study finds that the end to state-funded early retirement packages was a major catalyst for German firms to implement new ways of managing older workers. At the time of interviewing, managing demographic changes was still an ongoing problem; however, the end of the Old-Age Part-time law had made many managers more aware of the need to be faster in developing methods which promoted longer working lives. Nevertheless, some firms said that they would carry on offering early retirement for the foreseeable future, because they had not yet found an alternative solution, but for the majority of companies, this was no longer economically viable.

Consequently, it appears that despite the fact that firms reported responding to demographic developments, there is widespread evidence of continued practice of early retirement of older workers and this could be interpreted as evidence of a failure on the part of German organisations to tackle the matter of ageing workforces effectively. Taking into account, additionally, that many firms had not managed to find appropriate solutions to managing apathy amongst older employees, the question is raised regarding whether firms were doing enough to managing demographic change and whether or not the literature was correct in anticipating a *demographic trap* (Thun *et al*, 2007).

### *6.2.3 Integrating Older and Younger Employees*

According to the literature, a lack of integration between older and younger employees was indicated as a problem arising from an ageing workforce, but this was not mentioned directly by the interviewees. Several explanations may be given for the omission of this issue which, as the literature highlights, is a common problem in organisations where there is a spread of ages. In the steel sector, especially in **Steel Firms B** and **C**, team-working was in evidence and, particularly at **Steel Firm B**, team bonds had been strengthened by pre-shift exercise sessions. Hence, in the steel firms, the nature of the organisation of work may have improved relationships between older and younger members of the team who would need to work closely together.

In line with the literature (for example, Burke and Ng, 2006; Köchling, 2001), firms were focusing on areas of knowledge management and communication, in order to secure the sharing of knowledge between old and young. Communication was, in many firms, enhanced by flatter organisational structures, for example at **Steel Firms B** and **C**, team-working was introduced. The study finds that firms were making use of new technologies to promote knowledge (for example, at **Steel Firm B** and at **Steel Firm D**); nevertheless, managers also reported that some older employees did not have the necessary skills to use these new tools (for example, at **Chemicals Firm A**). Therefore, it may be concluded that these measures were intended as long-term solutions for managing a loss of skills and know-how because they were obviously targeted at the current generation of younger workers who knew how to use these databases.

### 6.2.4 Dearth of Job Vacancies

As far as a dearth of new vacancies was concerned, this was also discussed in the fieldwork interviews, but did not appear in the academic literature. This was related to the issue of German firms having to protect the jobs of older workers, which directly impacted on the number of trainees to whom they could offer permanent contracts. Managers expressed concerns regarding the dilemma of having to retain and retrain older workers who normally would have retired to make room for new workers and apprentices. Hence, this was a demographic issue pertinent to Germany.

## 6.3 Managing Apathy amongst Older Workers

Managers from all three sectors pointed to a lack of motivation amongst workers aged sixty and above and, in many cases, no concrete solutions had been found to dealing with this problem. The tendency to believe that the problem of apathy, especially towards training, would disappear of its own accord suggests that the firms in the sample would benefit from a better integration of older and younger employees. If the managers were correct in their assumption that the upcoming generation of younger workers would be expected to work until sixty-seven and would, therefore, remain productive and open to be trained, then it would make sense to make greater use of the younger workers to disseminate this attitude throughout the organisation in the short term and especially amongst the older employees.

A surprising key finding was that managers had chosen to tolerate apathy from older members of their workforce. They seemed convinced that this was the best strategy because the upcoming generations of workers who have lost this mindset. Was this wishful thinking or was it the best course of action when organisations had so many other problems to deal with, including those created by demographic developments? Organisations, including **Chemical Firms A**, **B** and **D**, had engaged in face-to-face contact with employees, in order to explain to the older members of the workforce that a lack of motivation was no longer acceptable. Overall, however, a pattern emerged through the data of lack of interim response to de-motivation.

Certainly, gerontological studies argue that people are living longer and remain fitter, healthier and more active for longer; but central to the considerations of whether it was a viable strategy to hope that older people would become more open to re-training and prepared to be more active in the workplace for longer was whether or not Germans still believed in the notion of a well-deserved retirement. As already discussed, managers pointed to the continued existence of a strong *early exit culture* in the minds of their workforces.

Managers said that the over-fifties had not yet shown any signs of resisting the offers of early retirement and that retirement was still viewed as a deserved reward for a long working life. The fact that firms were still continuing to offer this, and it was being accepted, indicated willingness on the part of workers to finish their jobs earlier. In fact, there was not one interview in which a manager suggested a turnaround in the attitude of the older members of the current workforce to embrace a longer career. Moreover, managers complained that there were issues of apathy towards up-skilling and a tendency to want to take work at a slower pace.

Where the literature suggests an upswing in activity in the post-sixty citizen, managers interviewed did not seem to share this perspective. An employee voice is absent from this thesis, however, a background fieldwork interview elicited the following response:

> "Well, the majority of people believe that the best time to retire is at sixty-one, but slowly this is changing, firstly because they see that if they go early, there will be problems with retirement. But more and more people are thinking `I feel fit. Why should I go?`. […]The other thing is that many see themselves as needing to continue to work and this is on the increase. We have a relatively comfortable position for people retiring at the moment, but in the next ten to fifteen years pensions will be far less common. This is what Peer Steinbrück [*former Minister for Finance*] said and this caused a big outcry in the media. […] […] For many, retiring means pure freedom. But when you are used to working every day, gardening every day or painting the fence becomes boring very quickly. […] But more and more there's also the question of ´how can I continue to be employed, but in another job?` […]".
>
> (Background fieldwork interview: **Representative from the BMFSFJ**)

The above quotation may be interpreted as pointing to a definite shift in how Germans have come to perceive retirement. This is encouraging in light of the fact that most managers were hoping that this would happen so that they did not have to spend too much time addressing issues such as apathy amongst their older workers. Nevertheless, the attitude to apathy adopted by most managers did not seem a satisfactory course of action.

## 6.4 Training Older Workers

The literature suggests training as a key measure to promote employability of senior employees (Kanfer and Ackermann, 2004; Maurer and Rafuse, 2001; Verworn and Hipp, 2009). While, as chapter four discussed, the majority of firms recognised the possibilities of pre-existing training strategies as a measure against the effects of demographic change, this was consistent with the finding by the Commerzbank (2009) that firms tend to concentrate on training initiatives, rather than to directly tackle issues related to older workers. In addition, in line with the Commerzbank (2009) study, little was being done to address skills gaps in older employees because most of the training proposals were aimed generally at up-skilling the workforce and/or improving trainee opportunities for apprentices.  This fits with recent research which indicates that older workers are less likely to receive training (CIPD, 2011).

Likewise, the research did not find that firms had found any clear solutions to managing resistance to up-skilling amongst older employees.  Where many companies had chosen to ignore the problem, managers stated that it did not make economic sense to train older employees who were resistant to training and about to retire.  Yet this was not a viable option because workers between fifty and sixty had a significant number of years left at the company.  In the case of younger workers, managers were confident that the upcoming generations of workers were more aware of the importance of learning new skills, in order to guarantee their employability.

## 6.5 Workplace Adjustments

Although companies had not found any conclusive solutions to controlling apathy and lower morale in older workers, firms were making changes to the workplace in order to accommodate the needs of an ageing workforce. The literature suggests that job rotation is a key measure to make workplaces more suitable for older workers. Even though changing the workplace to fit the needs of an ageing workforce was high on the agenda in most firms, job rotation as a tool to manage senior employees was not yet widely used. Job rotation which did exist was primarily to accommodate married women. Having said this, as companies reported more flexibility in the workplace and the importance of being skilled to be able to work in more than one job, it was likely that job rotation was taking place and would become increasingly more widespread and allow employees approaching retirement age to remain productive for longer.

The increase in the spread of traffic light systems for management to audit jobs and to check that older workers were not only active in positions which might place demands on their health was showing an increase in the steel sector. This was also indicative of being consistent with the literature in terms of adapting workplaces to encourage longer labour participation.

## 6.6 Training and Development

The importance of training as one of the underpinning factors of German success, as well as a major demographic issue, came through strongly in the interviews.  In line with the Commerzbank (2009) study, improving training initiatives was at the forefront of measures developed. Having said this, examining the issue of training and the role it played in organisational responses to the demographic shift, this is where a clash between the academic literature, especially the prescriptive body of work, and reality occurred.

In the German case, training is divided between workplace training and apprenticeship training; the data collected pointed to the overlap of these twin types of training within the parameters of demographic change.  In accordance to the literature, training was presented by HR managers and also in the company literature as playing a key role in promoting longer working lives offering employees a rewarding place to work and securing a supply of skilled labour. In addition, the empirical findings point to training as an area where costs could be cut but where social responsibility to the stakeholder and/or a reputation as a *good* employer, could be displayed.

### *6.6.1 Training for Existing Workers*

In the first instance, firms were concerned with up-skilling their existing workforce. The enhanced flexibility resulting from the new organisational forms meant that workers needed to be skilled to work in a number of different roles and, in terms of the ageing

workforce, managers pointed to the resistance to training displayed by the older members of the workforce. In the second instance, apprenticeship training was a dilemma for firms because it represented the problem of managing an influx and outflow of young and old workers.

Clearly, managing demographic developments does not only include the consideration of older employees, but also the preparation for a decline in the number of young people to enter the labour market. This is expressed in the literature as maintaining skills levels through training (Hall and Soskice, 2001), as well as a need for companies to address the question of a loss of skills and know-how, as senior members of the workforce enter early retirement (Davidson *et al*, 1996; Delong, 2004; Dychtwald *et al*, 2004; Henseke and Tivig, 2009). Past experience of restructuring led to job losses and, in many companies, to a dearth of new vacancies. As a result, the problem of a lack of vacancies became intensified because, as older employees left the firms, their jobs were either replaced by new technology, or phased out completely. As vacated positions in the firm disappeared, no new jobs were created in their place, leading to limited vacancies for newly qualified apprentices.

*6.6.2 Apprenticeships*

Although the reduction in trainee places was not entirely unanticipated, it was to be expected that firms would continue to invest in apprenticeship training, however, the

fieldwork interviews revealed the following: In the steel and chemicals firms, where apprentice places had been reduced, the rationale behind offering less trainee places was that firms were trying to compensate for the dearth in vacancies brought about by the loss of occupations during the restructuring process. With a purposely reduced number of apprentices competing for permanent positions, almost all trainees could be offered permanent jobs after training had ended. **Chemical Firm A** has emerged in this thesis as one of the few companies which continued to train over and above its needs, arguably at the expense of investing in training for other organisational members. This finding will be revisited in the next chapter.

This study found that, for all sectors, perhaps the most serious aspect of managing demographic change was the inherent paradox surrounding the older and the younger members of the workforce. The paradox may be summed up as follows: On the one hand, the future of an organisation depends on having a steady flow of skilled new labour to replace older workers as they leave the firm. On the other hand, German legislation is more protective of workers with a long tenure; therefore, getting rid of older workers is a difficult and expensive task. This meant that managers had to choose to save the jobs of older employees over recruiting new workers because it was more difficult and expensive to dismiss workers who had been with the firm for a long time. The problem was further compounded by the fact that organisations set much store in their position within the locality as a socially responsible employer, as well as in the duty that they had

towards their employees. Consequently, in the majority of cases, despite economic downturn, firms had continued to train apprentices despite the fact that they were no longer in a position to retain them all. The comment that the older workers were no longer the most vulnerable group in society (Interview: **Steel Firm C**) underlined the extent to which the problem of training and employing young persons in Germany had intensified.

Again, no real solutions emerged to resolve the issue of how to manage unequal influxes and outflows of labour. The solutions implemented, it has been seen, were short-term. Some managers spoke of their companies' initiatives to attract skilled graduates, as well as the need to attract high calibre applicants for apprenticeships. Even though attracting talent into the organisation represents a valid step towards overcoming skills gaps and addressing the drying of the available pools of labour, this should not be a priority which overtakes improving overall skill levels or knowledge-sharing strategies. If the recommendations made by the academic literature are to be considered, then improvements to training initiatives, as well as communicating the importance of longer, active working lives and strengthening bonds in mixed age teams may have long-term effects.

Firms with the biggest problems attracting young trainees were putting more effort into recruitment. It appeared to be the case that, in these times of an increasingly unstable

labour market, school-leavers preferred to undergo their training with companies that were more well-known across Germany, as well as worldwide. Two managers from the utilities sector said that they could not compete with these other firms when it came to advertising for, and recruiting, apprentices. This was also an issue for **Steel Firm A**, which was also finding it difficult to "win" apprentices from a larger firm. Nevertheless, at **Chemicals Firm A**, which was the biggest local employer and internationally well-known, the interview revealed the other side of the story, namely that even the larger German firms were no longer to retain all their apprentices. It seems, then, that smaller firms may benefit from their larger competitor's training programme because they could employ qualified workers without incurring any costs themselves.

The thesis shares the view expressed by the academic literature that concentrating on managing the incoming skills of an organisation is a chief issue to be considered when managing the challenges of the demographic shift. In the case of German organisations, the severity of managing the training situation becomes intensified because, although the key structures of employee training are in place, these are weakened by demographic developments, as well as affected by the legacy of organisational restructuring. Were these cuts in apprenticeships made by the firms in the sample too great and to what extent would companies feel the effects of a decline in the number of new entrants in the future?

The first point to make in response is that, with the end to early retirement, longer productivity should make up for some of the reductions in young people entering the firm as existing employees had longer active working lives.  The second point to make is that, especially in the chemicals sector, firms might take on more trainees as they pulled out of the recession period and into a better economic climate.  Finally, companies might follow the example of **Chemical Firm D**, which was looking to training disadvantaged groups within the wider labour market as a way of ensuring a supply of skilled labour.

### *6.6.3 Female Employees*

One final area in terms of finding a solution to mitigate uneven inflows and outflows of workers was the extent to which female labour was managed, in order to protect against a loss of skills and knowledge if women workers took maternity leave and/or wanted to combine working with looking after a family.  Many women evidently cannot return to their former career after leaving to start to family, unless their company provides flexible working conditions.  This presents a loss of know-how and, in terms of demographic developments, indicates a waste of talent in a declining working population.  Firms in the sample were aware of the need to manage their female staff; this point was discussed at length in the interviews.

The utilities firms had the most widespread range of flexible working options for female employees because this was the sector with the highest percentage of female staff.

Across the three sectors, part-time working for women was the norm, but the utilities sector additionally offered a greater range of opportunities, such as home-working and emergency facilities, within the company for working mothers as part of their image as a caring employer. The project undertaken by **Utilities Firm E** to survey local women about their attitudes to work was interesting, nevertheless, because it indicated that female workers were less concerned about childcare issues and more concerned about re-entering the labour market after a maternity break and being able to continue doing their job. Hence, this suggests that working women did not feel that they received enough support to return to work, especially to their former roles. It is beyond the parameters of this thesis to examine and discuss the challenges and solutions of demographic change according to gender; nonetheless, increasing female participation in the labour market as a measure against a declining working population is a key aspect which has merited little attention in the demographic change literature.

During data collection, the importance of protecting female jobs also came through in efforts of the various firms to attract more female workers into what had been particularly male domains. Career events aimed at girls were being increasingly organised, but did not seem to be having much of an effect in encouraging more female school-leavers to apply for apprenticeships in engineering or chemistry. It is possible that, by offering some kind of further incentive to encourage girls to apply for these kinds of

apprenticeships, eventually skills gaps may be closed but this is a consideration for the government, as much as for individual firms.

## 6.7 Conclusion

To conclude this chapter, the data collected, on the whole, concurs with the academic literature regarding the challenges for companies posed by demographic developments. A loss of skills and knowledge, health, motivation and commitment issues tend to be the chief issues with which managers in the sample were confronted. Many measures stemmed from practices which already existed in the workplace; therefore, they may not be described as original or even new. Instead, the original objectives of individual measure were adapted and/or redirected to incorporate preparing the company for demographic challenges. A good example of this were health initiatives which were already a feature of many organisations, but could be widened and adapted, in order to target the health and fitness levels of the over-fifties. In this way, pre-existing employee-friendly practices became an integral part of responding to demographic change.

So it is correct to argue against the academic literature and posit that German firms *are* doing enough to tackle demographic developments? The fact that many organisations choose to ignore certain problematic issues related to ageing workforces, for example, motivation and training, as well as to continue using early retirement, calls into question the extent to which enough was being done in the companies in the sample.

The need to compensate for the withdrawal of financial support from the state for early retirement proved to be a key catalyst for many firms to think about demographic change. Nonetheless, all the firms visited were continuing to offer early retirement until they were in a position to offer any alternatives. The timeframe for halting early retirement differed between sectors, but the fact still remains that no viable solutions were presented by the organisations in the sample.

Despite the fact that there appears to be no conclusive evidence to disregard Kirpal and Kühl (2006), Leyhausen (2009) and Streb *et al* (2009) completely, the chapter provides evidence that more is being done to respond to demographic change than authors have previously argued. In particular, the way in which firms were combating demographic challenges differed from the literature. Many implemented measures relied upon new technologies and addressed the pertinent issue of knowledge management. But, most significantly, several innovative practices emerged, and even though these drew upon competencies already present within the organisations and their employees, they were still important tools to manage demographic change.

Contexts of change overlap strongly in this chapter, yet, the situations and responses of the three sectors to ageing workforces, attitudes of employees, skills gaps, lack of

apprentices and apprenticeships varied. In particular, there were sharp contrasts between the problems and responses of firms in the steel sector and in the utilities sector. Moreover, it was established that not all firms address issues and the issues which are garner a response vary between the three sectors. Hence, the third research question – *why do some firms do more than others to prepare themselves for the effects of demographic change?* - remains unanswered.

From the findings so far, it can be suggested that aside from sector, there is another variable to be considered, which may also go some way to explaining why the firms in the sample behaved differently. This explanatory variable is also related to sector, but raises questions about external forces and past experiences shaping how companies were affected by demographic changes and the tools which were available to them. A significant driver of change is related to changes to organisational structure, especially as a response to changes within the sector as a whole. In the interviews, it was apparent that restructuring still played a role in some of the firms. For some firms, this was recent past and for other organisations, especially steel, where reorganisation was further in the past, the way in which these companies had organised their employees into teams, for example, was related to the consequences of restructuring.

As it is done above, considering the responses to demographic change in this chapter, it can be suggested that some of the initiatives, tools and methods discussed in the

managerial interviews were not developed merely as means to address demographic issues. Instead, it appears that some practices, especially team-working and aspects of knowledge-sharing, evolved during the period following restructuring.

Consequently, at this point in the thesis, a fourth research question must be introduced to examine organisational restructuring in more depth, in order in order to explain the variation in firm responses regarding the challenges of responses to demographic change. This research question is: *to what extent do the effects of industrial sector and organisational restructuring impact on the management of demographic chang*e?

To conclude, this chapter has discussed the findings on demographic change and compared them with the academic literature, in order to demonstrate the contribution of this empirical study to the academic literature on demographic shifts.

The next chapter attempts to consider the context against which the firms were operating by making focusing on organisational restructuring. The objective of the chapter seven is to respond to the third and fourth research questions, in order to consider a divergence of organisational responses to demographic change. Additionally, the chapter will continue to discuss the question of whether or not the academic literature is justified in arguing

that firms are not doing enough to prepare themselves for the challenges of demographic

change.

# CHAPTER SEVEN

# ORGANISATIONAL RESTRUCTURING AND INDUSTRIAL SECTORS

## 7.1 Introduction

The previous four chapters set out and discussed the empirical findings of the fieldwork on demographic change, in order to address the research questions of this thesis. To summarise, the findings pointed to an increased problem of managing the effects of the demographic shift. It was seen that firms across the three sectors were facing similar issues and companies developed some innovative measures, in order to combat the problems. In terms of explaining why a variation in responses to demographic change was visible, two explanations were offered. Firstly, sector was deemed to play a role and, secondly, organisational experiences of restructuring were also cited by management as significant drivers of change.

Drawing on secondary and primary source data, the aim of this chapter is to consider the extent to which the nature of the industrial sector and organisational experiences of reorganisation explain the differences in how firms manage demographic change. Fieldwork interviews, firm reports, training reports, HR plans, employee handbooks, training brochures and company websites provide the data sources for this chapter. The

chapter focuses on how organisations in Germany have restructured in response to macro and meso forces and seeks to establish sectoral drivers of change which may or may not have impacted on decisions to reorganise and/or affected managerial responses to demographic change.  The chapter, for example, makes a brief discussion of changes within corporate governance structures because this has led to some sectors, especially the chemicals sector, being placed under more scrutiny than others due to, inter alia, internationalisation and foreign direct investment (FDI).

Section 7.2 presents definitions of restructuring within the academic literature, in order to create a framework to categorise the changes that the firms in the sample have undergone. Section 7.3 takes a general approach to reorganisation in the steel, chemicals and utilities sectors, in order to preempt the empirical findings in the next section. Finally, the empirical findings in section 7.4 describe the organisational restructuring activity. In order to organise the presentation of the empirical findings on reorganisation within this study, a framework similar to one devised by Behrens and Kädtler (2008) to study work council participation in restructuring is adopted.

## 7.2 Forms of Restructuring

The point of departure must be to define restructuring; yet the plethora of definitions offered by the academic literature renders this a problematic term to operationalise. A general reading of the literature suggests that the following may be defined as forms of

reorganisation: outsourcing (Doellgast and Greer, 2007; Morris *et al*, 2006); merger and acquisition activity (M&A) (Blickle and Witzki, 2008; Croucher *et al*, 2004); the removal of managerial layers (Littler and Innes, 2004; McCann *et al*, 2004; Worrall and Cooper, 2001) and structural changes following devolution or changes in ownership (Kinnie *et al*, 1998). Organisations may reach the stage where they have grown too large, resulting in a decision to downsize, in order to allow the company to regenerate (Marks, 1994). Decentralisation, de-layering and outsourcing activities may, consequently, energise an organisation by making it fitter and more focused to reach its goals (Marks, 1994).

English language research on restructuring frequently employs ambiguous terms to describe types of restructuring activity; however, clarification becomes increasing problematic because, in many cases, restructuring is presented as interchangeable with downsizing (Kinnie *et al*, 1998). Downsizing is generally employed as an umbrella term to suggest a decrease in the size of an organisation, either through a reduction in the number of business units and/or departments, or a displacement of staff (Kinnie *et al*, 1998). Evidently, this is, in the first instance, a problematic definition because firms may increase the size of their workforce through restructuring activities, such as M&A.

In terms of a time-frame, downsizing, as a response to market changes, achieved attention within management literature alongside the Womack *et al* (1990) concept of lean (Kinnie *et al*, 1998).  Reductions in demand, structural changes following the simplification of the

organisational structure, the quest for improved flexibility are predominately catalysts for downsizing activity (Kinnie *et al*, 1998). Evidently, outsourcing and de-layering are practices through which companies may simplify their structures and become smaller; hence, these are also forms of downsizing. As a consequence, in seeking to define restructuring and downsizing, it becomes difficult to disassociate these terms from each other and there is an inevitable overlapping of definitions.

To further complicate the terminology, downsizing is, as Kinnie *et al* (1998) suggested, merely another way of describing practices which have always occurred in organisations. This viewpoint was also reflected in the interviews:

> "This [*downsizing*] is just a new name for something that we've been doing for years. In 1995, when we were starting to do away with energy, we moved eight hundred people and created a subsidiary - but no-one would call this downsizing. It was a question of reorganisation".

<div align="center">

(HR manager, **Utilities Firm A**)

</div>

Many academics have associated restructuring (especially downsizing) with job losses (c.f. Behrens and Kädtler, 2008; Budros, 1999; Burke and Nelson, 1997; Carbery and Garavan, 2005; Koeber, 2002; Littler and Innes, 2004). Hence, there is a danger that downsizing may be treated indiscriminately because is depicted as being synonymous

with a deliberate reduction of the workforce[18]. Moreover, to equate downsizing with job losses presumes that employees are on open or permanent contracts because workers who are on fixed-term contracts or are employed through an agency cannot be made redundant (Kinnie *et al*, 1998). Whilst the deregulation of labour markets has, arguably, made it easier for employers to make employees redundant, in the case of Germany, workers receive more employment protection.

As figure 7.1 demonstrates, Behrens and Kädtler (2008) identify *seventeen* types of organisational change associated with restructuring affected German organisations.

---

[18] Nevertheless, the displacement of the workforce may include temporary lay-offs, early retirement of older workers (McCann *et al*, 2004 Carbery and Garavan, 2005), secondments (McCann *et al*, 2004), *rightsizing* (Marks, 1994), recruitment freezing (Carbery and Garavan, 2005) and redundancies (McCann *et al*, 2004). Having said this, the literature does not concur on the extent to which the shedding of labour may be called downsizing (Littler and Innes; 2004).

| | Forms of Restructuring | % Firms Implementing [19] |
|---|---|---|
| 1. | Movement of operations back into Germany | 5 |
| 2. | Relocation of operations abroad | 11 |
| 3. | Establishment of cost centres | 12 |
| 4. | Establishment of profit centres | 13 |
| 5. | Integration of acquisitions | 22 |
| 6. | Concentration of functions in other locations | 23 |
| 7. | Changes to product lines | 24 |
| 8. | Mergers | 25 |
| 9. | Removal of layers of hierarchy | 27 |
| 10. | Expansion of temporary working | 29 |
| 11. | Introduction of group work | 32 |
| 12. | Outsourcing functions / departments | 32 |
| 13. | Concentration of functions onsite | 33 |
| 14. | Removal of departments | 38 |
| 15. | Personal saving package specifications | 43 |
| 16. | Outsourcing of activities | 43 |
| 17. | Cost-savings targets | 52 |

**Figure 7.1: Forms of Restructuring affecting German Organisations (adapted from Behrens and Kädtler, 2008[20])**

[19] Percentage of firms where restructuring has taken place in last ten years. Sample size is two thousand firms/works council interviews.

[20] The Behrens and Kädtler (2008) analysis is based on the 2006 WSI-survey on establishment-level restructuring which focuses on the intensity of restructuring, as well as on the depth of participation of works councils.

Despite being able to identify seventeen individual forms of reorganisation (see figure 7.1), Behrens and Kädtler (2008) also ran into problems with defining restructuring[21]. Drawing on Faust *et al* (1994), Behrens and Kädtler (2008) choose to simplify their definition of restructuring into two categories: operative de-centralisation and strategic decentralisation. Operative de-centralisation relocates operational control and responsibilities downwards in the firm, but control remains within the company. Faust *et al* (1994) associated the introduction of quality circles, manufacturing cells and team-led initiatives as types of operational decentralisation, whereby responsibility is given to the workforce. In contrast, strategic de-centralisation removes control over certain activities to outside the existing boundaries of the firm. Following the definitions of Faust *et al* (1994), Behrens and Kädtler (2008) included de-layering and the introduction of group working as examples of operative de-centralisation and outsourcing, increases in temporary work and the shift of production abroad as examples of strategic decentralisation.

Figure 7.1 underlines the wideness expansive nature of the definition of restructuring by Behrens and Kädtler (2008). Therefore, to some extent, Behrens and Kädtler (2008) offer a more workable clarification of restructuring through the inclusive nature of their

---

[21] Behrens and Kädtler (2008) admitted to having simplified their definitions for the purpose of carrying out their interviews because they argued that introducing seventeen categories of restructuring would have only confused their interview respondents. Consequently, they chose the categories of operative de-centralisation and strategic decentralisation as a means of simplification for the purposes of fieldwork interviews.

definition. Figure 7.1 determines that cost-saving initiatives (52 per cent) and personal savings targets (43 percent) were the most common forms of restructuring. In line with definitions by authors, restructuring is still presented within a rhetoric of cost-saving; Behrens and Kädtler (2008) show that cost remains the driver behind restructuring processes. The next section will examine the implications of restructuring.

## 7.3 Restructuring in the Steel, Utilities and Chemical Sectors

The objective of this chapter is to understand how the measures developed by firms to manage demographic change were influenced by factors pertaining to the sectors as a whole or whether other explanations can be found. Consequently, it is useful to provide an overview of how, largely in the three sectors, companies were affected by change and have restructured. This section will also be helpful in preempting the empirical findings.

Within the steel, chemicals and utilities sectors, restructuring has taken place over the past two decades. The German chemical industry, for example, underwent drastic downsizing from the 1990s until the mid 2000s, with chemical firms shedding almost fifty percent of their workforce during this period (Badunenko, 2007). Utilities firms have needed to reorganise themselves due to the fact that the liberalisation of the energy markets has led to competition from both foreign and domestic energy providers.

Restructuring in German firms followed the discourse of globalisation[22] (Kothen *et al*, 1999). The German economy retained a level of stability in the turbulent period of the 1970s and 1980s. The implementation of DQP, for example, enabled the German car industry, amongst others, to be able to focus on high-end automobile production which could compete on quality and justify a high price. From the economic boom period of the 1950s, until the 1980s, internal growth through vertical integration and horizontal diversification typically occurred within German firms (Graßhoff and Schwalbach, 1997). During the 1970s, growth was consolidated and took place through mergers and acquisitions (Graßhoff and Schwalbach, 1997).

By the 1980s, downsizing had become a widespread reality within industrialised economies, giving rise to a new organisational paradigm. Newly emerging company structures were reported as specific contrasts to Weberian bureaucratic entities (Child, 2005); the literature described formerly "fat and mean" (Gordon, 1996) firms being replaced by post-bureaucratic organisations conceptualised as, inter alia, *network enterprise* (Castells, 2000), *postmodern organisation* (Clegg, 1990), *the flexible firm* (Atkinson, 1984), and *post-bureaucracy* (Child, 2005; Heckscher and Donnellon, 1994; Peterson, 2005). Identifiable by their flat, lean structure and optimised responsiveness to

---

[22] In the 1980s, the discourse of globalisation grew in significance, opening up new markets, new opportunities and suggesting a diffusion of management practices. On the other hand, globalisation also presented hitherto unprecedented risks, including rising international competition on quality and price (Bloch, 1999) and, thus, called for firms to engage in a continuous reduction of costs and an increase in productivity, to be achieved through a process of downsizing (Kothen *et al*, 1999).

changes in market demands (Drucker, 1992; Kanter, 1989), these organisations were characterised as more *intelligent*, with enhanced channels of communication, resourceful customer responsiveness and lower costs (Quinn, 1992). Technological developments were argued to facilitate organisational flexibility (Castells, 2000) and these new organisational forms also began to benefit from deregulation and changes in national and supra-national legislation to implement more flexible forms of working, including part-time working.

The extent to which an emergence of new organisational forms was a reality has since become contentious. Post 1990s academic debates have tended to dismiss the previous literature's affirmations that organisational restructuring – in particular, downsizing, de-layering, and the use of new HR techniques - would amount to the formation of new types of flat organisational entities.   As Morris *et al* (2006) indicated, the basis for the paradigmatic shift towards flat and responsive firms within business management literature was conjecture, with little empirical evidence to support the claim that organisational restructuring took place on a wide scale. It is suggested, instead, that the most widespread transformations have been concentrated in particular industries, especially in high technology sectors. Furthermore, post-bureaucratic organisations concentrate upon optimising service and customer experience (Castells, 2000), suggesting that the post-bureaucratic firm is more aligned to the expansion of the service sector and is far less important for manufacturing enterprises.

The literature also calls into question the extent to which post-bureaucracy represents a distinct departure from bureaucracy, suggesting, instead, that there may be an overlap between the characteristic of both organisational structures (c.f. Lounsbury and Carberry, 2005; Maravelias, 2002; Pollert, 1988; Wood, 1989). Finally, some academics argue that the removal of managerial layers has been nothing but a myth (Gordon, 1996; Levinson, 1990; Littler and Innes, 2004).

The impetus for German firms to re-engineer the business process and to downsize came much later in the 1990s, as a result of globalization (Graßhoff and Schwalbach, 1997; Kothen *et al*, 1999). In fact, up until the early 1990s, the car industry had not yet switched from mass production to the value-added chain (Haipeter and Lehndorf, 2005). But, by the mid 1990s, in the automobile industry, the Volkswagen *breathing factory*, which enabled production to be flexible to market demands, had become the new paradigm for car production (Haipeter and Lehndorf, 2005; Hartz, 1996; Kothen *et al*, 1999). The change in work organisation within German firms during the period of restructuring can be identified through the following (Wächter, 1997):

- Decline in the traditional semi-skilled production methods;
- Emergence of cross-sectional jobs (*Querschnittsberufe*) which amalgamate different roles into one job;
- Replacement of the knowledge of experience by systematic process control;
- Emphasis on job enrichment.

By the mid 1990s, however, the extent to which the corporate governance element of the German Industrial Model functioned in the interests of German business was shifting and this was a further catalyst for firms to restructure. Typically, German banks played a pivotal role in the ownership and operational structure of German capital with a major influence on the German companies through shares held in the firm (Schulten. 1997). Consequently, representatives from major banks sit on the supervisory boards of German organisations. Beginning with the Deutsche Bank, German banks began to adopt strategies favoured by Anglo-American banks, turning towards international investment banking and selling their firm shares. This marked a downturn in the provision of cheap credit for German business, German banks (Streeck, 2009).

The transformation of large German banks from providers of credit to overseas investors, affected the behaviour of German organisations, which now had to concern themselves with the creation of shareholder value (Streeck, 2009). Lane and Quack (2001) argued that the institutional environment shaped the attitudes of German banks towards collective risk sharing. This explains the shift in approach to risk as an increase in internationalisation has put pressures on financial institutions to manage risk more carefully. Competition between banks inside and outside Germany, as well as changes in legislation, have also lead to a differentiation of strategies affecting the extent to which banks can finance business (Lane and Quack, 2001). This is especially evident in the chemicals sector, which has become extremely vulnerable to pressures from shareholders to increase value and was certainly the case for **Chemicals Firm A**.

Towards the final decade of the twentieth century, the landscape was changing in all three industrial sectors. The steel firms, for example, became subject to wide scale restructuring and rationalization, following privatisation and deregulation in the sector. The steel industry was among the first sectors to negotiate collective agreements to include the hiring of temporary workers (Fieldwork interview: Temporary Labour Agency).

The steel sector has a well long-established merger and acquisition trend. In the 1980s, for example, Thyssen and Krupp were encouraged to merge by the German government as a means of protecting jobs. By the 1990s, nevertheless, this trend was on the increase. The union between the Hoesch-Krupp groups in 1999 was already partly underway through a merger between other parts of the groups' flat steel production in 1997 to form ThyssenKrupp Stahl AG. The ThyssenKrupp merger led to a loss of two thousand jobs in only two years (Fieldwork interview: **Steel Firm B**). The takeover initiated by Krupp was met with resistance from both management and labour. IG Metall threatened industrial action over the associated loss of jobs, whilst management at Thyssen resented the hostility of takeover from Krupp (Fieldwork interview: **Steel Firm B**). The reaction from the government and German media also criticised Krupp for a strategy which was at odds with the German stakeholder model (Schulten, 1997).

The Krupp-Thyssen incident is also significant as a milestone, in that it also pointed to further shifts in the contemporary corporate governance structure which had previously protected German industry against hostile takeovers. The takeover was backed by a consortium of banks, including the Deutsche Bank and Dresdner Bank (Schulten, 1997). This indicates the extent to which the internationalisation of German banks has put pressures on companies to prepare for change and to restructure.

In the current economic climate, the steel industry has had to consider ways to save jobs, not only to prevent a drain on skilled labour, but also because of the expense and the complexities associated with redundancies. Measures undertaken since 2008 include cutting temporary worker contracts, shortening working hours (*Kurzarbeit*) and abolishing working time credits (Stahl-Zentrum, 2009). Collective agreements made with IG Metall have included buffering tactics, such as clauses on flexible working time, short-time working and working time accounts, in order to overcome this difficult period (Stahl-Zentrum, 2009).

The volatility of the industrial sector is well characterised by the years 2007 and 2009. Whereas the German steel industry experienced a boom in 2007, reports indicate that 2009 was one of the worst years for the steel industry since 1945, with German production falling by thirty percent (Stahl-Zentrum, 2009). In Europe, steel markets were deliberately kept open, even during times of economic crisis, but in the United States, a

protectionist strategy was implemented and customers were exhorted to purchase American-produced steel (Stahl-Zentrum, 2009).

Nevertheless, German steel producers have managed to retain their positions in foreign markets despite recession, as international demand continues to be sustainable. In Germany, demand for steel has increased through the expansion of the European Union (EU), since, as EU members, eastern European nations are in a better position to become trading partners with Germany. Interviews in the steel sector offered examples of how foreign export markets are more important for German firms. **Steel Firm A**, for example, produces one third of its steel rods for a Chinese market and other steel companies, such **Steel Firms C**, **E** and **F** were supplying parts for construction and automobile industries, where the end products would be distributed worldwide. Consequently, steel firms tried to broaden their international focus with firms, such as Thyssen, expanding their business overseas in countries such as Brazil. At **Steel Firm C** the international focus began to permeate all levels of the firm, including the employees' consciousness:

> "This is a big company, anchored in the Ruhr area. […] I would say that we weren't really very international; we saw ourselves as a German firm. […] This has changed over the last 3 years ….bringing challenges and the need for flexibility in the firm […] but also in the mindset of the workers. These workers are born and bred in the area and are not used to thinking about the firm in terms of it being international".

(HR Manager, **Steel Company C**)

Future demand for German steel is also secured since new technology has enabled the sector to continue to specialise (Wächter, 1997), with the creation of innovative products, such as *intelligent steel*[23] (Fieldwork interview: **Steel Firm B**). Moreover, the sector has undergone changes to the way in which work is organised, including a movement away from semi-skilled production, the creation of cross-sectional jobs (*Querschnittsberufe*) which are amalgamations of different jobs to create a new multi-faceted role, job enrichment and a greater emphasis on quality (Wächter, 1997). Steel firms have adopted TQM techniques to build better customer-supplier links (Fieldwork interview: **Steel Firm B**).

As a traditional industry, steel has some of the oldest workers (Bucholz, 2006). However, the end to the Old Age Part-time Law, in 2010, removes a reliable strategy which the steel industry has consistently used in the past, in order to displace elderly labour. Certainly, demographic developments threaten the future of the industry; it is estimated that in the near future twenty percent of scientists and engineers in the sector will retire, thus, securing a new generation to replace these employees is a chief aim of steel firms (Stahl-Zentrum, 2009).

---

[23] Intelligent steel has elastic properties and is used in the automobile and construction industries.

Competition between international chemical companies, meanwhile, has always been intense (Aftalion, 2001). The "Blockbuster" strategy of Anglo-American drug companies, whereby lucrative prescription drugs are developed, has resulted in an increase in research and development (R&D) costs (Vitols, 2002). This has led to US and UK pharmaceutical firms taking over global markets, especially through mergers and acquisitions, to recoup these costs and to increase their market share (Vitols, 2002). Additionally, the growth of the pharmaceutical industry in low-cost countries has led a greater price squeeze (Bathelt, 2000). Consequently, budgets for R&D in German chemical and pharmaceutical enterprises have been cut, which has made innovation more difficult (Aftalion, 2001). Therefore, alongside changes in company ownership structures and growing pressures to meet shareholder expectations, German chemical firms have also experienced a loss of markets.

In the chemical/pharmaceutical sector, many firms have chosen the merger and acquisition route, as a way of expanding their core competencies, instead of an innovation process[24]. Thus over the last twenty years, the sector has needed to be constantly restructuring due to both external and internal pressures, which has brought about the displacement of workers. Organic growth has been replaced by growth through

---

[24] For example, the Bayer-Schering merger.

merger and acquisition activity and this type of restructuring is expected to continue because of the value of the international chemicals sector[25] (Aftalion, 2001).

However, many of the companies acquired, particularly by the "Big Three" (Bayer, BASF and Hoechst), were companies with low market shares and this strategy of merger and acquisition activity was not deemed acceptable by foreign investors (Vitols, 2002), which, once again, illustrates the extent to which changes in corporate governance structures have impacted on the sector. Bathelet (2000) argues that the chemical sector has a limited potential for flexibility because of legal restrictions, barriers towards innovation and the fact that the majority of chemical firms still attempt to gain economies of scale. The introduction of new production methods, whilst achieving a greater flexibility in their replacement of labour, tends to be implemented alongside standard technologies and does not necessarily replace these completely (Bathelt, 2000).

In more recent times, the chemical industry has been hit hard by the economic crisis, with worldwide demand for chemicals decreasing (Watts, 2009). BASF has had to cut back production at many German sites (Davis and Loh, 2009). As in the steel industry,

---

[25] Between 1994 and 2001, merger and acquisition deals in the chemical/pharmaceutical sector were valued at two hundred billion dollars (Aftalion, 2001).

chemical firms have entered into agreements with the IG-BCE, in order to implement flexible working time models and short-time working (Fieldwork interview: IG-BCE). In 2009, BASF began introducing short-time working for some of its German plants (Davis, 2009).

The reactions of the "Big Three" to recession have varied. Hoechst has chosen to shed its chemical activities and, through a merger with a French company, re-emerged as a new entity, Aventis (Vitols, 2002). Bayer has continued to pursue its strategy of being present in both chemical and pharmaceutical markets and, despite the pressure from its American investors, has resisted splitting the company (Vitols, 2002). Instead, it has chosen to remain on its original pathway, exhibiting a divergence approach (Vitols, 2002). Finally, BASF has divested itself of its pharmaceutical operations and concentrated on chemicals and biotechnology - a hybrid approach (Vitols, 2002).

For the future, nonetheless, there remains the question of the extent to which the chemical/pharmaceutical industry is suited to the type of innovation expected for the future (Vitols, 2002). According to the VofC framework (see chapter one), German firms, characterised by low risk, long-term financing, long-term management-labour and customer-supplier relationships and high quality for high wage production systems (Hall and Soskice, 2001), are ill-suited to radical innovation. Thelen (2009), nevertheless, argues for the resilience of German firms, suggesting that they *can* change and adapt.

Finally, in the utilities sector, liberalisation strategies have put pressures on the *Stadtwerke* to become more cost-efficient (Holzenthal and Osterholt, 2003). Consequently, since deregulation, there has been extensive restructuring within the utilities sector, not only through mergers and acquisitions, but also through downsizing and outsourcing (Wüstenhagen and Bilharz, 2006). The larger private firms in the sector have decreased in number and some municipal utilities firms have either merged or been acquired by private companies (Wüstenhagen and Bilharz, 2006). In 2007, for example, a merger occurred between the *Stadtwerke* of Krefeld and Neuss, in order to cut costs. The merger resulted in a saving of thirty percent of wage cost, but with the loss of seventy jobs (Groß, 2007).

## 7.4 Empirical Findings: Organisational Restructuring

On average, Behrens and Kädtler (2008) found that, in their sample, only seven per cent of firms reported that no restructuring had taken place. As figure 7.2 indicates, the empirical findings of this study for restructuring activity are consistent with those of Behrens and Kädtler (2008) because within this much smaller sample,[26] all the firms sample reported reorganisation, either through de-layering, decentralisation of functions or business units, outsourcing or M&A activity.

---

[26] Behrens and Kädtler's (2008) study drew on a sample of two thousand works councils.

| Forms of Restructuring | % Firms Implementing (Behrens and Kädtler, 2008 study) [27] | % Firms Implementing (this study) [28] |
|---|---|---|
| Personal saving package specifications | 43 | 95 |
| Removal of layers of hierarchy | 27 | 91 |
| Outsourcing of activities | 43 | 91 |
| Concentration of functions onsite | 33 | 47 |
| Introduction of group work | 32 | 39 |
| Expansion of temporary working | 29 | 26 |
| Removal of departments | 38 | 26 |
| Changes to product lines | 24 | 21 |
| Establishment of cost centres | 12 | 17 |
| Establishment of profit centres | 13 | 17 |
| Cost-savings targets | 52 | 17 |
| Concentration of functions in other locations | 23 | 0 |
| Integration of acquisitions | 22 | 8 |
| Mergers | 25 | 8 |
| Outsourcing functions / departments | 32 | 8 |
| Movement of operations back into Germany | 5 | 0 |
| Relocation of operations abroad | 11 | 0 |

**Figure 7.2: Forms of Restructuring affecting German Organisations (adapted from Behrens and Kädtler, 2008[29])**

[27] Percentage of firms in a sample of two thousand firms where the particular type of restructuring has taken place in last 10 years in the study by Behrens and Kädtler (2008).

[28] Percentage of firms where the particular type of restructuring has taken place in last 10 years in the firms in the sample (source: interviews and company literature). Sample size is twenty-three firms.

Evidently, it is not possible to make a clear comparison between the datasets of this study and that of Behrens and Kädtler (2008), but there are some points which may be raised that go some way in explaining why differences in restructuring activity were found. Firstly, the research by Behrens and Kädtler (2008) concentrates on a wider range of sectors, instead of three as in this study. Secondly, the sample in this study is much smaller and the data was collected in a shorter time space and, on the whole, within one geographical location.  Despite these discrepancies, it is useful to make a brief comparison of the results of both studies. To begin with, this helps to put the findings of the study into context.  Furthermore  a comparison of data, alongside the broader sectoral experiences of reorganisation discussed in chapter three, assist in establishing the extent to which the findings of this study are correspond to other documented restructuring activity in Germany.  This should add to the generalisability of the findings.

In the main, both studies find similar results for the setting up of cost and profit centres and the concentration of functions in other locations. Garrison and Noreen (1997) define cost centres as sections which possesses neither control over the incurrence of cost, nor over generating revenue or the employment of investment funds.  A profit centre may have control over both revenue and cost (Garrison and Noreen, 1997).  In the cases of

---

[29] The Behrens and Kädtler (2008) analysis is based on the 2006 WSI-survey on establishment-level restructuring which focuses on the intensity of restructuring, as well as on the depth of participation of works councils.

cost and profit centres, both measures fall into similar figures (eleven and twelve percent respectively for Behrens and Kädtler, 2008 and seventeen percent in this study).

Smith and Pretorius (2003) indicate a number of issues related to cost and profit centres, especially related to the extent which decision-making occurs in isolation. In the case of decisions to outsource certain activities, Smith and Pretorius (2003) argue that when this is done through cost and profit centres, the result may be non-optimal and not to the benefit of the organisation as a whole. This is interesting in view of the fact that, as discussed below, the majority of firms were outsourcing functions. Furthermore, profit and cost centres, alongside investment centres, represent three types of financial units of control (Garrison and Noreen, 1997). Hence, although organisations within the sample pointed to devolution of functions, alongside an elimination of levels of control within the firm, these financial units represent, in themselves, a continuation of units and hierarchies of control within post-bureaucratic firms.

Similarly, for temporary work, the study by Behrens and Kädtler (2008) found that twenty-nine percent of companies were expanding temporary working, compared to twenty-six percent in this study. This indicates a continuing need for flexibility within German firms and the impact of changes in legislation which have allowed for a wider use of non-core workers (Fieldwork interview: Temporary Labour Agency).

Both studies point to outsourcing as one of the major forms of reorganisation activity. This will be discussed in greater detail in section 7.3.4. Outsourcing was the joint second most common form of reorganisation for Behrens and Kädtler (2008) with personal savings packages (forty-three percent of firms reporting both activities), outsourcing was also joint second in this survey. Ninety-one percent of firms cited outsourcing alongside the removal of managerial tiers as the second most common forms of restructuring. Nevertheless, for Behrens and Kädtler (2008), only twenty-seven percent of firms said that they had undergone de-layering. This will be discussed in subsection 7.3.1.

Behrens and Kädtler (2008) reported that five percent of firms were moving operations back into Germany, whilst no firms in the sample for this study stated that they were doing this. The sample also yielded lower results for the integration of acquisitions – twenty-two percent in the study by Behrens and Kädtler (2008), compared to only eight percent in this study.

As already stated, a key difference between the findings of this study and that of Behrens and Kädtler (2008) is the extent to which de-layering had taken place. In this study, firms which had removed managerial layers reported that it had been completed in the past; however, downsizing and outsourcing were still continuing. The firms which underwent the biggest changes were **Steel Firms B**, **C**, **G** and **I**, **Chemical Firms A**, **C** and **D** and **Utilities Firms A**, **C** and **G**. These firms were the biggest companies within the sample,

which fits with Behrens and Kädtler (2008), who, in their research, found that the larger the company the greater the restructuring activity. The time frame of change differed between firms; in the steel sector, the majority of firms had finished restructuring, whereas in chemicals and utilities, managers were more likely to talk about change as ongoing. Certainly, **Chemical Company A** and **Utilities Company C** were both still undergoing a process of reorganisation which was estimated to conclude in two to three years. For these reasons, it could be said that there was a definite sectoral dimension to the time-frame of reorganisation which is consistent with the literature. The next subsections examine how the companies in the sample decentralised operations, either through operative or strategic measures.

### *7.4.1 De-layering*

To reiterate, de-layering refers the removal of layers of the organisational, typically managerial tiers. This may not necessary lead to a loss of jobs, since employees may be relocated within the company or it might coincide with natural wastage (Wilton, 2011). Furthermore, firms might continue to grow in staff numbers, despite the removal of hierarchies, if new employees are hired elsewhere in the firm or through M&A activity accompanying de-layering.

Figure 7.3 summaries de-layering activity amongst firms in the sample. As discussed above, de-layering was quite commonplace within the sample (ninety-one percent), in

comparison with the findings of Behrens and Kädtler (2008) (twenty-seven percent).

Reasons for the disparity between findings may, again related to the type of firms

included in the sample of Behrens and Kädtler (2008), firm sizes and timing of data

collection.

| Firm | De-layering? | Number of Tiers Removed | Implications of De-layering |
|---|---|---|---|
| **Steel A** | ✓ | Originally 8 layers. Now 5 layers. | Continues to be hierarchical. Middle management layer was targeted. |
| **Steel B** | ✓ | In 1992, there were 6 levels of management. In 2008, only 3 levels. | In 2000, firm reorganised production into teams; this resulted in flatter hierarchy due to loss of chains of command in production area. |
| **Steel C** | ✓ | Originally 9 layers of hierarchy. In 2001, 4 hierarchical layers were removed. | Merger in 1997 was catalyst for de-layering to achieve a flatter hierarchy. Management tier was originally kept intact. 2001-2 – followed example of **Steel Firm B** to introduce teams. |
| **Steel D** | ✓ | Total of three layers lost but process occurred over long period, thus mitigating the effects. | Gradual removal of management layers. Production level retained many former tiers of responsibility. |
| **Steel E** | ✓ | Unprofitable parts of firm sold off resulting in loss of management positions. | 25% jobs loss across the organisation between 1999 and 2005. |
| **Steel F** | ✓ | 3 layers out of 8 layers of hierarchy removed. | Manager described firm as streamlined. |
| **Steel G** | ✓ | 2 tiers removed. | 50% reduction in staff since 1997 through reorganisation. Wider use of temporary labour. |
| **Steel H** | ✗ | Increase in number of control positions. M&A increased staff numbers & impacted on management structure. | Definite retention of hierarchy & creation of new control positions, whilst maintaining flat structure. |
| **Steel I** | ✓ | Gradual reduction of tiers from 10 to 3 | Downsizing strongly characterised as past event. Significant downsizing has had negative impact because too many levels were lost. |
| **Chemicals A** | ✓ | Loss of tiers through recurrent re-organisation since 1990s. | Ongoing and affecting culture of organisation. M&A activity, joint ventures, shareholder pressure. |
| **Chemicals B** | ✓ | Loss of 3 tiers. | Ongoing flattening of hierarchies since 1990s. Firm is still hierarchical. Wider use of temporary labour. |
| **Chemicals C** | ✓ | Core business changed, therefore loss of all jobs in former departments. | New business devolved into departments so new management structure. Quick labour shedding led to massive redundancies. At time of interviews, firm in process of complete change. |

| | | | |
|---|---|---|---|
| **Chemicals D** | ✓ | Removal of middle management tier. | Crisis restructuring in 1990s as firm almost went bankrupt.. Loss of tiers negatively affected business. Following a resurgence in business, management tier being rebuilt and designed around core competencies |
| **Chemicals E** | ✓ | Shedding of hierarchies between 1990 and 2000. | Workforce reduced by 30%. |
| **Chemicals F** | ✓ | Loss of 3 layers. | Workforce reduction 68% between 1999 and 2002. |
| **Chemicals G** | ✓ | Two layers of management removed but done in connection with natural wastage. | Flat structure - many senior managers reached retirement age simultaneously & were not replaced. Therefore, shedding of management layers occurred naturally. |
| **Utilities A** | ✓ | Reduced hierarchies; middle management but also other senior managers lost during firm splitting. | Middle management layer removed. Was once one company with **Utilities Firm E**. |
| **Utilities B** | ✓ | Company reorganised between 1997 and 2005 with loss of 3 layers. | Has remained flat. |
| **Utilities C** | ✓ | Flattening of hierarchies from 7 to 4 | Chain of communication is still problematic. |
| **Utilities D** | ✓ | Manager estimated a total loss of 3-5 layers but happened in the past. | Minimal de-layering occurred before and during 1980s (company has existed since nineteenth century). |
| **Utilities E** | ✓ | Middle management layer removed. | Created out of the same split as **Utilities Firm A**. But management tiers slowly rebuilt. |
| **Utilities F** | ✓ | Loss of 2-3 management layers in 1990s. | Experimenting with devolving parts of business. Remaining flat. |
| **Utilities G** | ✓ | Loss of 2 management layers | Flat structure & also flat in production. |

**Figure 7.3: Summary of De-layering Activity amongst Firms in the Sample (source: interviews & company websites)**

When asked to comment on organisational changes that had occurred in recent years, the majority of companies reported a flattening of hierarchies; however, the time-frame in which this form of reorganisation had occurred differed across the sectors. For the steel companies, and the chemical and pharmaceutical sample, de-layering had occurred at the end of the 1990s in all firms, with the exception of **Steel Firms B** and **C**. The latter steel firms included a flattening of structures in their move towards enhanced team-working; this is discussed later in this chapter. At **Steel Firm I** and **Chemical Firm B**, managers saw their companies' process of de-layering as being located so firmly in the past that they described this as being an irrelevant topic of discussion for the interview.

De-layering was presented above as a pivotal aspect of the post-bureaucratic organisation. The eradication of organisational tiers was shown to lead to flatter, more responsive companies with shorter chains of command (Castells, 2000; Kinnie *et al*, 1998). In the steel sector, the need to be more responsive and to react more quickly to changing markets was a widespread catalyst for the emergence of flatter organisational forms. The decrease of layers was perceived as means of achieving leanness. Many of the firms mentioned adopting Japanese-style management practices as a way of restructuring the firms, in order to achieve optimal productivity and efficiency. **Chemicals Firm F**, for example, implemented lean management during the 1990s, thereby eliminating the need for the former top-down hierarchy. As a result, three layers were removed, including the whole of the middle management layer.

Across the three sectors, the way in which the firms in the sample had removed many of the previous middle management layers differed greatly. In some firms, the removal of hierarchical layers was a gradual process which occurred alongside firms shedding some of their former, less profitable parts and merged with another companies. However, other organisations had taken a more drastic approach, shedding whole layers within the company, for instance, the middle management layer in one action. De-layering mainly affects management[30]; therefore the extent to which de-layering in the companies visited would impact on other organisational groups was minimal.

De-layering is often part of a simplification process, whereby the firm is decentralised and head office (management) positions are rationalised (Kinnie *et al*, 1998). In their place, separate business units are created which are responsible for different areas of the business (Kinnie *et al*, 1998). Similarly head office workers may lose their jobs following M&A activity if various business activities become integrated after one company absorbs another (Kinnie *et al*, 1998). In the chemicals sample, most managers saw their firms as constantly evolving into new forms. **Chemical Firm C**, for example,

---

[30] Yet, the extent to which managerial layers were eliminated within firms has been debated by academics. The *soft-sandwich* approach described by Littler and Innes (2004) highlights a key fact that de-layering may occur without accompanying job losses. The findings of Littler and Innes (2004) are pertinent to Australian companies, however, employment protection in Germany would give rise to a similar *soft-sandwich* effect, where managers would be re-deployed across the company.

had completely dropped one area of its former competencies in 2007.  The company was described by the HR manager as almost "unrecognisable" compared with how it had been structured ten years earlier, with a loss of several hierarchies.

Peters (1992) suggested that the optimum number of organisational tiers was no more than five levels of hierarchy. As figure 7.3 shows, the majority of companies reduced levels to five or less. Two steel companies, **Steel Firms B and C** stood out within the sample as having undergone extensive de-layering.  At **Steel Firm B**, prior to 2000, there had been seven levels of hierarchies, which now stood at only three.   **Steel Firm C** had flattened its internal structure because the organisation recognised the need to abandon its traditional, rigid hierarchy, in order to emerge more responsive to increased competition and changes in consumer demand.   The firm had undergone significant internal change several years earlier, following a merger with another steel producer in 1997.  As a result of the merger, **Steel Firm C** made changes to the operational layout of the company, however at the time, no steps towards the flattening of the management layers were taken.  The management structure was initially kept intact for two reasons: firstly, the existing management had been at the company for several decades and, after the upheaval and disruption caused by the merger, they were not open to any further restructuring, especially not the breakdown of a long-standing managerial hierarchy.

Nonetheless, de-layering at **Steel Firm C**, unlike at the other firms in the steel sample, took place against an arguably natural demise of the hierarchies. The decision to flatten

the firm and to introduce a less hierarchical framework of control coincided with the majority of senior managers reaching retirement age around 2000-2003. After 2002, there was a new senior management, who were more open to change. Thus, **Steel Company C** reported that the removal of hierarchies had affected the decision-making process positively; meeting customer demands had been improved because of the competent people who were making decisions quickly for their teams:

> "These people know that there is only one person they can turn to so they have to take the initiative more and this is motivating".

(HR Manager, **Steel Company C**)

**Steel Company H** was one of only two other firms to maintain that it had not de-layered and an *increase* in the number of control levels in the organisation had occurred in later years. Since the firm underwent a merger with another smaller local steel firm, this impacted on the extent to which the firm grew in size and had to reorganise its management structure to incorporate new managerial tiers which reflected diverse operations within the company. Having said this, management at **Steel Company H** perceived the new structure to be flatter and less formalised than ten years ago. Despite the fact that did not **Steel Company H** appear to have downsized, some management positions were lost as a result of the merge, but these managers were redeployed:

> "Our structure is clearly less hierarchical than it was before but […] when you flatten everything out and you try to have less managers, then the responsibility for quality and performance falls to the employees"
>
> (HR Manager, **Steel Company H**)

**Utilities Firm E** was also characterised as having growing control levels, despite having undergone some de-layering. The HR manager used the analogy of a pendulum to describe de-layering at this organisation because hierarchies had initially been removed, but then also replaced just over ten years later. **Utilities Firm E**, part of a split also involving **Utilities Firm A**, was an example of a company which underwent crisis restructuring. In the 1990s, the company almost went bankrupt and the middle management layer was cut. An improvement in business in the early years of this decade led to some rebuilding of their management layers. However, the reorganisation of the business meant that the individual organisation departments were laid bare to scrutiny and found to be under-performing. This led to the creation of a new management structure for the different parts of the company, so that information could be concentrated within this area and expertise used where it was needed.

The chemical companies visited had undergone a loss of management layers but were still very large organisations. Typically, the flattening of the organisations had happened at the end of the 1990s and, therefore, in the interviews, most managers did not attach much importance to these events:

"Those changes are so far in the past that I don't think about them now – to be flatter is normal. The kind of hierarchical structure you are asking me about belongs to the past".

(HR Manager, **Chemicals Company B**)

However, change was ongoing in the chemicals sector, which corresponds to the chapter two descriptions of pressures coming from increased shareholder value. In line with the previous description of the pressures on the chemicals sector, **Chemical Firm C** had abandoned one area of its former competencies in 2007. At this organisation, the most drastic example of de-layering could be found, whereby the company was described by the HR manager as almost "unrecognizable" compared with how it had been structured ten years earlier:

"The firm had lost parts so obviously this had affected our hierarchies. […]."

(HR Manager, **Chemicals Company C**)

### 7.4.2 Cost-cutting Incentives

In the main, restructuring is linked to notions of reduction, either in terms of staffing, or in terms of budgets and overheads. In all the firms visited, cost-efficiency was spoken of by management with respect to firm-wide initiatives to make savings. Most companies had large-scale cost-reduction programmes in place which were visible across the organisation. **Utilities Firm E,** for example, set an agenda for every department to reduce its costs by twenty percent. At **Utilities Firm B**, the flatter form of the

organisation led to the creation of the departments operating as individual business units. This was supported by team-led initiatives to track and decrease departmental costs.

Although this flatter structure made it easier for management to track costs and to be able to measure and predict the most profitable areas of the company, it also meant that it was arguably easier to shed parts of the business in times of economic downturn. This explains why the firm had continued to downsize long after other companies. Seventeen percent of firms referred to the setting up of profit and cost centres within the organisation. These were typically organisations which were still in a period of change, for example, **Utilities Firm G**.

In line with Kinnie *et al* (1998), many managers referred to Japanese management practices explicitly as influencing cost-cutting measures. **Chemicals Firm B**, for example, planned to implement lean management over the coming decade. **Chemicals Firm F**, nevertheless, had already taken this step. In 1999, **Chemicals Firm F** began to manufacture its products to be sold as non-branded goods for discount retailers. As low cost producers, the customers required that **Chemicals Firm F** followed their projected production costs which were much lower than those associated with the manufacture of their own brands. Despite using cheaper raw materials and conversion machinery, the manpower and energy costs remained at a fixed high cost, thus, the company had to find a way to make further savings. In 2000, just-in-time techniques were introduced and the firm purchased new machinery. In particular, lean production techniques enabled the

firm to enhance productivity so that they were able to recover the raw materials and energy costs in a short period. However, organisation increased productivity very quickly as a result of restructuring, which led to new concerns for management and the decision to downsize:

> "When you increase productivity but you have the same production volume, you have to downsize or you won't get the same productivity. The figures for 2000-1 started with a production volume index of 100 but it went up 3% by 2007. […] In total our productivity went up 166%".

> (HR Manager, **Chemicals Firm F**)

Improved communication made it possible for the employers to look to the workforce for cost-cutting ideas (source: company interviews). Borrowing from Japanese principles such as *kaizen*, in many cases, the optimisation of the firm and the reduction of costs were inter-linked with job enrichment (source: **Chemicals Firm B** and **Chemicals Firm F**). And, in this way, managers spoke of being extremely dependent on good communication channels between workers and the employer. Japanese management practices, as seen in **Chemicals Firm F**, increased productivity, making it possible to offset other costs that the manufacturing process created (source: **Chemicals Firm F**).

Team-led initiatives, such as in **Utilities Firm B**, were widespread, but at around eighty percent of the firms visited, the role of groups or teams in designing ways to decrease and/or draw attention to organisational costs was discussed. In the main, employee input in money-saving initiatives was described as very positive by the managers and, in some cases, was mentioned in connection with wider knowledge-sharing practices within the

organisation. At one of the steel firms, the HR manager showed a chart for the number of suggestions and admitted that the firm had modelled itself on the car industry, known for using employee suggestions to improve productivity and the organisation of work.

Two points should, however, be raised at this juncture. Firstly, the interviews all offer a managerial perspective; therefore, it was not possible to discover whether the workers *themselves* felt motivated by being included in suggesting improvements for the companies. Secondly, although managers spoke of involving employees in the process of making suggestions as motivating, in many cases, there was still a *tangible* reward involved. Corridors in many organisations, especially those in the HR section, displayed flyers offering prizes for the best suggestions for improvement in the organisation, with a special focus on saving the firm money. Hence, workers were possibly, in some cases, participating in the activity because they wanted to win something.

### *7.4.3 Devolution of Responsibility*

Behrens and Kädtler (2008) present the introduction of group work as a form of devolution of responsibility to employees. As figure 7.2 indicates, thirty-nine percent of firms stated that they had introduced team-working as part of a restructuring process. This is a high figure, suggesting that companies put great emphasis on employee involvement. This is line with the extent to which German employees are legally guaranteed a voice in the workplace.

Nevertheless, within the sample much of the shift of responsibilities, particularly following de-layering, was covered by the introduction of team-working. Two companies, **Steel Firms B** and **C** stood out as having introduced team-working as a method of devolving responsibility after de-layering. In both companies, aside from the middle management tiers, which were lost, hierarchical levels at production level were also abolished because these were at odds with the team working that was to be implemented. Thus, during their task of communicating the need for change to the workforce, the HR department at **Steel Firm B** had to justify the loss of job titles by underlining the necessity of breaking with the past and recreating the company.

The decision to implement team-working was taken following experiences within the car industry (Fieldwork interview: works councillor, **Steel Firm B**). Team-work was seen to be a way to overcome divisions between different workers which had originally been created by different ranks and a it was hoped that a new team-based focus would unite the workforce in looking forward and accepting the changes to their organisation (Fieldwork interview: works councillor, **Steel Firm B**). As chapter four indicated and it is reiterated below, the team-working model also had benefits for the employment of the over fifty-fives, despite not being originally intended as a tool to manage demographic change.

The works councillor at **Steel Company B** noted that the loss of ranked positions partly marked the end to a long tradition in the company. As already described, the decision to

dispense with hierarchies in production was driven by the need to move away from the traditional shift working pattern. Furthermore, investments in new technology also lead to the obsolescence of some jobs, especially those carried out by older workers. The original shift system stemmed from past times, where there was a large supply of labour. In this way, shifts were inherently labour intensive with various worker groups responsible for different parts of production, and each managed by a separate shift coordinator. The loss of layers in production and the replacement of some job tasks by new technology evidently led to redundancies, and the majority of workers aged fifty-five and over left the company.

The new team-work system was able to take advantage of the fact that workers were already used to working in groups, but the new system required a greater level of responsibility for individual team members. Each shift at **Steel Firm B** was now managed by one shift coordinator with the support of a specialist coordinator, who would be on hand to offer advice on technical matters. This limited the number of workers required per shift, meaning that workers had increased responsibility for the carrying out of jobs and needed to be trained to carry out several different roles. Having only two general experts for different parts of production per shift was considered by the management at **Steel Firm B** to be the biggest changes that occurred in terms of organisational restructuring over the last eight years. The new working system was underpinned by an emphasis on re-skilling, not only for to ensure that all workers could

carry out many job tasks per shift, but also because employees in coordinating positions required extra training to prepare them for the extra responsibility.

> "The teams are functioning well. We have actually been more successful then we had ever imagined we could be."
>
> (HR manager, **Steel Firm B**)

The flattened hierarchies at **Steel Company B** led to, and improved, communication within the firm and this was backed up by the creation of information teams to keep the channels of communication open.

**Steel Firm C** followed a similar route of flattening its internal structure because the organisation recognised the need to abandon its traditional, rigid hierarchy, in order to emerge more responsive to increased competition and changes in consumer demand. The firm had undergone significant internal change several years earlier, following a merger with another steel producer in 1997. It was widely believed that tackling the restructuring of the operational layout would suffice to make the firm more responsive to new demands (Fieldwork interview: HR manager, **Steel Company C**).

According to the HR manager at **Steel Company C**, within less than two years, they saw that they still were not quick enough to respond to customer demands, especially in the

case of small orders, and, more critically client deadlines and delivery dates were often missed. The company, therefore, re-evaluated their objective to become more flexible, to deliver high quality products and to be able to react more quickly. In 2001, the changes in the production and working methods led to the introduction of teams within the production area.

**Steel Company C** was directly influenced by what had taken place at **Steel Firm B** (Interview: works councillor, **Steel Firm B**). By the second year, meeting customer demands had improved significantly because the teams contained competent people who were making decisions quickly for their teams[31]:

> "These people know that there is only one person they can turn to so they have to take the initiative more and this is motivating".

(Head of HR, **Steel Company C**)

It should also be added, nonetheless, that employees became more involved with the day-to-day running of the organisation through a proliferation of employee-led initiatives. Although these measures were frequently related to cost-cutting, nevertheless, other

---

[31] Yet, at **Steel Firm C,** there were still problems at these early stages; the works director suggested that it was too premature to talk about success. The new organisation of work had been expensive to set up and production had been stopped at several junctures, in order to allow for the training sessions and the staff briefings to take place. Thus, the works director thought that they would need at least two further years before they could assess how the new flexibility could be translated into profit.

implications were also revealed in the interviews, some which had direct benefits for demographic issues. For example, the new team-working model at **Steel Company B**, discussed above, made it possible for the organisation to function with fewer workers but, at the same time, had benefits for managing the effects of demographic developments.

Firstly, team-working created a strong bond between the groups, thereby helping to break down any barriers between old and young workers and encouraging a sharing of knowledge. Secondly, the teams created vacancies because, under the new system, employees worked less hours, therefore, the firm had the opportunity to employ more people[32]. A final benefit was that the reduced working hours allowed older employees, who were employed in physically demanding jobs, to be able to remain in active employment for longer. They needed to take less rests and the burden of some of the more difficult task was reduced and could also be shared out more amongst the team.

Aside from cost considerations, restructuring is inextricably bound up with organisational objectives to achieve greater flexibility. Although, in the majority of cases, this

---

[32] The works council had had to agree to a reduction of working hours and a corresponding drop in wages, but the manager and works councillor at **Steel Firm B** reported that workers were satisfied with the new system, especially because they preferred the new working environment and had got used to working less.

flexibility was bound up with benefits for the firm[33], managers argued that flexibility often increased employee input and influence on the workplace. Figure 7.4 summaries flexible working practices which were described by managers as directly impacting on employees.

| Practice | % Firms[34] | Other Information |
|---|---|---|
| Flexible working hours | 100 | For white-collar workers only |
| Voluntary reduction of working hours | 21 | White-collar. Further incentives - savings on tax and social security and some extra days off |
| Home-working | 8 | White-collar, female staff. |
| Job-sharing | 17 | White-collar, female staff. |
| Job rotation | 65 | Blue collar workers. Steel firms had universally adopted job rotation. A key feature of team-working. |
| Working time accounts | 90 | Blue & white-collar. Majority used traffic light system with a ceiling of one hundred hours. |

**Figure 7.4 Flexible Working Practices Associated with Restructuring (source: managerial interviews)**

As figure 7.4 shows, white-collar workers across the three sectors were given more responsibility to determine individual working schedules, leading to benefits for work-life balance. Interviews revealed that the major driver in the spread of flexible working practices was the need to manage female workers who were juggling a family and a job

[33] The benefits of flexible working for the firm were linked to the need to remain competitive in uncertain times. Temporal flexibility meant that employees could work different hours, in order to cover peak periods without the need to pay overtime or bring in casual labour. In the economic crisis, some steel firms reported having applied for shortened working (*Kurzarbeit*) as a way of getting through the difficult period.

[34] Percentage of firms in the sample implementing practices.

and did not want to work a standard eight-hour day. Flexible working also benefited firms as a way in which to protect against a loss of women workers, which would become increasingly important with demographic developments.

For blue collar employees, flexible working was related to a widening of employee capacity to perform different tasks when needed, either through job rotation, a shift in scope of the job, changes to shift patterns, functional or qualitative flexibility. At firms, where motivating older employees was indicated to be a significant problem, the HR department had incorporated job rotation for elderly workers.   Having the flexibility to rotate job tasks gave employees the opportunity to reduce the number of physically demanding roles or to allow them to rest between jobs. Furthermore, by being able to carry out a number of different skilled tasks, managers argued that their workers found their jobs more interesting and enriching (Fieldwork interviews: **Steel Firm A**, **C**, **D** and **Utilities Firm B**).   This added to the attempt to create a positive image of the older workers as productive members of the workforce.

### 7.4.4 Outsourcing

Outsourcing refers to the transference of some operations to a different organisation (Doellgast, 2009).   In some cases, a company may decide to outsource an entire department, for example, the canteen, to a private provider. Managers may outsource in

order to reduce costs, but also as part of benchmarking, the implementation of new technology, as well as to cover unexpected peaks in production where extra manpower may be brought in to work on a temporary basis (Doellgast and Greer, 2007). As these examples indicate, outsourcing can be a cursory – the removal of a non-value adding operation, such as a canteen - or part of wider diversification strategy.

In a study by Matzler *et al* (2005), outsourcing was perceived by management consultants in Germany to be an important tool for firms to manage costs in the future. In the telecommunications industry in Germany, which is characterized by single employer agreements and no collective bargaining, basic call centre activities have been outsourced and the remaining labour force up-skilled in order to carry out technical service jobs (Doellgast, 2009). The outsourcing of non-core activities by major firms has been a key driver of the rise of new industrial segments which offer IT or office support, cleaning and catering (Doellgast and Greer, 2007). IT, call centres and temporary work agencies have increased in number over the past decade and now make up an important part of the low-wage sector. The relaxation of the laws on temporary work in Germany have added to the boom of this segment, as it becomes increasingly cheaper for companies to outsource their non-value adding activities to this sector (Doellgast and Greer, 2007).

Outsourcing may also lead to the creation of new jobs, albeit in low-wage sectors. In the chemical sector, for example, although many domestic jobs were lost, fourteen thousand

new jobs were created within the sector outside Germany in the late 1990s and early years of the twenty-first century (Badunenko, 2007). This was due to the fact that many large German chemical firms reacted to the downturn within the sector by introducing new technology to replace labour and by taking advantage of lower labour costs through opening new plants outside the country (Audretsch and Elston, 2006). At **Chemical Firm C**, where the outsourcing of catering and cleaning activities was also practiced, the organisation also had taken on some business activities on behalf of other firms. As one of the largest chemical firms in the area, the firm was carrying some parts of the production of particular products on behalf of other chemical firms.

Outsourcing may have a detrimental effect on employee relations. Larger firms, which have high levels of collective bargaining coverage and an active works council, may outsource to smaller firms, where low wage work is more prevalent and there is limited regulation of the labour market and no collective agreements (Doellgast, 2009; Doellgast and Greer, 2007). This is especially true of the service sector, which tends to be largely non-unionised and provides the services which are normally outsourced, for example, catering, call centres and cleaning.

Outsourcing was practiced to some extent in ninety-one percent (see figure 5.2) of the firms interviewed, which, on the one hand, made it the most widespread restructuring

measure in the sample. On closer examination, however, the spread of this practice was widely related to the outsourcing of non-core activities, such as cleaning and catering.

**Utilities Firm F** was outsourcing in two areas. Although the canteen continued to be run by staff employed directly by **Utilities Firm F**, the washing up duties had been outsourced because no-one in the company wanted to do the job. However, unlike the majority of the other firms, **Utilities Firm F** had retained its own call centre. The services of a further call centre were used for support during busy periods, for example, during the launch of a new product. As a result, any existence of outsourcing tended to be used in such a way as not to interfere with the core competencies of the firms.

**Utilities Firm F**, therefore, offers a typical case of outsourcing in the companies visited because the duties which were outsourced were non-core activities which could be cheaply and more efficiently done by an outside firm. Similarly, for the energy providers in the utilities sample, the majority had outsourced the digging work that was necessary for the laying of pipes and power lines. As the manager at **Utilities Firm C** explained, these kinds of jobs were the first to be removed after restructuring because the workers were not trained to do any other jobs apart from digging, leading to long periods of inactivity when there were no projects involved excavation planned. It was, therefore, more cost efficient to hire workers from companies that specialised in this type of work.

In the case of jobs which were unconnected with cleaning, catering or call centres, these activities were typically undertaken by males, for example excavation work, and were largely low-skill jobs (Fieldwork interview: HR Manager, **Steel Firm A**).  In fact, the origins of a small number of older low-skilled workers could be traced back to these types of jobs.  In the 1970s, there had steel been opportunities for male unskilled workers and the work was relatively well-paid; in later years, these types of jobs had vanished, but any workers left were approaching retirement age and, therefore, enjoyed a degree of employment protection (Fieldwork interview: HR Manager, **Steel Firm A**).

In terms of outsourcing as a process of strategic disinvestment, this was also practiced. Several firms in the sample were the result of the shift of sections of the enterprise outside the original borders of the company, creating new units.  New firms were created when larger plants were broken up and reorganised along particular production pathways. **Utilities Firms E** and **A**, for example, had originally been one *Stadtwerke*, but had split in 2000, in order to form separate units, with **Utilities Firm E** taking over the sole responsibility for energy provision.   Divisions within the original structure of the firm were also closely associated with merger and acquisition activity.

In other cases, core activities were shifted to another location, resulting in the establishment of a new subsidiary, created from the parts of the former organisation (Doellgast, 2009). **Utilities Firm A** split from their medical insurance company with ten redundancies and, finally, in 2003, the IT department sent fifty-five people to work at another part of the firm. In this way, the company strategically outsourced parts of the former company.

The smallest firms visited tended to be in the utilities sector. Managerial interviews revealed the reason behind this to be linked with wide scale downsizing programmes in this sector. In seven of the eight firms in the utilities sample, the original, through a mixture of outsourcing and a concentration of functions outside the firm, smaller, independent business units were re-established. This had the effect of creating business models which were more focused on providing one service and were more cost efficient when managed separately. Many of the utilities firms were municipal service providers, and three-quarters of these organisations had divested themselves of some areas of responsibility, including energy provision, acting as private companies. As discussed in chapter three, customers for businesses in the utilities sector were primarily based within Germany because the municipal utilities service providers were local people; however, there remained the threat of cross-border competition. For the utilities firms, this meant that the impetus to reorganise was more related to making cost-savings and to concentrate on particular core competencies, in order to retain the domestic market.

At **Chemical Firm A**, the original company was very large and so the decision was taken to break it up into much smaller parts, shifting its activities to create self-functioning business units. In this way it was easier to see which parts of the organisation were profitable and which were not doing well. In addition the concentration of functions outside led to increased internal competition across the organisation, driving the firm towards greater cost-efficiency (Fieldwork interview: HR manager, **Chemical Firm A**).

**Chemicals Company C** had an ongoing aim of devolving the departments of the firm. The company had found its previous core competency to be too much of a drain on the other parts of the firm, so they had removed this part of the business and switched to concentrating solely on chemicals. At the time of interviewing, the new company had only been in existence for five months and the company had a new name to reflect its new business path. It was explained:

> "The firm had lost parts so obviously this had affected our hierarchies. […] We have evolved into an organisation which has its own specific departments. These operate independently of each other but they share a corporate centre and a service centre".
>
> (HR Manager, **Chemicals Company C**)

Decisions to outsource, taken in hand with wider changes within the structure of the company, frequently lead to job losses. At **Utilities Firm A**, the outsourcing of its call

centre and telecommunications needs coincided with a boom in the telecommunications industry (Fieldwork interview: HR manager, **Utilities Firm A**), consequently, in this case, the former call centre staff were able to seek other opportunities elsewhere:

> "They [*call centre workers*] didn't want to go back then, but eleven years later they wouldn't want to come back to us. They earn more than we can pay them in this sector".
>
> (HR manager, **Utilities Firm A**)

The above comment is interesting in that it is in contrast to the findings of Doellgast and Greer (2007) regarding pay and working conditions in this sector.

Conversely, **Steel Firm G**, the works director explained that their company deliberately eschewed outsourcing because it would infringe on the job creation process for older workers:

> "We don't want to limit ourselves by outsourcing everything that isn't one of our core competencies. We need to keep some jobs back so that there's something to offer everyone, including employees over sixty".
>
> (Works Director, **Steel Firm G**)

Interviews revealed the role of the works councils within the decision to outsource. In a number of cases, particularly in the utilities sector, management initially sought

alternatives to outsourcing, in order to avoid redundancies. The works councils were evidently involved in negotiations, but as the following example illustrates, their presence did not always lead to a positive outcome for workers.

The energy provider **Utilities Firm E**, for example, broke away from the larger, parent company and set up as an independent firm. Consequently, outsourcing was proposed as a means of cutting firms costs. The firm, then, followed a similar route to the other companies visited by outsourcing its meals service and excavation work. When, as a result of deregulation, the energy market expanded, the number of customer telephone enquiries rose dramatically. This had the effect of overwhelming the existing call centre and it was proposed that this activity should also be outsourced to provide a better quality service. The head of HR described what happened next as a "sad tale":

> "The call centre couldn't cope with all the calls, customers were angry and it was in the [*local*] paper – it damaged our reputation a bit. […] We decided to set up the call centre as an outside business and we gave our call centre workers the opportunity to work there […] even though, as a separate business, it was more expensive for us. […] The works council said that they didn't want this […] but we had no choice but to go ahead. Our call centre is now completely outsourced and the workers lost their jobs. […] The works council had to swallow it. It was a shame because we would have preferred to do it [*run the call centre*] ourselves, but now it is done from Magdeburg – it's cheaper and the customers are happy".

**(Head of HR, Utilities Firm E)**

As this example shows, although the presence of the works council does not always lead to the desired end result for employees in the case of downsizing and/or job losses, as this case shows, some kind of compromise from management did follow and this can be linked to the input of the works council.

## 7.5 Conclusion

Following the empirical chapter, the overarching aim of this chapter has been to formulate a response to the fourth research question. To these ends, this seventh chapter built on the initial sectoral descriptions of chapter three, through a more in-depth discussion of sector. The chapter argues that the nature of the sector explains the divergence in responses to demographic change by the firms in the sample.

The chapter has provided a context of organisational change, as well as determined reasons why certain firms why companies responded differently to demographic change and if some firms were better able to respond to demographic change than others.

The idea of whether or not restructuring and/or the emergence of new organisational forms has exacerbated the problem of managing demographic developments for German companies is investigated through the discussion of sectoral history and experiences. It is established, for example, that the chemicals sector has volatile history which has

impacted on the need to restructure and, in as far as corporate governance is concerned, there has been an incremental push to create shareholder value. Therefore, this allows for some explanation into why some of the chemical firms in the sample appeared to be doing very little to manage older worker-related issues. The nature of the sector meant that they had other issues to be managed.

In contrast to the chemicals sector, the chapter established that steel firms had good prognosis for the future and, for the majority of companies, their restructuring had occurred at least a decade earlier. Hence, these firms were very much concerned with planning for the future, in which demographic shifts would play a key role. Moreover, steel firms had the largest number of older workers; therefore, demographic change would be expected to impact on them most heavily.

Finally, issues and responses in the utilities fell between two other sectors but the allegiance of these firms to the local area and their commitment to all organisational stakeholders affected responses to managing shifts.

Whilst this chapter has gone a long way to place the empirical findings of this research into a context of shifting backgrounds and macro pressures, it would still be useful to

examine this question of environment with regards to the behaviour of individual companies within the sample.

Consequently, the next chapter presents three case studies in order to tie together findings, by establishing the impact of the sector and restructuring experience on how an how firms have responded and applied ideas to the problems of demographic change.

# CHAPTER EIGHT

# CASE STUDIES

## 8.1 Introduction to the Chapter

Chapters four to seven set out the empirical findings of the fieldwork, in order to address the research questions of this thesis. To recap, the findings pointed to an increased problem of managing the effects of the demographic shift. It was seen that firms across the three sectors were facing similar issues related to looking after their elderly workers and companies developed some measures which addressed the problems. Despite the fact that the research identified responses to demographic shifts which included job rotation, health and well-being initiatives and team-working, these had been implemented organisation-wide and, thus, could arguably be said to be part of a wider strategic process, than merely systems to manage the effects of ageing workforces and a decline in the number of new entrants to the firm. Moreover, the continued use of early retirement as a tool to manage older workers was also suggested to be evidence that, although organisations were responding to the challenges of demographic change, they were not doing enough.

In terms of explaining why a variation in responses to demographic change was visible, two explanations were offered. Firstly, sector was deemed to play a role and, secondly,

organisational experiences of restructuring were also cited by management as significant drivers of change. Chapter seven continued this line of enquiry by providing a background to sectors and organisational restructuring.

The aim of this eighth chapter is to ascertain how effective efforts to address demographic change have been and whether enough has been done. This will be achieved by exploring individual companies' responses to demographic change in more depth. The chapter aims to establish the extent to which tools have been developed to explicitly manage demographic shifts.

In addition, the chapter will further investigate the extent to which the problems and solutions reflected in the academic literature are applicable to German organisations at the present time. To these ends, three case studies are presented, in order to provide a deeper insight into how demographic change poses a challenge and how it is managed in each of the three sectors.

The first case is taken from the steel sector, the second from the chemicals and pharmaceutical industry and the third case is from the utilities sector. The case studies each follow the same structure: Firstly, an overview of the firm is given, including information about the location, product, employees and labour-management relationship,

as well as a summary of the company's experience of restructuring. The next section presents how the company has been affected by the demographic shift and the final section describes how the firm has reacted to the challenge, as well as the measures designed and implemented. The data for the case studies is comprised of fieldwork interview data, company literature, firm websites and observation during company visits.

The rationale behind the selection of the individual firms was related to how they compared with the other firms in their sector within their sample. **Steel Company D** was selected because it was amongst the largest, displayed the classic problems associated with demographic shifts and had, arguably, developed interesting measures to combat these issues which were worth discussing in depth. **Chemicals Firm A** was chosen, again because of its size and the extent to which it had been affected by demographic change. However, the responses of this firm were surprising in terms of how the HR manager described senior management attitudes, as well as the impact of contextual factors, especially to do with the sector. Finally, **Utilities Firm B** was decided upon it because it was a good illustration of how the sector has typically developed good employee-focused practices, which represent a more holistic response to managing demographic shifts. The initiatives in place at this firm were implemented with other intentions but, as the case illustrates, their results can mitigate the effects of demographic shifts.

## 8.2 A Case Study from the Steel Sector - Steel Company D

The first case from the steel industry focuses on a firm which, typically for the steel industry, the number of older workers is fairly large and the issue of a dearth of apprentices is an issue to be addressed. The case highlights a distinct parallel between the effects of restructuring and a decline in employee motivation.  In the firm, tools have been developed to actively address these issues but, as the company profile indicates, this firm is well-resourced and in an economically strong position.

### *8.2.1 Company Profile*

**Steel Company D** is located thirty kilometers from Düsseldorf. The organisation is a world market leader in the manufacture of hot rolled steel tubes for a wide number of industries including oil, construction and automobile. The company, a 1997 Franco-German joint venture, uses state-of-the-art technology, which enables the company to offer short delivery times, as well as to meet individual customer demands. The firm is one of several plants in the locality belonging to the major German steel firms. A key employer in the city, **Steel Company D** has over eleven thousand people.

### *8.2.1.1 Economic Prognosis*

At the time of the fieldwork, management reported that business was going well and the future prognosis for the company looked good. **Steel Company D** had not been affected

by the global financial crisis because they were producing products for sectors other than the ailing car industry.

*8.2.1.2 Involvement of Works Council*

As expected, the firm is highly unionised, with around eighty percent of the workforce being a member of IG Metall. Management described a good working relationship with the works council. This was important because, as the case indicates, the works council were involved in the processes of change within the firm.

*8.2.1.3 Social Charter, Training and Development*

The firm promotes its social responsibility towards the workforce. Since 2000, the organisation has a social charter for employees, in which it sets out its commitment to promoting a positive and secure working environment; this is underpinned by the wider company principles of human and social policy. The charter supports a work-life balance and guarantees the employees' rights to training and development. Training is supported across the group by a training centre which is located in Düsseldorf. The centre offers training workshops, which are intensively supervised by full-time instructors. The training workshops conform to the latest technical standards and provide the appropriate training tools for electronic, production and industrial engineering.

*8.2.1.4 Restructuring*

Restructuring took place at **Steel Firm D** following the merger in 1997. The newly-created organisation needed to be streamlined because it was too large and, therefore, two management hierarchies from both of the original firms were shed. The middle management tier, remained for two years after the merger, partly intact but, between 1999 and 2001, three more layers were eliminated, including the middle management tier. Hence, the removal of hierarchical layers has been a gradual process and this incremental delayering sets the organisation apart from its peers in the steel industry which tended to experience more rapid transformation.

Following the phrase of reorganisation, management decided that organisational efficiency would be accelerated if the typical waves of demand associated with the steel industry could be better covered. The decision reached was to create a pool of casual workers to supplement the core workforce; this pool is operated by the group to which the company belongs.

These workers are trained to have strong, generic skills which can be put to use across the group and each company "rents" the labour from the parent company when extra manpower is required to supplement the core workforce. The limited contract workers are hired from a state-funded recruitment agency, which aims to find work for hard to place workers; the average age of these temporary workers is forty-two years old.

According to the HR manager, the decision to recruit from an agency was linked with looking after the wider stakeholder, that is, the state.

### 8.2.2 The Challenges of the Ageing Workforce

The average age of the core workforce is forty-four years old and the company has a concentrated age structure. Alongside the need to increase and enhance flexibility in the firm, management stated that managing demographic change was a top priority for Steel **Company D** and that this had been the case since the firm underwent the merger, even though the company has shed many of its elderly workers. Restructuring, from 2000 onwards, necessitated worker displacement; thus, taking natural fluctuations into consideration, the first group of employees to be approached for voluntary retirement was workers aged fifty-five and over. Evidently, the strategy for downsizing was both in line with German protectionist legislation, as well as in line with an inherently socially responsible attitude to reducing personal. Additionally, further personnel reduction was facilitated through the use of the Old Age Part Time law. The following subsections set out the key issues related to demographic shifts experienced at **Steel Company D**.

### 8.2.2.1 Cultural Shifts and the Impact on Motivation

From the outset, management was aware that the restructuring and rebuilding of the company would have a detrimental effect on firm loyalty amongst those workers who would not lose their jobs during the restructuring process. Despite the fact that early

retirement packages were being offered to fifty-five and over workers, the spread of redundancies through the firm made employees aged forty to fifty years old anxious about their jobs. The paternalistic culture of the steel industry had given employees certain expectations that the firm would look after them. Moreover, **Steel Firm D** presents itself as a fair and socially responsible employer. Despite the fact that management saw the firm as having reorganised itself, they were keen to retain the family-focused orientation of the company:

> "We are a big employer in the city and we've always looked after our workers… […] people work here for years and it's like a second family. With all the talk of motivation and team-bonding – all the […], yes buzzwords – organisational culture and...[…] etc, we didn't want to lose that".

(Fieldwork interview: **HR Manager**)

The problem of anxiety and associated commitment to the organisation was further compounded by elimination of hierarchies after the merger. The delayering process involved, not only the removal of managerial levels, but also tiers of responsibility and skill within production teams. Management was conscious that taking away these company levels would have repercussions for the morale and motivation levels of the workforce, particularly long-serving employees. The HR manager, in meetings with senior management and the works council, underlined the fact that even though the firm was modernising, the organisation needed to find a way of sending the message to the workforce that traditional values were still held and respected. The organisation also had to find a way to compensate for the damage that could have been done to psychological contracts.

At the same time, another firm tradition, which also emphasized seniority and service to the company, had lost some of its former importance as a direct consequence of downsizing the organisation. Employees who had worked at the firm for a landmark number of years, for example, a quarter of a century or forty years, were entitled to celebrate their anniversary (*Jubiläum*). Whereas, in the past, workers had received a significant sum of money from their employer to organise a party to celebrate twenty-five years of service, this figure had not risen in the last eight years[35]. Thus, employees complained that they were not able to mark their important anniversaries in the same amount of style that they recalled being associated with employees in former times:

> "The *Jubiläum* is a tradition in Germany and people expect to celebrate it. It's not that we've cut it out – I, mean people are celebrating ten, twenty-five years, yes so – they still get their photo in the company magazine and there's a party. But with more and more *Jubiläum* celebrations every year, we just can't afford to finance something really grand. I know some firms even take the workers out […]".

(Fieldwork interview: **HR Manager**)

### 8.2.2.2 Flexibility and Employability Measures

Following the reorganisation of the firm, **Steel Company D** was promoting the importance of flexibility in the workplace. Employees were increasingly expected to demonstrate flexibility in their approach to their job, however, with the company dominated by shift work, the organisation of work was physically demanding for the

---

[35] Not even in accordance with a corresponding rise in prices after the introduction of the Euro in 2002.

older employees and there was little opportunity to rotate job tasks. Indeed, figures for absence due to illness, despite being generally low overall in the organisation, were the highest within the over-fifty group. Furthermore, line managers reported that after fifty years of age, workers found shift working to be very tiring, especially because these men had been doing the same kind of heavy work for more than twenty years. The most commonly reported health problems included back pain and repetitive strain injuries.

*8.2.2.3 Early Exit Culture*

Even though the high absence figures seemed to correspond directly with the challenges of shift-working, management observed that the mindset of the older members of the workforce was in direct conflict with the perspective of flexibility. Firstly, the elderly workers were used to the notion of an *early exit culture*; this was partly connected to the notion of the well-deserved retirement discussed in chapter two and partly related to the fact that **Steel Firm D** had relied upon voluntary separation packages to manage labour displacement. Both these factors underpinned an organisational perspective held by the senior age level that older workers had a right to a more relaxed approach to working.

Secondly, the ubiquitous option of early retirement packages, in the wake of restructuring, had led to employees neither having an interest in being retrained to do another task, nor meaning to over-exert themselves in their present role. Consequently, HR was aware that a small percentage of older workers were carrying out tasks at work

which did not make full use of their potential. Nevertheless, the situation was being

tolerated by line managers because no real alternative could be found. As the HR

manager commented:

> "We've got a small number of men here who have done more or less the same job for years and can't do anything else. […]. You can't go up to him and say 'I've got something great lined up for you' and speak of job enrichment. He will just call in sick tomorrow".
>
> (Fieldwork interview: **HR Manager**)

Workers in the fifty and above age group were described as being far more apathetic

towards further training than their younger counterparts and tended to see it as a "waste

of time". Many workers who fell into the over fifty age category were predominantly of

the opinion that they had enough expertise in their job not to require any more training

and HR said that a firm-wide "misconception" existed that training was something

occurred at the beginning of a working career and not towards the end. The HR manager

commented that this mode of thinking could not continue indefinitely:

> "Someone is going to retire in three years, but that's still three years that we are paying him"
>
> (Fieldwork interview: **HR Manager**)

### 8.2.2.4 Loss of Skills and Knowledge

The displacement and apathy of elderly workers had also resulted in the loss of skills and

know-how. Steel Firm D saw that their older workers possessed knowledge that needed

to be collected and passed on to new generations of workers, but this was not happening.

For this reason, managing organisational knowledge and changing employee perceptions

towards age were high on the agenda of challenges to be overcome. Linked to this was perhaps the most serious aspect of managing demographic change at **Steel Company D**, namely, the need to strike a balance between the older and the younger members of the workforce. The firm had started to become concerned that in the next five years, it would not be in a position to retain as many apprentices as in the past. This was primarily because the vacancies for newly trained apprentices were becoming increasingly scarce. Moreover, the end of the Old Age Part-Time law in 2010 meant that it would be even more complicated and costly if **Steel Company D** reached a future position where they needed to downsize.

*8.2.2.5 Decline in New Entrants*

The dearth of job vacancies for new employees was explained by a number of factors. Firstly, the primary step to avoiding redundancies was, for **Steel Firm D**, to move employees to another part of the firm. This led to less vacancies being available. Secondly, some jobs had disappeared as advances in technological processes replaced certain tasks. Furthermore, the average age of the temporary workforce had already reached forty-two, only two years below the average age of the core workforce. HR was debating whether or not this would exacerbate the problem of an ageing workforce further. New workers, when added to the existing workforce, would not decrease the average age of employees. Thus, the firm would not be succeeding in introducing younger workers.

Similarly, since the merger, **Steel Company D** had had fewer vacancies for new staff because many positions had been replaced in the wake of technological advances or lost through the restructuring process. While the decision to recruit from the internal labour pool had advantages in terms of managing organisational knowledge, it arguably limited openings for new, young employees even further. The pressure to accept the limited contract workers, and to recruit these instead of newly qualified apprentices, was also linked to the problem that, under German law, it is not possible to continue to employ workers on limited contracts for longer than a two year period. This put additional pressure on **Steel Company D** to retain excellent temporary workers, as opposed to losing them after the two year period was up and someone else had to be trained.

*8.2.2.6 Apprentices*

Despite the fact that the literature suggests that there is a decline in the number of apprenticeships offered, which is a pivotal problem in terms of managing demographic change, the actual recruitment and selection of trainees had become a major issue for **Steel Company D**. The company was in direct competition with the larger steel producers for the best young people. The HR manager admitted that the firm had not invested enough time and money in addressing this aspect of securing the future labour pool of the organisation:

"I'm driving on the motorway and I see [*the competitors have*] a big billboard promising a *dream job*. We can't compete with this".

(Fieldwork interview: **HR Manager**)

At the time of interviewing, there was a surplus of applications for openings at **Steel Company D**; the HR managed quoted an average of around two hundred applications for seventy posts each year. Despite the inevitable decline in the number of school leavers, **Steel Company D** had not yet had to face the consequences of this because there was still a surfeit of applications, as well as a backlog of applications from previous years. On the other hand, as far as university graduates were concerned, the company was already aware of a drop in the number of candidates in disciplines, such as materials technology, mechanical engineering and electrical engineering. This situation was expected to persist as the birth rate continued to fall. Moreover, HR recognized a decrease in the quality of applicants.

In this way, it had become increasingly important for **Steel Firm D** to improve its internal training. Likewise, the HR department was especially concerned about the lack of females in the company, where only four percent of workers in production were women. Unless the firm could encourage more girls to join the company, they would be deliberately excluding fifty percent of the future working population; a statistic which should become increasingly significant as the whole available labour market in Germany continued to shrink.

Recruiting young workers was, thus, vital for the future of **Steel Company D**, with its concentrated age structure. But management was constrained, to a large extent by organisational culture, social responsibility and legislation to protect the interests of the older workers. It was these very constraints which, paradoxically, impeded the recruitment, retention and employment of younger employees.

### *8.2.3 Managing Demographic Change at Steel Firm D*

With the average age of the core workforce already at forty-four years of age and the struggle to find a solution to the reduced recruitment of trainees, the issue of managing demographic change was at the forefront of the HR department's agenda at the time of interviewing. As a key employer in its city, **Steel Company D** placed much emphasis on social responsibility and had, therefore, looked for ways in which to tackle the increasing challenge of an ageing workforce in a socially appropriate way. Management was attentive to the challenges posed by demographic change, not only because of the future implications for the firm, but also because of the limitations that had already placed on the current running of the firm. For a period of ten years, management had been pushed to make further concessions in dealing with older workers. The next subsections examine responses to the challenges set out in section 8.2.3.

*8.2.3.1 Demographic Checks*

Since 2001, the firm had been carrying out a regular demographic check, in order to gain a clear picture of the age structure of the organisation.  This check, as well as enabling HR and other departments to plan effectively for the future, meant that the company was highly aware of the challenges represented by demographic developments and partly explained why the company was far ahead of many other firms in planning initiatives to manage the associated issues. Other measures to control demographic change were only being developed incrementally within the firm, yet shared a commonality, in that they were linked to changing attitudes towards ageing.

*8.2.3.2 Managing Status and Motivation*

The effects of reorganisation and their implications for demographic shifts could be clearly seen in this firm.  As already discussed, the production level had retained elements of its traditional hierarchical nature by the continued use of former job titles. The job titles of *Kolon-Führer*, *Vorarbeiter* and *Betriebsleiter* were not abolished and these titles carried with them status and corresponding respect and although the titles carried a small increase in wage, they were mainly symbolic. The retention of the traditional job titles represented an attempt on behalf of **Steel Company D** to repair some of the damage which downsizing and de-layering had done to the socially responsible, employee-friendly culture of the firm.

"Titles and status are important. […] With all the changes that went on in ten years, it didn't make sense to take away the titles if we wanted to have the workers onside".

(Fieldwork interview: **HR Manager**)

Arguably, the preservation of redundant job titles was a token gesture by management, however, the HR manager indicated that these were titles which were typically held by employees aged forty and over.  Since these workers made up the largest demographic at **Steel Company D**, the decision to retain the titles was aimed specifically at maintaining at least some of the status quo for the benefit of older workers.  According the manager, as the job title holders left the firm, these positions would disappear alongside their holder over time.

*8.2.3.3 Continued Use of Early Retirement*

As discussed, the end of the Block Model signifies the demise of a feasible solution to dealing with the issue of an older workforce, which this has been widely used in the steel industry.  At **Steel Company D**, concern was expressed about what would happen after the model was no longer supported by the government.  The firm was seeking an alternative to the *Alterteilzeit* instrument because to continue using the system would not be cost-effective.  Aside from the costs associated with the recruitment and training of new staff to replace those following early retirement, the loss of older workers would equal a shortfall in skills and expertise, as well as the fact that under the *Alterteilzeit*

model, they had been entitled to receive a half salary. For the interim period, **Steel Company D** intended to continue using the Block Model:

> "It is the only socially responsible way to reduce the workforce… […]
> yes, it's expensive but we have other problems to deal with now before
> we can decide what to do to replace it [the Block Model]".

(Fieldwork interview: **HR Manager**)

*8.2.3.4 Job Rotation*

The other instruments that were employed within the company were intended to promote longer working, so that the attitudes underpinning early retirement would be slowly phased out. **Steel Firm D** was challenging the issues of motivation and organisational commitment and the first step to address this was the introduction of job rotation for older workers. On the one hand, this was largely the result of the firm-wide move towards working more flexibility and incorporating leaner ways of working. Job rotation was a pre-existing measure linked to flexibility. Consequently, employees across the company were encouraged to accept further training, in order to be able to carry out a number of tasks instead of being able to only work at one job. On the other hand, the new technology, which also required many workers to undergo further training, in order to be able to use it correctly and safely, meant that employees acquired new skills in new areas.

In view of the fact that the employees would be physically unable to do the same job when they reached sixty-five years old, being able to rotate job tasks was designed to

give employees the opportunity to reduce the number of physically demanding roles or to give them a balance between high and low mobility work so that they could rest between jobs. Furthermore, by being able to carry out a number of different skilled tasks, workers would find their jobs more interesting and enriching.

*8.2.3.5 De-motivation and Resistance to Up-skilling*

However, the re-skilling associated with the new organisation of work met with resistance from older workers. At that point in time, the only measure to combat aversion to further training in older workers had been to interview employees over fifty and to present the option of further training as linked with a rise in pay for new skills acquired:

> "There are workers who say that they don't want to do any more training because they are too old and don't want to torment themselves".

(Fieldwork interview: **HR Manager**)

If these workers agreed to a decrease in salary, then the HR department would accommodate their wishes and not push for training to be taken. Management reported that this option was not widely popular in the firm, due to the wage decrease attached to it, and this path was only chosen by employees aged sixty and above, who were just looking to get through their final years with the firm as comfortably as possible. In the case of workers aged sixty and over, the firm agreed that it would not make economic sense to train such men, who were on the brink of retirement. The issue of apathy was so

widespread that HR acknowledged past decisions not to offer training to an older workers who needed to be up-skilled. Antipathy from the worker-side, arising from being forced unwillingly into training, could damage the company, either through costly intentional mistakes in production or security breaches:

> "We have the feeling that some people wouldn't do the job properly even after being trained. It's not the best solution I know, but at the moment we are just deciding to miss these individuals out".

(Fieldwork interview: **HR Manager**)

The opinion of HR department at **Steel Company D** towards coping with a lack of motivation amongst older workers was consistent with the perspective which was widely held across the sectors covered in this thesis. As was the case at other firms visited, the manager at **Steel Firm D** was reluctant to invest time and money in workers over sixty, who were going to leave the organisation in a few years time.

Again, the argument that this apathy was a short-term problem was cited. Unlike their older counterparts, it was expected that younger workers shared a growing awareness that lifelong employment was no longer the certainty it was in the past and so they were more open to training in order to maintain their skill levels. Flexibility was already, as discussed, ingrained in the attitudes of the younger workers. Furthermore, the organisation was promoting life-long learning, as well as the notion that older workers had something valuable to offer the company. Therefore, management envisaged that by the time the current younger generation of workers reached retirement age, this new way

of thinking about ageing at work would be so deeply embedded in their mindset, that this particular challenge of managing demographic change would have disappeared.

*8.2.3.6 Knowledge Management*

Knowledge management was embraced by the firm as a viable tool for dealing with demographic change. Firstly, on the company intranet, a database of knowledge was set up. The database was primarily intended to meet the needs of new employees, who might have questions about their new workplace but not know who to approach to get the answers. Employees were encouraged to add to the page, which gave older employees the opportunity to pass on their experiences and hints to the next generation of workers.

The intranet portal was originally envisaged as a supplement to the company handbook that all new employees receive. Whereas the handbook set out company rules and regulations, and focused especially on health and safety issues, the online edition was intended to cover issues of employee interest, such as information about the canteen, fitness centre, training courses and important company dates and events. The decision to create to a database of knowledge, including information about specific aspects of working and production, came from top management and it was decided to incorporate this with the existing information pages so that they could be accessed easily by everyone. The HR manager likened the portal to *Wikipedia*, in that sections of the

database defined jobs and tasks and described the skills needed to carry them out, as well provided hints and further information for newcomers.

Although the manager said that employee feedback had, so far, been positive, this instrument was still in its infancy and its full potential had not yet been grasped by the workforce. Certainly, in the case of the current generation of older workers, some, arguably, did not possess the IT skills necessary to interact satisfactorily with the software. Having said this, the database was considered by HR to have more of a future impact on the management of an ageing workforce, as opposed to an immediate one. As new employees joined **Steel Company D** and were encouraged to use the portal, its role within the organisation as significant information provider would grow. As well as managing employee knowledge and collecting it in one accessible place, this instrument also fitted in with the leaner organisation because it reduced time spent by team leaders and line managers to brief temporary workers.

The second step to managing the retention of organisational knowledge involved systematic interviews with expert workers were held regularly. In these interviews, workers were asked about their work, how they carried it out and were requested to give opinions and to make suggestions about production and the product. The manager thought that this strategy, in terms of understanding its function, possibly appealed more

to older workers than the online portal because it was a *low-tech* solution to managing organisational knowledge.

With expert workers being both younger and older employees, this approach strengthened the relationship between workers of different generations within the firm because the aim behind the interviews was for workers to learn from each other. **Steel Firm D** also wanted to emphasize that both younger and older workers could learn from each other. Management created several initiatives to promote employee input and to encourage the workers to share ideas and suggestions for optimising the company.

To these ends, continuous improvement teams were developed, in which representatives from each shift met to discuss solutions for improving work systems. The HR department received feedback from the team members that the workers across the shifts had shown themselves to be positive about this. Therefore, in late summer 2008, HR launched a firm-wide *kaizen* campaign in the form of a competition to find the best cost-cutting ideas. By November 2008, the response from the workforce had been encouraging.

The above measures were intended to aid knowledge transfer to new employees and to make sure knowledge was not lost when employees left, especially the older, more experienced workers. Although two of the instruments – the interviews and the

suggestions – were intended by management to have more of an immediate impact on managing the ageing workforce than the information database, all three practices were connected to changing the organisational culture.

### 8.2.3.7 Job Re-evaluation

Having addressed the issues of motivation and managing organisational knowledge, management wanted to concentrate on protecting the interests of older workers. The aim behind this was to ensure that post-fifty employees could continue to work productively. The primary stage was to re-evaluate jobs, in order to get a better understanding of which parts of work were more demanding than others; this entailed breaking each task down, assessing how physically demanding each component of the job was and debating how this could be alleviated.

Together with the works councils, the employees were then given the task of designing a traffic light system to identify high-impact work as coded with red and low-impact tasks with green, for example.  The HR manager expressed his opinion that the fact that full responsibility for creating the matrix was given to the workers, and that there was very little management input, made the task very empowering and motivating for employees. The manager also added that the HR department had received positive feedback on the task from the works council, and also directly from workers who had been involved in the project.

This strategy was beneficial for management, not only in that they were able to engage the works council to do most of the work, but also because the workers were more likely to give honest feedback to works council representatives than to managers. Furthermore, by involving the works council in the project from the outset, management was able to indicate to employees that the works council were onboard with the idea and supported it. Thus, the employees were more likely to be cooperative. The matrix was widely used by the HR department to audit jobs and to check that older workers were not only active in positions which might place demands on their health. The involvement of employees aged forty and above in this exercise harnessed some of their experience and knowledge and sent a message across the company that younger employees could learn a lot from their older colleagues. Again, this was linked to the promotion of a more age-aware culture within the firm.

*8.2.3.8 Health and Well-being*

A further tool developed to deal with creating a more productive ageing workforce, with less absences caused by ill health, was to maintain the health and fitness of the workforce. At **Steel Company D**, the HR department, in partnership with the company's health centre, offered examinations, cancer screening and courses on how to take care of the body. This initiative was implemented, in order to support the other measures such as job rotation and the evaluation of jobs. Management argued that "healthier people do a

better job" and so the firm decided to take steps to ensure that its workforce remained fit and healthy, especially if these employees would be with the firm until they were sixty-seven years old.

Management wanted to find an innovative way to encourage its workers to take care of themselves and to make exercising part of the firm culture. **Steel Company D** introduced a system, whereby, in order to participate in the sport courses, employees had to pay a one-off an annual subscription of ten Euros. The fee was so nominal that neither a profit was made by the company, nor did the fee cover the cost incurred by the workers when they made use of the facilities or joined one of the courses. In line with the literature on secondary and tertiary measure to manage health and well-being, management explained that the justification for the low cost was that people were more serious about following through on an activity when they had to pay for it:

> "If something is free, people take it for granted. Because we've added a cost to it [making use of the sport facilities] people automatically think 'oh, I've paid for that. I should go".

(Fieldwork interview: **HR Manager**)

The HR manager reported that the incentive had been popular with staff, particularly with those aged forty and under, with many workers joining exercise courses for the first time. Older workers, especially those working on the late shift, had made less use of the facilities, therefore management wanted to find new ways to make the health initiative more popular with the over-fifties. Having said this, it was the workers aged forty-five

and above who were more likely to book in for the cancer screening than the younger workers, so this was arguably a positive sign.

### 8.2.3.9 Working-time Accounts

The use of working-time accounts also contributed to the management of demographic change because the long-term account carried the option of collecting hours towards an early retirement. Unlike some of their competitors, **Steel Company D** had not revised their working time account system, nor had accrued hours been capped at a certain number, in order to discourage employees from collecting excessive hours. As the HR manager pointed out, early retirement based on accrued hours was really only possible for younger workers because it would take a lengthy period of time to collect enough hours, in order to finish working earlier. Nevertheless this option is a good example of how working time accounts were viewed as a future measure for managing an ageing workforce.

### 8.2.3.10 Securing a Supply of Future Labour

In the previous section, the changing nature of the issue of demographic change was discussed. Whereas the laying off older workers was formerly seen to be a solution to the problem of too many workers, the next issue to be dealt with was how to manage older workers in the face of having *too few* employees. Thus, the final measures to combat

demographic change and, to secure the future of the organisation, were to challenge the paradox described in section two.

Whilst the company could not take on more apprentices than it needed, simply to secure new workers for the future, it had, instead, introduced measures to make the firm stand out as an attractive employer and to appeal to the next generation of workers: Over the past decades, management recognized that the priorities of younger workers had changed. The upcoming generations of workers were interested in achieving a work-life balance, as well as having a pleasant working environment. As a result, these new expectations about working life meant that HR had had to rethink the way in which they could target young people. HR, together with other management levels, had, thus, concentrated on strategic instruments to address the issue of recruiting new employees.

The latest company literature for the recruitment of new apprentices was, for example, very heavily oriented towards the depiction of personal goals and promoted the notion of an attractive working environment. Since 2007, aside from the traditional training schemes, selected trainees at **Steel Company D** could chose a training route which led to a Chamber of Trade and Commerce qualification and a Bachelor degree. This latter dual course was offered, in order to compensate for a predicted lack of future university graduates. Additionally, for apprentices who performed excellently in a traditional training scheme, **Steel Firm D** also offered the possibility for these apprentices to follow

a university degree funded completely by the company after their apprenticeship has ended. This degree course, unlike the first example, would take place completely at the higher education institution. This type of sponsorship placed no obligation on the trainee to complete the degree course; neither was there a contract stating that, if the person did not agree to work at sponsoring company after the apprenticeship ended, they had to pay back the money:

> "That would send the wrong message. We want young people to feel that we trust them and the message we are putting out is: "we think you'll like it so much here, you'll want to stay".

(Fieldwork interview: **HR Manager**)

Since 2005, there was a designated person in the HR department to visit local universities, trade fairs and forge contacts with university professors to try and attract young graduates, especially engineers. Links with university were strengthened through guest lectures, fairs, and open days with factory tours. In addition, **Steel Company D** was offering work experience and supervising student dissertations. Most importantly, however, the targeting of universities was to ensure a supply of potential future managers. For university graduates, who intended to move up the firm into management positions, trainee programmes were phased out in favour of assimilation schemes for new graduate employees:

> "We think that tasks and projects are the best way for trainees to understand about products and production. Of course, they get the help and support they need, but we think that learning *on the job* is the best start for graduates".

(Fieldwork interview: **HR Manager**)

Graduate employees were also offered the opportunity to spend up to one month in one of the French divisions of the company. Not only did this offer the potential managers of the future a better overview of how the group functioned as a whole, but also created the opportunity to build networks and make new contacts across the group. Gaining international experience was also deemed to have a positive impact on the personal development of the individual candidates. Although these measures to improve the future of the workforce were definitely a step in the right direction, **Steel Company D** still had a long way to go, in order to compete with the other steel firms to win the best young people for the future.

### 8.2.4 Summary of Case Study - Steel

The case indicates that the responses of this steel firm were very much influenced by restructuring. Although restructuring had occurred in the past, methods to address demographic issues, such as ageing workers and knowledge-sharing between young and old, had been shaped by this past development. Thus, this case is a clear illustration of how reorganisation in the steel sector explains firm responses to demographic change.

Evidence from this case indicated that firms, which underwent restructuring, needed to do more in order to cope with the effects of demographic developments. At **Steel Firm D**, management was aware of issues related to demographic developments through their

demographic check and, consistent with the academic literature, **Steel Firm D** selected knowledge management, training, and health as areas to be developed, in order to manage demographic change.

On the one hand, the case points to a dichotomy between measures which were introduced in order to address the problems of apathy and motivation amongst the over fifties and measures which were intended to make the workplace more suited to an older workforce. On the other hand, these measures were all underpinned by a move towards modifying the current mindset of the firm towards ageing, as well as by its image of a socially responsible employer. The biggest concern for **Steel Company D**, however, became its inability to recruit enough apprentices, who would ensure a future supply of skilled labour for the organisation

In terms of the decision of the firm to continue offering early retirement, it seems unfair to suggest that this is indicative of the firm failing to address demographic shifts effectively. The firm was continuing to focus on addressing issues related to demographic shifts, as well as linking them to wider developments within the firm. Hence, based on their progress in developing responses to demographic change up to the time of interviewing, it can be pre-empted that early retirement would be abandoned once the firm had found a viable solution and was in a position to offer an alternative.

## 8.3 A Case Study from the Chemicals Sector - Chemicals Firm A

The second case comes from the chemicals industry, where managing the effects of the economic downturn takes priority and changing attitudes of the young workers signify an end to the old cultural norms of the organisation. The pressures of the industrial sector also play a role as changes in company ownership structures has made the firm very vulnerable to pressures from shareholders to increase value. Continued restructuring as a means of increasing shareholder value, as well as a loss of markets, changed the way in which the organisation operates. Thus, this case explores the pressures of demographic change in the workforce within a context of what is actually happening on the ground in German companies. Nevertheless, a continued belief in the social responsibility of the firm to the people of the local area means that the ongoing recruitment of apprentices is taking place, even though the company does not have permanent contracts to offer these young people.

### 8.3.1 Company Profile

**Chemical Firm A** is a leading producer of pharmaceutical products in Germany and is located in the Ruhr area. The firm is one of the major employers in the local area. The company has an extremely low voluntary labour turnover rate and is a traditional organisation, which has been at home in the city for more than one hundred years; hence many generations of local families have worked at the firm

"As a firm with over one hundred year's history, [**Chemicals Firm A**] is a firm which is characterised by a long-term family ties. Many of our employees are connected to the company through their grandparents, parents, uncles, aunts and most of the workers started out with us, doing their apprenticeship here".

**(Fieldwork interview: HR Manager)**

*8.3.1.1 Involvement of Works Council*

The works council has a close relationship with the HR department and the works the relationship with the trade union IG-BCE is also described by HR as cooperative. Management believe that the chemicals trade union is a proactive partner when it comes to looking for solutions to manage the demographic problem. Despite the fact that the works council promotes joining the IG-BCE, the HR manager estimated union membership to be around fifty percent for the blue-collar employees and around twenty percent for white collar staff[36]. This is fairly low for a traditional firm in a traditional sector.

*8.3.1.2 Training and Development*

**Chemicals Firm A** offers a comprehensive programme of training for its employees in job-specific skills and employees are encouraged to request further training if they think that they need it. Training is done in-house, in order that the firm retains control over the content and the quality of the instruction delivered. Yet, senior management has been

---

[36] Managerial estimates of union membership for the IG-BCE were much higher in the other firms visited.

pushing for training to be outsourced, in order to cut costs. Consequently, any programmes for soft skills on on-job specific training have been either outsourced or, in the case of exercise and fitness opportunities, these are now offered through the local leisure centre.

*8.3.1.3 Restructuring*

The nature of the industry meant that **Chemical Company A** had reorganised itself repeatedly over the past years. The present **Chemical Company A** was created when the company was reorganised into a holding company in 2003, in order to separate operational and strategic managements.

Prior to a 2003 large-scale restructuring programme, **Chemical Firm A**, itself, had originally been a much bigger company, but its division into much smaller parts in the 1990s created self-functioning business units. Merger and acquisition activity also affected the way in which a new organisational form developed. The separate business units which have emerged at **Chemical Firm A** have led to a fragmentation of organisational norms and values of the firm because the different production areas operate independently of each other and so HR believes that the workers no longer identify with **Chemical Firm A** as a single entity. According to the HR manager, the fact that restructuring and downsizing continue to take place has led to uncertainty amongst the workforce.

*8.3.1.4 Impact of Sector*

The HR manager described the sector as being characterised by strong competition and that the organisation was continually striving to meet customer demands. The sector had been doing extremely well and up to August 2008, the firm had been reporting excellent results. However, by the beginning of autumn 2008, the situation had changed and organisation found itself to be hit by the recession, especially since its chief customers are based in the United States and orders for non-prescription pharmaceuticals, predominantly vitamins, are dropping:

> "The economic down turn hit us hard – and fast. The effects on the American buyers have been extremely drastic and we had had to introduce saving measures. […] I hope we won't be forced into dismissals but the wages are our biggest outgoing".
>
> (Fieldwork interview: **HR Manager**)

One of the risks was that the economic climate would force the company to dismiss workers who are highly skilled. Indeed, this situation of flux is expected to continue; the uncertain economic climate has meant that the firm has found itself in a position, once more, where job cuts need to be made. The demographic question, as it will be discussed in the next section, lies at the heart of this.

### *8.3.2. The Challenges of the Ageing Workforce*

Due to the volatile nature of the chemicals and pharmaceuticals sector, the firm has frequently shed labour. As with the other firms in the sample across the three industries, older workers have been the primary target for voluntary and, eventually, involuntary early retirement. Thus, the average age of the workforce stands at forty years of age, with lower numbers of workers aged fifty and over. The following subsections set out the key issues related to demographic shifts experienced at **Chemical Firm A.**

### *8.3.2.1 Organisational Shifts and Motivation*

The process of reorganisation at **Chemical Firm A** had negatively affected motivation and morale. As with regards to the ageing workforce, the HR manager explained that excessive restructuring and job cuts had made older workers increasingly anxious and unsure about how long they would continue working for **Chemical Firm A**.

Disruption to organisational loyalty and commitment ran very deeply, especially because the new organisation reflected new cultural norms. The HR manager explained that, formerly, management had been indulgent and tolerant towards workers over fifty-five. The notion of the "well-deserved retirement" permeated the culture of the firm; older workers, for example, were supported by the other members of their shift team and allowed to rest if the work got too demanding. An insightful, and, arguably, astonishing, anecdote related by the HR manager told of how the firm had unofficially tolerated the

consumption of alcohol onsite, which she explained had always been more prevalent amongst the older age group of workers.

> "In the past there was a different attitude. A drunken worker was told to go and find a quiet corner to sleep in and his work was covered by the rest of the shift. We had a lot of alcoholics working for us – this is when the firm was doing well – and their behavior was tolerated. [*Interviewer asks about typical age of these workers*] Yes, most of them were older – fifties, sixties, with a history of drinking. Today anyone drunk on the job would be in serious trouble".

> **(**Fieldwork interview**: HR Manager)**

The shift in expectations of the organisation, and an end to previously tolerated behavioural norms, had evidently affected the way in which elderly employees understood the workplace. The fact that younger workers were no longer prepared to cover for the older members of their team, who wanted to slow down the pace of work, was an example of how management perceived the complexity of managing the demographic change issue. On the one hand, the HR manager was pleased that the over-fifties were no longer allowed to be unproductive by their fellow workers and that the younger members of the workforce had developed a strong working ethic. On the other hand, the manager lamented a loss of team spirit which she saw as being an integral part of a family-oriented firm:

> "The younger ones won't sit back and carry the older ones. […] The new generation has a completely different attitude to team-working - 'This is my job, that's your job […]'. If someone is slacking, then the other workers are resentful when there isn't an equal effort".

> **(**Fieldwork interview**: HR Manager**)

The HR manager admitted that the remaining older workers showed signs of disliking the changes that cultural norms had undergone.  She explained that, during interaction with the over fifties blue-collar workers, the employees exuded apathy and tended to reminisce about former times. Nevertheless, with the current economic climate, the firm could no longer afford to retain its lenient attitude towards older workers, even if psychological contracts amongst older workers showed signs of damage.

The need for all members of the workforce to continue to be productive until the end of their working lives was of great importance, especially in this period of job-cutting. **Chemical Firm A** had relied very heavily on early retirement as a socially responsible way of labour displacement. The HR manager explained that the firm had always been big enough to manage redundancies by moving people around the organisation, but workers in their mid to late fifties had been encouraged to opt for early retirement packages.

> "A lot of workers are still expecting that we are going to be offering them early retirement.  If the government isn't subsidizing this anymore, we won't be able to offer it as much as we did before".
>
> (Fieldwork interview: **HR Manager)**

In addition, the company recognized the fact that they needed to retain their workers for as long as possible; offering expensive early retirement packages was no longer to be a

viable option. However, older workers were still expecting to be offered early retirement and the HR manager said that the *early exit culture* was still in evidence.

Despite the fact that the firm had reorganised itself frequently, the extent to which the organisation had adapted itself to accommodate the needs of an ageing workforce was minimal. Moreover, as the next section outlines, the majority of measures which could be described as tools to manage demographic change were already aligned to addressing other, pre-existing issues in the company.

*8.3.2.2 Introduction of IT*

From 2000 onwards, for instance, the company increased its use of IT across the business. In 2006, HR decided to update its systems and implemented a system, whereby all workers had to clock in and book time off on the firm's intranet. By computerising the system, the HR staff could comprehensively monitor work and holiday schedules, as well as sick leave and absences. The workers aged fifty and under got used to the system very quickly and the system was described as being successful. However, the HR manager reported that significant numbers of blue-collar workers over fifty-five struggled with the new system. The majority of these men did not have a computer at home, nor had any experience with using one, and this meant that they had to rely on their younger co-workers to clock them in and help them with booking time-off. The obvious solution was to offer basic training in using the system. Yet HR manager was not in a position to offer

basic IT training to this group of workers because she was told that there was not enough

money in the training budget to cover a course.

*8.3.2.3 Health and Well-being*

A further contentious issue was that **Chemicals Firm A** was dominated by shift work

which, as it has been discussed in connection with other organisations, is physically

demanding for workers because of the repetition of tasks and, in some areas of

production, the work involved the lifting of heavy objects, leading to strain injuries.

Older workers at **Chemicals Firm A** were reported to be more likely to report injury

and/or fatigue than their younger colleagues.

*8.3.2.4 Skills Gaps*

One of the risks was that the economic climate would force the company to dismiss

workers who were highly skilled:

> "The risk is that the climate changes and then we will have
> lost good people. Demographic change means that we don't
> want to give away good workers and then find ourselves in a
> bad position when [*older*] workers are leaving and these jobs
> are open".

(Fieldwork interview: **HR Manager)**

Although the literature posits a skills gap as a consequence of the demographic shift, this

has already been in existence for some time at **Chemical Company A**.  The organisation

was facing the industry-wide problem of a lack of engineers and scientists and, in order to

address the question, the firm was considering making contact with a recruitment agency. Arguably, recruitment methods within the firm were deliberately adding to the problems of attracting the kind of skilled workers needed. The HR department had been reorganised, leading to a loss of some administrative staff. Therefore, in order to cut down on some departmental tasks, the firm had taken the decision, aside from advertising its jobs on the company internet site, to allow potential job candidates to apply for positions only through the website and no longer by post.

At the time of interviewing, online recruitment had been running for seven years; during this time, the European Union directives on anti-discrimination had made German organisations more conscious about typical recruitment practices, such as the inclusion of a photograph. This change in the law and debate about discrimination on grounds of age was widely discussed in the HR department at **Chemicals Firm A** and the HR manager began to notice that, aside from employees entering the firm after the completion of an apprenticeship, the organisation was not receiving any younger workers. Similarly, no applications were coming from candidates at the high end of the age spectrum.

On closer inspection, it became clear that, to a certain extent, the online recruitment programme was filtering out older and younger workers because it had been set up to eject anyone from the application process who did not fit exactly with the pre-ordained answers for each category. Thus, an unemployed man, aged fifty or over, could be

thrown out of the recruitment process at an early stage because he was unable to supply an answer for questions about elements of his apprenticeship training, completed thirty years previously.   In other words, the online recruitment system was designed to be so rigid that it could not cope with any deviations from form; this meant that the organisation was potentially losing good applicants.   Moreover, making recruitment purely online disadvantaged older jobseekers who were not as computer literate as younger candidates.

*8.3.2.5 Apprenticeships*

Perhaps the greatest issue connected with demographic change at **Chemicals Company A** was related to the retention of its apprentices. As the chief local employer, the firm was aiming to maintain a key role in the local labour market:

> "We see it as being part of our social responsibility to the people [*of the city*] to offer training to the young people in the city.  It is part of the firm's mission to invest in young people and this comes from the top".

(Fieldwork interview: **HR Manager**)

Consequently, the firm had always offered as many apprenticeships as possible and had been able to offer the trainees employment at the end of the apprenticeship. At the time of interviewing, **Chemicals Firm A** had taken on eight hundred trainees. The HR manager confessed that three hundred of these apprentices would have to look for jobs after their

training was finished, due to the fact that the organisation did not have enough job vacancies.

The loss of three hundred fully trained young people would be damaging to the organisation because these new workers were needed to balance out the age structure of the firm and to guarantee a supply of new skilled employees for the future. At **Chemicals Firm A**, the twin issues of training the employees and offering apprenticeships had led to disagreement between the HR department and senior management, who also had managed to engage the support of the works council.

As discussed above, on the one hand, management would prefer to outsource the training which was carried out in-house, in order to save money. HR opposed outsourcing on the grounds that much of the non-essential training had already been cut and only job specific training was now offered.  The HR department was of the opinion that training had seen "enough cost-cutting", and, to outsource something as important as training for the production workers, would mean a loss of control over the quality and content of the training courses.   On the other hand, the management at **Chemicals Company A** upheld the organisation's mission to invest in young people, including the taking on of more apprentices than they could keep or, even, needed. As far as HR was concerned, training so many apprentices wasted money that could be put to use elsewhere in the organisation, especially when it was the competition that benefited from gaining one of their trainees.

**Chemical Company A** offered the most extreme picture of the extent to which a drying up of job vacancies hampered the intake of new staff. The HR manager described what happened at her firm:

> "On this site, we've got sixty-seven registered apprentices, but across the whole firm, it's around eight hundred. It's in our mission statement to invest in young people - this comes from the top down. We pay for the apprentices but and we have far more than we can keep - even need. […] Yes, eight hundred and about three hundred will have to go. […] we can't keep them. […] Naturally the competition is always delighted to get one [of their fully trained apprentices]. This is a big cause of conflict between senior management and HR because the training costs a lot of money and then it's a shame we can't keep them. […] It is important to have young blood in a company".
>
> (Fieldwork interview: **HR Manager**)

The company did not have the vacancies to take on any new employees; the problem had been intensified by the economic climate which had lead the HR department to try and save the jobs of the current workers at the expense of hiring new employees. The HR manager made the following comment:

> "It is part of the firm's mission to invest in young people […] so it's dreadful that we can't keep them all. […] I have clashed with senior management many times. […] At the moment I have to look after seventy people who are going to lose their jobs and I have to try and move them around in the company. So we don't have any vacancies for the new apprentices coming along – I'm choosing old over young and it's been like this for the last 3 years".
>
> (Fieldwork interview: **HR Manager**)

The above quotation illustrates that the future impact of losing skilled workers on the firm was not a top priority for senior management.

### 8.3.3 Managing Demographic Change at Chemicals Firm A

The next subsections examine responses to the challenges which were described above.

### 8.3.3.1 Demographic Checks

The interview at **Chemicals Company A** was carried out in November 2008; hence, the firm had only taken the first steps step out in the IG-BCE collective bargaining agreement, *Working Life and Demography*. The initial demographic check undertaken at **Chemicals Firm A** had been conducted without using the software recommended by the IG-BCE. Instead, the HR department had used their own employee records to generate the necessary demographic data, including the average age of the workforce, the age structure of the company and the skills gaps present in the organisation. Whilst it may be perceived as an encouraging sign that one of the biggest chemical firms had undertaken a demographic check, in line with the advice of the trade union, the company had not gone further to create a plan to target the problem areas within the firm.

Once again, the current economic situation was cited as taking centre stage, nevertheless, the HR department acknowledged the value of doing a demographic check. The demographic check revealed the average age of the workforce to be forty years. In

particular, the firm exhibited a concentrated ageing structure; a juxtaposition of low numbers of young workers and low numbers of older workers. **Chemicals Firm A** had some time to design and implement measures to manage their ageing workforce, however, it was evident that if the firm did not prepare itself for demographic developments, in the next five years there would be high numbers of employees reaching retirement age and very few younger workers replacing those leaving. At the current time, however, managing the ageing workforce was not a top priority because of the struggle to maintain the business in an economically unstable period.

*8.3.3.2 Re-organisation of Work and Flexibility*

At the time of interviewing, it was not possible to make many adjustments to the way in which shift patterns were organised. Shift working had repercussions for dealing with the problem of demographic developments because shifts permitted very limited flexibility in the organisation of working hours. HR estimated that only eleven percent of staff was working part-time and this was predominantly in administration and, of the eleven percent, the majority were women:

> "This company wants to be more flexible and expects its workers to be flexible, but *we* don't offer the workers a lot of flexibility. [*Interviewer asks if employees desire more flexibility*] If people had the chance to work more flexibly, they would want to do it. But people are used to one way of working, so I think it would be a challenge for us to get people used to a new way. For the older workers, if we could change the way the shifts are organised, we could reduce the pressure on older colleagues and let them have more time to take a rest if they needed it or to switch to a task that was better suited to their physical ability".

(Fieldwork interview: **HR Manager**)

The fact that the teams tended to be mixed age had had some positive repercussions, especially in strengthening team bonds, as could be seen from the example of younger workers helping older workers to clock into their shift. The mixed age teams were also cited by the manager as offering some freedom for older workers to switch tasks. To move away from shift working was not a viable option, thus, flexibility had to come through more part-time working options for female staff. Already, the majority of women workers were employed on a part-time basis; this was possible because they tended to be working in administration.

The firm realised that it needed to develop some support for mothers if they wanted to encourage more females into technical jobs in the future. At the time of the interviews, emergency childcare facilities were not available, but the HR manager was keen to be able to offer something like this in the future. **Chemicals Company A** had already experimented with job-sharing, as a method of allowing working mothers more freedom to manage work and family commitments, but they had had little success in coordinating this. Nevertheless, female staff could take the option to work from home. Working time accounts also allowed some flexibility in terms of working time, despite the fact that, during the recession, many workers were being asked to take time off in a slack period. Long-term working time accounts had been introduced in 2006 and the HR manager spoke of these as being a future tool for allowing an earlier retirement for some employees.

*8.3.3.3 Managing Apprenticeships*

Concrete steps to improve the apprenticeship situation had not been taken. The HR manager referred repeatedly to the fact that, as far as she was concerned, her hands were tied; she did not have the job vacancies to offer work to trainees, nor did she have the option of making any significant cut-backs on the number of apprenticeships offered annually. The recession was showing no signs of ending and, therefore, the main priority of HR, as far as managing the workforce was concerned, was to protect the jobs of the current employees and to halt the recruitment of new people.

*8.3.3.4 Continued Use of Early Retirement*

Evidently, the end to the Old Age Part-time law had exacerbated the problem even further, because without the financial backing of the state, the firm was also searching for ways in which to find alternatives to the ubiquitous early retirement package. The firm had recently made the decision to continue offering early retirement to workers aged sixty-three and above. Management described this decision as "a fair compromise" (source: HR manager) until they had found an adequate alternative or had raised productivity levels for senior workers to the level where early retirement was no longer a consideration. Taking into consideration the attitudes of the current younger generations of workers towards their older colleagues it seemed to be the case that, at **Chemicals**

**Company A**, the notion of a *well-deserved retirement* was less visible amongst the young.

*8.3.3.5 Responding to Skills Gaps*

In order to combat the skills gap in qualified scientists, as already discussed, HR was considering contacting a recruitment agency for support. However, the organisation had also considered advertising internationally for chemists, if the situation did not improve. According to the HR manager, a similar situation occurred in the 1990s, when the firm experienced a lack of IT professionals. In order to tackle the situation, residency permits for Germany were offered to foreign IT specialists as a means of narrowing the skills gap. Attracting international experts was effective in the 1990s, thus company was keen to pursue this strategy again in the future.

**Chemicals Company A** was also aware of the need to encourage more females into an organisation which was predominantly staffed by males. Some progress had been made in this direction, with the firm organising a *Girls' Day*. *Girls' Day* was quite well-attended and the organisation was planning to offer a similar event in 2009. Following on from attracting more female employees, HR intended to extend its palette of flexible working opportunities, in order to accommodate female staff in that **Chemicals Company A** would not lose the knowledge and expertise of these women, or have them go join another firm, if they left to raise a family.

As a company with a concentrated age structure and dependent on shift working, **Chemicals Company A** was aware of the importance of maintaining the health and fitness levels of their workers. Yet, in order to trim the training budget, **Chemicals Firm A** was no longer offering exercise or fitness training within the organisation. Instead, the organisation had negotiated concessions for employees who exercised at the local leisure centre.

*8.3.3.6 Managing Well-being*

The firm had published a special brochure for its employees, outlining all the fitness classes and leisure facilities on offer at the leisure centre. For employees who required support and counselling to give up smoking, reduce excessive alcohol consumption or to follow a weight loss programme, the firm was able to arrange this through external channels. The budget for this was small because it was envisaged that a minimal number of employees would request these services each year. But, there was still the need to be socially responsible:

> "We recognize that alcoholism is a disease, and would offer the worker help, but he would be a danger to the firm and his co-workers and eventually could lose his job."

(Fieldwork interview: **HR Manager**)

### *8.3.4 Summary of Case Study - Chemicals*

**Chemicals Company A** is another organisation where restructuring has led to effects which, in turn, impact on demographic questions. Yet, in contrast to **Steel Company D**, the timing of restructuring is very different and the ongoing emergence of new organisational forms has exacerbated the problem of responding to demographic challenges even further.

Furthermore, this case illustrates the macro pressures which impact upon firms in the chemical and pharmaceutical sector. Hence, although being aware of demographic developments, and their impact on the organisation, this firm was not in a direct position to manage the challenges of demographic change. The HR department revealed itself to be ready to plan and implement measures, but this was put on hold until the organisation entered a period of economic stability. In this way, it **Chemicals Company A** was not doing enough to manage demographic change and the case is evidentiary that, to a certain extent, the literature (especially Kirpal and Kühl, 2006; Müller-Camen *et al*, 2009; Thun *et al*, 2007) is correct.

Demographic questions, such as how to manage redundancies whilst ensuring a steady influx of new labour were at the forefront in this case; however, the firm was unable to find a solution to managing this. The implementation of the demographic check suggests that the company felt the support of the trade union, IG-BCE, and had begun to follow

the union's recommendations of managing the demographic shift. Consequently, with the continued support of the trade union, it could be suggested that **Chemicals Firm A** will develop the necessary tools in time, before they fall into a *demographic trap* (Thun *et al*, 2007).

## 8.4 A Case Study from the Utilities Sector - Utilities Firm B

The final case comes from the utilities sector. As chapter six establishes, the management of demographic change in this sector tended to be viewed with less urgency than in other sectors. This is certainly the case at **Utilities Firm B**, where management was reluctant to acknowledge that they were faced with the issue of demographic developments. **Utilities Firm B** has had less of a history of restructuring than many other firms visited and, consequently, of all the firms in the sample, exhibits little damage to employee commitment.

### 8.4.1 Company Profile

**Utilities Firm B** is a water management company in the Ruhr area founded at the end of the nineteenth century. It is one of the first German water management companies and, therefore, has a long tradition in the area. **Utilities Firm B** has always played a role in maintaining water quality and availability for industry. The region, as described in chapter five, remains heavily industrialized and, in past times, the Ruhr area was home to Germany's iron and coal industry, which made use of the local waterways, as well as the

creation of further bodies of water for the use of industry. The closing of the coalfields and the decline of heavy industry has left the region riddled with underground holes, which may become flooded.

Protected by a special state law, which is only applicable to water management companies in North Rhine-Westphalia, the organisation is a public, self-regulating body. Nevertheless, in response to growing pressure from private engineering firms, the North Rhine-Westphalia state government has amended the law, which has restricted the extent to which **Utilities Firm B** is able to carry out all tasks in the region. Following these amendments, **Utilities Firm B** now has to bid for certain jobs, especially canal network projects, alongside private firms.

*8.4.1.1 Impact of Sector*

The most important tasks of the organisation are to manage waste water and flood water, as well as to ensure the functioning of pumping stations, water purification plants and reservoirs. Thus, the firm was not affected by the recession because it is not production-oriented. Having said this, indirectly, **Utilities Firm B** had experienced some repercussions through other firms who work alongside them on projects. This is especially the case for some of the steel companies, which, since the recession, had become very cautious in their behaviour and were demanding a more detailed reporting of costs.

*8.4.1.2 Employee Satisfaction and Representation*

The average age of the workforce is forty-four years old. The majority of employees stay with the company for their entire working lives. The Head of HR commented that the low turnover may be explained by two factors; firstly, the nature of the business renders it recession-proof, therefore people believe that their jobs will be secure and, secondly, the firm is seen to be an attractive employer with a good reputation of looking after its staff.[37] Every two years, employees are given a satisfaction survey to complete which, in addition, asks them to rate their satisfaction levels with all aspects of their job and the company, they are given the opportunity to make suggestions.  In the last survey, employees rated the firm *good* to *very good*.

As a well-established organisation, the labour-management relationship also has a long history.  The HR department described a fruitful and close relationship with the works council. Union membership is slightly low at forty percent; the HR department perceived this to be the fault of Ver.di, the union which would represent the interests of the majority

---

[37] These factors also came up in informal chats with the receptionist on the front desk and with the secretary of the head of HR, both of whom the researcher had met on several occasions and were interested in the research project.  Both employees mentioned that their company was one of the best employers in the region and that they felt that their jobs were secure despite the economic situation.  The secretary made a comparison with **Utilities Firm B** and her previous place of work, stating that, although she had preferred the close working environment of a small firm, she enjoyed the perks and benefits that came with employment at **Utilities Firm B**.

of white-collar employees, which had failed to offer any tangible benefits to the staff. Manual workers, on the other hand, tended to be well represented by the union

### 8.4.1.3 Training and Development

Utilities Firm B offers a comprehensive programme of training for its employees in both job-specific skills and soft skills, which is open to employees at all levels of the organisation. Having said this, the HR manager pointed out that the majority of voluntary training, for example, language courses, was pursued by white-collar staff or younger blue-collar workers.

### 8.4.1.4 Restructuring

Restructuring has been incremental since 1998, as the firm switched from technical to process-oriented. The elimination of hierarchies has been gradual and in line with the natural fluctuations of people leaving the organisation at sixty-five. Since 1998 there has been a reduction of tiers from five levels down to three. According to management, redundancies have never been a key topic because of the diversity of the activities in which the firm is involved. Some lay-offs have occurred, but these have predominantly been in the case where specialist workers were hired to carry out specific projects and these projects have ended. In order to minimise the chances of this happening, HR plans long-term and thinks carefully about how it can retain employees who are working on projects with time limits:

> "Instead of sacking thirty people, we think about what we can
> do with them in the future. Do they have the right kind of
> skills we will be able to use? […] We get the right kind of
> people working for us and we train them so that they can do
> other jobs for us"
>
> (Fieldwork interview: **HR Manager**)

The firm has actively attempted to avoid downsizing because it is aware of the repercussions involved and the company is keen to retain a reputation as an attractive employer:

> "We want to be amongst the top employers in Germany [*and
> be*] 'a great place to work'. This is a milestone for us to
> achieve".
>
> (Fieldwork interview: **Head of HR**)

### 8.4.2. The Challenges of the Ageing Workforce

From the management viewpoint, demographic change is not perceived to be an important issue at **Utilities Firm B**. During the interviews, managers admitted that managing ageing workers was something which they had to think about, but they did not see it as a problem of immediate urgency. One manager explained:

> "Our average worker is forty-four. It's the same as in other
> firms, I think. We have always had older workers and
> younger workers; […] this isn't a new problem. […] We
> think about the future, we plan, we look after our workers [..]
> old and young workers".
>
> (Fieldwork interview: **HR Manager**)

As it has been described above, **Utilities Firm B** was a firm which clearly invested a great deal in its employees, measured employee satisfaction levels carefully and its

managers went to great lengths to express that their firm cared, not only about its employees, but about the region as well. Thus, to have the topic of managing the ageing workforce dismissed as a problem appeared not to make any sense. The demographic shift *had* impacted on the firm; the average age of the workforce was higher than in many of the other firms visited during data collection and the mean age would continue to rise in the future.

There were two possible explanations for the managers not discussing the demographic shift as explicitly as in the other firms visited. Firstly, for this firm, looking after its workers aged fifty and above was a normal part of its approach to human resource management. In other words, managing an ageing workforce and striking a balance of old and young workers was not seen as a separate initiative. As the case reveals, **Utilities Firm B** was already undertaking many of the practices which are associated with managing demographic change. Secondly, the issue of recruiting enough young people into the firm was a consideration which overshadowed managing an ageing workforce.

*8.4.2.1 Early Retirement*

As previously established, **Utilities Company B** had followed the typical strategy of targeting older workers when reorganisation took place. Thus, older managers were offered early retirement packages and their vacated positions were not filled; this meant that the company was able to streamline its hierarchies. The company had made use of

the *Altersteilzeit* law, in order to manage its staffing needs, and any workers who wanted to take an early retirement package were allowed to take one.

However, with an average age of forty-four in the firm, it was evident that the firm had a high quota of ageing workers. The company recognized that offering early retirement was no longer an acceptable solution for the future. This is not only because it would become expensive without the government's financial support, but also because the firm wanted to demonstrate that older workers that they were valued by the company. Besides, the rise in the age of retirement was also an incentive for the company to think about how to create better working conditions of their older employees.

Hence, at **Utilities Firm B**, the firm had cut its offer of early retirement down to the bare minimum. As the HR manager explained, a complete halt was impossible but employees were being encouraged to re-think early retirement and the firm planned to dispense with the packages completely by 2013.

*8.4.2.2 Demands of Flexibility*

Flexibility was mentioned frequently in the interviews, with all respondents at **Utilities Firm B** explaining that flexibility was an integral part of the organisation. Having said this, the works director expressed his opinion that, even though, across the company, the

workforce had grasped and were demonstrating flexibility in their attitudes to work, it

was the workers aged fifty-five and over who found it the most difficult to be flexible:

> "Some jobs we don't need any more so people have to be
> flexible and ready to take on new roles and to be re-trained.
> This is hard for people who have had the same job for twenty
> years or more. […] I'm not saying that all our younger
> workers are flexible and open to change, but it's the older
> workers who are the most difficult to move around in the
> company".
>
> (Fieldwork interview: **HR Manager**)

When asked about the way in which older workers manifested being "difficult to move

around in the company":

> "Older workers are afraid of what might happen to them. It's
> not our place to say 'you must accept the new situation', but
> we have to work together and overcome these difficulties".
>
> (Fieldwork interview**: HR Manager)**

### 8.4.2.3 Motivation

Interestingly, unlike at the other firms in the sample, at **Utilities Company B**, no direct

mention of apathy was made by the managers interviewed. Evidently, the situation

described above by the works director involved apathy on the part of the older workers

who were clearly resistant to being given new tasks and to being re-trained, but the

manager associated these attitudes with fear and a tendency for older workers to prefer

the status quo. The HR manager was pressed upon to consider whether or not he thought

that the organisation had a distinct problem with a lack of motivation amongst its over-

fifties workers. He commented:

"I don't think that the issue of motivation in this firm has anything to do with age. Instead it is related to leadership and support. Am I valued? Am I supported in my personal development? Which area I work in, what are the career advancement possibilities? For some employees, money counts".

(Fieldwork interview: **HR Manager**)

Having said this, the interviews revealed that there *was* resistance to training amongst older employees, as well as towards switching job roles in the firm and these issues had not been fully addressed. The existence of a demographic shift-related problem was acknowledged, but management had not tackled it as a separate issue. Instead, as far as the problem had been addressed at all, it was seen as being bound up with planning for the future of the firm and as having repercussions for the workforce as a whole.

The firm was partly encouraging workers to cling to old ways of working, where early retirement was a standard option and early retirement was the norm. Yet, this was at odds with the company-wide flexibility, as well as with the way in which the organisation wanted to develop. As a firm with a concentrated age structure, **Utilities Company B** was experiencing some problems in finding enough jobs for new employees. This had had repercussions for their apprenticeships. As an integral part of their role as a socially responsible employer and a key employer in the city, the firm believed that it was important to offer training to local young people. However, the dearth of vacancies in previous years had left them in a position, whereby they could only employ ten percent of the apprentices after their training had ended.

### *8.4.3 Managing Demographic Change at Utilities Firm B*

As it has been discussed, according to management, the creation of specific instruments to tackle demographic change had not occurred, especially since management neither recognized the problem to be pertinent for their organisation nor saw it as being an issue which was unconnected to their mission to be a socially responsible employer.   Having said this, the company had developed and implemented tools that, even though these had been designed to improve the organisation as a whole, arguably, would minimise the challenges associated with an ageing workforce and a decline in the future pool of new workers.

### *8.4.3.1 Project 2020*

Instead of implementing a simple demographic check, **Utilities Company B** had, for instance, developed *Project 2020*. *Project 2020*, as the title suggests, was an initiative which also directly addressed demographic change as an issue through its objective of establishing an overview of the company, in order to plan for the future.  The project was designed by HR to examine every area of the firm, in order to ensure that, in at end of the next decade, the firm would have enough skilled workers, would know where any skills gaps could arise and which jobs might disappear, as well as seeing how this would impact upon recruitment. As the head of HR explained:

"At the end of this year we will probably do our first assessment to see   where we are in different areas […] and to see where we are good. […] Then we take a look at 2020 and think about which things are going to change.  What are the so-called change drivers?  What will people be doing in the different areas?  […]   If there will be less workers, then, hypothetically speaking, do we need less people in the HR department? Our prognosis of what the firm will look like in 2020 will be a basis for future projects and benchmarking to improve future efficiency".]

(Fieldwork interview: **Head of HR**)

The HR management perceived *Project 2020* to be a normal part of their departmental planning.  In order to promote the scheme within the organisation and to encourage the workforce to think about the future and to be involved in the initiative, the name, *Project 2020*, had evolved so that the workers had a tangible project with which they could identify.

The involvement of the workforce took the shape of making suggestions for improvement within the company, as well as the setting up of small task groups to consider ideas such as more ergonomically designed offices and more efficient office systems.  These task groups were mixed age and tended to consist of white-collar workers. Nonetheless, employees across the firm were invited to make suggestions for improving the organisation of work.  Furthermore, the workforce also had to be made aware of the existence and aims of the project because extensive data-collecting and monitoring exercises were planned during *Project 2020*, which could interrupt work and would require the assistance of the employees to answer questions about how they worked, what

they did and, for older workers, whether or not they were planning to work after they reached sixty years of age.

*8.4.3.2 Managing Health and Well-being*

As already established, the other measures undertaken by the company were related to the overall company aim of looking after the employees and motivating them through the creation of positive working environment. Maintaining a good standard of health amongst its employees was high on the agenda of **Utilities Firm B**. HR carefully monitored absences related to ill-health amongst its workers. Employees with extended health-related absences were encouraged to meet with the firm's doctor, in order to discuss their condition. The company also offered reduced working time for employees who were receiving medical treatment but were well enough to continue working. In this way, employees did not fall behind in their jobs and felt that they were supported by the organisation.

The firm did not have any onsite exercise facilities but, as part of the courses offered, employees could attend seminars which introduced the benefits of Nordic walking or how to jog without injury. These seminars tended to one-offs, but were offered as a way of balancing out the courses offered between job-specific and non-job specific, as well as to promote a healthy lifestyle. Employees were also encouraged to participate in local sporting events as representatives of the company, in order to link fitness more closely

with the organisational culture. The HR manager, for example, was a regular participant in a local fun run to raise money for charity[38]. Involvement, as well as success, in such events was documented in the works council newsletter, as well as on notice boards in the firm and on the company website.

### 8.4.3.3 Continued Practice of Early Retirement

The HR manager revealed that **Utilities Company B** had not yet found a solution to the question of how to create more jobs in the workplace. He admitted that they were in the beginning stages and had had very few concrete ideas about how to approach the problem. The end to the Old Age Part-time law was a real issue that had to be tackled, however, since no concrete solutions had been found, the firm was intending to continue to offer it for a further one or two years after the government withdrew its support, with a complete halt by 2013.

One of the solutions that had been discussed to create more jobs, especially for newly trained apprentices, was to reduce any outsourcing done by the firm to an absolute minimum, in order to create vacancies in the firm. However, since the firm was only

---

[38] Photographs of the HR manager and other employees running for charity were displayed in the corridor of the HR department.

outsourcing non-value adding activities, this strategy was not perceived as having much of an impact on finding jobs.

Additionally, the long-term working time account was intended to appeal to younger workers who could save up hours and then take a sabbatical. The fact the long-term working account could be used as a way of collecting hours towards an early retirement for older workers was, therefore, not the original objective of introducing the scheme. Yet, with the end of the Old Age Part-time law, long-time working contracts were perceived as a way in which early retirement could still be offered to those who wanted it.

*8.4.3.4 Lack of Response to Motivational Issues*

The HR managers did not mention any solutions taken to address the resistance to training from older workers. When asked directly about this, there was repeated reference from both managers to further generations of workers being more open to training once they entered their fifties. Hence, the problems of different mindsets, indifference and lack of motivation would eventually be eradicated.

*8.4.3.5 Training and Development*

The company invested in training and up-skilling and management recognized that widening their training initiatives was the best tool, in order to ensure that employees continued to lead productive working lives with **Utilities Company B**. HR was planning a more intensive programme to compare gaps in the organisation with the skills and abilities of the workforce, with a view to re-training elderly employees. However, the head of HR explained that the organisation needed to go further:

> "Not only do we have to attract and get their [*older workers*] interest but we need to create new tasks that will make the most of their know-how".

(Fieldwork interview: **Head of HR**)

Courses were described as being well-attended, especially the Nordic walking seminars. Language classes, especially English, also tended to be popular because they enticed participants by being useful for their personal life, as well as adding to their skills as an employee. Implementing knowledge management initiatives was an objective which still needed to be met. The firm did not yet have any tangible measures in place for ensuring that know-how was not lost when older workers left the company. Nevertheless, it was hoped that *Project 2020* would help to find solutions.

Similarly, the issue surrounding the loss of apprentices was something that could not be addressed. The company was keen to retain as many apprentices as it could, especially to cover any skills gaps highlighted through *Project 2020*. Typically, for the utilities sector,

**Utilities Company B** offered two types of working time accounts which added to employee flexibility and could be used as a tool to manage demographic change. The long-term account, however, had been developed, in order to ensure that workers who accrued many hours did not lose them and so that the HR department did not have to force people to use up hours by sending them on holiday.

### 8.4.4 Summary of Case Study – Utilities

This section has highlighted that measures to manage demographic change may be part of organisational wider aims to motivate and provide a positive working environment for employees, as well as to plan for the future. Interestingly, at **Utilities Company B**, the management was uncomfortable about discussing the demographic shift as a separate issue but the reason behind this became clear during the interviews; looking after the ageing workforce and preparing for new workers had been such an established part of the role of the HR department for so long that they felt that it devalued what they had always done by describing it as *demographic change management*. In other words, they did not want their measures and practices to be chalked up to responding to a trend, where it was seen as part of their social responsibility as an employer. In this way, it was not the case that **Utilities Firm B** did not perceive demographic change to be a matter of importance as Kirpal and Kühl (2006), Müller-Camen *et al* (2009) and Thun *et al* (2007) suggest.

As the case establishes, the firm was experiencing similar problems to other firms, in terms of an ageing workforce and a problem recruiting young people. Nevertheless, managers did not identify demographic change as a specific issue to be managed; dealing with these challenges were interlinked with developing strategies to improve the future of the organisation as a whole. Hence, consistent with the findings of chapter six, this case illustrates how firms with good employee practices perceive the implementation of tools to cope with demographic challenges as a norm part of their responsibility as an employer.

Instead of measures such as a demographic check, was using **Utilities Firm B** was using long-term planning to manage the future shift in the workforce and a possible skills gap. This was underpinned by their strong investment in employee training, support for health and fitness and promotion of flexibility.

Nevertheless, in terms of actual measures to tackle demographic problems, the firm had made little progress. The company lacked tangible planning in the areas of knowledge management and how to manage apathy and to accommodate the changing needs of older workers. Moreover, no real solution to replacing the *Altersteilzeit* law had been found. *Project 2020* was intended to reveal all the problem areas within the organisation, which, it was hoped, would lead to the further implementation of new measures. Whether or not this would be enough would remain to be seen. As a result, this case is also evidence of

the fact that this thesis cannot argue conclusively that the academic literature is incorrect regarding the extent to which German organisations are doing enough to manage demographic change. Yet, the fact there is enough evidence (including from this case) to show that *something* is being done.

## 8.5 Conclusion

This eighth chapter has introduced one case from each of the sectors, in order to depict a more detailed account of how firms have been affected by, and respond, to demographic challenges. Despite the fact that the background to the cases varied, the problems experienced by the companies centred on a lack of motivation amongst older workers and overcoming the problem of recruiting enough young people into the company as apprentices. Nonetheless, responses to demographic change naturally differed.

In line with the findings presented previously, macro forces within the sector affected the organisational experience of restructuring which, in turn, impacted upon the management of demographic developments. Thus, in the steel case, there was a high number of unmotivated older workers who had survived restructuring; in the chemicals case, motivational issues and issues surrounding skills were of importance, yet highly volatile markets and shareholder pressures prevented managers from addressing these issues; in

the utilities case, the relatively stable nature of the water management industry meant that the firm had experienced little reorganisation and redundancies were not a chief concern.

For this reason, a lack of commitment amongst older workers was not a significant issue and the firm was able to give the issue of the demographic shift the same care and attention which was given to other threats to the firm. The cases consequently add to the evidence presented in chapter six for the argument which this thesis makes; namely that wider frameworks of change need to be examined, in order to understand organisational responses to demographic shifts and, additionally, that the repercussions of organisational restructuring exacerbate the management of the consequences of demographic change.

The cases additionally shed some light on the question regarding why some firms do more to manage demographic change than others. The utilities case underlines that firms which have good employee practices tend to view the implementation of measure to manage the effects of demographic change as being an extension of these employee-friendly practices. Moreover, the steel case illustrates that firms which reorganise have the biggest problems in repairing damage to psychological contracts. Hence, these firms may do more in order to manage the consequences. Finally, in the chemicals case, demographic change is less of a priority if a firm has more short-term problems to be managed.

The findings on attitudes towards early retirement highlighted by these cases are extremely significant. In all three cases, early retirement was still offered, hence, it could be argued that if three out of three firms investigated have continued the practice of early retirement of older workers, then they were avoiding the problem, rather than effectively tackling it. In this case, it would seem that the academic literature was correct in asserting that German firms have failed to tackle demographic change.

Yet, to take a closer look at the cases of **Steel Firm D**, **Chemicals Firm A** and **Utilities Company B**, reveals that there was a distinct difference behind how each of the firms was continuing to offer early retirement. Larger numbers of workers in the steel industry meant that there were more older workers to displace than in the utilities sector, therefore, it is not surprising that management at **Utilities Firm B** could be more definite about the date at which they intended to stop offering early retirement packages. In the chemicals case, other issues were taking priority. But in each case, the intention to dispense with this expensive method of worker displacement was expressed; it was just a question of how soon this could be done.

Hence, to suggest a continuation of the use of early retirement indicates a failure to manage demographic change effectively is too simplistic and inaccurate. As this chapter

has evidenced, German firms are reacting to the effects of demographic shifts, whether this be through the development of innovative organisational practices, policies or initiatives targeted at older workers (e.g. at **Steel Firm D**) or as a result of wider strategies which are intended to improve the firm as a whole (e.g. at **Utilities Firm B**).

Therefore, this chapter can conclude that, contrary to the claims of the academic literature, firms should manage to avoid the *demographic trap* (Thun *et al*, 2007) because managers perceive changes in the labour market demographics to be a matter of immediate urgency and have developed measures to prepare for this. However, there is no conclusive evidence from this study that enough is being done, since some issues remain unresolved or, to a certain extent, overlooked.

This chapter has presented three cases in order to present the challenges of demographic change in more detail, as well as to indicate the extent to which contextual factors related to industrial sector may explain a divergence in responses to demographic change. The next chapter presents a summary of the research, key findings, recommendations, as well as a discussion of the weaknesses of the research.

# CHAPTER NINE

# CONCLUSIONS OF THE STUDY

## 9.1 Introduction

The aim of this ninth and final chapter is to draw together the thesis by making a summary of the findings of the thesis and describing the contribution to knowledge made by this research. It is recognised in the thesis that, to date, little research has been conducted to examine demographic change at an organisational level. Moreover, the extant literature suggests that the management of demographic change within German organisations has not been approached with the attention which it deserves. Therefore, the findings of this study should make some contribution to bodies of studies, including HRM and gerontological literatures. Finally, overall conclusions from the study are drawn within this chapter. In section 9.5, the limitations of the thesis are considered and the thesis makes recommendations for how further research could be carried out to better incorporate the perspectives of the other industrial actors, such as trade unions, works councils and the state.

## 9.2 Research Questions

This section will briefly restate the findings for the first two research questions, before considering the final two in more detail. The thesis has four research questions:

- What are the problems associated with managing demographic change?

- What are the management responses to demographic change?

- Why do some firms do more to prepare themselves for the effects of demographic change than others?

- To what extent do the effects of industrial sector and organisational restructuring impact on the management of demographic change?

### 9.2.1 Managing Demographic Change

Chapter six discussed the findings of the empirical research related to the first two research questions. The findings of the thesis are consistent with the literature on demographic change by drawing attention to problems for firms, including a rise in the average age of workers, health issues, apathy amongst older workers, a loss of skills and know-how when people retire and a decline in the supply of new skilled workers, as the birth rate drops.

It was concluded that, although the majority of literature on demographic change in Germany suggests that little is being done to manage the problems of the demographic shift, organisations were aware of issues related to demographic shifts and responding to them. Moreover, many innovative measures for managing older workers and other issues associated with demographic change have been identified. Yet, the thesis is unable to prove conclusively that the literature (especially Kirpal and Kühl, 2006; Müller-Camen

*et al*, 2009; Thun *et al*, 2007) are incorrect in proclaiming that German firms are adequately responding to demographic shifts, especially because organisations, even within the same sector, responded differently to developments such as early retirement provision and managing apathy amongst older workers.

As chapters two and four indicated, demographic change is not a new issue for German firms. Reference to issues, including perspectives on ageing, early retirement, maintaining skill levels and the discussion of pensions, emphasised that firms have long been faced with managing older employees and dealing with skills gaps. Nevertheless, this thesis underlines the fact that, in the twenty-first century, demographic change has a new, and more urgent, focus. In the German case, older workers can no longer be pensioned off by the age of sixty and managing inflows and outflows of labour is already an issue for the majority of firms in Germany. Thus, whilst measures to combat demographic challenges were identified through the research, firms needed to do more to respond successfully to all corresponding issues. Companies were considering measures such as changes to the way in which work was organised and/or meeting the expectations of older workers, yet, no real solutions had been found to tackle the deep-rooted issues surrounding alternatives for early retirement, apathy towards ups-skilling and other motivational issues.

Many managers, especially in the steel and chemicals sectors, did not believe that they were in a position to be able to fully rise to the challenges of demographic change. The interviews pointed to the fact that one of the biggest issues connected to senior workers was managing apathy and resistance to training and few managers felt confident that they had designed the relevant instruments to fight against the apathy of older workers.

Yet some firms seemed to do more than others. **Steel Company E**, for example, was the only firm which had developed a strategy to manage apathy by linking it to financial reward. It was clear that external and internal pressures on companies equally placed demands on organisations and influenced the way in which they responded to demographic change. Hence, the thesis shifted to examining possible explanations for a divergence in response.

### 9.2.2 Divergent Responses to Demographic Change

There was an overlap between the final research questions. In particular, the third research question: *why do some firms do more to prepare themselves for the effects of demographic change than others?* required the consideration of the fourth research question, which focused on sector and past experience of organisational restructuring.

As it has been seen through a comparison of the empirical data and the background to the sectors, in order to understand organisational responses to demographic change, it is important to view them within a wider context of change. This thesis explicates that certain demographic challenges are specific to Germany; hence, it would not be possible to explain these without examining broad frameworks of institutional changes. Data collected indicated different timing between restructuring within the different industries and there was a discrepancy between the actions of different firms to respond to demographic shifts. Following this, chapter six suggested that sector might play a role and this idea was explored in chapters seven and eight, in order to pick up on the differences between the responses of the firms in each of the three sectors to demographic developments.

Figure 9.1 summarises the parallels between the three sectors in terms of the time-frame of restructuring, number of older employees, whether or not they were continuing to offer early retirement to the same extent as before, as well as the variation surrounding the measures to manage demographic change themselves.

Steel firms had the greatest numbers of older workers, as well as the largest percentage of workers aged fifty-five and above. The chemicals and utilities sectors had less older workers because many of these firms tended to be smaller than the companies in the steel

sample, as well as due to rationalisation measures.  In the steel industry, the process of

shedding older workers was over and, thus, the number of older workers had stabilised.

| *Steel Sector* | *Chemicals Sector* | *Utilities Sector* |
|---|---|---|
| Highest number of older workers. | Large numbers of older employees. | Smaller numbers of older employees. |
| Restructuring done in the past. Future prognosis - sector is closely aligned to the car industry. | Restructuring ongoing. Sector is very susceptible to competition. Always threat of downsizing. | Restructuring done in the past. Sector is in constant state of change, therefore, future change cannot be ruled out. |
| Decreasing reliance on early retirement. | Continuing reliance on early retirement. | Decreasing reliance on early retirement. |
| Creation of specific measures to manage demographic change. Innovative practices designed. | Some measures implemented; collaboration with trade union. Interruption to managing demographic change due to recession. | Managing demographic change linked to overall aims of firm to create good work environment. Some measures implemented but aligned to solving other problems in the firm. |

**Figure 9.1: Summary of Reponses by Sector**

The utilities companies had offered early retirement to the majority of senior employees,

but other downsizing measures meant that the number of older workers was considerably

lower than the other two sectors.  Finally, in the chemical sector, labour shedding was

ongoing, but chemical firms were experiencing similar problems to the steel industry, in

terms of high numbers of older workers, the need to create a balance between outgoing

(old) and incoming (young) workers and the threat of a loss of skills and knowledge.

Whilst the smallest firms were utilities ones, they had measures in place which arguably mitigated some of the repercussions of an ageing workforce but, especially in the case of the *Stadtwerke*, this was linked to their special position in the local area and their emphasis on social responsibility.  The utilities case study in chapter eight illustrates this well; **Utilities Firm B** demonstrates how managing the effects of demographic change became a wider extension of employee-friendly practices implemented within organisations, instead of being viewed as a stand-alone problem.  Steel firms tended to offer the most for their older workers.  However, steel firms out of all the sectors had the highest number of older workers; therefore, it is understandable that these would be the companies which would be taking the most proactive stance because they were the firms hit hardest by demographic challenges. Moreover, the steel industry showed itself to be retaining some elements of its former paternalistic culture.  Finally, in the chemicals sector, the awareness of the problems of the demographic shift was there, especially due to the support of the IG-BCE, but the unstable nature of the sector was hampering the extent to which firms could devote time and finances to addressing the demographic issues.

As chapter eight highlights, **Chemicals Firm A** had carried out a demographic check and was aware of the problems that the older members of the workface had in adjusting to changes in the organisation. But, due to the fact that **Chemicals Company A** was facing

an uncertain period brought about by the economic recession, the HR department, therefore, neither had the temporal nor the financial resources available to address the issue of its ageing workforce. **Steel Firm B**, in contrast, reported that they were doing well at the time of interviewing. As far as the utilities firms were concerned, there was a relative overlap between the kinds of measures implemented by the firms and, as the case of **Utilities Firm B** reveals, these initiatives tended to be linked with the overall goals of the HR departments to secure a positive and healthy working environment for all employees.

The attitudes of managers towards ageing workforces emerged from the interviews as a mixture of the chronological and psychosocial perspectives. It can be argued that the presence of these contradictory perspectives is mirrored by the overall attitude of the managers in the sample to the issue of demographic change. Managers were aware of the challenges and were, on the whole, implementing measures to combat these. However, managers still had to respond to other issues, including the implications of restructuring and difficulties brought about by economic recession and were, therefore, limited in the extent to which they could devote more time and resources to managing demographic developments. The majority of measures to respond to demographic challenges were not new, but were part of existing practices, such as up-skilling or job rotation, which took on added importance in preparing companies for the effects of demographic challenges. In the steel and chemicals firms, many of the practices implemented were designed as *quick-*

*fix* measures, more than they were intended to reflect part of a long-term strategy to manage demographic change[39]. Utilities companies, as already established, tended to perceive the issue of demographic change as inextricably linked with other HR matters.

Consequently, the findings suggest that sectoral patterns go some way to explaining why there is a divergence in firm responses. This is less dependent on firm size and more dependent on the special conditions which exist within the sectors which have been shaped by the culture and history of the industry, as well as by current economic factors and changes to corporate governance. The latter is very much to be seen in the chemicals sector.

Related to the consideration of the special conditions which exist within these sectors is the concept of social responsibility, which underpins German organisations and, arguably, plays a role in explaining differences in responses to the demographic shift. Reference to social responsibility has been made throughout this thesis; in the interviews, managers repeatedly justified their actions by referring to the firm having a social responsibility to the wider stakeholder. This defence was used to explain why some firms trained over and above their own needs or why the utilities firms did not believe that the

---

[39] **Steel Firm D**, covered in chapter eight, was an obvious exception.

development of instruments to combat the effects of demographic change should be divorced from measures implemented to improve the organisation as a whole.

Through an exploration of the issues related to explaining a divergence in responses to demographic shifts, an important conclusion regarding the extant body of literature may be reached. In many ways, the prescriptive literature on demographic change tends to take a *one size fits all* approach by presupposing that, since all developed nations will be affected by ageing populations and decreasing birthrates having an impact on labour markets, the solutions and problems will be universal. This thesis has attempted to incorporate ideas from bodies of literature which span different industrial sectors and different countries, in order to apply them to empirical findings and to identify gaps in the literature.

Nevertheless, by focusing on Germany and indicating the differences between the problems and solutions faced by management in the firms visited and those cited in the academic literature, the thesis emphasises that there are specific national differences which have to be taken into consideration when discussing the implications of demographic developments and how these may be managed by organisations. Hence, the argument that some firms may do more to manage demographic change is based on sectoral variations may not be applicable to other countries.

The management of the effects of demographic developments became a more complex task for managers in firms which had undergone widespread restructuring.    Chapter seven presented empirical data and drew upon previous studies which demonstrated how downsizing, the elimination of management tiers and outsourcing have largely negative consequences for the workforce including wide-scale redundancy, damage to motivation and morale.  The thesis indicated that these side-effects, which need to be addressed by organisations, impact on the way in which firms are affected by and respond to the demographic shift.  In companies where older workers survived reorganisation, managers reported that the damage to commitment levels meant that these workers were more likely to reject further training or to exhibit signs of apathy.

Interviews highlighted that, with an end to early retirement, ensuring that people remain productive for longer was a task being managed in German firms.    Similarly, restructuring often led to the replacement of jobs by new technology or jobs simply became obsolete. Consequently, there were fewer jobs for younger workers. The thesis found that many managers were forced into situations where they had to choose between saving the jobs of older workers instead of retaining new trainees.  Consistent with the literature, apprenticeships were found to be declining, but firms continued to train even if permanent contracts could not be offered after the apprenticeship was completed.

It was also shown, especially through the case studies in chapter eight, that the experience of restructuring had also lead to positive outcomes for the management of demographic change. Managers reported an awareness of retaining, protecting and spreading know-how and organisational knowledge. In line with the literature, knowledge management was a key concern for organisations and much of this had its roots in the experience companies had had of lost knowledge after downsizing had taken place.

## 9.3 Summary of Key Arguments

The thesis makes the following arguments:

1. Far more is being done to prepare for and to counter the effects of demographic developments than the academic literature suggests. In particular, contrary to the literature, the majority of German firms are developing and implementing tools to manage demographic change.

2. Whilst the thesis provides evidence of the existence of innovative measures to address demographic change being developed and implemented in German companies, it cannot conclusively prove that enough is being done. The continued use of early retirement and a failure to address a lack of motivation amongst older workers suggests that the academic literature is partly correct in its critique of German organisations for a failure to prepare properly for demographic change.

3. Firms in different sectors respond differently to demographic challenges. The special conditions of the industrial sectors, as well as historical, political and economic factors have shaped responses.

4. The organisations which are the most successful at managing demographic change perceive this to be part of their role as a responsible and caring employer.

## 9.4 Evaluating the Contributions and Implications of the Study

As the literature review indicated, demographic change is a major topic for research because of the global impact of ageing workers and a decline in the supply of fresh labour which places pressures on governments, labour markets, social provision, as well as upon individual firms. In the case of a declining labour pool, this thesis also finds, however, that German firms have not yet been affected by a decline in the number of potential new employees. In some cases, companies were training more apprentices than they needed.

Nevertheless, despite the fact that demographic change is a nascent body of literature, many aspects of managing demographic shifts in organisations remain considerably under-researched. Many gaps in the literature continue to exist and it is intended that this thesis will, in part, help to address some of the issues which require more research.

Based upon the conclusions of the research and the key arguments delineated in the section above, this thesis adds new knowledge regarding the responses of some firms in three sectors to address the issues of demographic change. The findings add new insights and understanding to the existing knowledge in a number of fields, including HRM, gerontology, demographic change and international business and management. The following subsections sections set out the theoretical, empirical and practical contributions and implications of the findings.

### 9.4.1 Theoretical Contributions and Implications of the Study

The first, theoretical, contribution which this thesis makes is to that it has certain implications for the downsizing literature. This literary canon predominantly focuses on the period of the 1990s, when firms were facing the challenges of globalisation. Accordingly, revisiting this literature to connect it with current demographic developments adds new insights and may, arguably, lead to a resurgence of interest in this field.

Secondly, this research is multi-disciplinary. As previously outlined, an inclusive review of the extant literature on demographic developments involves reference to various disciplines, including gerontological, medical, psychological, business management and economic research. Consequently, a further theoretical contribution made by this thesis is

to engage with these various disciplines, in order to provide a review of the literature pertaining to the organisational management of demographic developments.

The final theoretical implication of the thesis consists of a further contribution to the demographic change literature. The research points to sectoral differences as an explaining variable in why variations between the measures to manage demographic change existed. The findings suggested the existence of a sectoral pattern to explain divergence in firm responses to demographic change. Responses were not dictated by firm size, but were more aligned to the special conditions which existed within the sectors and were shaped by the culture and history of the industry, as well as by current economic factors. As the literature review indicated, limited research had been done to explain any differences in organisational responses to demographic change; hence, this adds to the extant literature.

### 9.4.2 Empirical Contributions and Implications of the Study

Within the literature, studies focusing upon how demographic change is managed within firms make a valid contribution to the academic understanding of organisational responses. However, little research has been conducted with an empirical focus and the majority of disseminated work tends to be prescriptive. Articles published on managing the ageing workforce, particularly in a German context, are predominately rooted in secondary source data. Moreover, few studies are qualitative.

Chapter two highlighted the issue of the *demographic trap* (Thun *et al*, 2007), which was postulated to surround German companies (Kirpal and Kühl, 2006; Leyhausen, 2009; Müller-Camen *et al*, 2009; Thun *et al*, 2007).    In other words, whilst the issue of demographic change was recognised by firms, managers were accused of failing to respond to the related challenges.  Aside from the studies by the Commerzbank (2009) and by Streb *et al* (2009), no other research has been conducted on how German companies were attempting to be proactive in the face of demographic developments and, most importantly, were designing measures to address demographic shifts.   Hence, this study makes an empirical contribution to the academic literature because it describes, not only the demographic problems which are immediately pertinent to German companies, but also presents and discusses the strategies which firms in three industrial sectors have implemented.

Moreover, alongside the research by Streb *et al* (2009), this thesis is of value for its analysis of demographic change at organisational level; an area which has been, otherwise, neglected by researchers. The qualitative nature of this study added to the richness of the data collected, especially management perspectives on the organisational implications of demographic shifts.  Additionally, it can also be emphasised that the use of case studies assisted in depicting the various measures designed by companies to manage demographic change in greater detail.

Although some of the objectives of this study share a similarity with those of Streb *et al* (2009), this study differentiates itself from that study because it engages with the organisational level more deeply through a wider survey of managers. Furthermore, it focuses on more than one sector and is, thus, able to reach other conclusions regarding the motivation of German employers to address demographic change. Whereas Streb *et al* (2009) argue for competitiveness, this thesis considers external and internal change factors and evaluates the measures undertaken by firms to respond to demographic shifts. Finally, contrary to the experiences of Streb *et al* (2009), this thesis found that managers in Germany *do* want to speak about demographic change and the fact that this study was respondent-driven underlines the importance of the topic of demographic change in German firms.

On the one hand, the empirical findings of this research are primarily consistent with the literature regarding the nature of the demographic issues which impact upon firms. Additionally, the majority of solutions implemented bear resemblance to those set out in previous research. Hence, the thesis suggests that, to date, studies have accurately preempted the challenges to which companies must respond in order to prepare for a rise in the age of the workforce and a decline in skilled labour.

On the other hand, the thesis also presented issues which were only pertinent to German organisations, especially the issue of reversing the trend of early retirement as a tool for socially responsible labour shedding and how this has been, to date, ineffectually managed. Consequently, this empirical data makes an important contribution to demographic change literature by filling a gap in research on German organisations.

A final empirical contribution made by this study is that the empirical findings add to the English language research on demographic change, especially in relation to English language research on organisational responses to demographic change in industrialised countries. The research should be of interest because, as chapter two indicated, in business management research terms, Germany has been frequently used as a best-practice model.

### *9.4.3 Practical Contributions and Implications of the Study*

Even though the implications of ageing workforces are debated on a global scale, as indicated above, demographic change remains, for the most part, an under-researched topic. Thus, in adding to a growing body of literature on demographic shifts, one of the main practical contributions made by this thesis is to further highlight the extent to which demographic change is an issue which has already begun to impact upon companies in the industrialised West.

Highlighting the urgency of demographic issues is of importance because many studies, especially those which focus on ageing within the workforce, are written from a prescriptive perspective. Within this prescriptive literature lies an implication that addressing the challenges associated with demographic shifts is a future issue for companies, as opposed to something which requires attention at the present time. By emphasising the extent to which companies in Germany, especially those which have restructured, are responding to problems with motivating and up-skilling their older workers and protecting organisational knowledge, the thesis underlines the fact that companies in industrialised nations need to implement measures now, instead of waiting until the problem has worsened. Moreover, the research emphasises that other actors – unions, national governments and European governments - need to be more proactive in addressing these demographic challenges and in supporting organisations.

Aside from drawing attention to the importance of managing demographic developments, especially the management of ageing workers, the second practical contribution of the thesis is to place this demographic issue within a national context. In this way, the study adds to the body of prescriptive studies on demographic change because it underlines the importance of considering national differences when contemplating the management of demographic developments.

In terms of the practicalities of the thesis for German organisations and HR practitioners, the thesis adds some insights into the issues of an *early exit culture* and the end to the *Altersteilzeitgesetz*. The findings highlight the extent to which, alongside maintaining a balance of incoming and outgoing skilled workers, early exit culture and the end to state-funded early retirement support are key issues. In the fieldwork interviews, German HR managers cited these areas as especially problematic and they have not yet been adequately resolved. Hence, these are areas where German firms require the most support to implement effective solutions to safeguard the future of their organisations. This research explores the diversity of measures implemented by different companies, which may be of interest to HR managers within Germany and outside. HR managers, especially in the UK, may be interested in how investment in primary and secondary employee well-being measures can be linked with a greater facility in managing older workers. As the research indicates, improvements to well-being can enhance the health and fitness levels of older employees, which have beneficial implications for their ability at work.

## 9.5 Limitations of the Study and Recommendations for Further Research

Firstly, whilst an attempt has been made within the research to present the management of demographic challenges within the twin contexts of organisational restructuring and industry, these independent variables require a more precise specification, in order for the research to be more accurate in gauging how the different organisations and industries

have managed their older workforces. This is an important limitation of the research. Moreover, in terms of restructuring, whilst some examples regarding the numbers of job losses over the restructuring periods in the three industries are provided, the researcher was unable to collect data to accurately measure and compare the degree of restructuring. Thus, on the whole, the study relies on time differences between the industries to suggest the extent to which restructuring has impacted on the number of older workers, as well as on choice of tools to address demographic developments. Hence, this theoretical contribution of the thesis is weak and, as discussed above, the study is not able to provide conclusive evidence that German companies are responding effectively to demographic shifts.

The research is somewhat disadvantaged by the lack of employee voice. Only at one firm was the researcher allowed to speak to someone from the works council and, despite the fact that access to chemical organisations was gained through the IG-BCE, the chemicals interview participants were *still* managers and the researcher was not given access to works councillors. Moreover, some managers were initially hesitant about being interviewed.

Consequently, the analysis must take into account the fact that the interviews contain an amount of bias because the respondents were largely managers. This point is of importance when it comes to analysing the extent to which employees have been either

positively or negatively affected by reorganisation. The voice of the workers themselves is absent from this study and, thus, the suggestions by managers that workers have benefited from better channels of communication and a greater work-life balance must be interpreted with reservation. The data collected wholly represents a managerial perspective which, evidently, begs the question of whether or not the opinions stated truly represent what has taken place at the organisations in the sample.

One unsatisfactory findings of the thesis is the managerial attitudes to coping with apathy in older workers by ignoring it and clinging, instead, to a belief that the situation will improve of its own accord. It has been discussed at length in the thesis the extent to which this is a feasible attitude, as well as whether or not it is indicative of a change in attitudes to ageing. Nevertheless, this perspective remains as evidence that firms are only in the early stages of developing the right kind of instruments to mitigate the effects of demographic change. Having the opportunity to uncover employee attitudes to early retirement and to training in later years would make it possible to find out whether or not managers were correct. This could be overcome by having access to works councillors which was not possible for the researcher.

A further limitation to the study is related to a lack of input from other actors, especially trade unions. Background reading, as well as the managerial interviews, revealed how social partners, such as trade unions and the state, were involved in supporting companies

in managing their older workers. In order to address this imbalance, some further interviews were carried out in autumn 2009 with these actors. Interviews with representatives from the IG-BCE, for example, indicated how trade unions, for instance, have switched their support of early retirement to encouraging firms to look after elderly workers.

Furthermore, representatives interviewed from the German government and senior citizen lobby groups emphasised how the German Chancellor labeled the previous support of the state for early retirement as *grottenfalsch* (*dead wrong*) and called for better opportunities for older employees to remain in the labour market, to be up-skilled and to become more integrated within organisations (BAGSO, 2009). But, most importantly, the end of the state support of the Old-Age Part-time Act (*Alterteilzeitgesetz*), a law allowing partial retirement for older workers, in 2010 was seen to be the greatest indication of the German government's current stance towards the ageing population.

These factors began to raise questions surrounding the degree to which the management of the demographic change is an organisational problem more than a national problem. It was clear from the interviews at the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (*Bundesministerium für Familie, Senioren, Frauen und Jugend*/ BMFSFJ) that the German government had withdrawn financial support, in order to reverse the *early exit culture*, prevalent in Germany. However, it was beyond the

parameters of the research project to evaluate how the state and trade unions were sending the message of the importance of better integration of older workers in the labour market to companies. The study was also not able to establish whether or not other firms saw managing the demographic shift as simply being a policy problem for the government to solve.

One recommendation for further study is, hence, to develop the research on the role of trade unions and the government in Germany to support companies in achieving a better mix of practices to manage the effects of demographic change. Questions which remain unanswered include how exactly German trade unions and the German state support organisations in promoting longer, proactive working lives for employees and how this support is perceived by German employers. Moreover, it might be useful to examine the extent to which the measures undertaken by German trade unions and the German state have an impact on the management of demographic developments in German firms.

Even though much research on women in the workplace has been carried out, this is absent from the demographic change canon. The interviews revealed the extent to which companies were trying to offer flexible working opportunities to improve participate amongst their female staff, but it was beyond the parameters of the thesis to interact more deeply with the question of how increasing female labour market participation could be

better aligned to the management of the demographic shift. This would make an interesting study, building on the survey carried out by **Utilities Firm E**.

The study is unable to prove conclusively that firms are doing enough to manage demographic change but, based on the evidence of this research, it is suggested that firms should circumvent the *demographic trap* (Thun *et al*, 2007) surrounding German companies (Kirpal and Kühl, 2006; Leyhausen, 2009; Müller-Camen *et al*, 2009; Thun *et al*, 2007) if they continue developing innovative measures. As the case of **Utilities Company B** illustrated, for example. the majority of firms already had a set timeframe in mind for when they intend to stop offering early retirement. Hence, companies are not ignoring issues, but need more time to tackle them and it would, therefore, be an interesting follow up to this study to monitor the next steps taken by the organisations in this sample. This recommendation for further research should include a stronger analysis of sectoral differences, in order to prove conclusively that effective managerial and strategic responses to managing ageing workforces are dependent on industrial sector.

A final recommendation is that more interdisciplinary research on demographic change is needed. This study has gone some way into bringing together different disciplines, but since the issue of demographic developments has many facets, further research spanning different fields would bring together these threads and lead to a better integration of the literature. The current nature of these disparate literatures can summed up by an example

of an observation by Streb *et al* (2008). The latter indicate that health management is a useful tool to improve labour market participation in older workers, yet this fact tends to be overlooked by business management journals. In line with this point by Streb *et al* (2008), the empirical findings of this study signified that companies which took care of the fitness levels and wellbeing of their workers tended to be most successful in responding to demographic challenges. Hence, demographic change research would definitely benefit from a greater integration of themes.

## 9.6 Conclusion

This final chapter ends the thesis by drawing the different themes together. The principle arguments made through the empirical study were reiterated, in order to provide the background for a discussion of the theoretical, empirical and practical contributions of the study. As section 9.4 established, this thesis addresses an under-researched topic which has global repercussions for governments, society, economies and organisations and attempts to contribute to some of the gaps in the extant literature on demographic change, demographic change in Germany, as well as add to the cannon of works on organisational restructuring and its implications for firms.

The chapter also made some recommendations for interesting further research which would build on the findings of this study and widen the focus of examining the challenges of demographic change by examining external support for organisations in

Germany through the state and trade unions. In addition, other areas for future research were indicated, including examining how the extension of female labour could be aligned to mitigating demographic effects and how there should be a greater overlap of research between the different academic disciplines.

The message which permeates this thesis is that demographic change is a major issue which, as the example of Germany has shown, is challenging companies in the industrialised West and will continue to grow in terms of urgency. Moreover, the thesis has underlined the extent to which lessons on how to manage the effects of, what is essentially a global problem, may be learned from Germany. Certainly, this thesis suggests that demographic change is an issue to which firms must respond as quickly as possible before the effects are felt too deeply by organisations and society as a whole.

Undoubtedly, the German case outlined in this thesis indicates the extent to which demographic change has a plethora for implications for firms. German organisations, specifically, continue to struggle to find solutions to the end to the Old-Age Part-time law, maintaining motivation levels amongst older workers, as well as sustaining skill levels and attracting new skilled labour. However, outside Germany demographic repercussions will continue to grow as populations age and birth-rates fall. Consequently, companies must to do more to guard against the difficulties which skills gaps, a dearth of trainees and apprenticeship places bring. Furthermore, measures must

continue to be put in place to ensure that older employees may work productively and effectively until retirement

Chapter six highlighted the fact that addressing the paradox between unequal inflows and outflows of labour remains amongst the key challenges for German organisations. This is a key observation with which to end this thesis. A greater input on the part of other industrial actors, such as unions and the state, may go some way into resolving some of the associated issues. As this final chapter has indicated, further research in this area would assist in uncovering how organisations can derive support from outside sources to help them to develop the necessary tools to manage the global phenomenon of demographic change.

# Bibliography

Adamson, S., Doherty, N. and Viney, C. (1998). The meanings of career revisited: Implications for theory and practice. *The British Journal of Management* 9, pp. 251-9.

Aftalion, F. (2001). *History of the International Chemical Industry: From the "Early Days" to 2000.* Philadelphia, PA: Chemical Heritage Foundation.

Alvesson, M. and Deetz, S. (2000). *Doing Critical Management Research*. London; Thousand Oaks, California: Sage.

Alvesson, M. and Willmott, H. (1996). *Making Sense of Management*. London: Sage.

Avolio, B. J. and Waldman, D.A. (1989). Ratings of managerial skill requirements: comparison of age- and job-related factors. *Psychology and Aging* 4(4), pp.464-70.

Armstrong-Strassen, M. and Templer, A. (2005). Adaptive training for older employees: the Canadian response to an aging workforce. *The Journal of Management Development* 24(1/2), pp.57-67.

Arnold, J. (1997). *Managing Careers in the 21st Century.* London: Paul Chapman.

Arrowsmith, J. and McGoldrick, A.E. (1997). A flexible future for older workers? *Personnel Review* 26(4), pp. 258-273.

Atkinson, J. (1984). Manpower Strategies for Flexible Organizations. *Personnel Management*, August, pp. 28-31.

Atkinson, J.W. (1964). *Introduction to Motivation*. Princeton, NJ: Van Nostrand.

Audretsch, D. B. and Elston, J. A. (2006). Can institutional change impact high-technology firm growth?: evidence from Germany's neuer Markt. *Journal of Productivity Analysis*, 25(1), pp. 9–23.

Badunenko, O. (2007). *Downsizing in German chemical manufacturing industry during the 1990s. Why small is beautiful*. Discussion Paper 722. Berlin: DIW.

BAGSO/Bundesarbeitsgemeinschaft der Senioren-Organisationen. (2009). *Bilddokumentation – Alter leben – Verantwortung übernehmen*. Publikation Nr. 24. Bonn: BAGSO.

Bathelt, H. (1997). *Chemiestandort Deutschland: Technologischer Wandel, Arbeitsteilung und geographische Strukturen in der Chemischen Industrie*. Berlin: Sigma Rainer Bohn.

Bathelt, H. (2000). Persistent structures in a turbulent world: the division of labor in the German chemical industry. *Environment and Planning C: Government and Policy* 18, pp. 225 -247.

Behrens, M. and Kädtler, J. (2008). Betriebliche Restrukturierung und Partizipation. Wie viel Teilhabe erlauben unterschiedliche Rationalisierungsansätze? *Industrielle Beziehungen* 15 (1), pp. 77-100.

Benton, T. and Craib, I. (2001). *Philosophy of Social Science: The Philosophical Foundations of Social Thought*. Basingstoke: Palgrave.

Bispinck, R. (2005). *Tarifliche Senioritätsregulungen: Eine Analyse von tariflichen Regulungen in ausgewählten Tarifbereichen*. Elemente qualitativer Tarifpolitik Nr. 59. Düsseldorf: WSI.

Blickle, G. and Witzki, A. (2008). New psychological contracts in the world of work: economic citizens or victims of the market? *Society and Business Review* 3(2), pp. 19-161.

Bloch, B. (1999). Globalisation and downsizing in Germany. *M@n@gement* 2(3), Special Issue: Organizational Downsizing, pp.287-303.

Bode, H. (2005). Global needs and trends in public/private partnerships. *Proceedings of the Water Environment Federation*, WEFTEC 2005: Session 61 through Session 70, pp. 5195-5214.

Bode, H. and Lemmel, P. (2001). International product cost comparison in the field of water management. *Water Science and Technology* 44 (2–3), pp 85–93.

Börsch-Supan, A. (1999). A model under siege: a case study of the German retirement insurance system. *The Economic Journal* 110 (461), pp.24-45.

Bonnefond, A., Härmä, M, Hakola, T., Sallinen, M., Kandolin, I. and Virkkala, J. (2006). Interaction of age with shift-related sleep-wakefulness, sleepiness, performance and social life. *Experimental Aging Research* 32, pp. 185-208.

Booth, A. and Zoega, G. (2004). Is wage compression a necessary condition for firm-financed general training? *Oxford Economic Papers* 56, pp. 88-97.

Bosch, G. and Kalina, T. (2008). Low-wage work in Germany: An overview. In: Bosch, G. and Weinkopf, C. (eds.) *Low-wage Work in Germany*. New York: Russell Sage. pp. 19-112.

Bound, J., Schoenbaum, M., Stinebrickner, T.R. and Waidmann, T. (1998). *The Dynamic Effects of Health on the Labor Force Transitions of Older Workers*. Cambridge, MA: National Bureau of Economic Research. Working Paper 6777.

Braedel, C., Karl, D. and Knauth, P. (2002). Ältere Mitarbeiterinnen und Mitarbeiter - hilfreich oder hilfsbedürftig? *Strategien und Modelle zur Beschäftigungssituation älterer Erwerbspersonen*. Rottenburg-Stuttgart: Akademie der Diözese, pp. 57-7.0

Brookfield, S. (1986). *Understanding and Facilitating Adult Learning*. Milton Keynes: Open University Press.

Brown, J.S. and Duguid, P. (1991). Organizational learning and communities of practice: toward a unified view of working, learning and innovation. *Organization Science* 2(1), pp. 40-57.

Bruggmann, M. (2000). *Die Erfahrung älterer Mitarbeiter als Ressource.* Wiesbaden: Dt. Universität Verlag.

Bryman, A. (1988). *Doing Research in Organisations*. London: Routledge.

Bryman, A. and Bell, E. (2003). *Business Research Methods*. Oxford: Oxford University Press.Buchanan, D. and Huczynski, A. (2004). *Organizational Behaviour: An Introductory Text*. Harlow: Prentice Hall.

Buchholz, R.A. (1978). An empirical study of contemporary beliefs about work in American society 63. *Journal of Applied Psychology*, pp. 219-227.

Buchholz, S. (2006). Men's late careers and career exits in West Germany. In: Blossfield, H.P., Buchholz, S. and Hofäcker, D. (eds.) *Globalization, Uncertainty and Late Careers in Society*. London & New York: Routledge, pp. 55-78.

Buck, H. (2007). *Demographic Change and the Public Sector*. Summary of the European Expert Conference. Brühl, Germany, 2nd May 2007.

Buck, H. and Dworschak, B. (2003). Ageing and work in Europe − challenges and solutions. In: Buck, H. and Dworschak, B. (eds.), *Ageing and Work in Europe - Strategies at Company Level and Public Policies in Selected European Countries*. Stuttgart: IRB, pp. 27-46.

Budros, A. (1999). A conceptual framework for why organizations downsize. *Organization Science* 10(1), pp. 69-82.

Burke, R. J. and Nelson, D.L. (1997). Downsizing and restructuring: lessons from the firing line for revitalizing organizations. *Leadership & Organization Development Journal* 18 (7), pp. 325-334.

Burke, R.J. and Ng, E. (2006). The changing nature of work and organizations: Implications for human resource management. *Human Resource Management Review* 16, pp. 86-94.

Burrell, G. and Morgan, G. (1979). *Sociological Paradigms and Organizational Analysis*.

London: Heinemann.

Calo, T.J. (2005). The generativity track: A transitional approach to retirement. *Public Personnel Management* 34, pp. 301-312.

Carbery, R. and Garavan, T.N. (2005). Organisational restructuring and downsizing: Issues related to learning, training and employability of survivors. *Journal of European Industrial Training* 29(6), pp. 488-508.

Castells, M. (2000). *The Rise of the Network Society*. Oxford: Blackwell.

Chartered Institute of Personnel and Development (CIPD) (2011). *Managing an Ageing Workforce: How Employers are Adapting to an Older Labour Market*. Available: [Accessed 17 December 2011].

Chassard, Y. (2003). What policy approach to active ageing? In: Jespen, M., Foden, D. and Hutsebaut, M. (eds.) *A Lifelong Strategy for Active Ageing*. Brussels: ETUI, pp. 1-28.

Child, J. (2005). *Organization: Contemporary Principles and Practice*. Oxford: Blackwell.

Churchill, G. and Iacobucci, D. (2002). *Marketing Research: Methodological Foundations*. Mason, OH: South Western.

 Clarke, S. G. and Cooper, C. L. (2000). The risk management of occupational stress. *Health, Risk & Society* 2, pp. 173-187.

Clegg, S.R. (1990). *Modern Organizations: Organization Studies in the Postmodern World*. London: Sage.

Cleveland, J. and McFarlane Shore, L. (1992). Self- and supervisory perspectives on age and work attitudes and performance. *Journal of Applied Psychology* 77(4), pp.469-484.

Commerzbank AG (2009). *Abschied vom Jugendwahn? Unternehmerische Strategien für den demografischen Wandel*. Frankfurt am Main: Commerzbank AG. Available: https://www.unternehmerperspektiven.de/de/files/studie_7_demografischer_wandel_mai _2009.pdf. [Accessed 21st November 2011].

Commonwealth Fund (1993). *The Untapped Resource: The Final Report of the Americans over 55 at Work Program*. New York, NY: The Commonwealth Fund.

Cousins, C. (1999). Changing regulatory frameworks and non-standard employment: A comparison of Germany, Spain, Sweden and the UK. In: Felstead, A. and Jewson, N. (eds.) *Global Trends in Flexible Labour*. London and Basingstoke: MacMillan, pp. 100-120.

Croucher, R., Kratzer, N. and Singe, I. (2004). *The Effects of Flexible Working on Employee Representation: UK and Germany Compared: Is Flexible Working a Threat to Traditional Union Structures and Practices?* London: Anglo-German Foundation for the Study of Industrial Society.

Davidson, W., Worrell, D. and Fox, J. (1996). Early retirement programs and firm performance. *Academy of Management Journal* 39, pp. 970-986.

Davis, N. (2009). *BASF Plans More Short-time Working for 1,000 at Ludwigshafen*. *ICIS.com* 14th May 2009. Available : http://www.icis.com/Articles/2009/05/14/9216379/ BASF-plans-more-short-time-working-for-1000-at-Ludwigshafen.html. [Accessed 22nd September 2011].

Davis, N. and Loh, B. (2009). *BASF to Shrink in 2009; Cut 1,500 Jobs Worldwide*. *ICIS.com* 26th February 2009. Available: http://www.icis.com/Articles/2009/02/ 26/9196146/BASF-to-shrink-in-2009-cut-1500-jobs-worldwide.html. [Accessed 22nd September 2011].

Davenport, T. H., Thomas, R.J. and Cantrell, S. (2002). The mysterious art and science of knowledge-worker performance. *MIT Sloan Management Review* 44(1), pp. 23-30.

Dearborn, R. and Simon, H. (1958). Selective perceptions in executives. *Sociometry* 21, pp. 140-144.

Deller, J., Huch, D. Kern, S. and Maxin, L (2007). *Silver Workers - an Empirical Study of Post-retirement Activities*. Geneva: The Geneva Association.

DeLong, D. (2004). *Lost Knowledge: Confronting the Threat of an Ageing Workforce*. Oxford: Oxford University Press.

Delsen, L. (2003). Incentives and disincentives to labour market activity in tax and social security systems. In: Jespen, M., Foden, D. and Hutsebaut, M. *A Lifelong Strategy for Active Ageing*. Brussels: ETUI, pp. 35-78.

Destatis (Federal Statistical Office). (2009). *Bevölkerung Deutschlands bis 2060*. Begleitmaterial zur Pressekonferenz am 18. November 2009 in Berlin/Supplementary material for a press conference on 18 November 2009 in Berlin. 12. Koordinierte Bevölkerungsvorausberechnung. Wiesbaden: Statistisches Bundesamt. Available: www.destatis.de. [Accessed 25th September 2011].

Dewe, P., Cox, T. and Ferguson, E. (1993). Individual strategies for coping with stress at work: a review. *Work Stress* 7, pp. 5–15.

Dixon, S. (2003). Implications of population ageing for the labour market. *Labour Market Trends*, February, pp. 67-76.

Doellgast, V. (2009). Still a coordinated model? Market liberalization and the transformation of employment relations in the German telecommunications industry. *Industrial & Labor Relations Review* 63(1), pp. 3-23.

Doellgast, V. and Greer, I. (2007). Vertical disintegration and the disorganization of German industrial relations. *British Journal of Industrial Relations*, 45(1), pp. 55-76.

Drucker, P. (1992). The new society of organizations. *Harvard Business Review*, September/October, pp. 95–104.

Dychtwald, K., Erickson, T. and Morison, B. (2004). It's time to retire retirement. *Harvard Business Review* 82(3), pp. 8-57.

Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

Faruqee, H. (2002). Population ageing and its macroeconomic implications: framework for analysis. *IMF Working Paper*, No. 02/16.

Faust, M., Jauch, P., Brünnecke, K. and Deutschmann, C. (1994). *Dezentralisierung von Unternehmen. Bürokratie- und Hierarchieabbau und die Rolle betrieblicher Arbeitspolitik.* München/Mering: Rainer Hampp.

Fernández-Ballesteros, R., García, L. F., Abarca, A., Blanc, L., Efklide, A., Kornfeld, R., Lerma, A. J., Mendoza-Nuñez, V., Mendoza-Ruvalcaba, N. M., Orosa, T., Paúl, C. and Patricia, S. (2010). The concept of 'ageing well' in ten Latin American and European countries. *Ageing & Society* 30, pp. 41-56.

Fielding, J. (1993). Coding and managing data. In: Gilbert, N. (ed.) *Researching Social Life*. London: Sage, pp. 218-238.

Finegold, D., and Soskice, D. (1988). The failure of training in Britain: analysis and prescription. *Oxford Review of Economic Policy* 4(3), pp. 21-53.

Fougère, M., Mercenier, J. and Mérette, M. (2007). A sectoral and occupational analysis of population ageing in Canada using a dynamic CGE overlapping generations model, *Economic Modelling* 24(2), pp: 690-711.

Frankfort-Nachmias, C. and Nachmias, D. (1996). *Research Methods in the Social Sciences*. New York: St. Martin's Press.

Frerichs, F. and Taylor, P. (2005). *The Greying of the Labour Market: What can Britain and Germany Learn from Each Other?* London: Anglo-German Foundation for the Study of Industrial Society.

Garrison, R. H. and Noreen, E. W. (1997). *Managerial Accounting*. Boston, MA: Irwin McGraw-Hill.

Garten, J.E. (1993). *A Cold Peace: America, Japan, Germany, and the Struggle for Supremacy*. New York: Times Books, New York.

George, R. (2000). *Beschäftigung älterer Arbeitnehmer aus betrieblicher Sicht: Frühverrentung als Personalanpassungsstrategie in interenen Arbeitsmärkten*. Munich: Hampp.

Gephart, R.P. (2004). What is qualitative research and why is it important. *Academy of Management Journal* 47 (4), pp. 454-462.

Ghauri, P. and Grønhaug, K. (2002). *Research Methods in Business Studies: A Practical Guide*. Harlow; New York: Financial Times Prentice Hall.

Giddens, A. (1974). *Positivism and Sociology*. London: Heinemann.

Göbel, C. and Zwick, T. (2009). *Age and Productivity - Evidence from Linked Employer Employee Data.* ZEW - Centre for European Economic Research Discussion Paper No. 09-020.

Gold, J., Stewart, J., Iles, P., Holden, B. and Beardwell, J. (2010). *Human Resource Development: Theory and Practice*. Basingstoke: Palgrave Macmillan.

Gottfried, H. (1999), *Charting the Gender Contract in Neo-Fordist Production Regimes: An East/West Comparison*. Paper presented at the 21st Conference of the International Working Party on Labour Market Segmentation, the Transformation of Labour Markets and Employment Systems since the Seventies: a Reflection on the Theoretical Implications. Bremen, 9-11 September 1999. Available: http://www.kua.uni-bremen.de/ news/iwp/gottfri.pdf. [Accessed 29th October 2009].

Gordon, D. M. (1996). *Fat and Mean: The Corporate Squeeze of Working Americans and the Myth of Managerial Downsizing*. New York: Free Press.

Graßhoff, U. and Schwalbach, J. (1997). *Corporate Restructuring, Downsizing and Managerial Compensation*. Humboldt Working Paper 97-2.

Griffiths, A. (1999). Work design and management - The older worker. *Experimental Aging Research* 25 (4), pp. 411-420.

Griffiths, A. (2000). Designing and managing healthy work for older workers. *Occupational Medicine* 50(7), pp.473-477.

Groß, D. (2007). Stadtwerke: Fusion ohne Kündigungen. *Westdeutsche Zeitung* (Online Edition), 13th May 2007. Available: http://www.wz-krefeld.de/?redid=158798. [Accessed 12th September 2011].

Haipeter, T. and Lehndorf, S. (2005). Decentralised bargaining of working time in the German automotive industry. *Industrial Relations Journal* 36(2), pp. 140-156.

Hall, D (1996). Protean careers of the 21st century. *Academy of Management Review*. 10(4), pp. 8-16.

Hall, P. and Soskice, D. (2001). *Varieties of Capitalism*. Oxford: Oxford University Press.

Hansson, G.-Å. and Mikkelsen, S. (1997). Kinematic evaluation of occupational work. *Advanced Occupational Medical Rehabilitation* 3**,** pp. 57–69.

Harding, R. and Paterson, W.E. (2000). *The Future of the German Economy: An End to the Miracle?* Manchester; New York: Manchester University Press.

Harhoff, D. and Kane, T. (1997). Is the German apprenticeship system a panacea of the US labor market? *Journal of Population Economics* 10, pp.171-196.

Harrington, J. M. (2001). Health effects of shift work and extended hours of work. *Occupational Health and Environmental Medicine* 58, pp. 68-72.

Harrison, D. and Laberge, M. (2002). Innovation, identities and resistance: The social construction of an innovation network. *Journal of Management Studies* 39(4), pp. 497-521.

Hartz, P. (1996). *Das atmende Unternehmen: Jeder Arbeitsplatz hat einen Kunden.* Frankfurt/ New York: Campus.

Hatch, M.J. (2006). *Organization Theory.* Oxford: Oxford University Press.

Heckscher, C. and Donnellon, A. (1994). *The Post-Bureaucratic Organization: New Perspectives on Organizational Change.* Thousand Oaks, CA: Sage.

Henseke, G., Hetze, P. and Tivig, T. (2009). Ageing in German industry. In: Kuhn, M. and Ochsen, C. (eds.). *Labour Markets and Demographic Change*. Wiesbaden: VS Verlag, pp. 12-30.

Henseke, G. and Tivig, T. (2009). Demographic change and industry-specific innovation patterns in Germany. In: Kuhn, M. and Ochsen, C. (eds.) *Labour Markets and Demographic Change*. Wiesbaden: VS Verlag, pp. 122-136.

Hernandez, D.J. (2004). Demographic change and the life circumstances of immigrant families. *The Future of Children* 14, pp. 17-47.

Herriot, P., Gibbons, P., Pemberton, C. and Jackson, P.R. (1994). An empirical model of managerial careers in organizations. *British Journal of Management* 5, pp. 113-121.

Heywood, J.S. and Siebert, S. (2009). *Understanding the labour market for older workers: A survey*. IZA Discussion Paper 4033. Available: http://ssrn.com/ abstract=1351196. [Accessed 30th December 2011].

Holzenthal, M. and Osterholt, A. (2003). *Reliability Based Planning: Reducing the Re-investment Needs of an Urban Utility*. Paper presented at the 17th International Conference on Electricity Distribution Barcelona, 12-15<sup>th</sup> May 2003. Available: http://www.cired.be/CIRED03/reports/R%205-34.pdf. [Accessed 12<sup>th</sup> January 2012].

Honey, P. and Mumford, A. (1996). *Managing the Learning Environment*. Maidenhead: P. Honey.

Hughes, J. and W. Sharrock (1997). *The Philosophy of Social Research*. London and New York: Longman.

Industriegewerkschaft Bergbau, Chemie, Energie/IGBCE. (2008). *Tarifvertrag Lebensarbeitzeit und Demografie für die chemische Industrie in Deutschland*. Berlin: IGBCE.

Ilmarinen, J.E. (1999). *Ageing Workers in the European Union - Status and Promotion of Work Ability, Employability and Employment*. Finnish Institute of Occupational Health, Ministry of Social Affairs and Health, Ministry of Labour, Helsinki.

Ilmarinen, J.E. (2001). Aging workers. *Occupational and Environmental Medicine* 58 (8), pp. 546-552.

Jürgens, U. (2004). An elusive model – Diversified quality production and the transformation of the German automobile industry. *Competition & Change* 8 (4), pp. 411–423. Available: http://www.wzb.eu/gwd/wpa/pdf/juergens2004elusive_model.pdf. [Accessed 12<sup>th</sup> July 2011].

Kandolin, I., Härmä, M. and Toivanen, M. (2001). Flexible working hours and well-being in Finland. *Journal of Human Ergology* 30, pp.35-40.

Kanfer, R. and Ackerman, P. (2004). Aging, adult development, and work motivation. *Academy of Management Review* 29, pp. 440-458.

Kanter, R.M. (1977). *Men and Women of the Corporation.* New York: Basic Books.

Kanter, R.M. (1989). *When Giants Learn to Dance*. London: Simon and Schuster.

Katz, D. and Kahn, R. (1966). *The Social Psychology of Organizations*. New York: John Wiley.

Kinnie, N., Hutchinson, S. and Purcell, J. (1998). Downsizing: is it always lean and mean? *Personnel Review* 27(4), pp. 296-311.

Kirpal, S. and Kühl, A. (2006). *Sustaining Older Workers' Competence. Case Study Germany*. VETNET Symposium on Sustaining Older Workers' Workplace Competence and Work Transitions in Europe. European Conference on Educational Research (ECER 2006), Geneva. 13-16 September, 2006.

Knauth, P. and Hornberger, S. (2003). Preventive and compensatory measures for shift workers. *Occupational Medicine* 53, pp.109–116.

Köchling, A. (2000). Betriebliche Altersstrukturen als Gestaltungsfeld der Zukunft. In: von Rothkirch, C. (ed.). *Altern und Arbeit, Herausforderung für Wirtschaft und Gesellschaft, Beiträge, Diskussionen und Ergebnisse eines Kongresses mit internationaler Beteiligung*. Berlin: Rainer Bohn Verlag, pp.362-373.

Köchling, A. (2003). Human resources management under conditions of demographic change. In: Buck, H. and Dworschak, B. (eds.) *Ageing and Work in Europe - Strategies at Company Level and Public Policies in Selected European Countries*. Stuttgart: IRB, pp. 99-106.

Koeber, C. (2002). Corporate restructuring, downsizing and the middle class: The process and meaning of worker displacement in the `new' economy. *Qualitative Sociology* 25(2), pp. 217-246.

Kolb, D. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice Hall.

Kothen, C., McKinley, W. and Scherer, A.G. (1999). Alternatives to organizational downsizing: A German case study. *M@n@gement* 2(3), Special Issue: Organizational Downsizing pp.263-288.

Kuhn, M. and Hetze, P. (2009). Knowledge transfer within teams and demographic change. In: Kuhn, M. and Ochsen, C. (eds.) *Labour Markets and Demographic Change*. Wiesbaden: VS Verlag, pp. 148-168.

Kuwan, H. and Thebis, F. (2004). *Berichtssystem Weiterbildung 2003. Ergebnisse der Repräsentativbefragung zur Weiterbildungssituation in Deutschland*. Available: www.bmbf.de/pub/berichtssystem_weiterbildung_9.pdf. [Accessed 23rd August 2011].

Lane, C. and Quack, S. (2001). *How Banks Construct and Manage Risk: A Sociological Study of Small Firm Lending in Britain and Germany*. Centre for Business Research Working Paper No. 217.

Leach, J.L. and Chakiris, B.J. (1988). The future of jobs, work and careers. *Training and Development Journal*, April.

Leibfritz, W., Rosaveare, D., Fore, D. and Wurtzel, E. (1995). *Ageing Population, Pension Systems and Government Budgets: How do They Affect Savings?* OECD Economic Department Working Paper, No. 156.

Leisink, P. and Greenwood, I. (2007). Company-level strategies for raising basic skills: a comparison of Corus Netherlands and UK. *European Journal of Industrial Relations* 13, pp. 341-360.

Leonard, J.S. and Levine, D.J. (2003). *Diversity, Discrimination and Performance*. Working Paper iirwps, 091-03, Institute of Industrial Relations.

Levinson, M. (1990). The myth of the missing manager. *Harvard Business Review*. November–December, pp. 238–240.

Leyhausen, F. (2009). An ageing workforce: a major challenge to German SMEs. *International Journal of Human Resources Development and Management* 9(2-3), pp. 312-315.

Lincoln, Y.S. and Guba, E.G. (1985). *Naturalistic Inquiry*. Beverly Hills, California: Sage.

Littler, C. R. and Innes, P. (2004). *The paradox of managerial downsizing.* Organization Studies 25 (7), pp.1159-1184.

Lounsbury, M. and Carberry, E.J. (2005). From king to court jester? Weber's fall from grace in organizational theory. *Organization Studies* 26(4), pp. 501–525.

Malhorta, N.K. (1996). *Marketing Research: An Applied Orientation*. London: Prentice-Hall International.

Mankin, D. (2009). *Human Resource Development*. Oxford: Oxford University Press.

March, J.G. and Simon, H.A. (1958). *Organizations*. New York: John Wiley.

Marks, M.L. (1994). *From Turmoil to Triumph: New Life After Mergers, Acquisitions, and Downsizings*. Lexington Books, New York.

Maravelias, C. (2003). Post-bureaucracy – control through professional freedom. *Journal of Organizational Change Management* 16(5), pp. 547-566.

Mason, J. (2002). *Qualitative Researching*. London: Sage.

Matzler, K., Rier, M., Hinterhuber, H., Renzl, B. and Stadler, C. (2005). Methods and concepts in management: significance, satisfaction and suggestions for further research - perspectives from Germany, Austria and Switzerland. *Strategic Change* 14, pp. 1-13.

Maurer, T.J and Rafuse, N.E. (2001). Learning, not litigating: Managing employee development and avoiding claims of age discrimination. *Academy of Management Executive* 15(4), pp. 110-121.

McCan, L., Hassard, J. and Morris, J. (2004). Middle managers, the new organizational ideology and corporate restructuring: comparing Japanese and Anglo-American management systems. *Competition and Change* 8(1), pp. 27-44.

McCain, B.E., O'Reilly, C.A. III and Pfeffer, J. (1983). The effects of departmental demography on turnover: The case of a university. *Academy of Management Journal* 26, pp. 626-641.

McGregor, J and Gray, L (2003). *Older Worker Employment Transition*. Palmerston North: Massey University.

Miles, M.B. and Huberman, A.M. (1994). *Qualitative Data Analysis*. Thousand Oaks, CA: Sage.

Mir, R. and Watson, A. (2000). Strategic management and the philosophy of science: the case for a constructivist methodology. *Strategic Management Journal* 21(9), pp. 941-953.

Morgan, G. and Smircich, L. (1980). The case for qualitative research. *Academy of Management Review* 5, pp. 491-500.

Morris, J., Hassard, J. and McCan, L. (2006). New organizational forms, human resource management and structural convergence? A study of Japanese organizations. *Organization Studies* 27: 1485-1511.

Morris, M.G. and Venkatesh, V. (2000). Age differences in technology adoption decisions: Implications for a changing workforce. *Personnel Psychology* 53, pp. 375-403.

Müller-Camen, M., Flynn, M. and Schroeder, H. (2009). *The Management of an Ageing Workforce: The Impact of National Institutions on Employers´ Age Management Practices in Britain and Germany*. Paper presented at British Academy of Management Special Interest Group Workshop: Beyond the Enterprise – Widening the Horizons of International HRM, Cardiff University, 30th-31st March 2009.

Nägele, G. (2001). Demografischer Wandel und "Erwerbsarbeit". *Aus Politik und Zeitgeschichte* 3-4, pp. 3-4.

Newell, R. (1993). Questionnaires. In: Gilbert, N. (ed.) *Researching Social Life*. London: Sage, pp. 94-115.

Organization for Economic Cooperation and Development/OECD. (2006). *Live Longer, Work Longer*. Paris: OECD.

Orlikowski, W.J. and Baroudi, J.J. (1991). Studying information technology in organizations: research approaches and assumptions. *Information Systems Research* 2(1), pp. 1-28.

Orzechwska-Fischer, E. (2004). *Labour Force Ageing: Its Impact on Employment Level and Structure*. Paper presented at the Australian Population Association's Biennial Conference. Available: http://www.apa.org.au/upload/2004-2C_OrzechowskaFischer.pdf. [Accessed 23rd September 2011].

Park, D.C. (1994). Aging, cognition and work. *Human Performance* 7(3), pp. 181-205.

Paul, R. and Townsend, J. (1993). Managing the older worker - Don't just rinse away the gray. *Academy of Management Executive* 7(3), pp.67-74.

Pepierl, M.A. and Baruch, Y. (1997). Back to square zero: The post corporate career. *Organization Dynamics* 25(4), pp. 7-22.

Peters, T. (1992). *Liberation Management: Necessary Disorganization for the Nanosecond Nineties*. London: Macmillan.

Peterson, H. (2005). *Gender, Power and Post-Bureaucracy: Work Ideals in IT Consulting*. Uppsala: Universitetstryckeriet.

Pfeffer, J. (1983). Organizational demography. In: Cummings, L.L. and Staw, B.M. (eds.) *Organizational Behaviour* 5. Greenwich, Conn.: JAI Press, pp. 299-357.

Pfeiffer, E. and Simon, M. (1997). Optimization of the rehabilitation of the Emscher drainage system using continuous rainfall-runoff-modeling. *Water Science and Technology* 36 (8-9), pp. 39–44.

Pollert, A. (1988). The flexible firm: Fixation or fact?, *Work, Employment, and Society*, 2(3), pp. 281-316.

Quinn, J. B. (1992). *Intelligent Enterprise*. New York: Free Press.

Rainbird, H. (2005). Assessing partnership approaches to lifelong learning: A new and modern role for trade unions?' In: Stuart, M. and Martínez Lucio, M. (eds) *Partnership and Modernization in Employment Relations*. London and New York: Routledge, pp. 46–62.

Reday-Mulvey, G. (2005). *Working Beyond 60: Key Policies and Practices in Europe*. Basingstoke: Palgrave Macmillan.

Rhodes, S.R. (1983). Age-related differences in work attitudes and behavior: A review and conceptual analysis. *Psychological Bulletin* 93(2), pp. 328-367.

Richenhagen, G. and Meyer-Falcke, A (2005). Demografischer Wandel – ein Thema auch für Betriebsärzte. *Praktische Arbeitsmedizin* 2, pp. 12-17.

Ritchie, J. and Lewis, J. (2005). *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. London: Sage.

Saunders, M., Lewis, P. and Hornhill, A. (2007). *Research Methods for Business Students*. Harlow: Financial Times Prentice Hall.

Schirle T. (2007). *Why Have the Labour Force Participation Rates of Older Men Increased Since the Mid-1990s?* Department of Economics Working Paper 2007-03 EC, Wilfred Laurier University, Waterloo, Canada.

Schulten, T. (1997). *Krupp-Hoesch/Thyssen Merger Intensifies Debate on Future of German stakeholder Capitalism.* EIRO Online. Available: http://www.eurofound. europa.eu/eiro/1997/04/feature/de9704207f.htm. [Accessed 2nd February 2012].

Sepehri, P. (2002). *Diversity and managing diversity in internationalen Organisationen, Wahrnehmungen zum Verständnis ökonomischer Relevanz.* München und Mehring: Rainer Hampp Verlag.

Sharit, J. and Czaja, S.J. (1994). Aging, computer-based task performance and stress: issues and challenges. *Ergonomics* 37, pp.559-577.

Siegenthaler, J.K. and Brenner, A. (2001). Flexible work schedules, older workers and retirement. *Aging and Social Policy* 12(1), pp. 19-34.

Sisson, K. (1994). Personnel management: paradigms, practice and prospects. In: Sisson, K. (ed.) *Personnel Management*. Oxford: Blackwell, pp. 3-50.

Skirbekk V. (2004). Age and individual productivity: a literature survey. *Vienna Yearbook of Population Research.* Vienna: Verlag der Österreichischen Akademie der Wissenschaften.

Smith, C. and Meiksins, P. (1995). System, society and dominance effects in cross-national organisational analysis. *Work, Employment & Society* 9(2), pp. 241-267.

Smith, M. and Pretorius, P. (2003). Application of the TOC thinking processes to challenging assumptions of profit and cost centre performance measurement. *International Journal of Production Research*, 41 (4), pp. 819-828.

Snape, D. and Spencer, L. (2003). The foundations of qualitative research. In: Ritchie, J. and Lewis, J. (eds), *Qualitative Research Practice*. *London: Sage.*

Solow, R. (2008). The German story. In: Bosch, G. and Weinkopf, C. (eds.) *Low-wage Work in Germany*. New York: Russell Sage, pp. 1-14.

Sonnenfeld, J.A. (1989). Career system profiles and strategic staffing. In: Arthur, M.B., Hall, D.T. and Lawrence, B.S. (eds) *Handbook of Career Theory*. Cambridge: Cambridge University Press, pp. 202–24.

Sonnentag, S. and Frese, M. (2003). Stress in Organizations. *Handbook of Psychology*, pp. 453-491.

Stahl-Zentrum (2009). *Engagement für Stahl 2009/ Commitment for Steel 2009*. Available: http://www.stahl-online.de/stahl_zentrum/Jahresbericht2009rzAnsicht.pdf. [Accessed 14th October 2011].

Stahl-Zentrum (2007). *Stahl in Zahlen*. Available: http://www.stahl-online.de/wirtschaft_und_politik/stahl_in_zahlen/start.asp?highmain=4&highsub=0&highsubsub=0. [Accessed 14th October 2011].

Stam, C. H. (2009). *Knowledge and the Ageing Employee: A Research Agenda*. Haarlem, The Netherlands: University of Applied Sciences, pp. 435 - 441.

Sterns, A.A. (2005). Curriculum design and program to train older adults to use personal digital assistants. *The Gerontologist* 45(6), pp. 828-834.

Sterns, H.L. (1986). Training and retraining adult and older adult workers. In: Birren, J.E., Robinson, P.K. and Livingston, J.E. (eds.) *Age, Health and Employment*. Englewood Cliffs, NJ: Prentice-Hall, pp. 93-113.

Sterns, H.L. and Doverspike, D. (1989). Aging and the retraining and learning process in organizations. In: Goldstein, I. and Katzel, R. (eds.) *Training and Development in Work Organizations*. San Francisco, CA: Jossey-Bass, pp. 229-332.

Sterns, H.L. and Miklos, S.M. (1995). The aging worker in a changing environment: organizational and individual issues. *Journal of Vocational Behavior* 47, pp. 248-268.

Streb, C., Völpel, S. and Leibold, M. (2008). Managing the aging workforce: status quo and implications for the advancement of theory and practice. *European Management Journal* 26, pp. 1-10.

Streb, C., Völpel, S. and Leibold, M. (2009). Aging workforce management in the automobile industry: Defining the concept and its constituting elements. *Zeitschrift für Personal-Forschung* 23(1), pp. 8-27.

Streeck, W. (2009). *Re-Forming capitalism: Institutional Change in the German Political Economy*. Oxford: Oxford University Press.

Strunk, G., Mayrhofer, W. and Schiffinger, M. (2004). *New Careers, More Complex Careers? Empirical and Methodological Results Concerning the 'Complexity Hypothesis' in Career Research*. Paper presented at European Group for Organization Studies (EGOS) conference, Ljubljana, July.

Teichgräber, B. and Hermanns, U. (1996). Decentralization of the Emscher sewerage system – Expansion of the Emscher mouth treatment plant. *Water Science and Technology* 33 (12), pp 19-28.

Teipen, C. and Kohli, M. (2004). Early retirement in Germany. In: Maltby, T. *Ageing and the Transition to Retirement. A Comparative Analysis of European Welfare States*. Aldershot: Ashgate, pp. 93-119.

Thelen, K. (2009). Institutional change in advanced political economies. *British Journal of Industrial Relations* 47(3), pp. 471-498.

Thiehoff, R. (1998) Betriebswirtschaftliche Evaluation. In: Wenzel, A., Bamberg, E., Ducki, A. And Metz, A. *Handbuch Betriebliche Gesundheitsförderung. Arbeits- und organisationspsychologische Methoden und Konzepte* 44(1). Göttingen: Verlag für Angewandte Psychologie, pp. 211-222.

Thun, J.H., Größler, A. and Miczka, S. (2007). The impact of the demographic transition on manufacturing: Effects of an ageing workforce in German industrial firms. *Journal of Manufacturing Technology Management*, 18(8), pp. 985 – 999.

Verband Kommunaler Unternehmen / VKU (2009). *Ihre Stadtwerke – Partner der Region*. Available: http://www.vku.de/de/Wir_ueber_uns/Wir_ueber_uns_/Ihre_Stadt werke_-_Partner der_Region.pdf. [Accessed: 14th October 2011].

Verworn, B. and Hipp, C. (2009). Does the ageing workforce hamper the innovativeness of firms? (No) evidence from Germany. *The International Journal of Human Resources Development and Management* 9(2/3), pp. 180-197.

Vitols, S. (2002). *Shareholder Value, Management Culture and Production Regimes in the Transformation of the German Chemical-Pharmaceutical Industry.* Wissenschaftszentrum Berlin fur Sozialforschung Working Paper Nr. P 02-902.

Vroom, V.H. (1964), *Work and Motivation.* New York: John Wiley.

Wächter, H. (1997). German co-determination - Quo vadis? A study of the implementation of new management concepts in a German steel company. *Employee Relations* 19(1), pp.27-37.

Waldman, D.A. and Avolio, B.J. (1986). A meta-analysis of age differences in job performance. *Journal of Applied Psychology* 71(1), pp.33-38.

Walters, D., Nichols, T., Connor, J., Tasiran, A.C. and Cam, S. (2005). *The Role and Effectiveness of Safety Representatives in Influencing Workplace Health and Safety.* Research Report 363. Norwich: Health and Safety Executive.

Wechsler, D. (1958). *The Measurement and Appraisal of Adult Intelligence*. Baltimore: Williams & Wilkins.

Wilton, N. (2011). *An Introduction to Human Resource Management*. London: Sage.

Winkel, R. (2004). *Mini-Job und Sozialversicherung: Wenn die Abzüge fehlen.* Available: http://www.sueddeutsche.de/karriere/mini-job-und-sozialversicherung-wenn-die-abzuege-fehlen-1.496988.[Accessed 6 September 2010].

Wolff, H., Mohr, H. and Spieß, K. et al. (2001). *Arbeit, Altern, Innovation*. Wiesbaden: Universum Verlag.

Wolter, S.C., Muehlemann, S. and Schweri, J. (2006). Why some firms train apprentices and many others do not. *German Economic Review* 7(3), pp. 249–264.

Womack, J., Jones, D. and Roos, D. (1990). *The Machine That Changed the World*. New York: Simon and Schuster.

Worrall, L. and C. Cooper (2001). *The Quality of Working Life: The 2000 Survey of Managers' Experiences.* Institute of Management Research Report. London: Institute of Management.

Wüstenhagen, R. and Bilharz, M. (2006). Green energy market development in Germany: Effective public policy and emerging customer demand. *Energy Policy 34*, pp. 1681–1696.

Yeandle, S. (1999). Gender contracts, welfare systems and non-standard working: diversity and change in Denmark, France, German, Italy and the UK. In: Felstead, A. and Jewson, N. *Global Trends in Flexible Labour*. London and Basingstoke: MacMillan, pp. 141-165.

Zapf, D., Dormann, C. and Frese, M. (1996). Longitudinal studies in organizational stress research: A review of the literature with reference to methodological issues. *Journal of Occupational Health Psychology* 1(2), pp. 145-169.

Zenger, T.R. and Lawrence, B.S. (1989). Organizational demography: The differential effects of age and tenure distributions on technical communication. *Academy of Management Journal* 32 (2), pp. 353-376.

Zikmund, W. (2000). *Business Research Methods*. Fort Worth, TX: Dryden Press.

Zwick, T. (2007). Apprenticeship training in Germany – investment or productivity driven? *Journal for Labour Market Research* 40(2/3), pp. 193–204.

# APPENDICES

# APPENDIX ONE

---

**Correspondence**

This section contains the initial letter of contact to the respondents, the accompanying

letter from the Hans Böckler Institute and English translations of these letters.

**1. Initial Letter of Contact to Respondents**

Sehr geehrte Frau …, sehr geehrter Herr …,

ich möchte Sie im Rahmen meines Forschungsprojektes über die „Flexibilisierung der Arbeit" um ein Gespräch, um ein Interview bitten.

Mein Name ist Hilary Drew und ich bin an der Fakultät für Betriebswirtschaft an der Cardiff University in Wales, Großbritannien, immatrikuliert. Seit September 2008 werde ich von der Hans Böckler Stiftung bei meinem Forschungsprojekt unterstützt.

Aus diesem Anlass möchte ich Sie um Ihre Hilfe bitten. In meinem Projekt beschäftige ich mich mit der „Flexibilisierung von Arbeit" in deutschen Unternehmen. Der Schwerpunkt liegt auf den Herausforderungen durch Globalisierung und wirtschaftlichen Strukturwandel. Im Mittelpunkt meiner Forschungstätigkeit steht die Frage, wie deutsche Unternehmen sich in den letzten Jahren reorganisiert und an Globalisierung und Strukturwandel angepasst haben. Ich interessiere mich für Veränderungen in der Organisationsstruktur, mit denen die Flexibilität der Unternehmen verbessert wurde, und für die Konsequenzen, die sich aus der Flexibilisierung für die Personalpolitik, für die Entscheidungsprozesse des Managements und für die Zufriedenheit mit dem Arbeitsplatz seitens der Arbeitnehmer ergeben haben. An der Universität Cardiff sind ähnliche Untersuchungen bereits in Großbritannien, Japan, Malaysien und China durchgeführt worden.

Zur Untersuchung dieser Fragen führe ich Gespräche mit Entscheidungsträgern aus dem Human Resource Management. Der Erfolg dieser Forschung hängt davon ab, inwieweit es gelingt, HR-Manager trotz ihrer knappen Zeit für die Teilnahme an einem Gespräch zu gewinnen. Ich wäre Ihnen sehr dankbar, wenn Sie sich bereit erklären würden für ein solches Interview. (Dauer ca. 30 Minuten).

Alle Informationen werden vertraulich behandelt, die Identität der Gesprächsteilnehmerinnen und –teilnehmer wird nicht offen gelegt, die Gesprächsergebnisse werden anonym ausgewertet und dargestellt.

In den nächsten Tagen werde ich mich telefonisch bei Ihnen melden und um einen Gesprächstermin bitten. Heute möchte ich mich bei Ihnen bedanken, dass Sie mein Anliegen zur Kenntnis nehmen.. Wenn Sie Fragen haben, stehe ich Ihnen gern zur Auskunft bereit (Telefon in Düsseldorf 0211 7778 265 oder per E-Mail unter drewh@cf.ac.uk oder Hilary-Drew@boeckler.de )

Mit freundlichen Grüßen,

Hilary Drew

**1.1 Initial Letter of Contact to Respondents (<u>Direct</u> translation from the German version)**

Dear Sir/Madam,

I am conducting a research project on flexibility at work and I would like to ask you if you would please agree to give an interview.

My name is Hilary Drew and I am from the business school at Cardiff University. Since September 2008 I have been supported by the Hans Böckler Institute in my research project.

For this reason, I ask for your help. In my project I am working on work flexibility in German firms. The focus is on the challenges brought about through globalization and changes in economic structure. At the centre of my research lies the question of how German firms have reorganised themselves in recent years in response to globalization. I am interested in the changes in organisational structure through which the flexibility of the organisation has been improved and the consequences of flexibility which impact upon HR, the decision-making process for management and employee satisfaction. Similar projects have already been carried out at Cardiff University focusing on the UK, Japan, Malaysia and China.

In order to examine these topics, I intend to interview people with decision-making roles in HR departments. The success of the research project depends upon HR managers,

despite the fact that they have limited time, agreeing to be interviewed. I would be very grateful if you would agree to give an interview. (Duration: about 30 minutes).

All information will be treated confidentially, the identity of the participants will not be published and the data will be evaluated and produced without names.

In the next few days in will telephone you and enquire about an appointment. Today I would like to thank you for accepting my request for information. If you have any questions, please contact me (telephone in Düsseldorf 0211 7778 265 or by email at drewh@Cf.ac.uk or Hilary-Drew@boeckler.de).

Yours                                        faithfully                                        etc

**2. Letter for Support from Hans Böckler Foundation**

Abteilung Mitbestimmungsförderung
Durchwahl
Telefax
~~7770 185 / 184~~
E-Mail [Hartmut-Klein-Schneider@boeckler.de](Hartmut-Klein-Schneider@boeckler.de)
Unser Zeichen
Datum

HKS-Be

22.09.2008

**Bitte um Unterstützung einer Doktorandin bei ihrem Forschungsprojekt über „Flexibilisierung der Arbeit"**

Liebe Kollegin ……………, lieber Kollege ….

die Hans-Böckler-Stiftung fördert und unterstützt die Praxis der Mitbestimmung. Ein weiterer wichtiger Arbeitsbereich der Stiftung ist die Studienförderung. Gern helfen wir Studentinnen und Studenten ebenso wie Doktorandinnen und Doktoranden bei Ihren Arbeiten und Projekten. Noch lieber tun wir dies, wenn es bei den Projekten um Fragestellungen geht, die unmittelbar die Praxis der Mitbestimmung und die Arbeits- und Lebensbedingungen der arbeitenden Menschen betreffen. Frau Drew untersucht in ihrer Doktorarbeit die Flexibilisierung der Arbeit und die Auswirkungen auf die Menschen. Ich möchte Dich bitten zu prüfen, ob Du Frau Drew für ein Gespräch – im Umfang von ca. 30 Minuten – zur Verfügung stehen kannst. Wie immer gilt, dass Gesprächsinhalte und erhobene Daten anonymisiert und vertraulich behandelt werden.

Als Anlage sende ich Dir ein Schreiben von Frau Drew, in dem sie in gebotener Kürze ihr Projekt darstellt. Sie wird sich in einigen Tagen bei Dir melden, nach Deiner Bereitschaft zur Teilnahme fragen und ggf. einen Gesprächstermin vereinbaren.

Wir würden uns sehr freuen, wenn Frau Drew genügend Gesprächspartner für ihr Projekt gewinnen kann.

Mit freundlichen Grüßen                                                    Anlage

Referat                                                                              Betriebliches

Personal-                                          und                                          Sozialwesen

Hartmut Klein-Schneider

## 2.1 Letter for Support from Hans Böckler Foundation (<u>Direct</u> translation from the German version)

Dear Colleague,

The Hans Böckler Institute promotes and supports the practice of codetermination. A further important task of the institute is to support students. We are pleased to help students, as well as doctoral candidates with their work and projects. But we are even keener to offer our support when the projects are related to codetermination and working and living conditions of workers. For her PhD, Ms Drew is researching flexibility at work and its consequences for individuals. I would like to ask you if you can offer Ms Drew an interview – for about 30 minutes. As normal, the content of the interview and any resulting data will be anonymous and confidentially treated.

Please find attached a letter from Ms. Drew, in which she briefly describes her project. She will contact you in a few days to ask you if you agree to be interviewed and to make appointment.

We would be pleased if Ms Drew can attract enough participants for her project.

With best wishes etc

# APPENDIX TWO

---

**Interview Themes**

This section contains the list of themes/topics which were given to respondents in the semi-structured interviews. As described in chapter four, these themes were copied on to cardboard, in order that they could be easily handled by the interviewees and so that the topics could be chosen at random instead of being proposed by the researcher. The prompts are provided with an English translation.

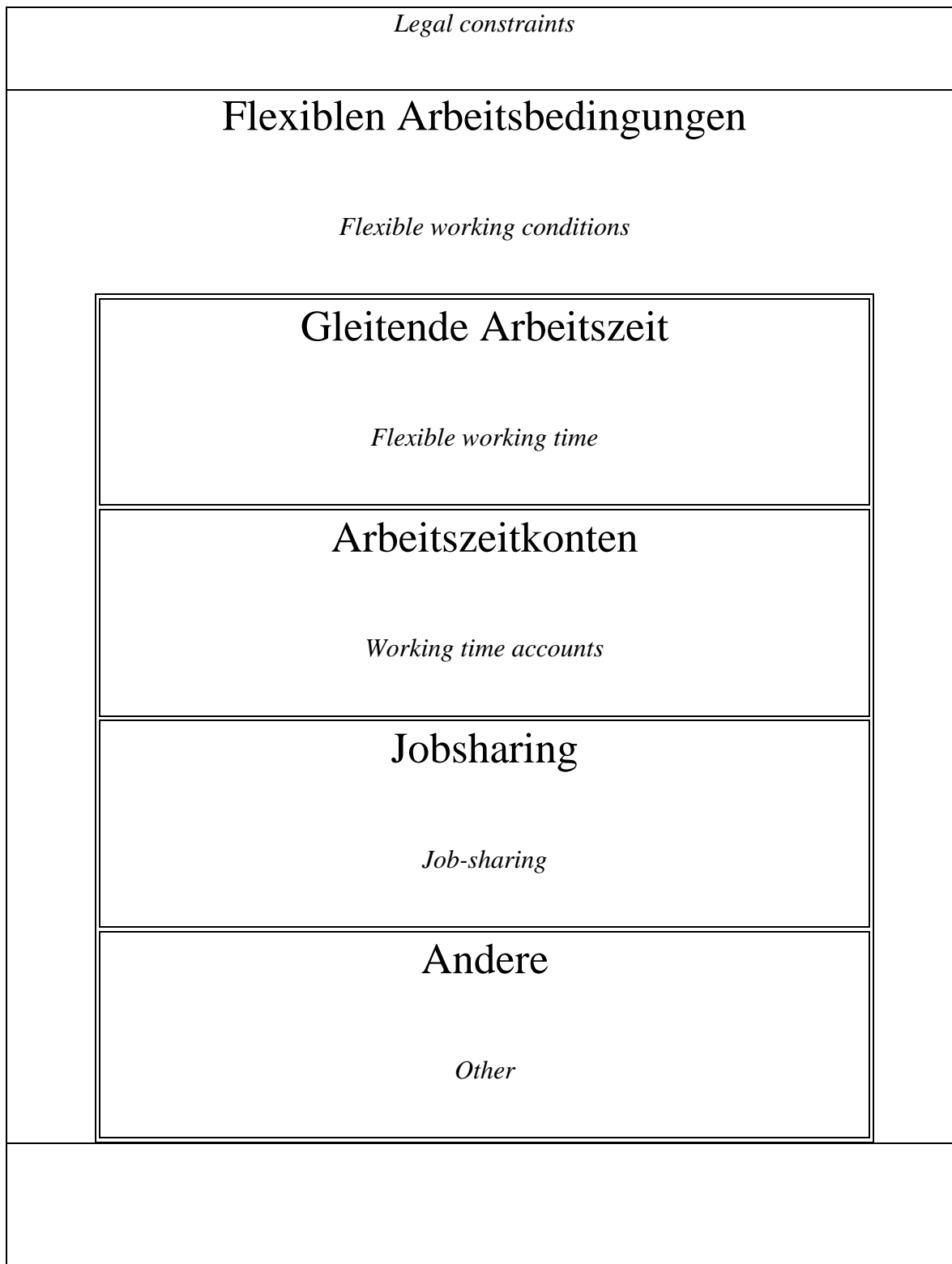| |
|---|
| Zunehmender Wettbewerb durch ausländische Firmen<br><br>*Increase in competition from foreign firms* |
| Veränderungen des Kosumentenverhaltens<br><br>*Changes in consumer behaviour* |
| Veränderung in der Struktur des Managements<br><br>*Changes in the structure of management* |
| Hierarchieabbau<br><br>*De-layering* |
| Reduktion von Fixkosten<br><br>*Reduction of fixed costs* |
| Verlagerung von Dienstleistungen/Produktion an |

| |
|---|
| andere Firmen  (Outsourcing)<br><br>*Outsourcing* |
| Stellenabbau (Downsizing)<br><br>*Downsizing* |
| Schließung von Betriebsstätten, Niederlassungen,<br><br>Abteilungen<br><br>*Closing of works, subsidaries, departments* |
| Notwendigkeit größerer Flexibilität<br><br>*Need for greater flexibility* |
| Teilzeitarbeit<br><br>*Part-time work* |
| Gesetzliche Auflagen |

*Legal constraints*

# Flexiblen Arbeitsbedingungen

*Flexible working conditions*

## Gleitende Arbeitszeit

*Flexible working time*

## Arbeitszeitkonten

*Working time accounts*

## Jobsharing

*Job-sharing*

## Andere

*Other*

# *Demografischer Wandel*

*Demographic change*

# *Altersteilzeitgesetz*

**Old-age Part-time law**

# Weiterbildung und Personalentwicklung

*Training and personal development*

# Azubis

*Apprentices*

# Arbeitnehmervertretung

*Employee representation*

# Gewerkschaft, Vorstand, Betriebsrat

*Trade unions, management, works council*