



Managing Knowledge Workers:
The case of the Chilean Oenologists

Thesis submitted in accordance with the requirements of
The University of Liverpool for the degree of Doctor in Philosophy

Jose Gregorio Perez Arrau

May 2009

Abstract

This research is about the management of knowledge workers in the context of Chilean oenologists. A first objective is to find out whether oenologists are knowledge workers or not; secondly, to describe and analyse the management of oenologists from the perspective of knowledge workers' theory. Finally, this research has aimed to describe the most relevant social and cultural aspects determining the management of oenologists as knowledge workers.

In achieving these aims, an extensive literature review on knowledge workers was carried out, from which an original definition of knowledge workers was created and two critical dimensions relating to their management were identified: *knowledge workers' specific needs* and *traditional administrative tasks*. The research was carried out using a mixed method approach, including eighteen interviews with wine specialists, fifteen of them oenologists, and a survey conducted through the *Asociación de Enólogos de Chile*. This study was designed to be inductive and exploratory.

A first conclusion of this study is that oenologists fulfil most of the conditions of knowledge workers, as portrayed in the literature. Secondly, it is found that they enjoy most of the critical working conditions that would be expected to be provided by the *knowledge worker's managers*, but that these are limited by a number of social and cultural factors. Thirdly, in relation to the *traditional administrative tasks*, this research concludes that most wineries are small organisations, and that consequently, they are characterised by informality, lack of resources and the central role of the owner manager. Fourthly, it is found that paternalism, a *macho* culture, lack of education, social and family links, 'double talk' and cultural traditions strongly affect the way in which oenologists carry out their work and the form in which HR practices are conducted.

Furthermore, a number of issues emerged from the research. Firstly, in the context of the Chilean wine industry, it was found that wineries are not using oenologists' capacities to the full. This is expressed in a number of limitations to their autonomy, flexibility and team working, and in the fact that they are poached by other wineries with no reaction from their firms. Secondly, it was found that oenologists do not work alone but in teams of knowledge workers, each of whom could be considered as a different type of knowledge worker, thereby highlighting the collective side of knowledge work. Thirdly, it was found that networks play a pivotal role, not only as a means of knowledge exchange, but in many dimensions related to the management of knowledge workers, which suggests that people management in organisations needs to move from a hierarchical to a heterarchical perspective. Finally, this research concludes that many aspects of current people management practices in the context of oenologists could be questioned in the light of its findings.

Acknowledgements

It has been a long time since I arrived for the first time to the University of Liverpool with the intention to enrol on the doctoral program at the Management School. Upon arrival, I recall feeling a strange mix of uncertainty, fear, and a high level of expectation. I now realise that had I had a clearer picture of what a doctorate really meant, I would have thought more carefully about taking on this venture. However, my assessment of the whole process today is completely positive and I am grateful for the opportunity I had of doing it. Throughout my doctoral years I met the most interesting people, had the most amazing experiences, participated in fascinating academic conversations, and experienced the day-to-day life at one of the most exciting cities in the world. After all these years, I am extremely happy, not only because I have achieved a personal goal, but also for all the fabulous memories that my family and I are taking back with us to Chile.

I would like to thank everyone who helped and inspired me during this process. Firstly, finishing this thesis would not have been possible without the generous and dedicated help of my friend Jacqueline Peace. She not only read and checked the English grammar of the largest portion of the thesis, but she also supported me in many other ways. I had the opportunity to discuss with her my ideas about research and many other issues. She expressed genuine interest and provided me with useful feedback. I really enjoyed those Spanish/English conversations with her at the pub, where I had the opportunity to get to know her. I also appreciate the opportunity of meeting Jackie's family and friends, who are an extraordinary group of people.

In addition, I owe my deepest gratitude to my supervisors, Elaine Eades and Professor John Wilson for their support and help throughout this process. In particular, I would like to show my gratitude to Elaine for her confidence in my

ideas and in my ability to carry them out, even when the circumstances were extremely adverse and complicated. I also appreciate all her useful advice and suggestions for developing my research, which were fundamental to advancing with my work. As with Elaine, it was an honour for me to work with John, not only because of his great experience in research but also because he showed genuine commitment to supporting me in the completion of the thesis. When John became my superior I was considerably late in my research timing, was unsure about whether what I had been working on was actually right, and was exhausted. His constructive feedback and optimism gave me the necessary confidence for running the last track of this race. I consider myself lucky to have had these amazing supervisors.

I also would like to acknowledge the fundamental contribution of my friends. I am indebted to Neil Whittingham, who not only helped me with my English grammar, but also introduced me to the non-academic life at Liverpool, including some scouser expressions and the most traditional local places. My deepest gratitude to Heinrich Kramarski for his friendship and for his generous help in the most critical moment of the doctorate. Heinrich was also the victim of my endless discourses on management and knowledge workers every day at the evening coffee time, demonstrating his extraordinary patience with my self-questioning and theoretical arguments. I would also like to thank Daniel Jones, Angie Ramirez and Anita Schrader for the time spent checking my English writing.

Special thanks go to all staff at the University of Liverpool, who provided invaluable help for working and living in comfortable places. I specially want to thank Steve, the Philharmonic Court's porter, who was extremely kind and helpful to us at all times. We really miss saying hello every morning to Steve, specially my children, with whom he was extremely affectionate. In the same way, I would like to express my gratitude to Sue and Wendy at the Management School, who always were kind to all the doctorate students and helped us with all sorts of operative problems. In addition, Julie, the manager of the café, was very generous with doctorate students

and provided us with a free cup of coffee every evening. Finally, Father Ian Mcparland from the student Chaplaincy deserves much gratitude for his great spiritual support for my family and his friendship.

These acknowledgements would not be complete without my gratitude to all our friends in Liverpool, with whom we shared very good moments. They made a great difference in our experience of being in a foreign country, inviting us to their homes, introducing us to new friends, organising great parties and, in summary, making us feel at home. My gratitude to Miriam Santos, Jose Maria Pastor, Marisa Prandelli, Marisa de Rosa, Covi Gonzales, Carl A. Graham, Santi, Gwyn Hugh, Swetketu Patnaik, Esther, Gualtiero, Ivone, Luis, Joanne Anderson, Lisa, Swati Saha, Violeta Mayer, Felix Zamora, Mo Hume, Peter Keane, Helena Rand, Karlos, and Penny and John.

I wish to express my sincere thanks to all the people who offered me their best advice and suggestions for managing the doctorate, especially those who shared their own experiences as doctoral students. Carlos Gomez, who shared stories of his own doctoral experience at Liverpool; Thomas Liebling, who advised me to take control of my research in the middle of a crisis; Ann Matear, who told me her brilliant metaphor of the thesis as a consulting report; Jan Hendlund, whose saying about how difficult it was to finish a thesis, made me aware of the moment I needed to stop working; Jenny Rodriguez, who gave me useful advice and a superb comic that made me understand that I was not the alone dealing with doctorate-related problems; Anita Schrader, who shared her analogy of the research process as a spider net, which needs a gradual development; and Rory Miller, who used the metaphor of a chair to describe that a thesis should not necessarily be perfect. I remember these stories, metaphors and analogies all the time. They were a great contribution to my understanding of what a doctorate was and how to achieve it.

I would also like to say 'thank you' to all the oenologists and geologists who help me during my data collections in Chile by generously giving their time to be

interviewed. The contribution of Fernando Cordoba, Tania Zaviezo, Carolina Herrera, Klaus Schröder, Cristian Goic, Algenica Gangas, Valentina Miranda, the oenologists of Casa la Postolle, Juan Carlos Marquardt, Francisco Ajenjo and the geologists of Exploraciones Mineras were very significant for this research. I also want to express my gratitude to all the anonymous participants who responded the questionnaire that was used in this study.

I am also greatly indebted to many people in Chile, who supported and helped me throughout: Mario Millie Perez, Cristina Valenzuela, Andrew Hodgkin, and Sarah Elgueta. I am also grateful to the University of Santiago of Chile for giving me the opportunity of doing this doctorate, and in particular to Luis Santibañez (RIP) who believed in my ability to successfully complete a doctorate. Similarly, I am forever beholden to the Government of Chile, represented by our president Michelle Bachelet, for awarding me a doctoral scholarship.

I cannot go without acknowledging the relevant role played by Liverpool FC all these years. Firstly, it provided me with a good excuse for going out and relaxing at the Fly in the Loaf pub alongside my friends, recuperating my feeble energy for the following working day. This is something I would otherwise not have allowed myself given the time constraints. Secondly, the football metaphor was very inspirational; when I felt beaten by adverse circumstances, I remembered the 'Istanbul spirit' that led Liverpool FC to defeat AC Milan by penalties in what has been described as one of the most exciting Champion League final of all times. Every time I watched a Liverpool match in the pub I felt a bit more 'scouser by adoption'.

I am grateful to my parents for all the support they have given me throughout the years. They not only helped me with many administrative issues related to visas, scholarships, bills, and other non-academic aspects, but also kept high spirits, cheering me up along the way. I also want to thank Javier Perez, my brother for safeguarding our prized belongings in Santiago.

Last but not least, my gratitude goes to my family. After three years of study, when I started working on weekends and arriving home late in the evening, my children began to suspect that something strange was happening with me. Then, one day, one of them asked me why I was returning home so late and working on weekends, when I should have been doing exciting activities and playing games with them. I told them that I was very busy at work writing a book, and that when I finished it, we would be able to have more time together and go back to Chile. Since that moment on, everything in our home revolved around 'dad's book', and the most recurrent questions from my children were: 'did you finish the book?', 'how many pages did you write today?' Those seemingly innocent questions whilst funny at the beginning, at some point during the latter part of the thesis writing process became a pressure call for completion. This call definitely kept me going.

Maria Jose Paredes, my wife, was an essential part of the success of this process. She was as committed to this project as I was, and showed great strength supporting me whilst postponing her own career development, sacrificing life stability, and facing a number of personal issues related to being abroad. She contributed to my doctorate from the very beginning, not only supporting and encouraging me, but also giving me important feedback on my research ideas. She was a real lifeline when I felt tired, fearful, anxious, or confused, and made me gain confidence that I really could do it. I want to thank Maria Jose and my children for their unconditional love and support throughout this process because it has meant the world to me and because I would not have made it through this process without it. Muchas gracias!

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List of abbreviations

HRM	:	Human Resources Management
KIF	:	Knowledge Intensive firm
KM	:	Knowledge Management
SO	:	Small Organisation
RBV	:	Resource Based View
SME	:	Small and Medium Enterprises
LR	:	Labour relations
IL	:	Informal Learning
AIAECH:		Asociación de Ingenieros Agrónomos Enólogos de Chile
PM	:	Per month
PBV	:	Practice-Based View
IT	:	Information technologies
IS	:	Information systems

INTRODUCTION

In the last decades the term knowledge has become familiar in the social sciences. Since the seminal work of authors such as Hayek (1945), Mills (1951), Machlup (1962), Blum (1971) and Bell (1974), increasing attention has been placed on the role of knowledge in society, the economy, and organisations. In recent years, the emerging concept of knowledge work has captured increasing interest in the management field. Major advances in technology have led to the increasing use of intellectual capacities and a decline in the amount of physical work in organisations, changing the traditional industrial scenario that has prevailed since the industrial revolution. Some authors (Robertson & Hammersley, 2000; Newell et al. 2002; Bogdanowicz & Bailey, 2002, Bell, 1974; Holland et *al.*, 2002; Storey, 2005) have depicted this transformation as the arrival of the 'gold collar' worker, who is essentially different from 'white collar' and 'blue collar' workers.

The arrival of knowledge workers is not just a simple matter of intellectual work versus traditional physical work, but has further implications for traditional management. For example, intellectual and creative work is very difficult to control and evaluate, it does not respond to a timetable, and it is strongly affected by the organisational climate, culture, and the individual's perceptions. Intellectual work is complex, unstructured, and dynamic, and cannot be governed by rules. In addition, researchers have pointed out that one of the particular characteristics of knowledge workers is that they are strongly networked, in the sense that they belong to specialist circles, associations, and communities of practice in general. Essentially, what has been stressed up to now is that intellectual work cannot be managed under the same principles as traditional work. Although the term 'knowledge worker' has quickly become popular and there is relative consensus among specialists about the difference between knowledge work and traditional

work, little research has been conducted on a clear meaning of the term, its critical dimensions, and a proper model for their management remains to be settled.

On the other hand, knowledge workers' management has not been properly addressed in this field until now and only a small amount of research has been conducted. Recently, HRM experts have started to focus on this subject, and in the last few years a number of publications have come out, but there are still a number of gaps in the field that need to be filled.

As with knowledge workers, Latin America has also been a neglected subject in the people management field. In a recent study, Ozbilguin (2004) found that only 1% of the papers published in the 'top 22' journals of international human resources management related to research conducted in Latin America. Chile is not immune from this, with HRM in the Chilean context barely studied by either Chilean or foreign researchers, and existing research being developed in isolated and unarticulated 'academic ghettos'. Latin American countries share relatively similar histories, cultures, and social problems. Among those most mentioned are a highly unequal distribution of wealth, political instability, corruption, unfair discrimination, and great differences in quality of life and education. Although Chile has shown remarkable economic and social progress in the last two decades, it shares many of these problems. Consequently, one question that needs to be answered is how personnel management practices created in the context of developed countries can be expressed in the context of poorer countries.

In the last few decades, wine has been a fruitful business not only for Chile but for a number of other emerging 'new world' producers such as Australia, USA, South Africa, and New Zealand. According to a recent report from *Wines of Chile* (<www.winesofchile.org>), Chilean exports of wine and sparkling wine grew by 30.5% in 2007, compared with 2006, with 610 million litres being exported and bringing in US\$1.256 million. In 2007, Chile increased its sales in the UK by 25%, overtaking a traditional producer, Spain, to reach sixth place, selling almost 9 million boxes, in a business valued at US\$212 million (The Independent, 11 January

2008). Thus, it is safe to say that Chile is now recognised worldwide as an important new wine producer.

The reasons behind this achievement lie in the changes carried out in the seventies and eighties in Chile, and the changes in the external market during the nineties. On the one hand, the internal structural transformation during the military dictatorship (1973-1989) put pressure on the business sector to make its organisations more competitive, through macroeconomic policies that created a free and open market (Del Pozo, 1998). On the other hand, during the nineties, the price of wine increased, owing mainly to a reduction in the amount of land devoted to the growing of vines in Europe, a worldwide increase in the consumption of fine wine, and the publication of scientific evidence on the benefits associated with moderate wine consumption (*'the French paradox'*, Renaud & Lorgeril, 1992). Thus, after a serious crisis in the wine sector during the eighties, owing to an increase in competition and low wine prices, the nineties were much more auspicious, and Chilean wine exports reached record levels. Therefore, the success of Chilean wine can be seen as the outcome of a combination of factors, with a reciprocal effect on each other (Del Pozo, 1998).

Although the basic ingredients and principles of wine production have remained the same for thousands of years (grape juice, yeast, and time for fermentation), in the last few decades wine production has become more sophisticated, not only through the introduction of high tech machines in 'hard production', but also in all those aspects related to creativity and marketing. Thus, the modern wine industry involves not only high quality grapes, but also a high degree of mastery of winemaking arts and techniques, and a considerable marketing organisation.

At the centre of wine production is the winemaker or oenologist, who is considered the most critical worker in the creation of a high quality wine. In the wine market, the skills of oenologists are recognised, not only by educated customers, expert journalists, and producers, but also increasingly by ordinary customers. Today, on the back of their favourite bottle of wine, people can read about what type of wine

they are buying, the region where it is produced, and sometimes even the name of the oenologist in charge of its production (maybe with her/his signature and photo). In the winemaking environment, the best oenologists are truly 'celebrities' (Hojman, 2007), appearing in magazines and other media, giving their opinions about winemaking and other related subjects.

Thus, given the scarcity of research on knowledge workers and their management in the context of Chile, this study has focused on five leading questions:

- Firstly, and fundamentally: are Chilean oenologists knowledge workers?
- Secondly, what are the people management practices in the context of oenologists?
- Thirdly, is the management of knowledge workers consistent with the way in which, theoretically, they should be managed?
- Fourthly, are they satisfied with current people management practices?
- Finally, what is the impact of Chilean national culture on the management of knowledge workers?

Chapter 1 begins by examining the literature on knowledge workers, including the main definitions given since Drucker's work (1959) up to the present day, the theoretical background of the term, and the main assumptions and characteristics. This chapter deals with critical issues and assumptions underlying the concept of knowledge worker. The development of the chapter is guided by the question of what a knowledge worker is. As a result, a new and original definition and characterisation are provided.

Chapter 2 deals with the discussion on knowledge in the context of knowledge workers. The nature of knowledge, its tacitness/explicitness, and the extent to which it is possible to use it rationally is discussed.

Chapter 3 takes the critical aspects mentioned in chapter 1 and 2 about knowledge workers and their management as a basis for the description of two dimensions that organisations have to deal with in order to manage them efficiently: *the*

knowledge worker's specific needs and traditional administrative tasks. Both key dimensions are described in detail, including a number of subcategories and a discussion comparing the traditional way of carrying out each function with emerging topics in relation to the context of knowledge workers.

Chapter 4 gives an insight into Latin American culture and society, and Chile in particular. Latin American and Chilean society and culture are described, dealing with *macho* culture, social inequalities, corruption, collectivism, and many other aspects directly or indirectly linked with the management of the workforce. In addition, the current *state of the art* in the HRM field is described and discussed.

Chapter 5 describes the research methodology. It begins with a discussion on fundamental epistemological issues and a justification for the methods adopted in the research. It is followed by a detailed description of the research process and the main criteria used in data analysis and interpretation. It also includes a report of the main activities carried out, decisions taken, and problems faced at each stage.

The results of the research are presented in chapters 6, 7, and 8. Chapter 6 starts with a description of the main features of the wine industry in Chile and the existing research on people management in this context. This is followed by a discussion on the fundamental question of whether or not oenologists are knowledge workers, which is then answered based on an analysis of the research data (qualitative and quantitative) in relation to the characteristics of knowledge workers given in chapter 1.

Chapter 7 considers whether oenologists enjoy those working conditions expected to be provided by managers and their organisations in relation to knowledge workers' specific needs. This chapter focuses on critical issues for knowledge workers such as autonomy, flexibility, challenging tasks, and a learning environment. Particular emphasis is placed on the description of networks and how social relations occur in the context of oenologists in Chile. Finally, the implications for people management are discussed.

Chapter 8 focuses on the traditional administrative tasks described in chapter 3, and the oenologists' perceptions of people management practices, including the apparent problem of retention. This chapter is divided into two parts. The first part discusses 'traditional' people management practices in the context of oenologists. In the second part, oenologists' perceptions of people management practices are described, as well as the apparent problem with retention.

1 KNOWLEDGE WORKERS: A LITERATURE REVIEW

Abstract

In the last ten years the amount of literature on knowledge workers has increased sharply, becoming a popular concept within the current academic environment of management and organisational studies. The reason behind this lies in the change in the nature of the work in the organisations, particularly in relation to the role of knowledge, its relative importance, and the way it must be managed. In the new business context, knowledge (and the knowledge worker) is considered the most important asset of the firm and a resource of competitive advantage, hence, they have to be managed efficiently in order to make the most of their intellectual capacities. In addition, it is generally accepted that these workers are, in many ways, different from the rest of the workforce. Firstly, they perform a complex and non-structured changing work role, they are highly qualified, intrinsically motivated, and learning is an essential part of their jobs. Additionally, trust, networks and identity are essential to the special nature of their activity. Despite the fact that they are considered a very important subject of study today, there is still a gap in the literature. This chapter aims to describe the origin and development of this concept, identify the main assumptions behind it, as well as describe the most important characteristics of these employees.

1.1 INTRODUCTION: HOW THE 'KNOWLEDGE WORKER' CONCEPT BECAME POPULAR

During the last decade the notion of 'knowledge worker' has been gaining great popularity among academics, specialist and managers. The reason behind this increasing interest in this particular group of workers lies in the dramatic changes from the middle of the last century. The advancement in technology, globalization, the increasing market turbulence and competence have triggered great transformations in business, organizations and the nature and character of human work (Drucker, 1969, Bell, 1974; Storey, 2005; Scarbrough, 1999; Civi, 2000). Instead of stability, the new scenario is characterized by uncontrollable change, chaos, flexibility and disorganization (Alvesson, 2004). Developed countries have gone from being industrial economies to one based on service, in which manual work has a secondary role. It has been argued that all this transformation is part of the evolution from an industrial to a post-industrial society (Bell, 1974; Drucker, 1969; Gloet & Berell, 2003). In the same way that soil was important to agricultural society and capital in industrial society, knowledge has become in the most valuable resource in contemporary society (Raich, 2002; Civi, 2000; Kessels, 2001; Nonaka, 1994).

Interest in the effects of knowledge in organizations is not entirely new. In the middle of the last century two well-known contributions were published in relation to the increasing role of knowledge in the economy. Hayek (1945) was a pioneer in the introduction of knowledge as a relevant factor in the economy, and later Machlup (1962) introduced the concept of the 'information society' by studying what he called the knowledge industry and its impact on GNP. At the same time, Blums et al (1971) and Mills (1951) described the newly emerging 'middle class' composed of 'highly skilled clerical workers', who did less physical work and more work with people and symbols. These researchers also addressed the problem of white-collar identity, resulting from the fact that these new workers were neither blue-collars workers nor managers, and hence, faced problems such as determining what class they belonged to, what their status in organisations was, and whether they should be unionised or not.

In addition, Toffler (1970) indirectly referred to knowledge workers as those workers who were better able to adapt to social changes, in an age of vertiginous waves of change. Later, Wuthnow & Shrum (1983) discussed whether contemporary professional-technical workers were or were not a 'new class', analysing the problem from both Neoconservative and Marxist perspectives. Also Reich, in an influential work published in 1991 about recent changes in the American economy described three emerging job categories of the new society: routine work, in-person services, and symbolic-analytic service workers. This last referred to intellectual work, which involved manipulation of symbols, complex problem identification and solving, and competition in a world context. More recently, Stehr (1994) highlighted the increasing importance of knowledge jobs in the knowledge economy, and Castells (1996) described a networked society in which knowledge flows and spreads throughout, and where knowledge work is embedded in its structure.

However, it was Drucker (1959), in his book *Landmarks of tomorrow* who used the term 'knowledge worker' for the first time. In his subsequent works, he went more deeply into the emergence of knowledge workers, which was taking place in a context of great changes in society, the economy, education and the labour market. He also referred to the trend toward increasing knowledge work in firms and also predicted its increasing economic and social importance for the future (see Drucker, 1975, 1994, 1998a, 1998b, 1999).

Although Drucker coined the term, it owes its popularity in part to Daniel Bell (1974). He has been called the springboard of the current debate on knowledge work and has given it legitimacy in the debate about post-modernity (Collins, 1997; Newell et al., 2002). He referred to knowledge workers in his book *Post-Industrial society: a venture in social forecast* and there he pointed out the decline of the *blue collar* and the increase of *white collar workers*. Along with that he predicted the transition from an economy of industrial good to an economy of services; the rise of prominence of professionals and technical classes; knowledge as a resource of

control; the paramount importance of change and innovation, and the increasing importance of technology.

After Drucker's and Bell's contributions, the term was forgotten for many years in the literature, while other management issues relating to knowledge were more and better explored (Blackler et al., 1993). It was only in the nineties that the concept gained general recognition and then spread quickly among academics and specialists in developed countries (Kelloway et al., 2000). The rise in the number of academic publications and the inclusion of chapters on knowledge work or knowledge workers in text books is a proof of its popularization (Pyöriä, 2005).

Notably, a large part of the theoretical and research contribution in this area has been linked to innovation, and more recently to HRM. In the former case, there is abundant literature describing how people participate in innovation through their creativity, abilities, knowledge, entrepreneurship and as a part of the organizational culture, and it is generally recognised that they are a key element in the process of innovation (see i.e. Ahmed, 1998; Van de Ven, 1986; James, 2002; Thomson, 2004; Conway & McMackin, 1998; Davenport, 2005; Amo, 2006; Amar, 2004). Also, the knowledge work concept seems to have acquired new impetus with the inclusion of the human resources management perspective which aims to improve knowledge worker performance (see for example, Newel et al. 2002, Hislop, 2005, Storey, 2005; Swart et al., 2005; Oltra, 2005; Wang & Ahmed, 2003). In this literature, knowledge work has been analysed from the point of view of recruitment, selection, rewards, career, assessment, organizational culture and climate, amongst others. From this perspective, HRM has an important role to play in managing knowledge workers and, as a consequence, in the success of the organization. Nevertheless, the intersection between knowledge work, innovation and HRM and how synergies might be developed between them are questions that have not yet been answered entirely.

In summary, the fact that the knowledge workforce has increased in developed countries has been widely recognized in the literature, and also that it has been

gaining more and more preponderance not only in business but in society in general. Moreover, knowledge work has been said to be the future of work (Morneau, 2003) and the major challenge to be faced by managers. They have to find how to manage this particular and special group of workers to achieve a competitive advantage through their knowledge (Drucker, 1999; Amar, 2002). However, the growing interest has not been accompanied by a strong theoretical support and clarity on the knowledge worker term. Thus, as the concept was gaining popularity it was also increasingly criticised, and was surrounded by a halo of scepticism. This literature review is an attempt to deal with the still-problematic concept of knowledge worker, and how people management practices can play a pivotal role in boosting their performance.

1.2 KNOWLEDGE WORKERS – DEFINITION

The concept of Knowledge worker was firstly defined by Drucker as: '*...the man or woman who applies to productive work ideas, concepts, and information rather than manual skill or brawn*' (Drucker, 1969, p.247). After this definition, a considerable amount of descriptions have been given in the literature, some of them in Drucker's line of thinking and others in different directions, often without a consistent continuity or development of the matter. Accordingly, the increasing interest in the subject and publications on it, have not been accompanied with a consensus about the meaning of knowledge workers (Guns & Valikangas, 1998; Paton, 2009). On the contrary, as it was gaining popularity there appeared not only scepticism and confusion, but also serious critics (see chapter 2).

Perhaps the most evident criticism is that, despite contemporary society's reliance on knowledge work, the concept is still in its infancy and, consequently, that the present development is not yet enough to make a relevant contribution to knowledge worker productivity (Drucker, 1969, 1975, 1999; Amar, 2002; Davenport, 2005). For example, there is an evident lack of empirical research in this area (Withney, 2003, 2005/06; Amar, 2002) which could be thought to be one of the main reasons for the backward state of the framework. By contrast, the term

and most of the theoretical construction is based on anecdotes, stories and reports of practices (Amar, 2002), which obviously would lead to subjective bias. Additionally, the existing definitions of the concepts have been made from a diversity of perspectives, emphasising different aspects, such as profession view, individual characteristics, individual activity or organizational behaviour, giving the impression that the research is confusing and exceeding the limits of the concept (Kelloway & Barling, 2000).

In the table 1.1 there is a list of the most well-known definitions of knowledge worker. In the upper part of the table, a list of the most common knowledge worker features found in the definition is shown. For each definition, the most important features mentioned have been marked, in order to present the frequency of these features in the definitions. The fact that some features of knowledge workers are not present in the list does not mean that they are not present in the rest of the work of the authors.

Table 1.1 Definitions of knowledge workers

Definitions of knowledge workers		A	B	B	D	E	F	G	H	I
REFERENCES	DEFINITIONS									
Drucker, 1969	<i>"...the man or woman who applies to productive work ideas, concepts, and information rather than manual skill or brawn" (p.247)</i>	X				X				X
Hislop, 2005	<i>"someone whose work is primarily intellectual, creative and non routine in nature, and which involves both the utilization and creation of knowledge" (p.217)</i>	X	X	X		X				X
Horvat, 2001 in Ramirez,& Nembhard, 2004	<i>"Anyone who works for a living at the task of developing or using knowledge" (p.604)</i>									X
Davenport, 2005	<i>"Knowledge worker have a high degree of expertise, education, or experience, and the primary purpose of their jobs involves the creation, distribution, or application of knowledge" (p.10)</i>			X	X	X				X
Horibe, 1999	<i>"... knowledge workers are people who use their heads more their hands to produce value, They add value through their ideas, their analyses, their judgment, their syntheses, and their designs" (p.xi)</i>	X				X	X			
Winslow and Bramer, 1994, in Frenkel et al, 1995,	<i>"Knowledge worker are viewed as people who interpret and apply information to create and provide new solutions that add value to the organization, and who make informed recommendation to management" (p.778)</i>						X			X
Harrigan & Dalmia, 1991	<i>"key employees who create intangible value-added assets (and often transport those assets in their heads when they change employers)" (p.5)</i>	X					X			
Amar, 2002	<i>"...new kind of employees paid not to create, produce or manage a tangible product or service but rather to gather, develop, process and apply information"</i>	X								X
Bentley, 1999, in Kelloway & Barling, 2000	<i>"...as those with high education and training" (p.289)</i>				X					
Nomiko, 1989 in Kelloway & Barling, 2000	<i>"a group that includes scientists, engineers, professors, attorneys, physician, and accountants" (289)</i>							X		
Janz et al. in Kelloway & Barling, 2000	<i>"high level employees who apply theoretical and analytical knowledge, acquired through formal education" (p.289)</i>	X			X					X
Dalmia, 2001 in Kelloway & Barling, 2000	<i>"...those create intangible value added assets" (p.290)</i>						X			
Ahmad, 1981 in Kelloway & Barling, 2000	<i>"...egotistical and sensitive individual who thrive on public recognition" (p.290)</i>								X	

Reich (1991)	<i>"These are workers who...solve, identify and broker problems by manipulating symbols...and...need to make frequent use of established bodies of codified knowledge" (p.216) (the Reich's definition of Symbolic Analyst has been considered a definition of knowledge worker)</i>	X									X
Scarbrough, 1999	<i>"Knowledge worker are defined primarily by the work they do-work which is relatively unstructured and organizationally contingent, and which thus reflect the changing demands of organizations more than occupationally-defined norms and practices" (p.7)</i>		X								
Lee-Kelley et al., 2007	<i>"Any employee possessing specialist knowledge or know-how, or research and development work for new products, services and processes" (p.205)</i>					X	X				X
Despres & Hiltrop, 2005	<i>"Systematic Activity that traffics in data manipulates information and develops knowledge. The work may be theoretical and directed at no immediate practical propose, or pragmatic and aimed at devising new applications, devices, products or processes." (p.12)</i>	X				X	X				X
Tymon & Stumpf, 2003	<i>"Knowledge worker make their living by accessing, creating, and using information in ways that add value to an enterprise and its stakeholders" (p.12)</i>					X	X				X
Knight et al., 1993	<i>'Knowledge workers' are understood to be highly qualified individuals who belong to, or form a distinct component of, an elite group of professional and managerial employees. (p.XXX)</i>					X					
Vogt (1995) in Horwitz et al., 2003, p. 23	<i>'...a person with the motivation and capacity to co-create new insights and the capability to communicate, coach and facilitate the implementation of new ideas' (p.23)</i>					X					X
Swart, J. (2007) in Boxall, Purcell & Wright, 2007	<i>'...employees who apply their valuable knowledge and skills (developed through experience) to complex, novel, and abstract problems in environment that provide rich collective knowledge and relational resources' (p.452)</i>	X				X					
<p>Main Knowledge workers' features</p> <ul style="list-style-type: none"> A. Intellectual, symbolic, no physical work B. Not routine, changing work C. Primary resource of their works D. Education and expertise E. Creativity and innovation F. Add value through their ideas G. Personal qualities H. Sort of profession I. Have, manipulate information, and knowledge 											

In general, most of the definitions presented in the table emphasise different features of knowledge workers. Thus, it could be said that the task of finding a consensual and useful definition of knowledge worker is not a straightforward one. But, despite the still convoluted conceptualisation, there is more agreement on the characteristics of knowledge workers and about the way in which they work. Apparently, they share some common features that, to a greater or lesser extent, can be identified as knowledge work. Thus, Davenport (2005, p.11) wrote “*we know them, when we see them*” in reference to the fact that most of the people have an idea of what a knowledge worker is, although not everybody has a precise description of their qualities or a concept in mind. Many characteristics have been mentioned in the literature from Drucker to the present, most of them regarding to issues such as identity, motivation, commitment and control.

1.3 KNOWLEDGE WORKERS’ MAIN ASSUMPTIONS AND CHARACTERISTICS

As was mentioned before, although there is a vast literature on knowledge workers, there is still a lack of clarity about the topic. In this literature review, two main issues about knowledge were identified in the mainstream of the literature on knowledge workers: assumptions and main characteristics and needs. In the table 1.2 there is a summary of these points.

Table 1.2 Knowledge workers’ main assumptions, characteristics and needs

Knowledge workers’ main assumptions, characteristics and needs
Knowledge workers’ basic assumptions
<ul style="list-style-type: none"> • <i>They are in the core of the productive process and represent the most valuable resource of the firm</i> • <i>They are different from the non-knowledge workers and professional worker</i> • <i>At present, knowledge workers capacities are generally under-utilized in organizations</i> • <i>They are the base and the origin of innovation in the organisation</i> • <i>People management practices plays a crucial role in knowledge worker management</i>
Knowledge workers’ characteristics
<ul style="list-style-type: none"> • <i>They use knowledge as the main resource in their work</i> • <i>The work they do is complex, not structured and not routine</i> • <i>Knowledge workers are highly educated and experienced</i> • <i>They are intrinsically motivated and highly committed</i> • <i>The managing of their identities is a very important factor of their work</i> • <i>Continuous learning is an essential part of their work</i> • <i>They belong and are actively participating in networks</i> • <i>Trust plays a critical role in the work</i>

1.4 BASIC ASSUMPTIONS ABOUT KNOWLEDGE WORKERS

1.4.1 Assumption 1: They are at the core of the productive process and represent the most valuable resource of the firm

Most of the literature on knowledge workers claims that they are in the core of the organizational productive process and that they are the most sustainable resource of competitive advantage in the new economic context (Newel et al., 2002; Drucker, 1969; Harrigan & Dalmia, 1991; Pyöriä, 2005; Horibe, 1999; Davenport, 2005; Civi, 2000; Storey, 2005; Elkjaer, 2000; CIPD, 2002). The great importance of knowledge workers lies in the fact that they possess the core intellectual competences and the know-how of firms (Carneiro, 2000; Hislop, 2005; Reich, 1991). They play such a critical role in achieving organisational success that they have been dubbed 'rainmakers', stressing the idea that they are the thinking elite of the organisation (James, 2002). Moreover, they not only possess the most valuable tacit knowledge of the firm 'in their heads', and are essential in the innovation process, but also they may change the direction of the firm as a result of their work (Kidd, 1994). Davenport wrote: '*...it is clear that organisational success depends on the innovativeness and productivity of these workers within their organisations*' (Davenport, 2005, p.12).

Although these employees are of pivotal importance for the firm's success, the organisations usually do not recognise the high degree of their dependence upon knowledge workers. That could happen in organisations in which their managers are not really aware of the new business context, or because they do not want to give an impression of elitism among the firm's employees (Davenport et al, 2002). But, in reality, they treat them differently by giving knowledge workers exceptional work conditions. For example, Davenport et al. (2002) mentioned that these employees may have a higher degree of autonomy and self direction. Others have mentioned empowerment and higher salaries as a key aspect of managing them (Drucker, 1969).

Given the fact that knowledge workers are at the top of their fields, and also because of the specificity of their knowledge, firms usually face situations of market scarcity (Pyöriä, 2005; Newell et al, 2002; Flood et al., 2001). Knowledge workers do complex work in organisations, which requires a period of learning about the particularities of the firm's context, while at the same time they hold the most valuable knowledge of the organisation. In consequence, they are not easy to replace, at least in the short-term. In addition, they are in a dynamic network environment in which they are usually exposed to new job opportunities. Therefore, it is generally accepted that organisations are permanently struggling to obtain and retain them, this being one of the biggest problems in the management of knowledge workers (Harrigan & Dalmia, 1991, Storey, 2001; Robertson & Hammersley 2000; Hislop, 2005; Horwitz et al, 2003; Benson & Brown, 2007).

1.4.2 Assumption 2: They are different from traditional workers and professional workers

One of the main assumptions behind the popularization of the knowledge worker theory is that they are certainly different from the non-knowledge workers (Drucker, 1969, 1999; Hislop, 2005; Lepak & Snell, 2006). This assertion not only includes traditional workers, but also professionals. In the first case, perhaps one of the most acute and representative examples of the distinctiveness was given by Horibe (1999), who defined knowledge workers as '*...people who use their heads more than their hands to produce value*' (Horibe, 1999, p.xi). This means particularity that they do a more intellectual type of work, would be the essence of the several differences in the way they do their work, and the way in which they have to be managed. Knowledge is neither data nor information, but something more intricate and problematic to manipulate and control (Probst et al., 1999; Gurten, 1998). The special nature of the knowledge makes handling knowledge workers a very complex and problematic issue of contemporary management.

Although the intensive use of knowledge has been described as the most important difference between knowledge workers and other workers, this assumption

presents a number of difficulties. Perhaps the most significant of these problems lies in the fact that a certain amount of knowledge is required in every occupation (Hislop, 2005; Alvesson, 2001, 2004). Moreover, in the context of the knowledge economy, even the most basic labour activity performed by a worker requires a minimum training period to develop basic skills. Despite this, it has been pointed out that the great extent to which knowledge is used by knowledge workers gives them a clear uniqueness which makes them different from the traditional worker. There is a general view of the knowledge worker as someone for whom knowledge represents a very critical aspect of their jobs (Hislop, 2005; Swart et al., 2005; Amar, 2002; Ramirez & Nembhard, 2004). In this regard Davenport (2005, p.10) pointed out that *'a knowledge worker [is someone who] thinks for a living'*, in reference to the centrality of knowledge in their labour activity.

As with many other concepts surrounding the knowledge worker theory, there is no clear boundary between the definition of knowledge workers and traditional professionals. The most common conceptualization of knowledge worker and professional overlap in many aspects and are even used as synonyms (Alvesson, 2004; Hislop, 2005; Newel et al, 2002). It is not the intention of this study to go deeply into the debate about what constitutes the difference between knowledge workers and traditional professionals, as this debate is not yet exhausted, but only to highlight some basic aspects of the discussion. For example, Davenport (2005, p.12) recognised that sometimes the matter of whether somebody is a knowledge worker or not is *'...matter of degree and interpretation...'* and also described as a key criterion for identifying the fact that *'... for knowledge workers the role of knowledge must be central to the job and they must be highly educated or expert'*. This description of knowledge workers is not only vague, but is also a criterion commonly used to describe traditional professionals such as engineers, IT professionals, etc (see for example Reich, 1991). Moreover, part of the literature has claimed that knowledge workers have existed for centuries in the work of, for example, lawyers, professors, priests, teachers, accountants, etc.(Cortada, 1998). Thus, from this point of view, the concept of knowledge workers refers to people

who do intellectual work and, consequently, the concept does not differ greatly from the concept of professional worker.

Nevertheless, differences between knowledge worker and professional have been recently highlighted in part of the literature. For example, many authors refer to them as 'gold-collar workers', in a clear differentiation from 'white collar workers' (Wonacott, 2002; Newell, 2002; Holland et al., 2002). Although both refer to a kind of worker whose work nature is essentially intellectual, knowledge workers' activities tend to be tightly linked to environmental demands and the market. Additionally, they are usually without professional affiliation and lack 'occupational identity', so they work without concern for fulfilling an ethical code, following an association's rules. Also their work activities go beyond demarcations, controls and access restrictions imposed by the professional association (Elkjaer, 2000; Scarbrough, 1999; Alvesson, 2000). In this regard, it has been said that knowledge workers can be identified by the work they do, more than their degrees in formal education or occupationally-defined norms and practices (Newell et al., 2002; Scarbrough, 1999). In fact, they could be working in a business area which is completely unconnected to their formal education. For a knowledge worker, the degree they have studied does not limit their career, which can follow a unique pathway.

The fact that knowledge workers are guided by the environment and market demands and are less tied to professional regulations, makes them more flexible and dynamic workers. Thus, they are constantly forced to adapt in order to be in tune with market demands. In consequence, they are very sensitive to innovations, being affected by them or taking part in the development of them (Davenport, 2005; Carneiro, 2000; Amar, 2004). Knowledge worker literature clearly states the importance of innovation and the expectation that knowledge workers participate in it, whereas professional literature does not explore it in the same depth.

To summarise, according to the most recent literature on knowledge workers, a knowledge worker is not the same as a professional worker because of their

market orientation, distance from trade regulations, and their explicit link with innovation. However, many questions arise from this statement; firstly, if we take into account that all professional work is changing as a consequence of the accelerated social transformation and the innovations in IT, one could ask what the real difference between a knowledge worker and a 'modern professional' is. In today's job market, it seems unlikely that many, if any, contemporary professional workers would be tied to the traditional view of their profession. Secondly, this description does not take into account social contexts in which the market orientation, flexibility and the lack of regulation in professional work is the normal state of the society. That may be the case in countries like Chile, a very open and free economy, in which every professional is, to some extent, pushed to adopt these kinds of qualities. As a result, one could think of knowledge work not as a type of job, but as an important tendency of labour in a free market economy.

1.4.3 Assumption 3: They are the base and the origin of innovation in the organisation

In the context of free market and global economy, innovation has become a critical element for a firm's success, and therefore a very important management issue (Drucker, 1985; Amar, 2004; Carneiro, 2000; Van De Ven, 1986). From Schumpeter's work, there is little debate regarding the importance of innovation for the development of countries and organisations (Van de Ven, 1986). Moreover, it has been seen as the only way in which firms can survive to the intensity of social change and increasing competitiveness (Jimenez-Jimenez & Sanz-Valle, 2005; Nonaka, 1998).

The basic assumptions in most of the literature on innovation, including knowledge management and some part of human resources management, is that innovation is an intentional and planned activity that can be improved from a wide range of techniques, particularly from the management field (Drucker, 1985; Probst et al., 1999). It has also been seen as a consequence of the investment, policies and plans on knowledge management and knowledge workers (Carneiro, 2000).

Innovation has been defined in many ways. One definition is '*...a deliberate and radical change in existing products, process or the organisation in order to achieve a competitive advantage over competitors*' Leede & Looise, 2005, p.108). To some extent, innovation is better understood in relation to the market; it is the way in which knowledge is transformed into business value through highly skilled people (Gurteen, 1998). Innovation is much more than one person having good ideas; it is a complex process involving several factors such as knowledge, uncertainty, a non linear process, and the work of several formal and informal groups and networks (Scarborough, 2003; Newell, 2002; Gloet & Terziovski, 2004). Additionally, some of the most common input factors mentioned in the literature of innovation are: people, physical and financial resources, ideas, knowledge repository, culture, structure, communication, collaboration, decision making and a certain amount of political activity, amongst others (Newell, 2002; Adams et al, 2006).

In addition, many forms of innovation and intensities have been identified. The most common forms mentioned in the literature are, for example; new products, new services and technologies (Carneiro, 2000), and 'hard' or 'soft' (Newell, 2002; Battini, 1994), or technical or administrative innovations (Damanpour & Evan, 1984). Also its intensity [of change] can be radical and incremental (James, 2002). Consequently, it is difficult to establish a unique set of categories of innovation because it is characterized by a diversity of perspectives, some of which even contradict each other (Cabello Medina & Carmona Lavado, 2005; Adams et al, 2006). Neither is it possible to establish a 'best practice approach' to innovation (Newell et al., 2002).

In the literature, there is general consensus regarding the core role of knowledge workers in the innovation process. They are the origin of the creative ideas, and they are strongly present in all of the rest of the innovation process (Davenport et al., 2002; Davenport 2005; Amar, 2002, 2004; Drucker, 1999; Harrigan & Dalmia, 1991; Storey, 2005; Swart et al., 2005; Frenkel, 1995). Moreover, innovation might be considered an essential part of the knowledge worker identity, as innovation is generally seen as being on the opposite side to routine work. It is also consistent

with some of the most mentioned features of knowledge workers such as continuing learning, knowledge sharing, informal culture, networking, autonomy, etc. Thus, innovation has been understood as the intersection of flows of people and flows of knowledge, where knowledge workers are in the middle (Scarborough, 2003).

Although most of the literature presents innovation as an expectable outcome from knowledge workers, a gap has been reported about how they participate in the innovation process (Newell et al., 2002; Gloet & Terziovsky, 2004; Amo, 2006). Most of the literature does not mention how, in reality, they take part in the process. By the contrary, they give only a general and sometimes quite vague view of this matter.

As the subject of knowledge workers is relatively recent, most of the empirical and theoretical background can be found in the theories of innovation, KM, HRM and creativity. In this literature, knowledge workers are not always mentioned as 'knowledge worker', but they are implicitly present in the form of highly qualified workers, professionals, IT experts or R&D staff, who are commonly the subject of those papers. In the literature on innovation, the management of people has been a recurring matter of concern, in their creative and intellectual role in the origin of innovation, and as a part of the process. In the same way KM literature has placed knowledge workers in the middle of the policies, practices and techniques to improve the use of knowledge in the organisation, innovation being the most commonly expected result (Gurteen, 1998). Research on creativity has also cast light on how creative people participate in the process of innovation. Distinctly, HRM literature has been considered meagre about this topic by some authors (Laursen and Foss, 2003; Jimenez-Jimenez & Sanz-Valle, 2005; Leede & Looise, 2005).

Innovation has also been viewed as an expected result of the knowledge sharing activity in the organisation. This has been considered as a critical aspect of knowledge-based firms' innovation and performance (Swart & Kinnie, 2003;

Nonaka, 1998). From this perspective, organisation work is based on the interaction of explicit and tacit knowledge. The former can be taken, codified, transmitted and stored, and can be easily managed with the help of IT, but the latter belongs to people, is in their heads, is linked to action in a specific context, and its use depends on variables such as commitment and involvement (Nonaka, 1994). While good planning and IT resources can help organisations to be effective and efficient in sharing explicit knowledge; implicit knowledge has been reported to be one of the most difficult aspects of knowledge management (Probst et al., 1999). According to the literature, several socio-psychological variables shape knowledge sharing behaviours among knowledge workers, for instance, colleague and supervisor support, trust, group identification, organisational culture, organisational commitment, perception of knowledge sharing, and job autonomy, have been mentioned (Cabrera et al., 2006; Cabrera & Cabrera, 2005). In addition, successful people management practices have a positive impact on knowledge sharing behaviours (Swart & Kinnie, 2003; Cabrera et al., 2006).

Part of the literature has presented knowledge workers' role in innovation as highly creative (Davenport et al., 2002; Davenport, 2005; Amar, 2002, 2004; Drucker, 1999; Harrigan & Dalmia, 1991; Storey, 2005; Swart et al., 2005; Frenkel et al., 1995). Creativity is clearly different from innovation, but, nevertheless, they are closely linked in the literature. While creativity is generally linked to the generation of new ideas, innovation is about putting them into action (Gurteen, 1998). Not every good idea is necessarily followed by an innovation. Thus, innovation is presented as an outcome of a complex process which starts with a brilliant idea, and later is developed into a concrete product (Amabile et al., 1996). From a business perspective, creativity without innovation is not a matter of concern.

Creativity has been defined as '...a product, ideas, or procedures that satisfy two conditions: (1) they are novel or original and (2) they are potentially relevant for, or useful to, an organisation' (Oldham & Cumming, 1996, p.608). In general, the literature has focused on both personal characteristics and organisational context to explain creativity. From the former, which is the most traditional perspective,

intuition, sensitivity and self-confidence, among other qualities, have been mentioned. From the later, it has focused on how environmental factors affect intrinsic motivation, for instance, job complexity and supervisory style (Oldham & Cumming, 1996; Amabile *et al.*, 1996). Both personal characteristics and the work environment are essential for creativity and the process of innovation (Gurteen, 1998). While innovation requires creative, skilled people, it is essential that they feel motivated to contribute to the organisation and also have the necessary organisational support for that. Thus, it is generally accepted that a proper work environment is important for a highly skilled knowledge worker to create and develop successful innovations.

To summarise, Innovation is a very important matter for firms today, and knowledge workers play an essential role in it. Innovation is one of the main activities of knowledge workers. The research on how knowledge workers generate innovation is still incipient. Recently, the interest in this issue is increasing and more and more research is being carried out on it. Until now, the focus of these investigations has been placed on some specific HRM policies and practices, but also on the style of management, work environment and organisational culture. Knowledge sharing and creativity have also been mentioned as important topics in this regard. In general, most of the qualities of creative and innovative workers and organisations mentioned in the literature are consistent with the knowledge worker profile.

1.4.4 Assumption 4: Their capacities are under-utilised in organisations

In general, most of the literature points out that there is still a long way to go in relation to knowledge worker management. It has been asserted that the development of this sphere is still incipient; that managers still do not know how to maximise their contribution to the firm (Davenport, 2005; Hammer *et al.*, 2004; Hislop, 2003; Drucker, 1969; Despres & Hiltrop, 1995; Oltra, 2005; Osterloh, 2005). Drucker has been one of the most quoted in this regard:

'Work on the productivity of the knowledge worker has barely begun. In terms of actual work on knowledge-worker productivity, we will be in the year 2000 roughly where we were in the year 1900 in terms of the productivity of the manual worker' (Drucker, 1999, p.4).

It has been said that knowledge workers challenge the traditional management practices as they are not capable of seizing the complex reality of knowledge workers (Scarborough, 1999). At present, a large number of managers still apply an obsolete model of management, replicating effective practices of the past. Today most of the managers ignore the dynamic nature of the new knowledge worker, particularly Generations X and Y (Amar, 2004), from which knowledge workers came.

Although it has been mentioned that organizations are not making the most of the knowledge workers' potential, until now there is neither convincing evidence of this problem, nor a deeper understanding of its nature. What evidence is there that the potential of knowledge workers is underexploited? What is the expected performance of a knowledge worker? In this regard, most of the literature has confined itself to indicating the lack of understanding of knowledge worker particularities and the importance of improving their management (see for example Carneiro, 2000; Davenport, 2005) but, in general, few empirical investigations have been conducted on it. Perhaps, the problem could lie in the difficulty of measuring knowledge work and establish a parameter of evaluation.

In the case of this research, it is particularly interesting to know how environmental variables such as culture may be shaping knowledge worker performance. Although some research has been conducted in this area, especially on knowledge management practices (see for example Holden, 2001; Dana et al, 2005; Iles et al., 2004), there is still a big gap in the knowledge about the impact of culture, and particularly national culture, in knowledge worker performance (Horwitz et al., 2006). National culture not only strongly affects knowledge workers' commitment, loyalty, attitude, motivation, behaviour, etc, but also impacts critically on such

factors as trust or the learning environment (Thite, 2004). In addition, culture has an impact on innovation (Storey, 2005). In contrast to traditional organisations, in knowledge intensive firms, culture plays a critical role in establishing norms and controlling the organisation (Robertson and Swan, 2003). Thus, national culture can be an important explanatory factor to bear in mind in relation to the underutilization of knowledge workers.

1.4.5 Assumption 5: HRM can play a crucial role in their management

At the present, and from the perspective of business success and innovation, knowledge workers are considered very important employees for firms. At the same time, the mainstream on knowledge worker considers them 'special employees' who require a different work environment and need to be managed in a "special way", different from the rest of the employees (Hislop, 2005). As the focus of knowledge management is moving from the system and IT to people, more research is needed to be carried out in regard to the particularities of these workers and their work environment, and also how to enhance their performance (Pyöriä, 2005). In this context, HRM has recently emerged as a new approach to deal with knowledge worker management, through the application of the HRM perspective, theories and practices, to the emergent knowledge work concept (Wang & Ahmed, 2003; Whicker & Andrews, 2004). Nevertheless, this new intersection between knowledge work and HRM is still in an exploratory phase and its results are very incipient (Hislop, 2003, 2005; Oltra, 2005; Horwitz et al., 2006)

As knowledge workers have been gaining more and more importance lately, HRM has been pushed to include them within its thematic scope (Thite, 2004). Thus, recently HRM has included knowledge work particularities as an important aspect of the managing of people in the knowledge economy. The emerging field, linking a traditional area of knowledge management and HRM, goes smoothly. Apparently, these perspectives seem to be compatible and even complementary. One plausible explanation for this is that both knowledge worker perspective and human resources management came from the same perspective of the organisation: the

knowledge-based view and the resource-based view. As Nonaka pointed out, humans and knowledge are inevitably linked (Nonaka & Takeuchi, 1995).

The basic assumption behind the link between knowledge workers and HRM is that they can be better managed using the HRM tools and concepts. However, it also has been affirmed that traditional HRM techniques are not necessarily the best way to manage knowledge workers (Tampoe, 1993; Horwitz, 2003; Storey, 2005; Ralston, 2007; Raich, 2002). That is because their requirement goes beyond the traditional worker and traditional professional; therefore, organisation needs to make changes in their management systems (Ridie Harrigan & Dalmia, 1991; CIPD, 2002). Moreover, how to manage knowledge workers has been said to be the greatest challenge for HRM units, as they are increasing their importance within organisations (Despres & Hiltrop, 1995). Thus, traditional HRM faces a transformation process in their theories and practices, which urgently need to be renewed, and to include new areas of development involving knowledge workers. For example, in regard to recruitment and selection, HRM should move from seeking and selecting resources to identifying, attracting and sustaining talent (Whicker & Andrews, 2004).

The new HRM's scenario not only involves the application of the most traditional HRM tasks within the knowledge workers' context, such as job description and specification, staff supply, personnel development and workers rewards and motivations, but also the new demands of the environment involve harnessing their potential, promoting cooperation, informal learning, and networks (Despres & Hiltrop, 1995; Hislop, 2005; Thite, 2004). Additionally, the development of an organisational climate and culture, that supports creative work, trust and commitment, has also been mentioned as an important aspect of knowledge worker management (Storey & Quintas, 2001; Storey, 2005; CIPD, 2002). Moreover, the new role of the HRM staff has been linked to emerging tasks such as the intellectual capital management, the supporting of communities of practices, defining strategic knowledge capabilities and helping internal and external networking (Raich, 2002; Whicker & Andrews, 2004). In the latest literature on

knowledge workers, people management is becoming a central issue, and human resources management is taking a critical place for successful knowledge worker performance.

1.5 MAIN FEATURES OF KNOWLEDGE WORKERS

1.5.1 Knowledge as the main resource of knowledge workers

This is, perhaps, the most recurrent feature of knowledge workers described in the literature. The essence of this argument is that these workers require, use and produce more knowledge in their work than other employees. This characteristic is the essential part of their ontological description. As Drucker (1975, p.16) pointed out, they are...*'people who are paid for putting knowledge to work...'*; *'...knowledge worker is one who knows more about his or her job than anyone else in the organisation'*(1998a). Despres & Hiltrop (1995, p.12) emphasized this aspect when they define knowledge work as *'systematic activity that traffics in data, manipulate information and develop knowledge'*. In the same way, Brenner (1999, p.5) pointed out that: *'Knowledge workers are people who, in the daily performance of their jobs, are responsible for the creation of knowledge. Information is their primary raw material'*. Finally, Chesebrough (2004, p.17) described knowledge workers as *'...anyone who works for a living at the task of developing or using knowledge'*.

The relationship between the knowledge worker and the knowledge they use has been accentuated in the literature. Basically, these employees manipulate a great amount of data and information, which is the raw material of their intellectual work. For instance, it has been said that knowledge is the input, medium and output of their work (Newell et al, 2002). In addition, among their principal work activities are acquiring, searching, analysing, organizing, judging, synthesising, distributing, storing, applying and marketing knowledge (Chesebrough, 2004; Davenport, 2005). Finally, the (expected) results of their work are new ideas, designs or product (Newell et al, 2002; Davenport, 2005).

Knowledge has been mentioned as the most critical asset for a firm, but due to its nature it is strongly tied to the person who owns it. Knowledge is more than data and information, and it cannot be separated from the individuals who possess it (Probst et. al, 1999). Thus, the knowledge of the knowledge workers causes them to be treated as 'special employees', because without them the organisation would lose a critical resource for competitiveness. In that sense, although managers claim that all employees are very important for the firm, in reality and according to knowledge worker literature, knowledge workers are the most important. This vital dependence of the firm on knowledge workers has been extensively mentioned in the literature. For example, Harrigan & Dalmia (1991, p.5) define knowledge workers as '...key employees who create intangible value-added assets (and often transport those assets in their heads when they change employers)' and Davenport et al. (2002, p.25) refer to them as '*the horses pulling the plough in the knowledge economy*'. Therefore, a firm should be conscious of the fact that knowledge workers represent a key factor of their business and, therefore, they should take their management seriously.

Due to the fact that knowledge workers mainly work with knowledge, they are usually linked to high tech industries and the science environment. However, they are present not only in environments such as universities or R&D units, but also in most of the business environment (Davenport, 2005). The most common professions originally linked with knowledge work were doctors, scientists, lawyers, consultants, and informatics specialists and engineers in R&D units, but lately the scope was extended to several other professional, technical and managements occupations (see Beckstead & Gellatly, 2004; Donnelly, 2004; CIPD, 2002). Although most of the literature on knowledge workers has been concentrated on a small group of professions, it has been argued that most of the traditional professions do, to some extent, a sort of knowledge work (Nonaka & Takeuchi, 1995, in Robertson & Hammersley, 2000, p.242).) Amongst these are designers, architects and nurses, while many others are commonly mentioned as belonging to this

category (Hislop, 2005; Drucker, 1999; Keading & Rambur, 2004; and Beckstead & Gellatly, 2004)

Other theoretical positions have pointed out that knowledge work is not a characteristic, a profession or an activity, but a discretionary behaviour which everybody can do in their specific work. In other words, every person can do knowledge work if she/he has the chance to do it and the necessary motivation (Kelloway & Barling, 2000 & Withey, 2003). From this perspective, knowledge work is a discretionary organisational behaviour linked to all jobs. Thus, to a higher or lower degree, everybody does knowledge work.

To conclude, it should be said that although there is general acceptance of the argument that the main characteristic of knowledge workers is precisely that they intensively work with knowledge; it is also one of the most controversial theoretical issues about this concept. As was mentioned above, this is still a matter of debate as every work involves, to a greater or lesser extent, a particular amount of knowledge.

1.5.2 Complexity, unstructured and non- routine tasks in knowledge workers' work

Another characteristic of knowledge workers commonly mentioned in the literature is the special nature of the sort of work they do: it is complex, unstructured and not routine (Davenport, 2005; Frenkel et al., 1995; CIPD, 2002; Amar, 2002; Swart et al, 2005; Scarbrough, 1999; Pyöriä, 2005; Hislop, 2005; Kogan & Miller, 2006; Whicker & Andrews, 2004). These peculiarities of their work could be considered as critical for understanding the distinctiveness of the knowledge work, that some definitions of them are based precisely on these characteristics. For instance, Scarbrough (1999) described knowledge workers' labour activity as '*...relatively unstructured and organizationally contingent, and which thus reflects the changing demands of organizations more than occupationally defined norms and practices*' (Scarbrough, 1999, p.7).

People doing knowledge work are exposed to complicated problems, often of an abstract nature (Pasmore & Purcer, 1993), which involves many variables and abundant amounts of information. Moreover, each new problem they face is different to the previous one, so they need to make a new diagnosis and find a new solution for each situation, according to the new data. For example, primary care physicians, as most of the knowledge work, have to deal with a huge amount of information in order to be up to date in their work. It has been estimated that they have to cope with ten thousand different diseases and syndromes, one thousand different laboratory tests, three thousand different types of medicines and four hundred thousand new articles every year (Davenport & Glaser, 2002). Additionally, they also have to pay attention to informal conversations between colleagues in clinical lectures, ward rounds, discussions about a patient demise or comments to juniors and students in the operation room, as they constitute a significant part of a doctor's experiences (Atkinson, 1995 in Ellingsen, 2003, p.194).

At the same time, and considering that the work in a hospital is highly specialized and distributed, they have constantly to evaluate the credibility of the resources and how valuable the information is, depending on who, where, and how it was produced, in a process in which knowledge and trust are interwoven (Ellingsen, 2003). Furthermore, as knowledge worker activity doctors are also involved in political activities that help them to gain or keep power as well as to create their identities (Berg & Bowker, 1997). They also have to deal with the no less important matters of autonomy, legal and ethical issues in a profession in which they are particularly critical. As a result, it can be said that doctors, as knowledge workers, do their work in a very complex and changing scenario.

Complexity, unstructured work and also the tacit nature of the knowledge that knowledge workers use for working, have serious implications for the way they have to be managed, particularly with regard to the control matter. As managers cannot be 'in the heads' of knowledge workers and, usually, do not know enough about the knowledge workers' field, they cannot measure, evaluate and make valid judgements about knowledge worker performance. They do not have a reliable

way of knowing if the worker made his best effort or if she/he used all her/his intellectual potential (Davenport, 2005). The 'traditional ways' of controlling, such as measuring working time or the number of things made, have no validity when knowledge workers have a very flexible and autonomous scheme of work, while the outcome of their work is ambiguous. In this scenario, 'good willingness', culture and a good understanding with employees are critical (Hislop, 2005; Davenport, 2005; Harrigan & Dalmia, 1991).

1.5.3 Education and experience in the debate on knowledge workers

Another important feature of knowledge workers is that they are highly educated and experienced workers (Drucker, 1994; Choi and Varney, 1995; and Sulek and Maruchek, 1994, cited in Pyoria, 2005, p.123; Blackler et al, 1993; Cooper, D., 2006; Bogdanowicz & Bailey, 2002; Davenport, 2005; Whicker & Andrews, 2004). In general, most of the literature describes formal education as well as informal education and experience as essential characteristics of knowledge workers. From the formal education perspective, they are highly educated graduates. In some cases they have studied in more than one field (Robertson & Swan, 2003). For example, Newell (Newell et al., 2002, p.18) pointed out: '*...Knowledge workers are characterized as individuals with high levels of education and specialist skills combined with the ability to apply these skills to identify and solve problems*'. In the same way, Drucker also highlighted the importance of formal education as a key aspect of knowledge society, and a knowledge worker as someone who acquired his/her job and position through it (Drucker, 1994). Others, however, also mention experience as an equally important element in knowledge workers' backgrounds. For instance, Elliman & Hayman (1999) described a knowledge worker as a highly educated '*quasi professional*', while Davenport (Davenport, 2005, p.10) described them as having a high degree of expertise, education, or experience.

The fact that they are notably more educated and experienced than the rest of the workers has led them to be called 'gold collar' or 'elite' in part of the literature, contrasting with the so called 'white collar' and 'blue collar' workers (Robertson &

Hammersley, 2000; Newell et al. 2002; Bogdanowicz & Bailey, 2002; Bell, 1974; Holland et al., 2002; Storey, 2005). As a part of the elite, they possess higher privileges, control and power over their jobs (Blackler et al, 1993; Reich, 1991; Kessels, 2001; Aleson et al, 2001). As members of the elite, they also belong to exclusive groups and networks composed of other knowledge workers. Being part of these groups is not only important for feeding and enriching the knowledge creation process and innovation (Newell, 2002), but also for giving the knowledge workers a sense of identity and belonging (Alvesson, 2004). In addition, in the group knowledge workers experience several social phenomena such as negotiation, trust, domination and power relations (see Knights et al., 1993).

1.5.4 Continuous learning and knowledge workers

As they work in a permanently changing environment, knowledge workers need to update their knowledge continuously, in both formal and informal ways. Thus, continued learning has been mentioned as an essential activity for all knowledge workers (Carneiro, 2000; Drucker, 1999; Fisher & Ostwald, 2001; Storey & Quintas, 2001; Tymon & Stumpf, 2003; Whicker & Andrews, 2004). For example, James (2003, p. 50) pointed out that: '*knowledge workers are continually updating their skills and developing new skills that make them valuable to the organization*'. It has also been said that they are not interested in a life-long job, but they are seeking opportunities for life-long learning and personal development (Bogdanowicz & Bailey, 2002; Withey, 2005/2006; Harrigan & Dalmia, 1991). Finally, the fact that they have learnt how to learn is one of the most significant features that make them different from other workers (Drucker, 1969; Kessels, 2001).

It is generally accepted that learning plays a central role in knowledge workers' work, and also that they are eager to learn when they have the opportunity. In this regard Ireland and Hitt wrote:

Citizens appreciate the opportunity to learn continuously and feel greater involvement with their community when encouraged to expand their knowledge base. Ongoing investments in organizational citizens result in a

creative, well-educated workforce—the type of workforce capable of forming highly effective great groups. (Ireland & Hitt, 2005, p.70)

Usually, a knowledge worker's career starts at university. However, they will keep learning during their whole careers; especially from experiences in the workplace. The learning process in the workplace has been recognised as a complex and context specific process, which take place through formal, informal and incidental resources (Garavan et al., 2002). Formal learning involves intentionally constructed learning activities; while informal involves unplanned, unintentional and experience related activities; and incidental includes learning from the trial and error process.

Learning is a critical aspect for organizations and business at the present time (Rylatt, 2001; Beardwell et al., 2004). From the organizational perspective, learning is a very complex process that can take place through both individual and collective agents (Probst & Büchel, 1997). From the former, employees' individual capabilities, interests and values are the focus of attention, because they are the base of the cognitive process that led to learning. From the latter, it involves elites, groups or social systems that operate as agents of learning. In this regard, a large number of researchers have focused in the best way to integrate individuals, teams and organizational learning, with the purpose of enhancing organizational performance (Garavan et al, 2002). In the HRM arena, in particularly, learning has been linked to systematic management curricula for workers' development, developmental experiences, action-learning training activities and working team discussion (Ulrich, 1998). The more formal view of learning presumes that learning consists of self-conscious, deliberate and goal-driven actions, and that the result of these are quite simple to perceive (Garavan et al, 2002).

Along with formal learning, informal learning has also been recognised as a very important way to update workers' knowledge; not only as part of their career, but throughout their whole life (Thite, 2004). According to Parker Follet (cited in Conlon, 2003, p.286) '*...informal learning was nurtured at birth and spanned one's*

entire life, acquired by the modes of living and acting that teach an individual how to grow a social consciousness'. In fact, within organisations it has been found that only twenty percent of what employees learn comes from formal training (Marsick & Watkins 1990 in Conlon, 2003). On the contrary, most comes from asking questions, listening, observing and interacting socially within their particular working environment (Conlon, 2003, Eraut, 2007). Informal learning can also be carried out through attendance at conferences, on-the-job training, internet sources, sharing knowledge, self-learning, attending events or establishing informal networks, etc. (Horibe, 1999; Hong & Kuo, 1999; Conlon, 2003; Rylatt, 2001; Levitt & March, 1996).

In addition, it has been pointed out that learning by doing is a powerful way of learning from direct experience, and this includes trial-and-error experimentation (Levitt & March, 1996). Contrary to the mainstream in the literature, it has been contended that failure can be an important factor in learning because it can trigger processes such as a more diligent searching for a solution to problems, the stimulation of keenness to adapt and an increased acceptance of risky situations (Sitkin, 1996). Thus, organisations should learn not only from their 'gratifyingly successful experiences', but also from their 'bitter failures'. Although informal learning is very important, it is intrinsically difficult for managers to control it, both because of its informal nature and because it involves employee emotions, feelings and reflection (Conlon, 2003)

Similarly, the creation of a learning environment is a crucial issue for a firm's success in the context of a knowledge economy (Kessels, 2001; Honk & Kuo, 1999; Garavan et al, 2002). Due the necessity of keeping up-to-date, organisations should provide a supportive environment for knowledge workers to learn. This includes aspects such as transformational leadership, a more egalitarian culture, better communication, more flexible structures and procedures and a higher degree of openness to the world (James, 2003; Quinn & Friesen, 1992). In this regard, it has been pointed out that: '*...the organization has to manage the work environment of these employees [knowledge workers] proactively, creating opportunities that*

allow them to explore and apply the latest technology, have ongoing training and development available , and provide a more flexible work environment with a broader range of career opportunities' (Garavan et al., 2002, p.69).

1.5.5 Motivation and commitment in the context of knowledge workers

There is general agreement that motivation is not a problem in the case of knowledge workers, except when inhibiting factors interfere with their work. On the contrary, most of the literature highlights how they genuinely enjoy their work, have intrinsic motivation and that they are willing to work very hard and collaborate with their firms (Withey, 2005/06; Hislop, 2005; Swart et al., 2005; James, 2002). In addition, monetary reward is not the only factor in the decision about whether to stay or leave the firm, but also aspects such as career development, labour relations, autonomy, professional recognition and even personal needs, have been mentioned as critical in this regard (Amar, 2002; Drucker, 1969; Harrigan & Dalmia, 1991; Kubo & Saka, 2002; Wang & Ahmed, 2003). Moreover, it has been claimed that a knowledge worker is even willing to sacrifice salary and job security for a job that includes aspects linked to intrinsic factors of motivation. (Withley, 2005/2006; Harrigan & Dalmia, 1991; Horwitz et al., 2003). Tampoe (1993), for example, published the results of a study on knowledge worker motivation in which monetary reward (7.07%) was ranked in the last position in a list of motivators, according to the preference shown by knowledge workers; behind variables like personal growth (33.74%); operational autonomy (30.51%); and task achievement (28.69). As their knowledge is scarce and valuable to their firms, their salaries are commonly significantly higher than those of traditional workers and they have considerably more opportunities for job mobility, so that job security and decent salaries are not an issue for them, but job satisfaction, quality of life, and learning opportunities are (Swart & Kinnie, 2003; Davenport, 2005).

The reason why knowledge workers are, commonly, very motivated can be partially explained by the challenging nature of their labour activity and the fact that they

do not do routine work. A typical knowledge worker job is a sort of employment that most people could consider a very interesting one, which involves novelty, learning and social recognition. The positive effects of the status, professional and peers recognition, feeling of competence or self esteem and identity, have been mentioned as powerful aspects of knowledge worker motivation (Alvesson, 2004; Harrigan & Dalmia, 1991; James, 2002).

Finally, fulfilling the psychological contract has been suggested as a very important issue in knowledge worker motivation (Flood, et al., 2001; O'Neill & Adya, 2006). It has been defined as an *"...unwritten agreement that exists between an individual and the organisation when undertaking terms of employment"* (Milward & Hopkins, 1998, p.1531). It includes aspects such as implicit obligations, people's expectations and reciprocal mutuality (Cullinane & Dundon, 2006). Psychological contract plays a very important role in knowledge workers' activity because of the special nature of their works, such as a more flexible work environment (Guest, 2004; Horwitz et al., 2003), the fact that they are considered as a highly committed workforce and also the inherent problem of their organisational retention and turnover (Flood et al, 2001; Horwitz et al., 2003; Bogdanowicz & Bailey, 2002). In other words, although knowledge workers are commonly motivated and hard working employees, they are also more sensitive to improper working environments and lack of the necessary elements to do their work, which will inevitably lead to their lack of motivation, and eventually the search for a better job.

In the same way commitment has been mentioned as an important aspect of knowledge workers' attitudes (Davenport, 2005; Withey, 2005/06; CIDP, 2002; Nonaka, 1998). There is a vast literature pointing out that workers' commitment is closely linked to their attitude and behaviour to their works (Hislop, 2003). This concept originally came from the Human Relation School in the thirties and was later included in Organisational Development and Human Resources Management theories (Legge, 2005; Baruch, 1998). At the beginning, commitment was defined as *'a strong belief in, and acceptance of the organisation's values and goals; the willingness to exert considerable effort on behalf of the organisation; a definite*

desire to maintain organisational membership'; (Porter et al, 1974 p. 604). Later on, this concept was split into three different types of commitment: affective, continuance and normative (Meyer and Allen, 2001).

Affective commitment reflects the employee desire to remain part of the organisation simply because s/he wants to. It has been linked to personal characteristics such as: age, tenure, gender and education (see Griffin and Bateman, 1986 in Iles et al., 1990). Affective commitment has been related to both comfort-related and competence-related experiences. The former includes physical aspects such as confirmation of the pre-entry expectation, equity reward distribution, organisational dependability, organisational support, role clarity, absence of conflict, and consideration by the supervisor; while competence-related variables include accomplishment, autonomy, fairness of performance-based rewards, job scope, opportunity for advancement, opportunity for self-expression, participation in decision making and personal importance to the organisation (Meyer and Allen, 1991). It has also been linked to the characteristics of the organisational structure, such as decentralisation of the decision-making and the degree of formalisation of policies and procedures. However, the empirical support of these relationships is still incipient.

In continuance commitment, the employee remains in the organisation because he/she needs to do so, as a consequence of employee perception about the cost of leaving against the cost of staying in the job (Meyer and Allen, 1991). In this context, 'side bets' refers to the importance that employees give to time, effort or money 'invested' in a particular job, which could be lost or devalued if they left the organisation. Both the accumulation of 'side bets' and the lack of alternatives could reasonably explain employee's continuance commitment.

Finally, normative commitment is produced when an imbalance between the employee and organisation relationship exists, in favour of the latter. The basic assumption is that employees will be committed to the organisation, due to a moral obligation, until the 'debt' has been paid. For example, this is the case when

an expensive university course has been sponsored, and the employee feels the obligation to 'compensate' the firm for that. Nevertheless, this aspect of the commitment has not been empirically proven and, instead, only lies in arena of theory (Meyer and Allen, 1991).

In general, in the management literature high commitment has been seen as positive for both employee and organisation (Guest, 1995; Mayer & Allen, 1991; Walton, 1985; Iverson & Buttigieg, 1999; Reichers, 1985; Becker et al., 1996). Also, high commitment implies positive consequences for clients of the organisation (Nijhof et al., 1998). There is general agreement that commitment is a desirable outcome of good human resources policies and organisational culture (Morris et al., 1993; Iverson & Buttigieg, 1999; Porter et al., 1974; Morris et al., 1993; Walton, 1985; Guest, 1987 in Legge, 2005).

For knowledge workers, commitment can be achieved through intrinsically satisfying work, participative management, less bureaucratic processes, and a commitment-oriented organisational culture (Frenkel et al., 1995). Additionally, the fulfilment of the psychological contract, the presence of trust, fairness, organisational justice and job satisfaction has been mentioned along with a set of suitable organisational policies and practices as determinant of degree of commitment (Frenkel et al., 1995; Davenport, 2005; Hislop, 2003, 2005; Coyle-Shapiro & Kessler, 2000; Thomson & Heron, 2005; Kinnie et al., 2005). According to the literature, knowledge worker commitment, as opposed to that of a traditional worker, is not strongly linked to factors such as job security or attractive benefits, but more to aspects like work relationships, learning opportunities and autonomy (Benson & Brown, 2007; Amar, 2004)

Knowledge workers' commitment has been recognised as a complex area of study. In part of the literature, it has been claimed that most knowledge workers are committed to their jobs, in the sense that they like and enjoy their working activity (Davenport, 2005; Hislop, 2005; Harrigan & Dalmia, 1991). However, commitment has also been considered problematic from the perspective of continuance

(Alvesson, 2001, 2004; Hislop, 2003, 2005; Bogdanowicz & Bailey, 2002). An example of a problem with continuance is quoted:

"Many people say all our resources go down the lift in the evening after a day of work, and that the firm is then empty. That is why I see it as a primary concern to make sure that they want to come back tomorrow" (Lowendahl, 1997, p.24 in Alvesson, 2004, p.142).

It has been said that a knowledge worker remains in an organisation while it satisfies her/his interest (Harrigan & Dalmia, 1991; James, 2002). As a knowledge worker, she/he has more opportunity to find a better job. She/he is a highly qualified worker in the context of a labour market in which her/his competencies are scarce. In this regard, Drucker pointed out that *'they keep their résumés in their bottom drawer'* (Drucker 2003, cited by Alvesson, 2004, p.142) Thus; this tendency to make an external career has been mentioned in the literature as a key element in the management of knowledge workers.

One expression of the knowledge workers' commitment is the fact that they tend to exceed the ordinary working day through extra hours, either at the office or at home (Amar, 2002; Swart et al, 2005; Donnelly, 2004). For example, Drucker pointed out that *'...the young engineer, the accountant, the medical technologist, or the teacher, take work home with them when they leave the office'* (Drucker, 1969, p.251). This phenomenon has been explained in part of the literature by their affective commitment to their work, which is intellectual and challenging by nature (Swart et al., 2005), as well as their commitment to the profession (Hislop, 2003; Scarbrough. 1999). From another perspective, the tendency to work more hours comes from the need to create or strengthen their identities at work, and, therefore, is not a result of explicit managerial demands, but of social expectation, organisational culture and the client orientation of their work (Alvesson, 2000, 2004; Alvesson & Robertson, 2006).

It has been pointed out that knowledge workers are not only committed to their organisation, but also to their peers, colleagues, working groups and internal and

external networks (Withey, 2005/06; Harrigan & Dalmia, 1991; Hislop, 2003; Storey and Quintas, 2001). The actions of these groups could be in conflict with the interests of the organisation. However, there is still limited information about how commitment to these groups influences knowledge worker attitudes and behaviours (Hislop, 2003).

1.5.6 Knowledge workers and the issue of identity

Part of the literature on knowledge workers has focused on the important role of identity to explain knowledge worker behaviour (Scarborough, 1999). Identity is a wide concept and its definition can vary depending on the area of study. In the context of knowledge workers and their work, it can be defined as: *...those aspects of an individual's self-image that derive from the social categories to which he perceives himself as belonging* (Tajfel & Turner, 1979, p.33), and it is closely related to issues like self-esteem, self-categorization as members of social groups, and the comparison between their own group and others (Ellemers et al, 2003). Identity is the pivotal aspect for answering the question 'who am I?', from the individual perspective, and 'who are we?', from the organisational perspective, and in consequence, 'what should I do?' (Alvesson, 2000, 2004, Rylander, 2006; Tymon & Stumpf, 2003; Alvesson & Robertson, 2006).

In the literature, knowledge work and identity have been linked in many ways. Firstly, identity has been seen as a way in which knowledge workers can obtain a sense of continuity and belonging to the organisation, in an environment characterised by a high degree of ambiguity, continuous change, more flexible environment and less-structured organisations (Alvesson, 2001, 2004; Alvesson & Robertson, 2006; Scott, 2005). Social identification has been pointed out as an important aspect of sentiments, thinking and behaviour (Alveson, 2004). Knowledge workers live in an environment of continual ambiguity and uncertainty, in which it is difficult to create commitment, loyalty and a sense of belonging to the organisation, and in which financial rewards are not enough to create that feeling. For example, in the flexible scheme contracts of independent knowledge workers,

identity gives a sense of temporary membership and identification to the organisation (Fenwick, 2007).

Secondly, Identity has been linked to control. Knowledge workers work in a highly uncertain and changing environment involving intellectual and non-routine activities. They need more flexible and more autonomous work, in a less-bureaucratic organisation. In this context, control and evaluation of performance is a complex matter, not only because of the difficulties of appraising tacit knowledge, but also because, many times, their managers do not know enough about the knowledge workers' field to make a valid judgement (Davenport, 2005; Harrigan & Dalmia, 1991, Horibe, 1999). Recently, identity has been seen as a key topic in the regulation and control of knowledge workers. On one hand, identity is directly related to culture, which, from a functionalist perspective, has been seen as an instrument to promote 'responsible autonomy', commitment and loyalty (Robertson & Swan, 2003; Alvesson, 2001). On the other hand, and because of the uncertain environment, a knowledge worker has the continuous opportunity to rebuild her/his identity, which, at the same time, obligates her/him to behave in order to validate this new identity (Alvesson, 2001). For example, Robertson & Swam (2003) described a consulting firm in which culture and identity played a fundamental role in developing loyalty and commitment. And Alvesson & Robertson (2006) have claimed that the construction of an elite identity in a consulting organisation allows it to create an environment of self-discipline.

Thirdly, identity has been seen as a way to project an attractive image of knowledge workers and the organisation. Knowledge has been recognised as an ambiguous and difficult to grasp concept (Assudani, 2005; Schreyögg & Geiger, 2007; Schneider, 2007; Spender, 1996; Grant, 1996), and consequently the outcome of the intellectual use of knowledge is generally difficult to evaluate. Bearing that in mind, knowledge work is also a tricky term, because the result of it is not always evident. Moreover, the product of the work of knowledge workers might have little 'expert knowledge', it has been suggested (Alvesson, 2001). What the contribution of knowledge workers is depends on interpretations, beliefs,

symbolism and expectation. (Alvesson, 2001; Paton 2009). Thus, given the fact that knowledge work outcome is ambiguous, knowledge worker reputation and image, as well as assumptions and expectations, will play a critical role in the perception of the quality of the product. As a consequence, and due to the highly dynamic interaction with external actors, knowledge workers are pushed to change their self-identity in order to match the image that the firm attempts to project (Alvesson, 2001).

Finally, networks are not only a significant source of information for knowledge workers (Davenport, 2005; Scott, 2005), but also they have a key function in the creation and maintenance of their identities. To start with, people within the network develop personal and emotional ties, and spend an important part of their time cultivating personal connections, trust and reciprocity (Davenport, 2005). Networks, from the perspective of social capital, can provide knowledge workers with emotional support, ideas, opportunities and cooperation (Tymon & Stupf, 2003). They also use and share a particular professional language and refer to other members as '*one of us*' (Swart et al., 2005). In a context of uncertainty, these relations give to knowledge workers a sense of belonging, and consequently stability and continuity in their self-image. Thus, it has been pointed out that they feel more identity with their peer group than the organisation they work for (Harrigan & Dalmia, 1991).

Additionally, and due to the fact that knowledge is difficult to evaluate, membership of a network can act as validation of a knowledge worker's knowledge. That is because, being a member of a group of knowledge workers means, in other people's perceptions, that they are recognised as a 'knowledgeable' person and are deservedly accepted by their peers (Alvesson, 2004). To put it simply, for the wider population, if a knowledge worker belongs to a network of 'experts', it is because she or he is an 'expert' as well. Moreover, in some knowledge areas this aspect is so critical, that to be formally recognised by the network is considered the only way to become an 'expert' (Alvesson, 2004).

1.5.7 Knowledge workers and networks

The strong link between knowledge workers and networks has been mentioned in the literature (Swart et al, 2005; Davenport, 2005; Newell et al., 2002). In contrast to the 'industrial worker', the network is an essential part of knowledge worker work. They are considered so important for them that it has been claimed that networks, rather than hierarchy, are the predominant form of organisation in knowledge intensive industries (Knights et al., 1993). Networks can take the form of educational systems, professional associations, occupational groups, inter-firm networks, etc. (Newell et al., 2002). They also have been strongly linked to innovation, as they have a key role in the creation of new knowledge (Pittaway et al., 2004). While the literature on networks is quite extensive, it is important to assess the main aspects linked to knowledge worker management.

Firstly, the network has a strong impact on the way a knowledge worker obtains information, solves problems, and learns from the experience of others (Cross et al., 2001; Probst & Büchel, 1997). The importance of networks is derived from the fact that they are used as a primary source of information, critical for knowledge workers' performance. Many studies have shown the importance of networks (Castells, 1996; Abrams et al., 2003; Fenwick, 2007; Knights et al., 1993; Pittaway et al., 2004). For example, studies have established that 89% of the critical information for knowledge workers is taken from internal and external networks (Scott, 2005). Others have shown that a knowledge worker is five times more likely to contact another knowledge worker to find information than a non-human resource such as books, databases, or the Internet (Cross et al., 2001).

Secondly, these networks are not limited to the workplace, but they go beyond the boundaries of the organisation. They might take the form of intra- or inter-networks and may be either informal/personal or formal/contractual, in which trust and personal ties are fundamental (Swart et al., 2005; Davenport & Prusak, 2000). In addition, four characteristics were found to be critical for a successful relationship in the network context: a) the knowledge worker has to be aware of

the wisdom and expertise of the other members of the network, so she/he can ask for help from the right person, b) the knowledge worker has to be able to contact other members in a reasonable time, c) the 'willingness' to help of the person contacted by the knowledge worker; d) the safety of the relationship established (Cross et al., 2001)

Thirdly, networks provide knowledge workers with support (in many ways), opportunities, resources, etc. According to the literature on network relations, people see them as 'good contacts', useful for sharing information, and providing spontaneous and non-bureaucratic help (Probst & Büchel, 1997). For example, 'network membership' has been shown to be a common way of recruiting knowledge workers, through professional associations, conferences, consultancy, and so on (Storey, 2005).

Due to the intellectual nature of their work, and because knowledge workers enjoy what they do, they value belonging to a group of people (a network) that can appreciate their work (James, 2002) and express a valid judgment about it. As an 'intellectual elite', the group is a kind of mirror for the knowledge worker to evaluate, compare and validate her/him self.

Finally, new theories have been put forward in relation to networks and the transformation of organisational structure, in particular, the change from a traditional hierarchical form to a heterarchical form. Originally introduced in neural science in the middle of the 20th century, the concept of heterarchy was later developed in the context of multinational corporations and management in general (see for example: Hedlund, 1986; Stark, 1999; 2002; Grabher, 2001; Girard and Stark, 2001). Heterarchy has been described as an adaptive response of the firm to the increasing complexity and uncertainty of the future (Lash & Wittel, 2001) and as a '*...self-organising, non-hierarchical system that is characterised by lateral accountability and by organisational heterogeneity*' (Stark, 2002, p.2). A heterarchy brings great autonomy, great diversity, distributed authority and knowledge to employees and to the firm (Hedlund, 1986; Grabher, 2001, Girard & Stark, 2001),

providing many centres or equilibrium points (Lash & Wittel, 2001), emphasising lateral communication rather than vertical communication (Hendlund, 1994), and allowing every unit of the organisation to take a strategic role (Hedlund, 1986). While traditional hierarchy is linked to *dependence*, and market orientation is linked to *independence*, heterarchy represents interdependence between organisational units. Finally, while a traditional hierarchy seeks 'the best solution' to a particular problem, heterarchy results in an organisation 'that is better at search' (Grabher, 2001).

As a consequence of a heterarchical structure, several challenges arise for the organisation. For example, inevitably heterarchical organisations have to face problems of coordination and control, in a context of higher autonomy and flexibility, and work complexity (Girard & Stark, 2001). It has been argued that a typical question asked by people working in a heterarchy is 'who's the boss?', as a consequence of distributed authority among workers (Stark, 2002). Additionally, in the literature, it has been claimed that coercive/bureaucratic control is not effective in dealing with workers in heterarchies, and that there is a need to develop normative control based on the organisational culture (Hedlund, 1986; Stark, 2002). Finally, although organisations with heterarchical structures benefit from more adaptive capacities, at the same time, they can bring organisational inefficiency, in the form of slack and redundancy, so organisations need to find an equilibrium point between efficiency and adaptation (Grabher, 2001).

Although the literature on heterarchy and HRM has been mainly linked to multinational corporations, it is evident that this organisational form is closely linked to knowledge workers. Knowledge workers are autonomous and flexible, and their work is complex and involves networking. But, although it is evident that heterarchy provides a suitable environment for knowledge workers, the literature has been quite tepid in suggesting a link between this new form of structure and knowledge workers.

1.5.8 Trust as a critical dimension of knowledge workers' work

In recent years, increasing interest has been shown in the concept of trust in the organisational context. The reason for this lies in recent changes in the nature of work within society, especially the increasing diversity in the workplace, the tendency to self-directed work, increasing employee participation, and the rising importance of the work team in organisations (Mayer et al., 1995).

Despite its popularity, trust is still a controversial term. It has been claimed that its definition is ambiguous and complex, that it changes depending on the discipline from which it is described, and also that there are several gaps in relation to the level of analysis, its relation to risk and task, and its outcomes, among others (Huotari & Livonen, 2004; Mayer et al., 1995; Rousseau et al., 1998; Child, 2001; Abrams, et al., 2003). Moreover, it has been claimed that trust can be observed from the individual, group, firm, or institutional perspective (Rousseau et al., 1998), and that there are many different kinds of trust such as calculus-based; cognition-based; affect-based; knowledge-based; and identification-based (Lewicki & Bunker, 1996; Huotari & Livonen, 2004). As a result of this confusion, it has been argued that little scientific progress has been in this field (Ping li, 2007).

One generally accepted definition of trust is Mayer et al's (1995), which defines trust as: *'the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party'* (Mayer et al., 1995, p.712).

In Mayer et al.'s model, trust is a consequence of the trustor's perceptions of the trustee's *ability*, *benevolence* and *integrity*, and also the trustor's general propensity to trust. *Ability* refers to the trustee's skill and competences in a particular field; *benevolence* to the trustor's belief in the trustee's intention to do good to her/him; and finally, *integrity* to the trustor's perception that the trustee shares their principles. Finally, the trustor's propensity to trust is defined by Mayer et al. (1995, p.715) as a 'general willingness to trust others'; and may differ

depending on developmental experiences, personality type, and cultural background.

In the organisational context, trust has been mentioned as a crucial factor and the essential 'glue' for social relationships to carry out autonomous and flexible intellectual work (Storey and Quintas, 2001; Nonaka y Takeuchi, 1995; Davenport & Prusak, 2000; Thite, 2004). Trust is essential in the context of knowledge workers because their work demands a high degree of reciprocity and interdependence through team working, and internal and external network activity, where tacit knowledge is prevalent, and where supervision and formal contracts have a minor impact on employees' attitudes and behaviours (Sanders & Schyns, 2006; Frenkel et al., 1995).

Likewise, trust has been linked to other organisational aspects such as employee retention (Thite, 2004; Rosseau et al, 1998), and it has also been mentioned as improving the capacity for change of the organisation, and helping to deal with labour conflicts (Baungard Rasmussen & Wangel, 2007; Thite, 2004; Rosseau et al, 1998). Trust has been seen as having an extensive impact on the whole organisation, as it can be both the cause and effect of many employee attitudes and behaviours, and also has important repercussions for collaboration and knowledge sharing (Dirks & Ferring, 2001; Abram et al., 2003; Davenport & Prusak, 2000). Finally, it has been pointed out that, in knowledge-based organisations, trust is expressed , for example, in personal discretion about the way in which work and time are organised (Robertson & Hammersley, 2000).

The knowledge work environment is one in which formal ties are frankly fragile, where the environment is characterised by a high degree of flexibility and autonomy, and where the measurement and control of work is difficult. In this context, trust is fundamental, as it is a basic condition for the successful exchange of information and knowledge, and for collaboration (Davenport & Prusak, 2000; Dirks & Ferrin, 2001; Thite, 2004; Kim & Mauborne, 1997; Probst et al., 1999;

Abrams et al., 2003; Newell et al., 2002; Storey & Quintas, 2001; CIPD, 2002; Smith & Schurink, 2005).

1.6 SUMMARY

In this literature review, the origin of the knowledge worker concept, and how it became popular in the management field, was discussed. The term was firstly coined by Drucker in 1959, and then re-appeared in the management field in the nineties linked to KBV, IC, and knowledge management theories. Although since then the term has gained increasing popularity among academics and specialists, it has also been subject to criticism and scepticism, as the term, and the theory around it, still remain ambiguous, and full of gaps and contradictions. Moreover, it has been argued that the concept is still in its infancy and that the research about it is lacking in theoretical and methodological rigour.

As knowledge is a highly ambiguous term, which is still open to an extensive philosophical discussion, no attempt has been made to provide an ontological definition of it in this chapter, but, instead, a description of knowledge workers based on their main features mentioned in the literature (see page 11) has been provided. This describes a knowledge worker as a worker who applies up-to-date knowledge to solve complex problems and to produce innovations. In addition, s/he is described as a flexible worker, who has to apply her/his knowledge to highly challenging tasks. Finally, their exceptional motivation and willingness to learn are mentioned. Although the essential qualities of knowledge workers are still a matter for discussion, this description provides a starting point in identifying knowledge workers and studying their particularities in different contexts.

Although in the literature the concept still remains controversial, there is general consensus that, firstly, knowledge workers are the core of the intellectual capital of the firm, and that they are critical to the firm's success; secondly, that they are different from traditional workers and professionals, since knowledge is fundamental to their jobs and they are tightly linked to market demands; thirdly, that their contribution is pivotal for innovation, not only as a creative factor but

also in the whole process; fourthly, that their knowledge, capacities, and skills are generally under-utilised in organisations, as managers still apply 'traditional' HRM policies and practices to them; and, finally, that suitable HRM policies and practices can play a significant role in the management of knowledge workers.

In addition, knowledge workers are generally described as highly educated and experienced workers, whose knowledge is critical to their job; whose work is complex, unstructured, and non-routine; who consider continuous learning to be an essential part of their work; who are highly motivated; and whose primary commitment is to their own work rather than to the organisation. Also, in the literature, many authors have focused on knowledge workers' identity to explain the reasons for differences in their behaviours in comparison with traditional workers. Finally, their membership of networks and the creation of trust relationships have been highlighted as fundamental for these workers.

1.7 DISCUSSION

Knowledge workers have become a highly popular concept in the management field in the last two decades; however, it is evident that there are number of gaps in the theory that have limited its development. The first and most problematic is the poor definition of the term 'knowledge worker' itself, which has limited further progress in this field. In most of the literature the question on what makes a worker a knowledge worker is only addressed superficially or it is taken for granted. In this regard, one of the aims of this chapter is to provide a plausible definition, based on the characteristics of knowledge workers, that firstly permits this research to be carried out, and, secondly, will allow a more consistent body of knowledge on knowledge workers to be built up in the future.

Another aspect discussed in this chapter is what makes knowledge workers different than traditional workers and professionals. Although the differences with the former appear more evident, those with the latter are more controversial and complicated. In this sense, knowledge workers lack of a 'professional identity', their independence from professional regulations, and their strong market orientation

have been discussed as possible differences, but these topics do not exhaust all the possible arguments. The fact that the limits of traditional professions are becoming more blurred, with increasing demands for flexibility, makes the differentiation more complicated. This is also true in the case of manual workers, who are subject to increasing demands for new and advanced skills in the labour market.

In addition, more research is needed on knowledge workers in business sectors other than typical areas such as high-tech industries, and including a wider range of specialists. As society is moving towards a knowledge based economy, it would be expected that knowledge workers should be present in all business sectors.

In the literature on knowledge workers a recurrent theme has been the under-utilisation of their capacities due to managers lacking the competences required to manage knowledge workers. However, several questions can be raised in regard to this assertion. For example, an accurate understanding of what 'under-utilisation' means in the context of knowledge workers, what is the 'optimal performance that can be expected from them, and how it is possible to know when that point is achieved, are needed. Although common sense may suggest that knowledge workers are not working at their full capacities in their organisations, this assertion needs to be proved as there is still no convincing evidence that knowledge workers are actually under-utilised. Furthermore, the way in which knowledge workers contribute to their firms' performance has still not been established. Thus, it is clear that these assumptions in the literature need further exploration.

Another gap in the literature is related to innovation. There is general agreement that innovation is critical for firms today that it can be intentionally developed in organisations, and that knowledge workers have a central role within it. Moreover, innovation is so important for knowledge workers that they are usually defined in relation to innovation, described as 'innovators' and sometimes these terms are used interchangeably. However, it is not at all clear how knowledge workers participate in the innovation process, and how organisations can improve this process. In the HRM arena, although innovation has become a popular term in the

last decades, the link between innovation and HRM still remains vague, and it is not clear how HRM can truly contribute to improving knowledge workers' performance in innovation.

Although HRM is a popular subject in the management arena, it has only been recently that it has started to deal with knowledge management issues and knowledge workers in particular. As employees, knowledge workers ought to be subject to the same traditional administrative tasks as other employees, such as recruitment, selection, rewards, training, etc., but, at the same time, there is relative consensus that the traditional way in which these functions are carried out by HR specialists will not be effective in the context of knowledge workers. There are a number of new problems and tasks that HR specialists will have to add to their 'repertoire'. For example, networks, highly autonomous work, flexibility, and continuous learning, makes their work different from that of the traditional worker. In addition, it has been claimed that traditional rewards are less effective in motivating knowledge workers, and that autonomy, learning opportunities, and professional recognition are, to some extent, more important to them. Equally, the question of to what extent formal education is essential to becoming a knowledge worker, and how they can then up-grade their knowledge through continuing learning, needs to be addressed. Retention is also a serious problem in the knowledge workers' context as they are generally committed to their work and peer groups rather than to their firms. Finally, the implications of the 'identity factor' on their management are not yet known, even though this seems more important to knowledge workers than to traditional workers.

Finally, all the aspects mentioned above make up a difficult scenario for the study of knowledge workers. There is a lack of a proper consensual definition; the differences between knowledge workers, and professional and traditional workers remain controversial; it is also unclear to what extent their capacities are under-utilised, if at all; and there are still many questions regarding their role in innovation; and while traditional HRM does not seem to fit with the new requirements of knowledge workers, research on this topic is clearly still in an early

stage of development. The picture is still one in which there are too many gaps in the theory in relation to the management of knowledge workers, and consequently suggests that the management discipline urgently needs to be upgraded to deal with this increasingly relevant group of workers.

2 “KNOWLEDGE” – A CONTROVERSIAL TERM

Abstract

In this chapter the controversial and elusive nature of the term knowledge is addressed. Firstly, the main debate surrounding the use of Polanyi's concept of tacit-explicit knowledge in the current knowledge management debate is discussed, in particular in reference to the distinction between focal and subsidiary awareness. Secondly, the positivist and Practice-Based views are discussed, as well as their consequences for management research and literature. Thirdly, this literature review deals with the concept of knowledge work as it relates to some of the main debates around this concept. It is concluded that the knowledge management field has been built on a flimsy theoretical basis and that more discussion is needed in order to make further progress in this area.

2.1 INTRODUCTION

As was seen in the previous chapter, since the middle of the last century the discourse that places knowledge as a central aspect in work, organisations and society has increasingly gained popularity in Western society, especially in developed countries (Ponzi & Koenig, 2002). As a consequence, in the last decades, several buzzwords such as ‘knowledge society’, ‘knowledge-intensive firm’, ‘organisational memory’, among others, have come to the fore in the social sciences, humanities, and the business context in particular (Kakabadse et al, 2003; Walsh and Rivera, 1991; Thomas et al., 2001; Alvesson, 2004). Thus, ‘knowledge work’ has emerged as a part of the discourse that highlights knowledge as a resource for productivity and competitiveness, and assumes that it can be managed in a rational way.

Linked to the discourse of knowledge in organisations, the most popular new concept emerging in the management arena has been knowledge management, which has had exponential growth since the middle of the Nineties (Wilson, 2002; Scarbrough & Swan, 2001; Civi, 2000; Wiig, 1997), and which has received contributions from many disciplines such as philosophy, social science, management science, information science and knowledge engineering (Kakabadse, 2003). Knowledge management is the 'umbrella concept' involving all the emerging buzzwords about knowledge and learning in organisations, including the 'knowledge worker' theory. The most common activities and practices involved in this discipline are the capture, sharing, installation and production of knowledge; the reuse of past experience; and the mapping of networks of experts, etc (CIPD, 2002), with particular attention paid to innovation as an outcome of these practices (Carneiro, 2000; Gloet & Terziovski, 2004). A variety of theories, jargon, practices, tools and skills can be grouped together under the rubric of knowledge management, and it has come to be recognised as a discipline in its own right (Thomas et al, 2001; Schreyögg & Geiger, 2007). Despite the initial suspicions of certain groups of experts that knowledge management was just another 'fad' (e.g. Wilson, 2002); it has, indeed, become a permanent and important issue in the management arena (Ponzi & Koenig, 2002, Rylander, 2006).

But the fact that knowledge management is still in vogue after many years does not mean either that it is built on a solid basis, or that it is lacking in controversy. On the contrary, despite its popularity, it is apparent that knowledge management is still an incipient discipline and that there are serious gaps that need to be addressed if it seeks to survive in the long term. One of the most problematic aspects of knowledge management is, paradoxically, the meaning of the term 'knowledge' itself (Schreyögg & Geiger, 2007; Schultze & Stabell, 2004). This is not surprising considering that knowledge has been described as an ambiguous term (Scarbrough & Swan, 2001; Alvesson, 2004; Schultze & Stabell, 2004; Assudani, 2005, Schneider, 2007), and that it has been a subject of discussion since the early times of philosophy. However, it is quite curious that its ambiguous nature has

been ignored in most of the literature on knowledge management so far (Schreyögg & Geiger, 2007), which, instead, has given the impression that it is feasible to identify, extract, manipulate, and control knowledge as it was a physical thing or just another material resource used by organisations. Moreover, apparently the emergent stream of criticism in the field relating to the feeble epistemological roots of the term 'knowledge management' has not curbed the enthusiasm of a still excited audience of managers and academics, although there is increasing evidence questioning the application of knowledge management, as well as theoretical inconsistencies and contradictions, and an apparent hiatus in the development of the discipline (Schneider, 2007; Schreyögg & Geiger, 2007).

2.2 MAIN CONTROVERSIES ON TERM OF 'KNOWLEDGE'

As has previously been mentioned, one problem with the concept of 'knowledge management' is precisely the term 'knowledge' itself, which has been described as ambiguous, and elusive (Schultze & Stabell, 2004). Although in the literature on this subject any discussion about the meaning of knowledge has generally been absent, recently an increasing number of critical papers have started to call for further discussion in the field. It is not the objective of this review to find a new definition, but to highlight some relevant aspects of the current debate.

Perhaps one of the most controversial aspects of the term 'knowledge' emerged when Nonaka and Takeuchi used the term *tacit knowledge* to refer to knowledge which is hidden, hard to formalise and articulate, but which, it has been claimed, it is possible to make explicit through metaphors, analogies and models (Mooradian, 2005). This idea, linked to a positivistic view of knowledge, assumes that knowledge is something 'out there'; objective; independent from the knower; and able to be identified, grasped, and utilised as an economic resource by organisations (Assudani, 2005; Schreyögg & Geiger, 2007; Schneider, 2007, Spender, 1996; Grant, 1996). From this viewpoint, knowledge has extrinsic and instrumental value; therefore management should seek innovative ways to make it more productive.

At the centre of Nonaka and Takeuchi's model of knowledge creation lie four types of knowledge conversion: socialisation, externalisation, combination, and internalisation. In this process, knowledge is transformed as it moves through different stages: from tacit to tacit; from tacit to explicit; from explicit to explicit; and from explicit to tacit; and is described by the authors as 'the engine of the entire knowledge creation process' (Nonaka and Takeuchi, 1995, p.57). During this process individual knowledge is 'amplified' and 'crystallised' in order to be used in the organisation's knowledge network.

A key aspect of Nonaka and Takeuchi's theory is the distinction between tacit and explicit knowledge, which is at the core of the emergent discourse about knowledge management. In their own words: '...our dynamic model of knowledge creation is anchored to a critical assumption that human knowledge is created and expanded through social interaction between tacit knowledge and explicit knowledge' (Nonaka and Takeuchi, 1995, p.61). This distinction between tacit and explicit knowledge was drawn from Polanyi's work (1966) on epistemology. In Nonaka and Takeuchi's model the main consideration is that while explicit knowledge can be formalised and systematized, and then easily communicated and shared, tacit knowledge is highly personal, context-specific, and hard to formalise and communicate (Nonaka and Takeuchi, 1995). However, although they recognise the apparent difficulties involved in grasping tacit knowledge, their model assumes that it is feasible to transform tacit to explicit, which is, as will be discussed in the section, one of the most controversial aspects of their theory.

Along with this fundamental assumption on the feasibility of the transformation of tacit to explicit knowledge, some other underlying assumptions in the positivist discourse are, firstly, that individual knowledge can be grasped, amplified and made available to the rest of the organisation; secondly, that, by so doing, people's knowledge can be rationally and profitably managed in organisations; and thirdly, that explicit articulated knowledge is more reliable, objective, and rigorous than tacit knowledge, and that this knowledge can be acquired through formalised educational programmes (Adelstein, 2007; Gherardi, 2000).

Despite its popularity, the positivist view of knowledge has provoked increasing criticism, not only because of the long-overdue discussion of its main premises, but also because the apparent difficulties in carrying out knowledge management initiatives in practice (Robertson & Hammersley, 2000; Oltra, 2005; Mooradian, 2005). Those who reject the idea of knowledge as something 'out there' which can be manipulated, argue that *tacit knowledge* cannot be made explicit, that the term knowledge is being confused with information, and that Polanyi's original term has been twisted (Wilson, 2002; Ray, 2009; Tsoukas, 2003). They also argue that, behind the positivistic discourse, there are underlying political interests (Aldestein, 2007). Wilson (2002) suggests that most of what is called 'knowledge management' in journals, consultant firms, and in the academy is actually information system management. Knowledge, on the contrary, is not something 'objective', feasible to identify, measure, 'get a handle on', manipulate, control, etc.

2.3 POLANYI'S CONTRIBUTION

Central to the debate on knowledge is Polanyi's concept of *tacit knowledge*. In the current management field, and in knowledge management in particular, *tacit knowledge* is a popular concept which refers to all those 'hidden' and 'invisible' aspects related to knowledge that every organisation must identify, grasp and use, in order to reach a better competitive position.

Despite the popularity of Polanyi's theory in the management field, it was originally created in the context of epistemology as a criticism of the assumed objectivity of science. In general, credit for the introduction of the concept of *tacit knowledge* to the management field must go to Nonaka and Takeuchi (1995), who developed the *model of knowledge creation* in organisations, in which they claimed that *tacit knowledge* can be transformed into explicit knowledge by using analogies, stories, etc., As a result, the popularity of knowledge management increased exponentially in management literature, becoming a 'commonplace' and 'buzzword' in the management field (Cowan et al., 2000). However, as was previously mentioned, the

interpretation and use of Polanyi's theory has not been totally free of controversies.

Polanyi's main contribution to the field of knowledge can be summarised in the sentence: "*We can know more than we can tell*" (Polanyi, 1966, p.4), which refers to the fact that individuals cannot make explicit all the knowledge they possess. Thus, the assumed objectivity and rationality of scientific thinking can be challenged by the fact that any form of scientific explanation is, inevitably, incomplete. Hence, Polanyi claims that scientific knowledge involves, inevitably, a high degree of personal contribution from the scientists, beyond the rational rules of the science (Ray, 2009, Tsoukas, 2003).

Given the fact that our understanding of reality is limited, and that our construction of reality goes beyond 'objective clues'; any attempt to eliminate human 'subjectivity' from knowledge is, in Polanyi's words, an absurdity. He claims that, at the end of the day, knowledge relies on a strong *personal* component, involving personal skills and connoisseurship which cannot be fully explained or recalled. This is equally true in technological fields, where indefinable knowledge abounds, and where technicians perform their work using a mix of rational rules and personal knowledge. Thus, the previous argument brings into the open the question about how, in practice, people learn and perform tasks, given their incomplete picture of 'reality' (Muñoz et al, 2009).

In Polanyi's approach, knowledge and knowing are different by nature. While knowledge is seen by him as similar to information, knowing is seen as a more complex concept involving active comprehension from the knower (Muñoz et al., 2009). Polanyi describes this process by which: '...skilful knowing and doing is performed by subordinating a set of particulars, as clue or tools, to the shaping of a skilful achievement, whether practical or theoretical' (Polanyi, 1962, p.vii). The act of comprehension by which somebody grasps and integrates those particulars is impossible to recall in full explicit detail given the fact that individuals do not articulate them logically, and therefore it cannot be transmitted easily.

In order to answer the question of how people learn and perform, Polanyi introduces the concept of awareness, and within this, a distinction between focal and subsidiary awareness. The former refers to those elements that are the primary subject of our attention during an action, while the latter describes all those elements that are not object of our attention but instruments of it. This distinction explains how people are able to execute actions naturally without paying deliberate attention to all the elements necessary to successfully perform the action. The experienced driver is aware of the car's structure and experiences the pedals and the gearbox as 'transparent' instruments allowing her/him to achieve her/his end, while her/his main attention is placed in the road. Thanks to this mechanism, s/he can drive without being distracted by every detail and element necessary for the performance of her/his focal action. Focal and subsidiary awareness are mutually exclusive; if during the performing of an action somebody moves the focus of her/his attention from the main element to a one being subsidiarily aware, then the action is suddenly paralysed.

The mechanism by which the driver transforms an external element such as gearbox in an extension of her/his own body is called by Polanyi indwelling. She/he shifts her/his point of contact with reality, assimilating the external thing as part of her/himself, allowing its use as instrument for achieving a particular end. This process involves a high degree of commitment of ourselves, in the sense that we are not asserting (and cannot assert) all those elements. This structure is also true in the case of intellectual frameworks, in which pre-suppositions are uncritically accepted by scientists in order to build up novel scientific arguments (Mooradian, 2005). In Polanyi's words: *'Every act of personal assimilation by which we makes a thing form an extension of ourselves through our subsidiary awareness of it, is a commitment of ourselves; a manner of disposing of ourselves'* (Polanyi, 1962, p.61).

As a consequence of the switch from something being the focus of our attention to becoming an element of subsidiary awareness, the particular element will lost its *existential meaning* and will then take on a *representative meaning*, which will be a result of the specific context in which it is functional. This meaning will be moulded

by the shape that the element forms jointly with the rest of the elements. Polanyi uses a stick as an example of an element that can have different meanings depending the context, as it is possible to use it as a tool for pointing, exploring or hitting. Thus, the car's pedal is not 'the pedal' in the context of driving, but an 'invisible' instrument used by the driver to drive.

The existence of focus and subsidiary awareness suggests that the transmission of knowledge is a much more complex process than the simple transmission of information between people. A description of a way to make something, a particular method or procedure, is not as simple as giving a number of rules or steps, as many subsidiary-aware elements are not even known by the knower. Consequently, transmission of knowledge happens mainly by personal contact, as, for example, the teaching-learning process taking place in the master-apprentice relationship. In this practice, the apprentice observes the master and emulates the way in which s/he acts, assuming that what the master is doing is right. By doing this, the apprentice is unconsciously internalizing those necessary tacit elements (rules, methods, etc.) for successfully doing the thing, most of which are even unknown to the master her/himself. It is only in the action itself, in its day-to-day practice, that the apprentice is able to learn all those aspects necessary to perform the task successfully.

Along with skills, for Polanyi, connoisseurship is central to the act of comprehension of reality and the skilful performance of an act. To explain its importance, Polanyi uses the example of doctors' training, where a long period of fieldwork is required in order for a trainee to understand how to detect a health problem. It is not enough for students to learn by reading the description of a particular syndrome; they need to be repeatedly exposed to cases of a particular disease, and then to compare with cases of no disease. Again, for the performance of this activity, it is necessary for people to learn the necessary *know-how* in practice, whereas articulated knowledge cannot fulfil the logical gap between knowledge and the practice itself.

2.4 THE KNOWLEDGE-BASED VIEW

Consistent with the positivistic view of knowledge, the knowledge-based view (KBV) has emerged as an outgrowth of the resource-based view (Grant, 1996; Barney, 1991), and is an attempt to understand the fundamental parts of the economic production of the firm. It is based on the idea that every firm possesses a set of particular resources, competencies and capabilities which are, by definition, scarce, valuable and durable. Under the assumption that the market economy and competition are reasonably efficient, it is supposed that firms are willing to create and develop those capabilities. The main assumption of this theory is that competitive advantage will emerge from a firm's specific knowledge, which allows the firm to add value to the factors of production in a unique way (Spender, 1996; Grant, 1996). In other words, while all the raw materials and tangible resources are available to all organisations in the market (including competitors), knowledge is the only resource which can give a distinctive competitive advantage to the firm.

The knowledge-based view has important consequences for the way organisations are managed. To begin with, it changes the traditional top-down view of the organisation in which the top group of managers possess the essential knowledge of the business. From this perspective, knowledge is dispersed throughout the organisation (Spender, 1996). In the same way, the increasing complexity of the production process makes it more and more difficult for managers to know all the aspects involved in it. In addition, because of the increasing dynamic of technological and market changes, organisations are continuously transforming their processes and products, and, therefore, the know-how of the company cannot be handled exclusively by a group of top managers or specialists. Given this situation, they should instead focus instead on hiring the right people, developing their skills, and providing a suitable environment for leveraging their knowledge. In addition, the KBV of the firm will also affect some fundamental aspects of traditional strategic management, such as the nature of coordination within the firm, its organisational structure, the role of management, some decision-making

issues, the firm's boundaries, and the theory of innovation, among others. (Grant, 1996)

2.5 THE ELUSIVE CONCEPT OF 'KNOWLEDGE WORK'

As a consequence of the problematic nature of the concept of 'knowledge', the term 'knowledge work' has not been exempt from controversy. Firstly, it has been argued that the concept lacks clarity and is full of ambiguities (Alvesson, 2000, 2001, 2004; Collins, 1997; Pyöriä, 2005; Frenkel et al., 1995; Ramirez & Nembhard, 2004; Wang & Ahmed, 2003; CIPD, 2002). Critics characterise the term as covering 'everything and nothing' (Alvesson, 2004; Alvesson and Kärreman 2001 in Rylander, 2006, p.6), and claim that almost all work implies at least a minimum knowledge support to be done. This has led to a long-term discussion about what constitutes knowledge work, and where, exactly, a line can be drawn that separates it from manual work.

Basically, the all-work-is-knowledge-work perspective claims that organisational knowledge is not only abstract and articulated but also practical and contextual, and that, consequently, after a period of time, every worker possesses certain useful knowledge to successfully perform her/his work. Therefore, strictly speaking, most work should be labelled as knowledge work, leaving the theoretical distinction between knowledge work and non-knowledge work as spurious (Hislop, 2009). Conversely, it has been argued that a considerable number of routine tasks lie behind most of the new knowledge occupations (see Benson & Brown, 2007).

Additionally, the confusion between knowledge work and service has been mentioned as one of the problems surrounding its conceptualization (Drucker, 1969, 1992). While part of the literature has clearly delimited the line between them (see for example, Scarbrough, 1999; Newel et al., 2002), others have treated them as synonymous (Alvesson, 2004).

Moreover, the concept of knowledge worker has been criticised due to its lack of theoretical and methodological rigour, which has led it to be seen as flimsy

(Scarborough, 1999; Newell et al, 2002; Collins, 1997; Donnelly, 2004; Hislop, 2005). For example, the assumption that knowledge work is linked to economic performance has been a subject of doubt and criticism, as it is still unproven (Hislop, 2005; Despres & Hiltrop, 1995). In addition, it is not clear how, in reality, knowledge is connected to action (Tsoukas & Vladimirou, 2001 in Rylander, 2006, p.8).

Perhaps one of the main problems in establishing a solid definition of 'knowledge worker' is precisely the ambiguous nature of the concept of knowledge. As was mentioned above, knowledge is a complicated concept involving deep philosophical and theoretical debate (Assudani, 2005; Schreyögg & Geiger, 2007; Schneider, 2007, Spender, 1996; Grant, 1996). As with many other management concepts, knowledge has sparked a long-term controversy about its concrete application in everyday business reality (Alvesson, 2004). Most management literature emphasizes the importance of knowledge as a productive resource; it has been seen as something functional, reliable, useful, and rational. However a more critical perspective has argued that the success of a knowledge-intensive firm goes beyond the pure use of knowledge and, in reality, it also depends on many other factors (Alvesson, 2004).

Finally, other critics have gone further and have claimed that there is nothing really new about knowledge worker management. They claim that these ideas were already present in the literature on scientists, R & D staff, and professionals (CIPD, 2002), and that it is over-simplistic to consider the expansion of knowledge work to be the main aspect of the contemporary world (Hislop, 2005)

2.6 THE CONTROVERSY ON THE 'WEIGHT' OF FORMAL EDUCATION IN THE KNOWLEDGE OF THE KNOWLEDGE WORKERS

Although it is generally accepted that a knowledge worker is a highly educated and knowledgeable employee, the question about how they acquire their knowledge and to what extent traditional education is absolutely necessary in this process is still not at all clear. While some authors suggest that formal education is a 'route

that must be taken' before informal learning (Pyöriä, 2005, p.119), others have reported that in many knowledge intensive firms (KIFs), employees have acquired their wisdom mainly from experience and self learning (Alvesson, 1993; Newell et al, 2002; Paton, 2009). Moreover, from the all-work-is-knowledge-work and practice-based perspectives, on-the-job learning, informal learning, and job experience are considered more important than formal learning for the acquisition of critical organisational knowledge (Hislop, 2009). Moreover, as flexible skills and interdisciplinary knowledge base have been mentioned as important qualities of knowledge workers (Wonacott, 2002), the traditional education concept of a profession might be questioned.

From the appearance of the so-called knowledge economy and knowledge work, many questions have arisen in relation to the education, career and competences of knowledge workers. Examples include the key question of to what degree future careers will be based on formal qualification or experience (Cully, 2003), what the future role of the professional association will be in regulating professions, and the likelihood of the introduction of a labour market based on competences (Watkins, 1999). Currently, traditional careers are subject to change, and the conceptualization of a profession is being stripped of its rigidities (Kessels, 2001). In several business environments, to be a 'cool' knowledge worker means being immersed in a very flexible environment, which includes variety in both the academic and experiential background (see Neff et al, 2005). However, although a university degree could be seen as only one of the ways to being hired in a KIF, apparently managers prefer graduates in their organizations, because formal education is seen as an indicator of competence and a means of formally certifying expertise (Alvesson, 2004).

Knowledge workers usually obtain a theoretical background from formal education, mainly universities. Although there are several cases in which knowledge workers may not have finished their formal studies, they typically have at least a short period of academic learning. As knowledge workers are not defined by the degree subjects they have studied, their theoretical background can be quite different

from the traditional linear career path that used to be the norm for most professions. A well known example of this is the self-taught IT expert who has learnt through experimentation and intuition and who, in many cases, does not even possess a university degree (Newell, 2002).

2.7 THE PRACTICE-BASED VIEW OF KNOWLEDGE

The practice-based view (PBV) is an alternative to positivism. From this perspective knowledge does not reside 'in people heads' but in day-to-day action (Orlikowski, 2002, Gherardi, 2000); it is mainly tacit and distributed, so it cannot be restricted or limited merely by the firm's economic interests (Aldelstein, 2007). Some of the main assumptions of this perspective mentioned by Hislop (2009) are: firstly, that action (practice) involves both physical and cognitive elements, which are inseparable, challenging the knowing-doing and mind-body dichotomies. This idea is well reflected in Maturana and Varela's (1987, p.26) sentence 'all doing is knowing, and all knowing is doing'. In addition, the PBV argues that the taxonomic categorisation of types of knowledge like, for example, the tacit-explicit distinction, although a useful analytical instrument, gives a dangerously simplified picture of the complexity of this phenomenon (Tsoukas, 1996, Hislop, 2009, Blackler et al., 1993; Orlikowski, 2002). Thirdly, the PBV claims that it is impossible to separate all knowledge from the individual. As knowledge is embedded in the act, and the act is executed by people, then is only through people that knowledge is created and developed. Consequently, it is only partially possible to 'extract' the tacit knowledge of individuals and make it explicit. Fourthly, knowledge is culturally produced and interpreted; consequently it is subjected to the same sort of factors as other cultural elements. This means that, far from the positivist view of knowledge as objective, the PBV emphasises its biased, uncompleted, and value-oriented character. Finally, assuming that knowledge is socially created and negotiated, and that nobody has privileged access to it, the PBV approach recognises the political and contestable nature of knowledge.

The PBV of the organisation brings several aspects out into the open. Contrary to the positivistic view that knowledge is something that it is feasible to identify and grasp, the PBV shows a more complex scenario in which knowledge is dispersed and fragmented throughout the organisation, involving asymmetries in the knowledge people use and learn, depending of their specific context-task, and the cultural environment in which they operate. Gherardi (2000) use the analogy of knowledge as plants, and the management of knowledge as garden architecture, in the sense that knowledge is not an inert material to be fixed and controlled but something 'alive', which is not entirely manageable. Consequently, this argument challenges the assumption that the decision-taking process is based on objective and complete knowledge, and, instead, draws attention to the problem of collaboration. Additionally, it challenges the idea that it is possible to put all knowledge in a single place, and, instead, suggests that managers can never possess the whole picture of organisational knowledge. Also, from this perspective, knowledge sharing is a much more complex process than a simple noise-free transmission between two people, and, instead, involves a deep immersion in practices and rich social interaction (Hislop, 2009).

2.8 SENSIBLE KNOWLEDGE

Among those who are in tune with the idea that knowledge is embedded in practice, there are some who also call for attention to be focused on the fact that the world is produced and reproduced by means of our sense of sight, touch, hearing, smell, and taste; which are essential in the shaping of the organisational learning and knowledge (Strati, 2007; Ewenstein & Whyte, 2007; Gherardi, 2000). The main argument here is that knowing and learning in organisations are not only by means of the mental cognitive process but also of the body and its sensorial function.

Strati (2007) mentions three aspects which are critical to an understanding of the nature of sensible knowledge: firstly, sensible knowledge is much more than merely the direct physical sensation of a stimulus, as it also refers to the active role

played by individuals in creating a 'sensible representation' of the stimulus through their personal, intimate, imaginative, and corporeal relationships with the world. Secondly, sensible knowledge involves a continuous interaction between the individual creator of sensible knowledge and the 'other', including non-human elements, in which external elements seem to act with relatively autonomy. Thirdly, sensible knowledge involves a plural world, in the sense that everybody feels, smells, tastes, etc. the world in a different way, and enjoys it in their own way, so the diversity of experiences is inherent to it.

Given the argument that individuals do not observe an 'objective world', but a unique personal reality, which involves passion and emotion, as well as aesthetic judgement, one question that arises is how this shapes the knowledge of the organisation (Wenstein & Whyte, 2007). Strati (2007) highlights some of the main consequences of sensible knowledge in organisations such as the 'situated' and local character of knowledge, albeit globalised, where the unique experiences of individuals are intimately linked to a place and moment; the importance of the physical world, in the form of artefacts and organisational spaces, and in the creation of knowledge; the significance of the individuals' expertise for the organisational context, given the tacit-explicit and aesthetic dimensions; socialisation of practices as the main form of organisational learning and communication of knowledge; and the central role of playfulness, creativity and personal abilities in the practice of knowing and learning in organisations.

2.9 UNDERLYING ASSUMPTIONS IN MANAGEMENT RESEARCH AND LITERATURE.

The underlying premises in the debate about knowledge management have been expressed in trends in management research and literature, in which two approaches have dominated the knowledge management literature: one focused on Information Technologies (IT) or Information systems (IS), and the other on the human aspect (Storey, 2005; Oltra, 2005; Wiig, 1997). The former, which represents the positivist view of knowledge, has captured the majority of the attention and has also had the greater number of publications, while the human

perspective has been disregarded (Wilson, 2002; Swan et al., 2000; Scarbrough & Swan, 2001; Robertson & Hammersley, 2000; Dougherty, 1999).

This partiality towards IT and IS has been significant, but has also been criticised. For example, in the practical sphere, it has been reported that the lack of consideration for the human aspect has caused problems in the implementation of knowledge management initiatives (Oltra, 2005). In the same way, autonomy, egalitarian culture and high trust, among others, were mentioned by Robertson & Hammersley (2000) as key aspects of the organizational environment in a knowledge-intensive firm, whereas technology and information systems were reported to have a minor role within the firm. Additionally, Bhatt (1998) suggests that knowledge based in social relationships can provide long-term advantages to firms, as technology is an imitable resource. As a result, it has been argued that human and social factors play a pivotal role in the success of knowledge management practices in organizations (Thomas et al., 2001; Bhatt, 1998). IT can be considered a very useful tool to promote knowledge management but, at the end of the day, it is the people who have the last word regarding to its use and the sharing of knowledge for the sake of the organization (Dougherty, 1999). Thus, Bhatt (1998:166) summarised the critical relevance of people when he pointed out: *'Knowledge, in itself, has no value; only through people does a large part of knowledge make sense'*.

2.10 CONCLUSION

The objective of this chapter has been to deal with some of main topics in the current debate on knowledge management and knowledge work. Knowledge management is a relatively new area in the management field, having emerged as a consequence of Nonaka and Takeuchi's popular work (1995). Despite its rapid spread among specialists, the term has not been exempt from controversies, one of the most common relating to the concept of tacit-explicit knowledge, introduced by Polanyi (1966), and the real feasibility of using knowledge as a productive resource by firms. In addition, related to this are discussions on the term

'knowledge work' and its difference from non-knowledge work, and how knowledge is acquired by knowledge workers. Underlying this argument is the debate between those who take a positivistic view of knowledge and those who claim that knowledge is not something that can feasibly be identified, grasped, shared, and made use of, as proposed by the positivists. The practice-based view is a trend among knowledge management experts which rejects the idea of knowledge 'out there' or knowledge in 'people's heads', and dichotomies such as knowing-doing and mind-body. Instead they suggest a view of knowledge in which knowledge is embedded in practice, involving integration between people and the place/situation, and including the social/cultural context in which this relationship takes place. Consistent with this perspective are the concepts of sensible and aesthetic knowledge which highlight the fundamental role of the senses in the construction of organisational knowledge, which is usually downplayed from the positivistic approach.

The data suggests that the knowledge management field has been built on flimsy foundations and that a philosophical debate is now overdue. As a consequence, apparently contradictory trends have emerged in the knowledge management field, one of them focused on IT and the other on the human face of knowledge management. The evidence suggests that both can be beneficial for this still infant discipline, but that more research is needed in relation to the evident gaps. This doctoral research is an attempt to throw some light on these issues.

3 HR PRACTICES IN THE MANAGEMENT OF THE KNOWLEDGE WORKERS

Abstract

This chapter is about the management of knowledge workers. Firstly, the context of knowledge workers is described and its possible consequences for their management are discussed. Secondly, the lack of suitable concepts, research, and theories about knowledge workers in the people management field is addressed. Thirdly, two critical dimensions of knowledge worker management are described; traditional administrative tasks and new knowledge worker-specific needs. Finally, the most relevant implications for the management of knowledge workers are analysed.

3.1 INTRODUCTION

As was seen in chapter 1, in the last ten years the knowledge worker concept has increased in popularity among managers, practitioners, consultants and academics. A knowledge worker can be simply described as an employee or self-employee who dedicates most of her/his time to applying (up to date) knowledge to solving complex problems and creating innovative valuable products (abstract or physical). The concept has gained notoriety owing to recent changes in society, where knowledge has become a critical resource for firms to be successful. But, although there is an increasing amount of literature relating to this concept, there are still many controversies and gaps in the academic debate on knowledge workers and their management.

In order to understand the special characteristics of knowledge workers and their management, a precise description of the context is necessary. The singular nature of the individual, organisational, and cultural environment of knowledge workers shapes a particular scenario in which they behave, and consequently, determines the way in which they should be managed.

So, the obvious question here is why knowledge workers are different from the rest of the workers? In order to answer this question it is important to mention four contextual aspects shaping people management practices in relation to knowledge workers (Table 3.1). These aspects represent the main differences from the traditional workforce and, therefore, they should be considered as a foundation to any theoretical construction about this issue. They are: task context, individual context, organisational context and social and cultural context. The last one is especially important to the purpose of this thesis.

Table 3.1 Knowledge workers' management context

Knowledge workers' management context	
TASK CONTEXT	Non-structured, complex, ambiguous and constantly changing task
INDIVIDUAL CONTEXT	Individualistic employees
	Behaviour motivated mainly by intrinsic rewards
	Tendency to establish networks
	Especially sensitive to the social environment
	Self-motivated
ORGANISATIONAL CONTEXT	Growing importance of knowledge in the economy and business
	Tacit nature of the knowledge
	Scarcity of knowledge workers
CULTURAL CONTEXT	Knowledge sharing, collaboration, control, commitment, retention, etc. is strongly affected by organisational culture
	National cultures impact in knowledge workers' management

3.2 THE CONTEXTS OF KNOWLEDGE WORKERS MANAGEMENT

3.2.1 Task context

In the literature, their management has been described as a complicated matter, far more problematic than the management of the traditional worker. The

intellectual and tacit nature of the task is an essential aspect to consider in the context of knowledge workers' management. The work of knowledge workers have been described as non-structured, complex, ambiguous and constantly changing (Davenport et al., 2002; Davenport, 2005; Amar, 2002, 2004; Drucker, 1999; Harrigan & Dalmia, 1991; Storey, 2005; Swart et al., 2005; Frenkel, 1995; CIPD, 2002; Swart et al, 2005; Scarbrough, 1999; Pyöriä, 2005; Hislop, 2005; Kogan & Miller, 2006). In addition, their work involves a creative dimension, expressed in innovative contributions to the organisation, such as original problem solving and new products (Ahmed, 1998; Van de Ven, 1986; James, 2002; Thomson, 2004; Conway & McMackin, 1998; Davenport, 2005; Amo, 2006; Amar, 2004). This particularity carries at least two important consequences for the management of knowledge workers: the outcome of their work is difficult to apprehend and assess (Davenport, 2005; Alvesson, 2004), and they need a higher degree of autonomy and flexibility to carry out their work (James, 2002; Leede & Loise, 2005; Scarbrough, 2003; Shuler, 1986; Pyoria, 2007).

3.2.2 Individual context

The knowledge worker as an individual has very special and determinant qualities that need to be considered from the management perspective. One of the most mentioned in the literature is that they are very individualistic employees, in the sense that they are more committed to their own professional interests and careers than they are to organisational goals (Alvesson, 2001, 2004; Hislop, 2003, 2005; Bogdanowicz & Bailey, 2002; Storey & Quintas, 2001, Withey, 05/06; Wang & Ahmed, 2003). In addition, they are more identified with the group of peer and the profession rather than the organisation where they work (Despres & Hiltrop, 1995; Swart et al., 2005; Harrigan & Dalmia, 1991). For example, Amar (2002, p.7) in referring to knowledge organisations stated that *'It is a number of people with diverse individual goals working together to achieve the fulfilment of their goals using the organisation as a vehicle'*. Also challenging tasks and learning opportunities have been pointed out as being major concerns (Jackson et al. 2003). The shortage of these employees, the priority of their careers, plus their high job

mobility, have been seen as a difficult situation to face by firms in the XXI century (Holland, 2002)

In addition, the traditional ways of motivating and achieving commitment in the workforce, such as, for example, monetary incentives, are not enough, since aspects such as 'challenging tasks', learning opportunities, team quality and 'psychological contracts' are determinant in the knowledge worker's motivation and commitment, and therefore, they should be included for a more accurate management system (Alvesson, 2004; Harrigan & Dalmia, 1991; James, 2002; Flood, *et al.*, 2001; O'Neill & Adya, 2006; Newell *et al.*, 2002; Despres & Hiltrop, 1995; Benson & Brown, 2007; Holland *et al.*, 2002).

Along with that, another determinant aspect in knowledge workers' work is their tendency to establish networks, which are an important resource for exchanging information with other knowledge workers. This tendency is also important in the creation and maintenance of their professional identities (Davenport, 2005; Scott, 2005, Tymon & Stupf, 2003, Swart *et al.*, 2005; Harrigan & Dalmia, 1991) and in the innovation process and the creation of economic clusters (Giuliani, 2003). Therefore, since networks are currently considered an important and indissoluble element of knowledge work, it implies several challenges to the traditional way of understanding people management. For example, since networks go beyond organisational borders, the organisation is unable to control the flow and content of information that is exchanged with knowledge workers from other firms (Swart & Kinnie, 2003). In addition, networks can also be an important source of labour mobility for knowledge workers, as this information can include job opportunities (Robertson & Hammersley, 2000).

Another important characteristic of knowledge workers is that they are especially sensitive to the social environment. Due to the special nature of their work, they need to work with people they feel comfortable with, and with whom they want to form a team, exchange information and share experiences (Oltra, 2005). Especially critical is the existence of a trust environment, since it provides a free and safe

background for the knowledge workers' interactions (Thite, 2004). As the knowledge they possess is central to their work and employability, they will not share it easily, unless they feel that they are in a safe environment. In addition, as knowledge work involves creativity, they need to feel free to express points of views, even if they are contrary to the opinions of the rest of the team members. From the knowledge workers' perspective, excessive political activity, gossip, authoritarian leadership or any other social expression involving unnecessary conflict is seen as something that must be avoided, because it takes valuable working time and damages the flow of knowledge among knowledge workers. Knowledge workers do not have time to deal with troublemakers and unpleasant situations. In addition, as their skills are scarce in the market, they have considerably more opportunities to move to another job they consider will have a better environment. If the organisational climate was important for professional work, for knowledge workers it is essential, and should be a key task for HRM specialists.

Finally, the knowledge workers' self-motivation has been mentioned as one of their main characteristics (Withey, 2005/06; Hislop, 2005; Swart et al., 2005; James, 2002). They are willing to go 'the extra mile' without needing a great effort from the management of the organisation. For example, the tendency to work extra time, and a fragile delimitation between personal and working time have been often mentioned in the literature (Swart, 2007; Amar, 2002; Alvesson, 2004; Robertson & Hammersley, 2000; Holland et al., 2002; Whicker & Andrews, 2004; Swart et al., 2005). This particularity of knowledge workers brings a number of consequences for their management. First, due to the fact that challenging work, professional recognition, feelings of competence, and self esteem play a pivotal role in knowledge workers' motivation, traditional rewards should be revised and redesigned in order to fit with their requirements (Alvesson, 2004; Harrigan & Dalmia, 1991; James, 2002). Second, HR practices should focus more on the 'psychological contract' rather than the conventional contract, as the implicit aspects of the agreement are much more relevant in the case of knowledge

workers (Flood, et al., 2001; O'Neill & Adya, 2006; Holland et al., 2002). Third, the traditional control mechanism, i.e. traditional assessment tools, should be revised, since some of the traditional assumptions do not apply to knowledge workers (Hislop, 2005; Davenport, 2005; Harrigan & Dalmia, 1991). For example, the traditional assumption, that employees have to be controlled because they tend to avoid or delay their work, has to be replaced by that of employees wanting to carry out successful and excellent work, literally, by any means necessary. Thus, the new role of the managers should be more related to providing the best possible place for knowledge workers to carry out their intellectual work, rather than controlling them.

3.2.3 Organisational context

Three aspects relating to organisational context are especially determinant in the way in which the HRM of knowledge workers should be driven. One of them is the growing importance of knowledge in the economy and business (Reich, 2002; Civi, 2000; Nonaka, 1994, 1998; Bell, 1974; Drucker, 1969; Pyoria, 2005; CIPD, 2002). Knowledge is so important today that some authors have called current society 'the knowledge society', in reference to the central role of knowledge in the modern world (Drucker, 1992; Böeme & Stehr, 1986; Stehr, 1994). Consequently, organisations are also facing a great challenge, which is how to incorporate the ideas of knowledge management and knowledge workers into their management system.

The second aspect is the tacit nature of the knowledge (Polanyi, 1966). Knowledge workers literally carry most of the valuable knowledge in 'their heads' (Nonaka, 1994, 1998; Davenport, 2005; Despres & Hiltrop, 1995; Storey & Quintas, 2001; Withey, 2005/06). Although organisations attempt to grasp the knowledge of knowledge workers through technological tools, in the end, all they can get is merely information. As a result, the only way that the organisation can appropriate the valuable knowledge of the knowledge workers is by hiring them and creating the best conditions for them to contribute with their wisdom to the organisation.

Tacit knowledge has a cognitive dimension and involves intuition, feeling, belief and mental models, which is impossible to gather and make explicit in its entirety (Thite, 2004). Hence, it is a fact that organisations cannot go without knowledge workers (Blackler, 1995). This situation implies an inherent conflict between the human action involved in creating and applying knowledge and the economic exploitation of that knowledge (Scarborough, 1999).

Finally, organisations not only have to deal with the new scenario of the increasing importance of knowledge, where knowledgeable people are central, but also with the problematic scarcity of knowledge workers (Despres & Hiltrop, 1995; Holland et al., 2002; Horwitz et al., 2003; Wonacott, 2002; Hislop, 2005). In contrast to the traditional industrial worker, these employees have more and better job opportunities, and they usually show high labour mobility, and consequently, they are not easily replaced (Osterloh, 2005). While the main assumption of personnel management used to be that the organisation was a hierarchical entity in which top managers possessed most of the knowledge and power, in knowledge work this assumption is not necessarily true. But the problem of scarcity is insoluble, since, for knowledge to be valuable, it has to be possessed by only a privileged few (Barney, 1991). Moreover, in recent years, the problem of scarcity of knowledge workers has taken an international dimension, considering that the USA has consistently increased its quota of qualified immigrants (West et al., 2000), and the European Union is designing strategies, like the 'blue card', to lure skilled workers to migrate to the continent (The times, 24/10/07). Thus, those firms struggling to survive in the market must compete aggressively with rival firms to attract those few knowledge workers who have, in the figurative sense, the power to make them more competitive.

3.2.4 Cultural context

Finally, from the perspective of managing knowledge workers it is important to include the cultural and social context. Knowledge work has been described as having a strong social component, since is intimately linked to social constructions

such as identity, networks, and symbolic work (Alvesson, 2004; Hiltrop, 2005). In the literature, the main focus has been placed on how organisational climate and culture might help or damage knowledge sharing (Milne, 2007; Avali et al., 2006; Davenport & Prusak, 2000; CIPD, 2002; Smith & Schurink, 2005). However, it can be argued that the impact of culture goes far beyond that. For example, it has been mentioned that culture plays a pivotal role in the control of knowledge workers, since the ambiguous nature of the work makes it extremely difficult to control in the traditional way (Robertson & Swan, 2003; Robertson & Hammersley, 2000). In addition, the organisational culture is a determinant factor in the supervision style of the managers, which, in turn, has been linked to organisational commitment and retention (Benson & Brown, 2007). Likewise, culture has been considered a key factor in the creation of a collaborative environment, essential for knowledge work (Sveiby & Simon, 2002). Moreover, the particularities of the organisational culture have been pointed out to be critical in the implementation of knowledge management initiatives (Wong, 2005).

Despite the acknowledged importance of organisational culture and climate in the knowledge workers' environment, relatively less interest have been shown in the impact of national culture on knowledge workers' behaviour (Horwitz et al., 2006). Research into this issue suggests that it might be an important determinant, since there is strong evidence against the *Universalist* approach (Boxall & Purcell, 2000, 2003; Mendonca & Kanungo, 1996). For example, Kubo & Saka (2002) describe a number of aspects of Japanese culture that are incompatible with the new necessities of knowledge work; Dana et al. (2005) show the symbiosis between regional culture and the development of knowledge-driven organizations in The Netherlands, Singapore, USA, and Israel; Horwitz et al. (2006) report on how the national culture of Singapore has affected the way in which HRM policies are set up in a knowledge based company; and finally, Oltra (2005) wonders how high power distance, and a tendency to avoid uncertainty, in Spanish national culture, might affect the effectiveness of HRM practices in knowledge management. In the case of developing countries, the cultural issue is especially relevant, because the

particularities of these countries have not been considered in most of the prevailing theories and models (Adler, 1983; Adler & Jelinek, 1986; Niamat, Elahee & Vaidya, 2001; Clark et al., 1999; Ozbilguin, 2004). As a consequence, one question that needs to be answered is whether the aspects mentioned in the literature on knowledge workers are applicable or not in the context of developing countries.

3.3 HR PRACTICES OF KNOWLEDGE WORKERS

Although there have been an increasing number of publications in the field over the last few years, the way in which knowledge workers should be managed still remains unclear. The confusion seems to be caused by the multiple approaches used in the research carried out, the number of different aspects emphasised in each investigation, and the lack of a prevalent theoretical framework that incorporates all these studies. Some authors have focused their analysis on issues closer to the knowledge management field, such as knowledge acquisition, knowledge sharing (Thite, 2004) and the critical role of networks (Kinnie et al., 2005, Swart, 2007; Newell et al, 2002; Davenport, 2005). Others, on the other hand, have dealt with the new demands of knowledge workers, such as autonomy, flexibility, learning opportunities, team working, and so on (Newell et al.,2002; Davenport, 2005; Withey, 2005/06; CIPD, 2002; Amar, 2002; James, 2002; Benson & Brown, 2007; Harrigan & Dalmia, 1991; Hislop, 2005).

The literature has also highlighted several psychological topics shaping knowledge workers' behaviours such as identity (Newell et al., 2002; Alvesson, 2004), organisational commitment (Hislop, 2005; Storey & Quintas, 2001; Newell et al., 2002), and psychological contract (Storey, 2005; Hislop, 2003), among others. Similarly, some authors have been more interested in describing the environmental factors necessary for knowledge work to be carried out, for example, aspects like special leaders, new forms of control; learning environment (Thite, 2004; Davenport, 2005; Alvesson, 2004; Frenkel et al., 1995; CIPD, 2002; Benson & Brown, 2007); climate and culture (Jackson et al.,2003; Newell et al.,2002; Hislop,

2005; Storey & Quintas, 2001), and trust (Thite, 2004; Newell et al.,2002; Storey & Quintas, 2001). Finally, others have tackled the new challenges in the more traditional administrative tasks of personnel management, such as rewards systems (Despres & Hiltrop, 1995; Newell et al., 2002; Thite, 2004; Jackson et al.,2003; Scarbrough, 2003), career prospects within the organisation (Newell et al.,2002); training (Jackson et al.,2003); and recruitment and retention (Thite, 2004; Jackson et al.,2003; Hislop, 2005).

As a result of all these different approaches, a number of common issues have become apparent. Nevertheless, it is still difficult to get a clear picture of how knowledge workers should, actually, be managed (Thite, 2004; Drucker, 1999). For example, it is not clear how these variables are connected, which of them will have a greater impact on knowledge workers, and how these issues translate into HR practices. Accordingly, personnel specialists and managers have to face a complicated jigsaw when trying to understand how, in practice, knowledge workers should be managed.

Although there is a growing amount of literature on how to manage knowledge workers; controversy, debate and confusion still persist in relation to what is the best way to do it. Bearing this in mind, one aim of this work is to describe two critical dimensions of their management, drawn from the most significant literature in the area. They are *traditional administrative tasks* and the new knowledge workers' specific needs *task*. Obviously there are other important aspects in relation to the work of knowledge workers that organisations have to deal with, but given the time limitation and the necessity for focus, in this research only these two will be addressed. Using these, it is possible to contribute to a better understanding of the work of these special workers.

3.3.1 Traditional administrative tasks

The *traditional administrative tasks* involve the design and implementation of traditional personnel management functions such as organisational design,

recruitment and selection, performance assessment, rewards, training and development, and labour relations.

3.3.1.1 Organisational design

It includes the creation of the organisational structure and work flow. Organisational design has traditionally been considered a fundamental task of personnel management but, in knowledge-based competition, it is critical, since the way in which the organisation is set up determines the way in which knowledge will flow within the organisation (Cabrera & Cabrera, 2005). On the other hand, s/he should be the main figure responsible for staffing, appraising, training, rewarding, and so on. However, it has been pointed out that traditional personnel practices would not have the same impact on knowledge workers as it does on the traditional workforce (Tampoe, 1993; Horwitz, 2003; Storey, 2005; Ralston, 2007; Raich, 2002). So, one question that needs to be asked is what does the administrative expert have to do to manage knowledge workers effectively?

A job has been described in the literature as consisting of '...a related set of tasks that are carried out by a person to fulfil a purpose' (Armstrong, 2001, p.277). In the analysis of the job, tasks, duties and responsibilities related to each particular post are identified, and the process involves the analysis of the work flow, the strategy and the organisational structure (Gomez-Mejias et al., 2001). A job description shows both critical demands of a job and those aspects considered critical for performing successfully (Bach, 2005). The techniques commonly used to analyse the job include observation, work diaries, interviews, and questionnaires (Marchington & Wilkinson, 2005)

In the literature, it has been claimed that knowledge workers need new organisational structures, which allow them to work autonomously, flexibly and in a collaborative way (Davenport, 2005; Pasmore & Purser, 1993; Despres & Hiltrop, 1995). In general, knowledge work requires a flexible environment, a flat hierarchy, organic structures, organisation based on project teams, leadership rotation, network connections, a low degree of control; freedom from rules; informality;

open and face-to-face communication; etc. (Swart et al., 2005; Storey, 2005; Ahmed, 1998). Alvesson (2004) characterised the knowledge-intensive firm as one where: '*...a heavy reliance on self-determination, downplaying of a single, one-dimensional hierarchy, and the comparatively weak position of top management may lead to quite unconventional organisational relations*' (Alvesson, 2004, p.23). To fail to provide flexible and useful structures might lead to knowledge workers resigning or creating 'short cuts' in order to avoid the organisational bureaucracy, and therefore creating informal structures (Harrigan & Dalmia, 1991; Swart, 2007).

There is general concurrence that the new demands of knowledge workers imply changes to the ways in which organisations have commonly been designed up to now. However, the literature is not at all clear as to how, in practice, knowledge workers should be organised, what sort of flexibility might be stressed and, along with that, how knowledge work should be coordinated. For example, it has been suggested that the job description should refer to what the knowledge worker knows and how she/he uses the knowledge she/he possesses (Storey, 2005), and also that knowledge organisations should allow knowledge workers to design their work in the way they think is best, according to their own interests (Amar, 2002; Harrigan & Dalmia, 1991). Thus, prescriptions on this matter deal with a number of issues, from deregulation and *laissez-faire* to organic structures and project teams, but are less clear on the specificities.

3.3.1.2 *Recruitment and selection*

Recruitment and selection could be considered as part of the staffing and resourcing function, which also includes planning, role analysis and description (Marchington & Wilkinson, 2005). HR planning refers to '*...the process an organisation uses to ensure that it has the right amount and the right kind of people to deliver a particular level of output or services in the future*' (Gomez-Mejias et al., 2001, p.159), and involves determining the future labour needs of the organisation and the estimated labour supply from the internal and external labour markets (Torrington et al., 2005). In this activity a number of variables must be

considered such as workforce cost, the firm's expansion/contraction plans, level of productivity, etc., and a number of quantitative and qualitative techniques can be used (Gomez-Mejias et al., 2001).

On the one hand, recruitment has been described as 'the process of generating a pool of qualified candidates for a particular job' (Gomez-Mejias et al., 2001, p.165), which includes the use of sources such as printed advertisements, internet, agencies, consultants, 'employee referrals' campaigns, unsolicited walk-in applications, and educational establishments (Armstrong, 2001; Dessler, 2000). Preference can vary according to culture, countries, gender, and the firm's size. For example, in the UK, the five most popular forms of recruitment are local papers, publication in specialist journals and trade press, corporate website, recruitment agencies, and publications in national newspapers (CIPD, 2003, *Recruitment and selection survey*, in Torrington et al., 2005, p.125). Finally, given the strategic importance of recruitment, organisations ought to evaluate to what extent their recruitment policies have been effective, assessing, for example, the number of applicants that have successfully completed the application form, and by following recently hired employees in order to know if they really fulfil initial expectations (Armstrong, 2001; Torrington et al., 2005).

Selection, on the other hand, has been defined as 'the process of making a "hire or "not hire" decision regarding each applicant for a job' (Gomez-Mejias et al., 2001) and its main purpose is '...to obtain and assess information about a candidate which will enable a valid prediction to be made of his or her future performance in the job in comparison with predictions made for any other candidates' (Armstrong, 2001, p.411-412). There is a wide range of methods for selecting candidates, the most commonly used being the interview (Bach, 2005). Psychological tests, personality and psychometric measurements have also been mentioned (Bach, 2000; Armstrong, 2001). According to CIPD, in 2004, the most popular methods of personnel selection in the UK were the traditional interview, competence based interview, test for specific skills, and general ability tests (Marchington & Wilkinson, 2005, p.176).

Recruitment and selection have been seen as major challenges for personnel specialists in relation to the management of knowledge workers, since knowledge intensive firms critically depend on their capacity to build up human capital (Despres & Hiltrop, 1995; Storey, 2005; Storey & Quintas, 2001; Holland et al., 2002). Normally, firms are seeking to recruit candidates with a solid formal education, vast experience, capacity to understand large amount of complex information and the most critical changes in the environment (Storey, 2005). In addition, problem-solving, reflective skills and meta-cognition, communication, and self-regulation of motivation and emotion have been described as critical skills in the knowledge work field (Kessels, 2001). Additionally, 'soft skills', like a cooperative attitude and the willingness and ability to share knowledge, have been mentioned (Robertson & Hammersley, 2000; Smith & Schurink, 2005; Hislop, 2005).

Likewise, it has been claimed that knowledge workers need innovative ways of recruitment and special consideration in the selection process (Frenkel et al., 1995; CIPD, 2002; Storey & Quintas, 2001). Recruitment tactics should place less emphasis on the salary issue, as knowledge workers are less interested in financial rewards than in intrinsic aspects linked to their jobs (Withey, 2005/06; Storey, 2005; Smith & Schurink, 2005). In addition, traditional sources of recruitment such as professional associations, conferences, consultancy, web sites, and magazines, have been described as efficient recruitment sources in the knowledge work environment (Storey, 2005; Storey & Quintas, 2001; Robertson & Hammersley, 2000; Haesli & Boxall, 2005; Horwitz et al., 2003). Head hunters and e-recruitment have also been mentioned as common practices in the KIF environment (Probst., 1999; Horwitz, 2006).

After recruitment, in the selection process, recruitment specialists should include instruments (such as interview guidelines and tests) consistent with the special creative nature of the knowledge work (Beaumont & Hunter, 2002). In addition, considering that the selection process is part of the dynamic of creation of the 'psychological contract', managers should be aware of the difference between knowledge workers and non-knowledge workers with regard to the expectations

they create in candidates (Storey, 2005; Smith & Schurink, 2005; Hislop, 2003). The hiring process also involves the management of different kinds of contracts, as temporary workers and consultants are common in this environment (Storey & Quintas, 2001; Probst., 1999).

In the recruitment and selection field, several interesting debates have been taking place. One of these is whether organisations should stress a 'best fit' between candidates and culture, or whether they should favour diversity among the workforce. On the one hand, studies have shown that often KIF applies informal systems, based on network relations and 'cultural fit', rather than strategic policies (Robertson & Hammersley, 2000; Robertson & Swan, 2003; Raich, 2002). Moreover, some authors have shown that 'cultural fit' is a desirable condition as knowledge work essentially involves social affairs (Newell et al., 2002; Hislop, 2005). On the other hand, diversity is considered an essential aspect in the KIF's environment, as it encourages debate and provides a challenge to the *status quo*, and therefore promotes change and innovation (Probst et al., 1999; Osterloh, 2005). Thus, it is not clear in the literature whether new knowledgeable employees should fit in with the cultural environment or, whether, on the contrary, they should be thinking differently from their future colleagues.

Another controversy is related to the extent in which cognitive and intellectual attributes are essential in a candidate's profile, as the literature on selection tends to primarily focus on those aspects of knowledge workers. In this regard, it has been suggested that, as knowledge workers are affected by a high degree of knowledge obsolescence, the selection process should be focussed on competencies rather than skills, and that it should include more normative elements, such as values, attitudes and motives (Frenkel et al., 1995; Scarbrough, 2003). In this regard, the determinant importance of networks in the identification and acquisition of relevant knowledge by knowledge workers has also been reported (Tymon & Stumpf, 2003; Cross et al., 2001). Likewise, it has been suggested that knowledge is not the most important factor to consider in the assessment of knowledge workers, since their work is less about 'expert

knowledge' and more about the manipulation of symbolisms and expectations (Alvesson, 2001, 2004). Thus, although there is general consensus about the importance of recruiting and selecting the best knowledge workers, it is not obvious what is the skill and social profile required in a candidate.

3.3.1.3 Performance assessment

Performance appraisal was described by Dessler (2000, p.321) as the process of '...evaluating an employee's current or past performance relative to his or her performance standards', and including three main stages: 1) the determination of the work standard; 2) the evaluation of the worker's performance according to the standard set; and 3) the provision of feedback to the employee, with the intension of improving employee motivation and performance (Gomez-Mejias et al., 2001). In general, performance assessment is made using a number of different methods to determine which variables are critical; a number of tools to measure those variables; and actions in order to improve employees' performance.

Traditionally, job descriptions have been used as a primary source of information in order to detect critical elements for evaluation, but other methods, such as the graphics rating scale, paired comparison, 360-degree performance view, forced distributed methods, critical incident methods and narrative forms are all also used for measuring performance (Dessler, 2000; Marchington & Wilkinson, 2005). These methods aim to improve individual, team, and organisational performance, and they can be seen as the last stage of a process, in which there is also role definition, performance agreement, personal development planning, etc (Armstrong, 2001).

In relation to knowledge workers, it has been said that an effective and accurate assessment of their achievement, as well as positive peer feedback is highly valued by knowledge workers, not only because it allows them to improve their work but also as an essential part of the recreation of their own identity as knowledge worker (Wang & Ahmed, 2003).

Nevertheless, it is generally accepted that knowledge work is extraordinarily difficult to evaluate because of the ambiguous and intellectual nature of the work (Alvesson, 2004; Drucker, 1975; Alvesson, 2001, 2004; Despres & Hiltrop, 1995; Storey, 2005; Wang & Ahmed, 2003; Osterloh, 2005; Amar, 2002, 2004). Drucker (1999) mentioned the evident lack of development in this regard, comparing the state of knowledge about knowledge workers with the pre Taylorist stage in the last century. For example, Davenport (2005) referred to how many KIFs take a passive attitude in this regard, leaving knowledge workers entirely free to decide what to do. He mentioned well-known acronyms in the management arena, HSPALTA, which means '*hire the smart people and leave them alone*', as a typical way in which organisations deal with this problem. Managers presume that knowledge workers know what to do, are self-motivated, and therefore do not need to be closely controlled. Sometimes, knowledge workers have to define the task by themselves because it is not even clear for the managers what they have to do (Drucker, 1999). In some cases, the outcomes of knowledge workers' efforts are so complex to evaluate that it can only be judged by knowing the subjective satisfaction of the client (Newell et al., 2002). Even worse, sometimes, the knowledge worker cannot be assessed simply because no one else, apart from her/him self, know what to evaluate and how to do it (Harrigan & Dalmia, 1991; Drucker, 1992).

In spite of the tricky nature of the assessment, evaluation is considered important as a means to increase the contribution of the knowledge workers. From Davenport's (2005) point of view, the laissez-faire style is not the best way to manage knowledge workers, and he urges the development of more innovative and appropriate ways of evaluating them. For example, as knowledge workers' work is not free of problems and difficulties, assessment results might allow the HR specialist to help knowledge workers to deal with inappropriate organisational culture, lack of trust, an authoritarian leadership style, etc. (Davenport, 2005). Thus, the problems affecting the knowledge workers environment could literally

'kill' their potential contribution, so it is important that the personnel specialist creates mechanisms to understand these problems.

Suggestions in this respect have been diverse. Some authors think that the appraisal of knowledge workers should include individual and team contributions, peer evaluation, and elements reflecting commitment to the organisation (Frenkel et al., 1995). Also, it has been suggested that management of knowledge workers needs to concentrate on end results, rather than process (Wonacott, 2002). Others, in turn, suggest that personnel specialists should move from a performance management perspective, which focuses on job role descriptions and observable results, to one of performance support in which more attention is placed on the process from which the outcome is obtained (Whicker & Andrews, 2004). Likewise, reliable and objective tools and measures, clearly linked to strategic goals and knowledge management, and also focusing on what has been learned and how the new knowledge is used, have been mentioned (Smith & Schurink, 2005). Also, it has been claimed that in order to assess the performance of a knowledge worker, supervisors should be an expert themselves, because this is the only way to understand the real contribution of the knowledge workers (Osterloh, 2005).

3.3.1.4 Rewards

A reward system has been described as '...an organisation's integrated policies, process and practices for rewarding its employees in accordance with their contribution, skill and competence and their market worth (Armstrong, 2006, p.613). A rewards system contains financial and non-financial rewards. The former includes fixed financial rewards (salary), variable rewards (bonus, commissions, incentives, allowances, etc.) and benefits (insurance, crèche facilities, etc.); while non-financial rewards may include aspects such as personal growth, prestige and praise. Other researchers have referred to 'extrinsic' and 'intrinsic' rewards; the former being linked to basic needs, security and recognition, and also including aspects of the job context, such as working conditions and relations with the management level; whilst intrinsic rewards refer to those derived from the content

of the job and includes aspects such as personal enjoyment, and fulfilment of the psychological needs for growth in terms of personal development and self-esteem (Bratton and Gold, 2003).

A rewards system ought to consider many elements. Essentially, a reward system should reflect the 'job size', which is the responsibility of the worker in the organisation, the complexity of the job, and the skills and knowledge that the worker has to have in order to do the job. In the reward system, the organisation has to define if they going to pay according to job responsibility or the competences required. Also, it has to be decided whether the firm will prioritise the compensation of seniority or actual individual performance; and in what market position the organisation wants to locate itself according to its strategy (for example on top, in the middle, or at the bottom position of the labour market). In addition, the degree to which the system stresses internal equality, and also the degree of centralisation of the decisions making in relation to rewards, has to be decided. Finally, the firm has to choose the degree to which financial and non-financial rewards will be weighted within the rewards system (Marchington & Wilkinson, 2005). The firm also should consider its organisational values and beliefs, its business strategy, and the particularities of the labour market (Armstrong, 2006).

The reward system is very important for firms and their strategies, as it has a number of implications for the organisation. For example, it will affect the attraction of candidates and their retention, the degree of fulfilment of their 'psychological contract', employees' motivation and commitment, employee involvement, and productivity. In addition, the rewards system will directly affect the cost structure of the firm and hence the financial bottom line. Finally, the system will shape the organisation, by rewarding or punishing specific behaviours of the employees (Marchington & Wilkinson, 2005; Torrington et al., 2005; Gomez-Mejias et al., 2001).

In recent years, the literature on knowledge work has described how traditional rewards, specifically financial rewards, have become less effective as a way to motivate knowledge worker performance and commitment, while intrinsic factors have become preponderant (Despres & Hiltrop, 1995; Withey 2005/06; CIPD, 2002; Wonacott, 2002; Harrigan & Dalmia, 1991; Benson & Brown, 2007; Holland et al., 2002; Amar, 2004).

Knowledge workers usually earn considerably more than the average salary of the rest of the workforce, so they are not struggling for 'economical survival'. They would be interested in increasing their income, but their main concerns are non-financial, for example, stimulating work, learning opportunities, social recognition, and even the fun side of the task (Storey & Quintas, 2001; Alvesson, 2004). In this regard, Tampoe (1993) described the lack of impact of money as a motivational factor for knowledge workers, being prioritised by only 7% of those interviewed, far lower than the 33.74% who preferred personal growth. Also Withey (2005/06) showed how the pay variable has little impact on the decision to accept or remain in a job. Likewise, Haesli & Boxall (2005) described the case of an engineering firm which introduced several retention initiatives, including innovative rewards such as medical insurance, superannuation supplements, and loans for further studies. Osterloh (2005) reported the case of a firm in which extrinsic rewards, such as bonuses, had a negative impact on *prosocial* motivation, and consequently, on individual performance. As a consequence, it is suggested that managers should develop innovative rewards design, oriented to improve its impact on knowledge workers' motivation and commitment, where economical incentives should only be the starting point (Harrigan & Dalmia, 1991; Despres & Hiltrop, 1995; Newell et al., 2002).

The literature does not describe a unique way of organising rewards systems for knowledge workers. Some authors have pointed out that systems based on competences are most effective for knowledge work, because they are consistent with both the human capital perspective and also with a long term view of the organisation (Storey, 2005). In turn, Robertson & Hammersley (2000) described a

KIF which involved great internal competitiveness, with no predefined salary scales, with large differences in salaries across the firm. Others have mentioned that the reward system might include innovative ways to reflect employees' contributions, by including both individual and group performance, as well as the performance of the individuals within the group, based on co-workers' evaluation (Frenkel et al., 1995). Finally, it has been suggested that the compensation system should include tangible and intangible rewards to encourage the sharing of knowledge, as it is a crucial aspect of the innovation process (Frenkel et al., 1995; Scarbrough, 2003).

Despres & Hiltrop (1995) suggest that an effective compensation and reward program in the knowledge age should be externally competitive, rationally perceived and consistent with the organisational strategy; and that it should give priority to aspects such as challenging work and cultural and socio-political issues. Some of the elements they mention are: stock ownership; a menu of individual, team and firm compensation dimensions; special awards for key contributors; market-driven rewards systems, etc. These elements of the compensation and rewards systems should emphasise the knowledge contributions of knowledge workers as well as their unique personality characteristics.

3.3.1.5 Training and development

Training has been defined as...'*a process which is planned to facilitate learning so that people can become more effective in carrying out aspects of their work*' (Bramley, 2003, p.4, in Marchington & Wilkinson, 2005). Generally, a training process involves the identification of training needs, planning or designing of training programmes, the implementation of training, and the final evaluation (Marchington & Wilkinson, 2005; Bratton & Gold, 2003).

Generally, the identification of needs is based on task analysis, when the employees are new, but, when they are existing employees, performance analysis is commonly used. Other techniques such as the supervisor's report, personnel records and statistics, questionnaires surveys, observation and specific management requests have also been mentioned in the literature (Dessler, 2000).

The analysis is carried out on three levels: organisational, job or occupation, and individual (Bratton & Gold, 2003). At the organisational level this involves the analysis of culture, mission, business climate, long- and short-term goals, and structure. At the job or occupational level, analysis is done by examining the specific needs of the particular job or occupation. Finally, at the individual level, analysis focuses on determining how good or bad a particular person's performance is, in contrast to expectations (Gomez-Mejias et al., 2001). Although lack of skills can be the main reason behind poor performance, the cause of the problem can involve other factors, for example: lack of motivation.

For implementation of the training, several techniques can be used, the most popular are: apprenticeship, job instructions, lectures, and audiovisual techniques such as videos, CD-ROM, computer-based techniques, Internet, etc (Dessler, 2000). On-the-job training refers to the training done in the workplace, often under the vigilance of a supervisor, in the form of job rotation or apprenticeship, while off-the-job training refers to training activities done out of the work place, typically in a classroom by way of formal courses, lectures, etc (Gomez-Mejias et al., 2001).

The evaluation stage of training is usually neglected by HR specialists (Gomez Mejas et al., 2001). Perhaps, the reason behind this is the fact that it is difficult to know the impact of training upon people, and how this is finally expressed in performance within the organisation. Knowledge and skills evaluation is a complex matter, as it involves monetary and not-monetary variables, and its result is not always evident in the short term. According to Gomez-Mejias et al. (2001), the evaluation of training should be always made by contrasting the result of the training with the training programmes objectives.

One of the most popular evaluation models of training is the Kirkpatrick model (1977, 1978, 1979), which pointed out four steps of analysis: reaction, learning, behaviour and result. Reaction evaluation aims to know what the participant feels about the training and whether they like it; at the learning level, the analysis evaluates how many principles, facts and techniques were understood by the

participants; at the behaviour step, the analysis focuses on behavioural change; finally in step four, the evaluation attempted to find out what is the impact of the training in the organisational results, such as productivity, turnover and profits. Although the Kirkpatrick model has been criticised, it has undoubtedly been the most influential model for evaluating training in recent decades (Alliger & Janak, 1989).

For knowledge workers' knowledge to be considered valuable by society [and in the market], it is essential that her/his knowledge be up-to-date. In today's society, in which scientific and technological progress is a permanent feature, knowledge workers know that the life expectancy of their valuable knowledge is limited. As a consequence, training and development has become a very important matter for knowledge workers and personnel specialists (Despres & Hiltrop, 1995; CIPD, 2002; Robertson & Hammersley, 2000; Wang & Ahmed, 2003; Smith & Schurink, 2005). In Withey's study (2005/06), training was considered as a very important aspect by knowledge workers when deciding whether to take a new job or remain in an existing one, and Jackson (2000, cited in Horwitz et al., 2006) also, based in a survey of 2295 IT workers, revealed that 93% of them viewed 'educational opportunities' as critical to their careers.

Although there is general agreement on the importance of updating knowledge, there are also controversies on how this process might be carried out. In the literature on knowledge workers, traditional formal training has been losing preponderance against the more dynamic form of continuous learning, involving mentoring, communities of practice, and peer assistance (Smith & Schurink, 2005; Garavan et al., 2002). For example, Garavan et al. (2002) described the new 'millennium paradigm' on workplace learning as being a continuous process, 'on-demand', happening at any place or time, through the use of modern technologies, teams of learners, mentors and coaches, internal consultants, customers and networks. In addition, Robertson & Hammersley (2000), in a study carried out on a firm of consultants, showed that self-development was prevalent among knowledge workers, since they were able to determine what sort of training,

courses and learning activities were appropriate for themselves, and the role of the HRM unit was limited to providing financial support and booking accommodation. Accordingly, under the light of knowledge worker theory, personnel specialists should move from a focus on providing, coordinating and monitoring training programmes, to one in which they provide more personalised learning opportunities, giving a more flexible answer to organisational needs, in which training is just one element of a wide spectrum of learning activities within the organisation (Whicker & Andrews, 2004; Storey, 2005; Newell et al., 2002).

3.3.1.6 Labour relations

Another important HR subject is the management of labour relations (LR). The term has been used by many authors interchangeably with 'industrial relations' and more recently with 'employee relations'. However, the latter has a connotation closer to employee involvement and 'partnership' (Bratton & Gold, 2003; Boxall & Purcell, 2003). The view of traditional industrial relations, which originated at the beginning of the twentieth century, assumed an inherent conflict between owners and workers, and also it assumed that it was possible to reach mutual accommodation, once each party recognised the legitimacy of the other (Boxall & Purcell, 2003). This paradigm of industrial relations prevailed for many decades, but started to lose popularity with the social, cultural and economic changes of the 'seventies and 'eighties (Guest, 1987; Boxall & Purcell, 2003; Legge, 2005). For example, in the UK the number of industrial actions has sharply decreased from about 14.1 million working days lost per year in 1970 to less than 1 million in 2002 (Torrington et al., 2005). Likewise, diverse studies have shown that there is a clear tendency among developed countries to reduce the density of union membership within organisations (Visser, 2006). Thus, labour relations have moved from a collective approach to an individualistic one, from a pluralistic approach to a unitarist one, and from a focus on negotiation to a focus on cooperation (Boxall & Purcell, 2003; Legge, 2005; Guest, 1987). The new paradigm can be characterised as 'business oriented' (Marchington & Wilkinson, 2005)

For many authors, the main characteristic of the new paradigm of labour relations is the employee involvement approach, which attempts to improve labour relations by applying 'high commitment practice' such as getting better organisational communication, increased employee participation, motivation, and commitment, improving organisational climate, and creating high-trust relationships (Guest, 1987; Marchington & Wilkinson, 2005; Boxall & Purcell, 2003). In the literature, team briefings, quality circles, news sheets, attitude surveys, and team working have been mentioned as ways in which the firm can improve communication (Torrington et al., 2005). In addition, active participation in problem-solving helps to increase the organisational stock of solutions to problems, and creates cooperative feelings and legitimises change (Marchington & Wilkinson, 2005). Also, the creation of a feeling of mutuality and interdependence between employees and the firm, by transmitting the message 'we are all in this together', has been mentioned (Armstrong, 2006). Finally, financial participation, in the form of profit sharing and shared ownership, can increase workers' commitment to the organisation (Marchington & Wilkinson, 2005).

There has been little research undertaken on knowledge workers' labour relations. In the literature available there is general agreement that knowledge workers do not generally respond to the conventional supervision style, that they need high-trust relationships, and that they have to be treated as 'voluntary workers' (Hislop, 2005; Davenport, 2005; Harrigan & Dalmia, 1991; Smith & Rupp, 2003; Wonacott, 2002). In general, in the literature on knowledge workers, they are described as not being concerned with their salary (Storey & Quinzas, 2001; Tampoe, 1993), but sometimes there are disagreements regarding autonomy, flexibility, and learning opportunities. In addition, it has been pointed out that they need to have 'challenging' tasks that motivate them, and a failure to provide such challenges can put a knowledge worker's permanence at risk. Finally, they need a high degree of participation, a sense of equal treatment, and a high standard of working conditions (Davenport, 2005; Drucker, 1999, Wonacott, 2002; Amar, 2002). In

other words, they need to be treated in a 'caring way' and in a suitable organisational climate, in which they can carry out their intellectual work.

3.3.1.7 Career management

A worker's career can be seen as '...the pattern or sequences of work roles of an individual' during her/his productive life (Torrington et al., 2005), while career development is '...an ongoing and formalised effort that focuses on developing enriched and more capable workers' (Gomez-Mejias et al., 2001, p.294). A typical career planning process may include, firstly, the identification of opportunities, limitations, choices and consequences related to employee career path; secondly, the identification of career-related goals; thirdly, the planning of work activities, education and development needed to achieve the career goal (Desimone et al., 2002).

Although the traditional view of career has been seen as one individual's promotions within an organisation, in the light of the current social and economic context, the concept of employee career is more broadly understood as including the development within the job itself, lateral movement, and, more recently, a process of development and learning through the individual's life. In other words, the career can be seen as not necessarily bound to only one organisation, not necessarily continuous, and it can be seen as a lifelong process in which the individual has the main responsibility (Torrington et al., 2005). Finally, a 'successful career' is mainly viewed from the individual's perspective, involving the degree of satisfaction with her/his progress along her/his working life. However, the management of career is also an important matter for organisations in order to make them more attractive to future candidates, give a positive image of the organisation and its social responsibility, encourage employees to work harder as they can see positive consequences of their hard work in the long-term, reduce turnover, and maximise the use of workers' experience and capacities (Torrington et al., 2005).

In the literature, knowledge workers' career development has been seen as an important aspect of knowledge worker management (Whicker & Andrews, 2004). Organisations need to provide knowledge workers with challenging jobs, keep them motivated to learn, and encourage them to share knowledge for the sake of the organisation. Knowledge worker's career development should be considered a critical aspect of the firm's success, since the way in which knowledge workers are organised and deployed is determinant in shaping how they, and the knowledge they possess, are able to flow within the organisation. Consequently, it has been claimed that knowledge workers' career development should be included as a matter of strategic importance for the firm (Scarborough, 2003; Newell et al., 2002). For example, the practice of rotating employees between different functional areas within the firm, can strongly impact organisational learning (Storey & Quintas, 2001)

Firms have different options for dealing with the career development of knowledge workers. Newell et al. (2002) created a model for their career management, consisting of four types: the *academy*, the *club*, the *baseball team*, and the *fortress*. The *academy* is focused on internal recruitment and 'star promotion'; the *club* refers to internal recruitment and group contribution; the *baseball team* emphasises external recruitment and 'star promotion', including on-the-job development and high turnover; and finally, the *fortress* is characterised by external recruitment, a low degree of employee commitment and, as a consequence, high turnover. Likewise, in their study of knowledge worker turnover, Zhou & Chen (2007) determined four typical periods in their career: running-in, growing, maturity, and stabilisation. Accordingly to the authors' findings, knowledge workers have different needs depending on what stage they are at, which firms should meet in order in order to reduce their turnover. For example, in the career growing period, knowledge workers are usually more concerned about compensation, training opportunities, and space for further career growth.

The peculiarities of knowledge workers represent a challenge to the way in which employee careers have been traditionally managed. Firstly, from the knowledge workers perspective, the career issue represents one of the most important work-related motivational aspects, through which they seek to increase their intellectual and personal skills, and their social capital (Tampoe, 1993; Whicker & Andrews, 2004; Tymon & Stumpf, 2003). For knowledge workers, continuous learning, self development opportunities and knowledge sharing are fundamental aspects to consider in their careers (Horwitz et al., 2006). As a result, the careers of knowledge workers are not linked anymore to traditional expectations such as job stability or climbing the corporate ladder, since they see their future from a wider perspective, including change, employability and learning (Amar, 2004).

Secondly, knowledge workers' career development has moved from the traditional approach, mainly based on the firm's interests, towards a more integrative approach, including the knowledge workers' interests. This shift assumes a continuous process of capability development, in which interests, values and individual needs must be taken seriously by the organisation (Davenport, 2005; CIPD, 2002; Harrigan & Dalmia, 1991).

Thirdly, there is an increasing tendency among knowledge workers to develop their careers in a way that is not linked to just one organisation, as a consequence of the inherent conflict between long-term skills and short-term efficiency goals. This situation leads not only to organisations evading their employee development responsibilities, but also causes problems of weak psychological attachment, organisational commitment and loyalty, psychological stress, and a problematic balance between family and work, among others (Despres & Hiltrop, 1995; Horwitz et al., 2006; Scarbrough, 1999; Thite, 2004).

Finally, an interesting and challenging career management can have an important impact on knowledge workers' mobility and can be used for KIFs as a effective means to reduce the usually high rate of turnover through the creation of more

attractive career paths (Horwitz et al., 2006; Haesli & Boxall, 2005; Wang & Ahmed, 2003).

3.3.2 Knowledge workers' specific needs

As was mentioned above, firms has to ensure the best working conditions for the knowledge workers, aiming for the highest possible levels of satisfaction, motivation and commitment. The most important demands mentioned in the literature on knowledge workers are autonomy, flexibility, challenging work, 'special treatment' from managers, and the opportunity to join a high quality team and to work in a learning environment.

Due to the special nature of their work, one of the most important requirements of knowledge workers is to have a high degree of autonomy in their work (Withey, 2005/06; CIPD, 2002; Davenport, 2005; Amar, 2002; Swart et al. 2005; Newell et al.; 2002, James, 2002; Storey & Quintas, 2001; Benson & Brown, 2007; Davenport et al., 2002; Alvesson, 2004). In the management field, autonomy usually refers to '*...the degree to which a job provides substantial freedom, independence, and discretion to the individuals in scheduling the work and determining the procedure to be used in carrying it out*' (Oldham et al, 1976). In this regard, it has been said that knowledge workers '*...do not like to be told what to do*' (Davenport, 2005), and that they openly reject any form of strict authority and tight control from the organisation (Harrigan & Dalmia, 1991; Despres & Hiltrop, 1995). Several studies have shown autonomy as one of the most important factors in knowledge workers' motivation (Tampoe, 1993; Wang & Ahmed, 2003). Thus, although they need a certain degree of formalisation, coordination and control, organisations have to carefully balance this with the high degree of autonomy needed in their work (Hislop, 2005; Robertson & Swan, 2003).

Flexibility has been mentioned to be an essential aspect in knowledge worker management, business success and economic progress (Davenport, 2005; Holland et al., 2002; Pyoria, 2005; Horwitz et al., 2003; Pollert, 1988). Flexibility can be simply described as '*...a firm's ability to respond to various demands from dynamic*

competitive environments' (Sanchez, 1995, p.138) and it is seen as one of the most important attribute that an organization needs in order to be successful in the new competitive landscape (Hitt et al, 1998). Behind the idea of flexibility lies the assumption that a more flexible organisation will be flatter, less bureaucratic and less hierarchical (Beer, 1997) and, consequently, that it will be more adaptable (Guest, 1987; Wright & Snell, 1998; Hitt et al, 1998; Beardwell & Len Holden, 1997), and innovative (Hitt et al, 1998) and, as a result, it will have a greater competitive advantage (Hitt et al, 1998; Beer, 1997).

One of the most important contributions in this arena is the introduction of the flexible firm model, which claims that organisations should seek a well-balanced relationship between four types of flexibilities: numerical flexibility, functional flexibility, distancing flexibility and pay flexibility (Atkinson & Meager, 1986, in Beardwell & Len Holden, 1997). Additionally, In the last years, a considerable number of new forms of flexible work have been described in the literature such as work-time flexibility, procedural flexibility, regulatory flexibility, mobility (or location flexibility), teleworking, cognitive flexibility, compressed work weeks, job sharing, time off-in lieu, career breaks, staggered hours, etc. (see Brewster et al., 2003; Gomez-Mejias et al. 2001; Armstrong, 2006).

In the case of knowledge workers' literature, most of the authors refer [explicitly or implicitly] to functional flexibility, since knowledge workers task is highly ambiguous, undefined and changing. Nevertheless, other forms have also been mentioned in relation to knowledge workers, for example, in relation to working time flexibility (Alvesson, 2004; Amar, 2002; Swart et al. 2005; Swart, 2007; Holland et al., 2002).

Another aspect mentioned is the necessity for 'challenging work' (Newell et al., 2002; Holland et al., 2002; Whicker & Andrews, 2004; Amar, 2004; Swart et al., 2005; CIPD, 2002). Although the literature is ambiguous in relation to this topic, it generally refers to work that satisfies the knowledge workers' own curiosity (Despres & Hiltrop, 1995). Knowledge workers need variety, relevancy, stimulation,

exploration, change and innovation, as that is in the base of their intrinsic motivation (Wang & Ahmed, 2003; Alvesson, 2004; Osterloh, 2005). In this regard, one managing director of an innovative firm said: *'the creative success of the company depends on staff enjoying themselves at work* (cited in Storey & Quintas, 2001, p.360). For knowledge workers, challenging work is an important factor affecting their decision to accept a job, their motivation and the organisation's ability to retain them (Storey & Quintas, 2001; Haesli & Boxall, 2005; Withey, 2005/06).

Knowledge workers have been described as 'special employees' with the desire to be treated in a 'special' and 'caring way' (Davenport, 2005; Alvesson, 2004; Amar, 2002; Hislop, 2005; Drucker, 1969, 1999, Tampoe, 1993; Wonacott, 2002; Newell, et al.,2002; Holland et al., 2002; Storey, 2005; Ralston, 2007; Raich, 2002; Darr & Warhurst, 2008). What is meant by the 'special way' has not yet been accurately specified in the literature, but it usually refers to the need for a high degree of participation, equal treatment, intensive development (much more than for the ordinary worker) and, in general, a high standard of working conditions (Hislop, 2005; Ram, 1999 Storey, 2005). This aspect has been mentioned as a determining factor in the decision to accept or remain in a particular job (Withey, 2005/06; Robertson & Hammersley, 2000; Smith & Rupp, 2003). For example, it has been pointed out that knowledge workers need and like to participate in high level decisions, in particular when they directly concern their work, as they know better than anyone else how to improve it (Davenport, 2005). In addition, it has been suggested that they need special workplaces, in order to support their intellectual work, and fulfil their necessities of ego, identity and self fulfilment (Brenner, 1999). Consequently, managers should promote an organisational culture in which knowledge workers are considered and treated according their expectations.

In addition, team working has also been mentioned to be an important factor for knowledge workers' performance, because it is in the team that their knowledge is shared, constructive discussion is carried out, and group synergies take place (James, 2002; Storey & Quintas, 2001; Osterloh, 2005). Stimulating co-workers are

essential for leveraging knowledge workers' creativity (CIPD, 2002). In this regard, knowledge work has been described as highly reciprocally interdependent (Benson & Brown, 2007; Probst et al., 1999). Because of this, knowledge workers place great importance on belonging to an elite group of knowledge workers to which they can feel identified, which allows them to increase their knowledge, improves their careers and helps them to build up social capital (Newell et al., 2002; Benson & Brown, 2007).

Finally, working in a learning environment is also an important concern for knowledge workers. Many authors have pointed out the great importance of this factor and also the fact that knowledge workers are generally curious and willing to learn new things (Drucker, 1969; Storey & Quintas, 2001). Knowledge workers have been described as '*self-motivated, curious and passionate for learning [and having]... a strong desire for exposure to new ideas and perspectives from both inside and outside their primary knowledge disciplines*' (Whicker & Andrews, 2004, p.160). Learning opportunities are, for knowledge workers, fundamental for maintaining their knowledge up-to-date, in a context of shorter and shorter cycles of knowledge creation and the life expectancy of technologies (Holland et al., 2002; Pyoria, 2005; Smith & Schurink, 2005).

Despite the great attention paid to this issue, the meaning and scope of 'learning environment' in the context of organisations is not at all clear, since many elements have been mentioned as being a part of it (Clarke, 2005). In the literature, learning was originally linked to education, and, there, it was described as '*...the tone, ambience, culture or atmosphere of a classroom or school*' (Logan, 2007). But, in the specific field of organisations, it has been linked to the existence of training, suitable infrastructure, empowerment, superior communication, opportunities for reflection, job challenges, and the presence of formal and informal learning (Clarke, 2005). In addition, James (2002), refers to the learning organisation as having the following features: transformational leadership, horizontal structures, integrating mechanisms, disperse strategies, an egalitarian culture, and the existence of knowledge workers instead of traditional workers. In the same way, Mills & Friesen

(1992) pointed out that commitment to knowledge, mechanism of renewal and openness to the outside the world are typical features of a learning organisation. Garavan et al. (2002), in turn, described workplace learning as a continuous process taking part through formal, informal, and incidental activities. It is also an experiential activity, which is individually controlled, that happens on-demand, at any time and in any place. And for Tannenbaum (1997), the learning environment is one that is characterised by individuals with clarity about the 'big picture', with opportunities to apply the new knowledge learned, with tolerance to fail when new ideas are being applied, where managers and peers provide useful support, and organisational policies and practices allow the effective use of training, to mention only a few factors.

Garavan et al. (2002) described workplace learning as:

'...a set of processes which occur within specific organizational contexts and focus on acquiring and assimilating an integrated cluster of knowledge, skills, values and feelings that result in individuals and teams refocusing and fundamentally changing their behaviour' (Garavan et al., 2002, p.61)

In the context of knowledge work, the learning environment is also linked to networks (Garavan et al., 2002). These networks consist of knowledgeable people, inside or outside the organisation, who voluntarily exchange knowledge, even beyond the borders of the organisation and the control of their managers, in this way increasing the 'absorptive capacity' of the organisation (Storey & Quintas, 2001; Swart, 2007; Whicker & Andrews, 2004; Zupan & Kase, 2007). In fact, empirical evidence has shown that networks are the most important and effective sources of information for knowledge workers, above other sources such as files and databases (Cross et al., 2001). Thus, Tymon & Stumpf (2003, p.14) pointed out that considering the massive and complex amount of knowledge that knowledge workers currently require to perform their jobs "*...effective knowledge workers realize that developing an extensive and diverse network of relationships is key to their ability to contribute to the organisation*".

In addition, networks play a fundamental role in the creation and maintenance of knowledge workers' identities, providing social relationships and a shared language, and giving a sense of belonging (Alvesson, 2004; Swart & Kinnie, 2003). Thus, networks are a constituent part of knowledge work, and play a fundamental function in the development of both knowledge workers and the organisation as a whole. As a consequence, managers should not only consider networks as a normal part of the day-to-day organisational experience, but also encourage and facilitate them by means of suitable structures, policies and practices (Whicker & Andrews, 2004; Raich, 2002; Zupan & Kase, 2007).

Table 3.2 Critical dimensions of the management of knowledge workers

Critical dimensions of the management of knowledge workers		
TRADITIONAL ADMINISTRATIVE TASKS	Organisational design	<ul style="list-style-type: none"> • Create forms of organisation that allow knowledge workers to be autonomous, flexible and to facilitate collaborative work • Create a structure that allows knowledge to flow according to the needs of the organisation
	Recruitment and selection	<ul style="list-style-type: none"> • Find and hire the right knowledge workers, focusing on competences rather than skills, • Deal with different sorts of contracts (temporary, part time, consultants, etc.); • Give special consideration to psychological contracts involved in the recruitment and selection of knowledge workers
	Performance assessment	<ul style="list-style-type: none"> • Deal with difficulties regarding the assessment of knowledge work • Develop innovative ways of assessing knowledge workers' contributions
	Rewards	<ul style="list-style-type: none"> • The motivational role of financial incentives has been downplayed • Develop and implement innovative rewards systems, including tangible and intangible aspects, oriented to improve knowledge workers' motivation, commitment and retention.
	Training and development	<ul style="list-style-type: none"> • Keeping knowledge up-to-date is critical for knowledge workers' employability • The life expectancy of their knowledge is limited • Provide more and better training opportunities, with a high degree of participation by knowledge workers in decisions about the what, when and how of the training.
	Career	<ul style="list-style-type: none"> • The way in which knowledge workers are deployed shapes the way in which knowledge flows throughout the organisation • Knowledge workers do not expect to spend the whole of their careers within just one organisation • Create an attractive career for knowledge workers, in accordance with the firm's goals and individual interests • Developing a suitable career ladder for knowledge workers must include challenging work and learning opportunities, according to the stage they are at
	Labour relations	<ul style="list-style-type: none"> • Applying 'high commitment practice' • Creating high-trust relationships • Treating knowledge workers as 'voluntary workers' • Providing high degree of participation, a sense of equal treatment, and a high standard of working conditions
KNOWLEDGE WORKER 'S SPECIFIC NEEDS	Autonomy	<ul style="list-style-type: none"> • Provide enough discretionary power to knowledge workers to carry out their intellectual work
	Flexibility	<ul style="list-style-type: none"> • Provide more organisational flexibility to knowledge workers, including flatter, adaptable and less hierarchical structures
	Challenging work	<ul style="list-style-type: none"> • Provide knowledge workers with variety, relevancy, stimulation, change and innovation in their routines
	'special treatment'	<ul style="list-style-type: none"> • Promote a 'special and caring' treatment of knowledge workers by their supervisors and managers, including a high degree of participation
	Team quality	<ul style="list-style-type: none"> • Create and develop high quality teams, with a high degree of cohesion, attractive for a knowledge worker to work in.
	Learning environment	<ul style="list-style-type: none"> • Provide a suitable environment for learning and exchanging knowledge • Encourage knowledge sharing and networking

3.4 SUMMARY

This literature review dealt with the issue of people management in the context of knowledge workers. With this purpose in mind, four dimensions which play a critical role in shaping the way in which they should be deployed in the case of knowledge workers were described. These are: task context, individual context, organisational context, and cultural context.

Inevitably, people management practices will be affected by the non-structured, ambiguous, and changing tasks of knowledge workers, making it more difficult to assess their performance, for example. Likewise, it is affected by the fact that knowledge workers are highly individualistic, that their motivation and commitment respond to different factors than traditional workers, that they are networked, that they are particularly sensitive to the social environment, and that they are evidently self-motivated at work. In addition, organisations are affected by the increasing importance of knowledge in the economy, by their high level of dependency on the tacit knowledge of knowledge workers, and, consequently, by the problematic scarcity of knowledge workers in the labour market. Finally, the cultural context was addressed; this is a critical aspect given the number of social factors playing a role in knowledge workers' behaviour.

Another relevant aspect addressed in this literature review is the problematic relationship between the people management of the firm and its knowledge workers. In the specialist literature the connection between them has not been clearly established, and the theory remains conceptually poor and lacking in empirical research.

Given the *state of the art*, two critical aspects for the management of knowledge workers in the firms were drawn from the literature: *traditional administrative tasks* and *knowledge worker's specific needs*. These two dimensions were thought to be critical for a better understanding of knowledge workers particularities.

While the *traditional administrative tasks* refer to the implementation of HR practices in the same way as traditional personnel management practices, and include functions such as organisational design, recruitment and selection, performance assessment, reward, training and development, and labour relations, the *knowledge worker's special needs task* emphasises most of the new critical aspects described as typical of knowledge workers, which relate to the provision of the essential conditions for knowledge work such as autonomy, flexibility, challenging tasks, a high level of participation in decision making as well as a caring management environment, a high quality team and an appropriate learning environment.

Discussion

Although knowledge workers have become an important resource in the current economic environment, and the differences between them and traditional workers have been recognised, there is little research about how best to manage them. As was also mentioned in chapter 1, the lack of clear definitions, empirical studies, and theories to describe and explain the phenomenon of knowledge workers and their management is all too apparent. As a result, management specialists simply do not have the concepts and tools they need to face the new challenge of managing knowledge workers.

Because of this, it would not be surprising to find out that many managers are facing serious difficulties in carrying out traditional administrative tasks in relation to knowledge workers. For example, as knowledge workers belong to networks, with which they strongly identify, it is not surprising that recruitment practices are being influenced by these network links, displacing formal procedures, management decisions, and even strategic goals. In the same way, the decreasing importance of formal learning in the context of knowledge workers is a factor that saps one of the most traditional activities of HR managers. Likewise, the fact that financial rewards are considerably less effective in the context of knowledge workers could be, at the least, problematic for those firms in which the traditional

paradigm of motivation by money is still prevalent. The current scenario for managers and personnel specialists could be described as complicated and under threat, as their lack of knowledge about knowledge workers could lead to a further lack of credibility.

4 PEOPLE MANAGEMENT IN CHILE

Abstract

In this chapter several aspects of people management in Chile will be examined. Initially Chile will be analysed in the context of Latin American culture and history, as it shares a number of common features with the rest of the countries of the region. Secondly, the arrival of HRM to Chile is explored, as well as how it is affected by the particular characteristics of the country. Thirdly, people management research literature in the specific context of Chile is reviewed and analysed. Finally, some consequences are discussed, and it is concluded that Chile shares a unique history, culture, social particularities and problems with the other countries of the region, affecting the way in which people management is deployed in organisations. It is also concluded that more research in this context is urgently needed.

4.1 INTRODUCTION

The purpose of this chapter is to provide a complete description of the particularities of people management in Chile, including the most relevant cultural and social aspects of the knowledge workers' environment. However, published research about HR practices in Chile is extremely scarce, and as a result it was difficult to explore this issue in depth. Bearing this in mind, this study will start with a description of the Latin American context, as this will give an insight into the main characteristics of the region which includes Chile. An underlying assumption is that Chile shares many characteristics with its neighbours.

4.2 HRM IN LATIN AMERICA

Like many other management models, HRM arrived in Latin America in the eighties, a few years after it became popular in developed countries. In a globalised world, the most important Latin American firms quickly adopted these models, perhaps as a result of observation of the general management practices of their international competitors, of employees educated in prestigious foreign universities, of recommendations from consulting firms, or even of a fashionable book. It is not clear how HRM was, in fact, introduced into the region, but it is generally accepted that it is now present in Latin American management discourse. However, while it is undoubtedly the case that the concept of HRM and some of its practices have penetrated organizations in Latin America, it has also been recognised that its adoption has not been straightforward. The HRM model has clashed with some particularities of local society and culture (Davila & Elvira, 2005, Perez Arrau, 2008). Consequently, HRM in Latin America has taken a hybrid form in organisations, combining the theoretical perspective of the model with national culture (Wood, 2004; Davila & Elvira, 2005).

4.2.1 The context for HRM

Latin America has many special conditions that make it different from the countries in which the HRM model was initially created and developed. To start with, Latin America is the geographical region with the greatest wage inequality in the world, which, of course, creates a unique scenario for people management. Basically, the labour market in most Latin American countries is characterised by having a small number of high quality jobs for highly skilled professionals, and a great number of workers earning only the minimum wage. In this sense, it is perhaps problematic to imagine any sort of HRM initiative aimed at employees' development, commitment, motivation or any other HRM goal, when the majority of employees barely earn a subsistence level wage. In some countries, like Honduras¹ for

¹ In Honduras, 80% of the workers ages 15-65 earn an average hour income less than U\$1 (Duryea et al.,2003)

example, the average salary is less than US\$1, and the poor working conditions make it very difficult to find examples of the implementation of any particular form of modern management.

Secondly, the region has been considerably affected by political instability. Particularly in the seventies and eighties, most Latin American countries suffered from the instability of their political systems, many experiencing military coups and dictatorships. Trade unions, especially, were brutally persecuted and repressed in many countries of the region. In addition, labour legislation in many countries was regularly altered by various governments, sometimes arbitrarily and illegally. At the same time, the HRM model was spreading in the managerial world, and many firms in Latin America began to adopt the HRM perspective, which promotes, paradoxically, collaboration, trust and commitment, among other values. This created an odd organisational environment for the arrival of HRM. For example, the first course focusing on HRM in Chile was taught in 1982 at the Universidad Católica, at the same time as many civil freedoms were severely restricted and labour unions were repressed. The consequences of the convergence of restricted political freedom and the implementation of modern management models are not clear, but it has been suggested that ambiguous behaviour, submissive conformism and hypocrisy could have been developed by employees as a response to rules or laws which were considered unacceptable (Perez Arrau, 2008; Hojman y Perez Arrau, 2005; Wood, 2004).

In addition, businesses in the region have to deal with 'inherited' social conflicts and complex stakeholder situations. This can be illustrated by the example of the conflict described by Osland, A. & Osland (2007) between a world-leading cellulose firm and the indigenous community in Brazil, in which the latter demanded the return of their rights to the land on which the firm operates, and which drew in indigenous communities, the Brazilian government, national and international NGOs, and even politicians and shareholders in several other countries. Another example is the conflict arising between electric firms and Pehuenches indigenous communities in the Biobio highlands of Chile, in which some indigenous groups

refused to sell their ancestors' land to the firm, causing a number of violent incidents in the zone, and which was finally settled by the Inter-American Human Rights Court (CIDH) (Newbold, 2004; Azocar et al., 2005). Likewise, the Colombian company Hacienda Gavilanes had to implement innovative HR practices in order to survive in a hostile environment of political violence caused by *guerrilla* and *paramilitares* forces (Andova & Zuleta, 2007)

Along with the political instability, corruption has also been a major feature in the region (Weyland, 2006; Sanchez, et al., 2008). Bribery, fraud, avoiding paying taxes, dishonest negotiations and dumping have been mentioned as 'common' problems in the Latin American business environment (Arruda, 1997), and still seem far from being eradicated. According to the Transparency International's Corruption Perception Index (CPI), only 3 Latin American countries² were evaluated at grade 5 or above, which is considered an acceptable score. Although the consequences of corruption in business and management have not been sufficiently studied yet, incipient research has suggested that it impacts on foreign investment, damaging organisational efficiency, productivity and competitive capacity (Voyer & Beamish, 2004; Luo, 2002). In the people management field, in particular, the suggestion that the socio-cultural context of a country will impact on the implementation and result of HR practices, has been extensively discussed in the literature (Tayeb, 1995; D'Iribarne, 1991; Sparrow & Wu, 1998). Corruption has been identified as one of the most important HRM challenges in developing countries, because the problem is seen as particularly severe in these countries (Okpara & Wynn, 2008). Some of the consequences of this problem in HRM could be, for example, that in a highly corrupt country, a rationally-designed selection procedure can be spoiled by personal or political networks, illegitimately influencing the decision making, which will ultimately impact on organisational performance.

A report which recently appeared in the newspapers epitomises the deep extent of the problem in Mexico. It described how teacher posts are bought, inherited or

² Latin America denomination refers to all the counties which language is considered *romance language*, which is Spanish, Portuguese, and French.

exchanged by means of 'personal favours' (*El Universal* newspaper, 22-07-2008). In this article, the current president of the National Union of Education Workers (*Sindicato Nacional de Trabajadores de la Educación, SNTE*), Elba Gordillo, accused local teaching unions of corruptly allocating teaching jobs in public schools in return for money (up to £3000) and, sometimes, for sexual favours (known as '*pago de cuerpo*'). But more surprising is her later comment, when she asked: 'can you imagine how hard is for a teacher to pay that amount given current salaries? They'll be paying for the rest of their lives! (*¿Se imaginan lo que es para un maestro con su salario pagar esa plaza? Pues ya se hipotecó de por vida!*)', complaining about the amount asked of candidates, instead of the immorality of the request.

The problems mentioned above are not the only ones which may impact on HRM in practice, and, there are many other cultural aspects that might be considered relevant for an understanding of HR practices in this particular context. For example, job informality, workplace discrimination and child labour have been identified as aspects of the harsh reality of Latin America. Informal work, in this context is understood generally as semi-legal, low-productive and family-based work, usually small-scale business. It is estimated that between 30% and 70% of the urban workers in Latin America work informally (Maloney, 2004). According to a recent report, in the region, no more than 50% of the wage-earning workers have a formal contract of work (ECLAC, 2006). A good example of this reality is Peru, which represent one of the most difficult scenarios, where the informal work is engaged in by up to 75% of the population, and where is very hard to gain a productive job and a decent salary (Davila & Elvira, 2005).

Discrimination has also been identified as a significant social problem in the region. Studies have shown that indigenous and black employees are considerably more likely to earn "poverty wages" than white workers (Duryea et al.2003; MacIsaac & Patrinos, 1995), and that women can be notoriously discriminated against in many aspects, including salary and the quality of their jobs (Duryea & Székely, 2000; Htun, 1999; De Oliveira & Ariza, 2000). In addition, class discrimination has been

identified in the literature as being even more important than gender, race and physical appearance (Nuñez & Gutierrez, 2004; Arcand & D'Hombres, 2004). The problem seems far from being resolved since studies have shown that discrimination is socially accepted in Latin American society and is not seen as an evil to eliminate (Abarca et al., 1998).

Finally, the alarming rate of child labour has been reported as a chief social problem in the region (Psacharopoulos, 1995, 1997; Patrinos and Psacharopoulos, 1995), not only from the human and ethical perspective, but also because in the long-term perspective it represents a disinvesting in human capital formation (Psacharopoulos, 1995, 1997; Patrinos & Psacharopoulos, 1995). According to UNICEF (2007), 11% of the children of Latin America and the Caribbean countries work, with some countries having rates as high as 29%.

Despite this generally problematic picture of Latin America, not all countries experience the same degree of difficulties. Salaries, inequalities, corruption, discrimination, job informality, child labour, and other serious social problems are present, to a greater or lesser extent, in all Latin American countries. But, while some countries have achieved remarkable improvement in these areas, in others they still affect the population dramatically. For example, whilst the average salary in Honduras is less than U\$1 an hour, in Panama, Argentina, Mexico and Chile it is more than U\$2 (Duryea et al., 2003). While in the Corruption Perception Index (CPI) 2007, Chile and Uruguay scored 7 and 6.7, respectively, which could be considered satisfactory, Venezuela and Haiti scored 2 or less, which is considered a sign of extreme corruption in the country. In the same way, race and gender discrimination, informality and child labour are problems that are expressed in different degrees in the region. So, although Latin America shares common problems, the great differences between the countries make it difficult to treat them as a single entity.

In addition, for an appropriate and accurate description of HR practices in Latin America it is essential to consider the size of firms because, it could be argued that

whilst small firms fight to survive in a very hostile terrain, large organisations have the necessary resources for investing in and developing their human resources. For example, Wood (2004) analysed this difference in Brazil from the core-periphery perspective, pointing out that the core productive sector, mainly composed of multinational, government, and organizations belonging to large Brazilian economic groups, applies the most modern policies and practices of HRM, whilst small industrial companies use out of date technology, expect longer working hours and provide low salaries.

4.2.2 Latin American culture

Latin American culture has been extensively studied from many perspectives and disciplines. Although there are differences between countries, ethnic groups and geographical regions, the tendency has been to see Latin America as a homogeneous culture, owing to the similarity of colonial history and, in most of the cases, common language and religious backgrounds, as well as, the similarity of social problems (Romero, 2004). Recent research has reinforced the idea of relatively high homogeneity among the countries of the region (Ogliastri et al., 1999; Romero, 2004). Culture has been considerably less explored from the HRM perspective, but in the literature available the focus has been oriented towards answering what Latin American organisational culture is like and how it would affect the management of people. This is not a simple question to answer, taking into consideration the great diversity amongst Latin Americans countries.

Perhaps the most popular and oft-quoted work on culture and management was by Hofstede (1984). He made an extensive survey of 53 countries, which were described according to four main variables: power distance, individualism/collectivism, masculinity/femininity, and uncertainty avoidance. Later on a fifth dimension was added Long term orientation index (LTO), and it was tested in a sample of 23 countries (2001). In Hofstede's investigation, Latin American countries were characterised by high power distance, which indicates that managers and employees in these countries accepted inequalities as normal,

and this is expressed, among other aspects, in more bureaucratic organisational structures. His finding is consistent with the great social differences in the region, as mentioned above. This trend, of great social distance in the labour environment in Latin American countries, was recently confirmed in an extensive international investigation, the Project GLOBE (Ogliastri et al., 1999).

In addition, in Hofstede's finding, Latin American countries were described as highly collective, which means that people see themselves as belonging to groups. That implies they receive protection from the group but, at the same time, loyalty is expected from the members. In the research carried out by Ogliastri et al. (1999), the finding in this area is not as clear as Hofstede's, since many Latin American countries were found to not be as collectivist as was originally thought. On the contrary, Ogliastri et al.'s research suggests that in Latin America, collective wellbeing is not placed above individual wellbeing. Moreover, according to this research people are unhappy with the current excessive individualism, and they display a preference for more socially responsible behaviour from individuals. The cause of these ambiguities may lie in the nature and meaning of collectivism, as Ogliastri et al (1999) and Romero (2004) suggested, Latin American collectivism is linked to family and friends, rather than work groups and society. In a recent study carried out by Hatum et al. (2006) on cultural difference among executives of several Latin American countries, they found significant differences in their individualistic bias, Brazilian executives being the most individualistic and Colombians the most collectivist.

The variable of Masculinity is defined by Hofstede as an assertive, ambitious and competitive attitude, while femininity, is described as emphasising quality of life, being cooperative, and being sympathetic. In this dimension, Latin American countries were not homogeneous. However, there is evidence that Latin American organisations are changing toward less gender differentiation in working roles and status (Ogliastri et al., 1999).

In the analysis of the uncertainty avoidance variable, Latin American countries scored high, so they are considered cultures that do not like a changing environment. This trend was later confirmed by a more recent investigation (Ogliastri et al., 1999).

The long-term dimension is described by Hofstede (2001) as the extent in which a particular country embraces long-term commitment, value of persistence and forward thinking. This dimension was developed in a later stage of Hofstede's research, and it was closely linked to the Confucianism view. The study was carried out in a sample of 23 countries, Brazil being the only Latin American country included; accordingly, the research did not provide a clear picture of the phenomenon in the region. However, in the Globe Project, it was shown that most Latin American countries are not oriented to the future, two countries included in the study, Argentina and Guatemala, were grouped among the most short-term oriented countries in the world (Ogliastri et al., 1999). For example, Silva (2002) described two case studies in Guatemala, where management improvisation took place, illustrating how people tend to use their creativity and intuition to improvise a solution, in a context of political uncertainty.

Even though Hofstede's work was severely criticised because of perceived theoretical and methodological weaknesses (Hampden-Turner & Trompenaars, 1997; Baskerville-Morley, 2005), it has the merit of being the first extensive investigation of its kind and it also provided the first formulation of the idea of Latin American organisational culture.

Along with Hofstede's variables, paternalism has been also identified as a typical aspect of the Latin American organisational culture (Martinez, 2005; Davila & Elvira, 2005; Romero, 2004; Rodriguez, 1991). Some authors have identified the origin of paternalism in the *hacienda*, because it was there that the first forms of industrialisation started in many Latin American countries (Martinez, 2005). Paternalism can be defined, in the organisational context, as '*...a way of controlling employees through family imagery*' (Martinez, 2005, p.77) and involves benevolent,

caring and protecting behaviour, and the understanding of the subordinates' best interest. Paternal leaders are autocratic and directive, reluctant to delegate work and use teams, they like top-down communication with the employees, they habitually avoid conflict, are relationship oriented, and are assertive and aggressive (Romero, 2004).

In general, the evidence demonstrates that a paternalistic style is still very present among Latin Americans. Romero (2004), for example, in an exploratory research, found that the *patron* (landlord) mode of management is the most common management style in Latin America. Martinez (2005) claimed that the paternalist management style is not decreasing in Latin America but still remains firmly rooted in labour relations, owing to the social exchange dynamic. This involves employees receiving esteem and social approval from employers, who in return obtain flexibility, loyalty and trust. These results are consistent with several investigations carried out in different Latin American countries, in which paternalism was found to be one relevant aspect of the labour relation (Gomez, 2001; Pappalembos, 2005; Tanure, 2005; Ogliastrri et al., 2005; Schuler et al., 1996).

But the paternalistic dynamic implies other mediating factors. An important cultural value present in Latin American relations is the concept of '*respeto*' (*respect*), which can be seen from two perspectives. Firstly, '*respeto*' means that people will be treated with consideration, dignity and benevolence and, in this regard, Latin American employees expect to be treated with respect by their fellow workers and bosses (Rodriguez, 1991). '*Respeto*', from this view, balances the great difference of power between the paternalistic leader and the followers, introducing harmony in social relations which, otherwise, could become very conflictive. Secondly, '*respeto*' could also involve being passive and submissive to authority and avoiding direct conflict with the superior. This concept of '*respeto*' is learned from childhood, when children's disobedience to adults (mainly parents) is interpreted as disrespect. Likewise, in adulthood, questioning an idea or decision of somebody in a higher position in the organisational hierarchy can be interpreted,

not as a contribution, but as disrespect, and it can lead to negative consequences for the questioner. This is the authoritarian side of paternalism.

Perhaps as an adaptive response to the environment of '*respeto*' (in the authoritarian sense), employees have created tactics to deal with it. For example, it has been pointed out that Latin Americans use '*simpatia*', understood as likeable, attractive, fun and easygoing behaviour, as a mechanism to evade direct conflict and keep a peaceful and friendly environment (Triandis et al., 1984). Also Hojman & Perez Arrau (2005) suggested that Chilean employees have to use original social tactics to deal with inconsistent and unpredictable managers' requirements. Although those practices could be seen as foolish acts by an external viewer, in the logic of the actors, they represent a rational way to keep a job. Additionally, Barbosa (1992) described the '*ingenio brasileño*' (*Brazilian inventiveness*) as the flexible and creative way in which Brazilians cope with unacceptable rules and laws (cited in Wood, 2004). There is a joke in Chile that portrays the Latin American talent of coping with authoritarian bosses, it says that if you need to sleep during work, then do so by resting your head on the desktop, and if you are caught sleeping by your boss, then lift up your head and cross yourself, as if you have been praying.

In addition, religiosity, prevalence for personal contact, group loyalty, *double-talk*, etc., have all been suggested as characteristics of Latin American organisational culture (Ogliastri et al., 1999; Davila & Elvira, 2005; Gomez & Rodriguez, 2006); however, there is less research about the extent to which these variables are expressed in each country. For example, whilst Mexico has been described as a very religious country in which religiosity plays an important role in the work place, this issue is rarely identified as significant generally in South America in relation to organisational studies.

4.2.3 Latin American research on HRM

Currently, the HRM model has been embraced in most Latin American organisations, but knowledge in the field seems to be undeveloped. On the one

hand, Latin American universities have not assumed a resolute leadership in conducting research and leading the discussion on the topic, although the HRM perspective is widely disseminated throughout undergraduate and postgraduate university courses. For example, according to Tonelli et al. (2003), although in Brazil there has been an increase in publications on HRM in the last few years, the Brazilian research can be characterised as being of questionable quality, owing to the lack of both methodological rigour and scientific induction from local reality. As a consequence, the literature available does not accurately explain the local context, but only illustrates some aspects of it. Likewise, Malaver (1999) described the Colombian management research as meagre, concentrated in a few universities, and lacking proper diffusion media to the community. He also corroborated the scarcity of researchers to carry out investigations among management Faculties. Finally, in Mexico, Montaño (1991, 2001) suggests that the management discipline is taught from an idealistic perspective, far away from the local reality of the country, and that it is necessary to improve research in the field.

On the other hand, it can be argued that, as most of the research is done in developed countries, perhaps Latin American HRM may have been investigated by experts abroad. But the evidence demonstrates that Latin American HRM has not attracted the attention of experts beyond its frontiers. For example, in an early contribution to this issue, Adler (1983) analysed 24 American management journals, covering the period between 1971 and 1980. There he found that research involving different cultures represented less than 5% of the total, and warned of the ethnocentric character of the management research of that time. In another study, Niamat Elahee & Vaidya (2001) analysed 749 articles from the *Journal of International Business Studies* (JIBS) and the *Management International Review* (MIR), and found out that only 6% of the total articles were focused on Latin America. Likewise, Clark et al. (1999) determined that less than 2% of the papers on HRM, published between 1987 and 1997, referred to comparative or international perspectives. Moreover, of this small number of articles, only 4% (14 articles) were classified as 'foreign national study', meaning that they were solely

concerned with the reality of HRM in a foreign country. Finally, in a recent piece of research carried out by Ozbilguin (2004) on the geographical foci of papers published in 22 'top' journals on international human resources management (IHRM), it was found that Latin America, similarly to Africa and the Middle East, was covered by only 1% of the articles. As a consequence, these regions were labelled by the author as '*blind spots*'. The findings of these studies are surprising if we consider the rapid economic growth and the high rate of foreign investment in the region in the last decades.

To summarize, HRM has been gaining more and more popularity amongst managers, specialists and academics in Latin America. However, Latin American societies and cultures have shaped the way in which HRM is expressed in the local reality, creating hybrid models of HRM. On the one hand, some of the social factors impacting HRM in the region are extreme inequality, political instability and corruption, job informality, child labour and social discrimination. On the other hand, cultural aspects such as high power distance, masculinity and avoidance of uncertainty have been identified as potentially relevant. Paternalism has also been highlighted as central to an understanding of HRM in this context, along with the Latin American concepts of *respeto*, *simpatia* and *ingenio*, which potentially act as counterweights to it. Finally, we suggest that research on HRM in Latin America is still in its early stages.

4.3 HRM IN CHILE

4.3.1 The Arrival of HRM to Chile

The HRM discourse 'arrived' in Chile in the midst of the social and economical transformation carried out by the military dictatorship that started in the nineteen seventy three, which had as its purpose the imposition in Chile of a free market economy model. These changes included the reduction of the size of the State, the creation of new business opportunities for private firms, and the opening of the economy to the world market. At the same time, labour laws were changed in accordance with the new model, giving them a more liberal character (Fontaine,

1993; Duran-Palma, et al., 2005; Mizala y Romaguera, 2001). In the business and management environment, these changes were dramatic, moving organisations from a scenario where they were highly regulated by the government to a highly competitive one, leaving behind a past characterised by decades of protectionism (Edwards, & Cox Edwards, 2000; Montero, 1997).

From the social perspective, this period can be described as one of high instability. On the one hand, the massive economic changes brought privatisations, diminution of legal protection for workers, closure of firms, etc. On the other hand, the political agenda brought the restriction of civil freedom and political repression, in which leaders and members of unions were victims of political persecution, exile, torture and disappearance (Drake, 2003; Campero, 2004). The consequences of this unusual context on the introduction of HRM in Chile have not yet been fully investigated, but the situation described above suggests at the very least a climate of fear, passive acceptance and the obliteration of union opposition.

The economic transformation towards the free market, along with other social and cultural changes, set the pattern for the arrival of HRM in Chile, since managers were pushed to look for increasing competitiveness within their organisations, including the management of the labour force (Koljatic & Rosene, 1993). In this scenario, HRM seemed a perfect ally, since its stated main objective was, precisely, to achieve competitive advantage through the deployment of a highly committed and skilled labour force (Storey, 2001). Thus, little by little, Chilean firms started to adopt the HRM model in their organisation, as a way to survive in an increasingly threatening market.

Although it is clear that the circumstances in the economy presented a favourable environment for the appearance of HRM, it is not clear how and when, exactly, HRM arrived in the country, and nor is it clear how significantly this school of thought, or approach to people management, impacted on organisations. It is also unknown if the more commonly model adopted by organisations was the American or the European. Maybe the strong American influence of these years in the

Chilean economy made the American view of HRM more attractive for executives. These questions have been ignored in the scarce literature about HRM in Chile. Perhaps it was introduced by Chilean MBA students in foreign universities or executives of international companies in Chile. And, presumably, the American influence over local managers and entrepreneurs were greater than European at that time. What it is known, so far, is that in 1982, at least one university had already changed the name of the module 'personnel management' for HRM³, so it is possible to establish that year as the starting milestone. After that, the HRM discourse was spread through most of the Chilean universities, which created several new undergraduate and postgraduate university courses. (Perez Arrau, 2008). However, whether the change was merely a nominal change or it involved a deep change in the view of people management, is still unclear.

4.3.2 Research on HRM in Chile

As with most Latin American countries, HRM in the Chilean context has not been extensively studied. The academic research and discussion in this field could be described as scarce and disarticulated (Perez Arrau, 2008). On the one hand, it is considered incipient because of the shortage of publications in this area. In general, management faculties in Chile have not been prolific in the production of papers on HRM and also, externally, HRM in Chile has not received the attention of researchers abroad. A plausible explanation of the lack of internal research could be that, in the period when HRM was introduced in the country, social research had been severely restricted and controlled by the military government.

But recently, the subject has become more popular and Chilean universities have begun to research and to publish in this area. Some of the most widely disseminated publications in Chile and abroad are: Koljatic & Rosene (1993); Abarca et al. (1998); Vargas & Paillacar (2000); Vargas et al. (2002); Salazar et al. (2003); Rodriguez et al (2005); Acuña (2005) and Perez Arrau (2008). Additionally, the field

³ According to information provided by a senior academic of the staff, in Pontificia Universidad Catolica de Chile the name of the module personnel management was changed for HRM in 1982.

has received contributions from cultural and organisational studies, with the most well known of these including: Rodriguez (1991, 1992) Gomez (2001); Hojman & Perez Arrau (2005); Pappalembos (2005) and Gomez & Rodriguez (2006). Although, these articles represent an important attempt to develop knowledge in the field, it is evidently insufficient taking into consideration the progress of the country in other areas.

On the other hand, research in the field can be described as disarticulated, in the sense that most of the investigations carried out in Chile have tended to ignore previous contributions (Perez Arrau, 2008). For example, in the chapter on HRM in Chile, written by Rodriguez et al (2005), the authors refer to the Chilean culture, but they do not mention the important contribution of Gomez (1997, 2001) in this field. This can be seen as a major problem, bearing in mind that scientific knowledge ought to be a collective and cumulative process, in which, in order to progress, research must build upon existing knowledge. In Chile, on the contrary, the development of the subject seems to be conducted by isolated individuals, who seem only to have contact and make reference to previous research conducted in the same university as they themselves belong to. Thus, HRM as a subject area is being developed by what might be termed '*intellectual ghettos*' or "*silos*". Therefore, the development of the discipline faces the substantial challenge for the future, of creating a reputable scientific/academic community, if it is to have any real impact on people management in Chile.

4.3.3 HRM in the Chilean context

In the research conducted so far, the focus has been firstly, in describing the most common HRM policies and practices applied in Chilean organisations, and secondly, in determining those critical aspects of the Chilean culture which are seen as affecting HRM. On the one hand, researchers have described the main HRM functions, such as the recruitment and selection process, rewards systems, training and so on (Acuña, 2005; Vargas & Paillacar, 2000; Vargas et al. 2002; Rodriguez et al, 2005). In these investigations, two important findings have been highlighted.

Firstly, although many Chilean organisations exhibit modern variants of HRM, to some extent, similar to those used in developed countries, smaller organisations are characterised by considerably more informality and less professionalism in managing people (Rodriguez et al., 2005; Koljatic & Rosene, 1993; Salazar et al, 2003). In the national context of great social differences, HRM management in Chile has been described as highly unequal, from having a cluster of professional, intellectually demanding, prestigious and well paid jobs on the one hand, to having a high proportion of socially undesirable jobs with low pay, and little opportunity for development, on the other hand (Perez Arrau, 2008). In these two situations, the HRM policies and practices are dramatically different. Secondly, researchers have tended to make a negative diagnosis of the realities of HRM in Chile, characterised in most organisations by a lack of concern for HRM; a unitarist perspective in labour relations, *double-talk* (*'doble estandar'*), prevalence of decision led and personal links instead of rational thinking (*'pituto'*⁴), the social acceptance of discrimination, the precariousness of labour conditions, lack of trust, informality, long working hours, and scarcity of innovation in the area (Vargas et al, 2002; Rodriguez & Gomez, 2001; Vargas & Paillacar, 2000; Perez Arrau, 2008; Montero, 2003; Salazar et al, 2003; Gomez, 2001; Abarca et al, 1998; Hojman & Perez Arrau, 2005; Pedraza, 2003; Lear & Collins, 1995; Nuñez & Gutierrez, 2004; Gomez & Rodriguez, 2006; Barozet, 2006; UAHC, 2005; Hatum et al., 2006).

Another area of focus for researching the subject has been the cultural dimension and its impact on HRM. As with most Latin American countries, paternalism has been identified as a very important aspect of the Chilean labour relations context and HRM (Rodriguez & Rios, 2007; Pappelenbos, 2005; Rodriguez et al., 2005). Paternalism is seen as developing from the *hacienda*, where the landlord (*terrateniente*) had control of most aspects of the lives of the tenant farmers (*inquilinos*) and this is regarded as the most widespread approach to the management of labour relations since the time of independence (Rodriguez et al., 2005; Montero, 2003).

⁴ *Pituto* is the most popular name for the peddling of influence, especially in small scale corruption.

Another characteristic of Chilean culture is the prevalence of *machismo* in society. In the workplace, this problem is expressed by both the low rate of participation of women in the labour market and the negative attitude towards working women (Lehman, 2003). In Chile, a significant percentage of the population, both men and women, especially those from less educated, lower income, and older age groups, still perceive the role of women as linked to the traditional family roles of housewife and child-carer (Lehman, 2003). Women from all social classes are affected by *machismo*, for example, in the more educated classes, negative stereotypes at work lead to discrimination, making it difficult for women to perform in high responsibility roles (Owen & Scherer, 2002; Hatum et al., 2006). Low skilled women fare even more badly, for instance, female seasonal workers in the agriculture industry are marginalised and affected by a lack of facilities in the workplace, such as childcare (Matear, 1997; Barrientos, 1997).

Chilean women have to deal with gender discrimination in many ways: earning on average 27% less than men, in situations where they have similar skills (Fuentes et al., 2005); taking on the main responsibility for home duties and childcare; suffering a high rate of sexual harassment, and even discrimination based on physical appearance and age (Bosch, 1998; Merkin, 2008). This adverse situation is clearly reflected in a 2008 study by the feminist NGO *Corporacion Humanas* (www.humanas.cl), in which 86% of the women interviewed considered that Chilean women are discriminated against, with 92% of this number thinking that they are discriminated against at work.

In addition, authoritarianism has been identified as another central element in the Chilean organisational culture (Gomez, 2001; Gomez & Rodriguez, 2006), the counterpart of which is a permanent fear among employees or '*cultura del temor*' (culture of fear) (Rodriguez et al. 1999). It has also been suggested that this feeling of fear might explain in part both the low level of overt conflict in organisations and also the culture of long working hours (Perez Arrau, 2008). In a recent study, Chilean executives were described as individuals who value organisational

hierarchy and formal authority, rather than flat structures with a more egalitarian status (Hatun et al., 2006)

Increasing *individualism* has also been suggested as a key element of the current Chilean organizational culture, hence the preference for monetary and depersonalised relationships, and the rejection of social compensation (Rodriguez et al., 2005). Also *fatalism* and *legalism* were identified as a Chilean feature, where the former refers to the tendency to see themselves as subordinated to a natural order and the latter as the tendency to justify their actions on the base of the rules or law (Gomez, 2001; Gomez & Rodriguez, 2006). Finally, *double-talk* have been identified as a relevant aspect for understanding labour relations and HRM in Chile, where managers and employees tend to show an ambiguous image of themselves and where discourse and reality can be very different (Perez Arrau, 2008).

Another peculiarity of the Chilean context is the low level of interpersonal trust in the society. Although this is a common feature among Latin American countries, lack of trust is particularly high in Chile. Several studies confirm the existence of this phenomenon. It is not at all clear why Chilean society is so suspicious, but some studies have linked the lack of interpersonal trust with factors such as the weakening of social bonds, the past dictatorship and 'the culture of the enemy', the process of modernisation, and the increasing [subjective] perception of fear and insecurity (PNUN, 1998). For example, according to the *Latinobarometro Report* (2007), only 9% of the Chilean interviewees agreed with the sentence that '*it is possible to trust most people*', being one of the lowest rates among the Latin American countries in the sample. In addition, Valenzuela and Cousiño (2000), based on studies in the USA and Chile, found that 42% of American respondents agree with the sentence that '*it is possible to trust people*', while only 14% of Chileans interviewees responded positively to this question. Likewise, in a study conducted by PNUD (2005), 63% of interviewees agreed that '*most powerful people will try to take advantage of you*'. Several surveys, such as *Encuestas Nacionales CERC 1998-2002* (www.cerc.cl), and *Estudio Mundial de Valores 2000* (www.ipsomori.com), have confirmed this bias amongst Chilean citizens. As a consequence, in

the organisational and business environment, the essential trust foundation is build upon personal links (Hatun et al., 2006; Gomez, 2001; Gomez y Rodriguez, 2006), which may explain, in part, the prevalence of, for example, the practice of '*pituto*' in the country (Barozet, 2006, UAHC, 2005)

However, despite this adverse picture of people management practices in Chile, there is some evidence that Chilean organisational culture and labour relations have begun to change, if not transform. Some positive signs have been identified in relation to the ways in which organisations are beginning to manage and treat people. For example, Acuña (2005) describes how Chilean cooperatives have implemented modern HRM practices, similar and possibly even better than those in use in some modern private firms. Likewise, Calvo (1998) described organisational change in a group of ten companies in Chile, in which they were seen to move from a paternalist and authoritarian style towards more modern HRM policies and practices, including employee empowerment, multifunctional task flexibility, more training for employees, the introduction of flexible rewards, and more formal procedures both for performance assessment and recruitment and selection. In addition, Rodriguez et al. (1999) described how a large organisation in Chile moved from an organizational culture characterised by authoritarian relations, lack of truth, paternalism and fear, towards one which was more democratic, concerned for employee development, and less bureaucratic. A recent research on Chilean workers, based in 41 cases of unemployed people, self-employees, and employees, Benavente (2008) described them as hard worker, with special concern about their children and jobs. Likewise, Vargas et al. (2002) found that among HR managers in large agricultural firms, there was a general consensus about the necessity for empowerment and for an increase in salaries for employees. Finally, a sign of change in this matter is the creation of several awards for organisations in which employees enjoy better working conditions and labour relations, such as, for example, the *Great Place to Work* award (www.greatplacetowork.cl), *Carlos Vial Espantoso* award (www.fundacioncarlosvial.cl), *mejores empresas para madres*

award (best firms for working mothers award) (revista Ya, www.elmercurio.cl), and *premio nacional a la calidad* (National quality award) (www.chilecalidad.cl).

4.4 SUMMARY

It is common for Latin American countries to be treated as a homogenous group, as they share a similar history, the same religion, and in many cases the same language. In the literature, Latin America has been characterised as a region of great inequalities, affected by political instability, corruption, and a long history of conflicts and complex social situations. In the management arena, some of the most mentioned characteristics are high power distance, short-term orientation, and paternalism, among others. However, although Latin American countries are commonly treated as one, there are important differences between countries in some dimensions, not only in their economies and the extent of their social problems, but also in their cultures and traditions. In this regard, although there are some common problems, some countries have considerably better social conditions than others.

In terms of research, Latin America is very backward; with local universities conducting limited and poor quality research, and researchers in developed countries having little interest in the region. Looking specifically at Chile, the reality is not very different. People management issues have hardly been explored, and there is a lack of articulation between the few researchers in the field, generating isolated intellectual *ghettos*.

Several aspects of the Chilean context were mentioned as shaping HR practices in the country. As with most Latin American countries, the great social differences result in two 'classes of workers': one highly educated and the other low skilled. Other cultural aspects mentioned were 'double talk', individualism, fatalism, legalism, precarious labour conditions, lack of trust, informality, long working hours, and lack of innovation in the area. Paternalism, authoritarian culture, and gender discrimination were also discussed.

4.5 DISCUSSION

Looking at the region as a whole, it is undoubtedly the case that Chile has many features in common with the rest of the Latin American countries. Close ties in terms of language (with most of countries), religion and a common colonial history are significant. In particular, Chile, as with most of Latin America, is a country characterised by great social inequalities and strong paternalism in labour relations. However, Chile also differs from other Latin American countries because it exhibits a higher average income, more political stability, less corruption, a lower rate of poverty, etc. These differences potentially create a more favourable scenario for the implementation of modern HR practices.

From the perspective of Chile itself, this paper argues firstly that HRM arrived to Chile in the eighties, as a result of the transformation made by a repressive dictatorship, so the process of its introduction to organisations was unusual. Secondly, the free market orientation of the country was a very propitious scenario for HRM, with increasing competition leading organisations to improve their personnel management systems. Thirdly, Chilean labour culture has been described as in the literature as authoritarian, individualistic, fatalistic, legalistic, and *double-talk*, etc. Especially relevant for this research is the fact that paternalist, *machismo*, and low trust are still prevalent. However, there is also some evidence of change towards more modern labour relations. Finally, there is a dearth of relevant, valid empirical research on HRM in Chile, expressed both in the scarcity of publications and disarticulation between researchers, which makes it very difficult to establish a solid theoretical background for the current research.

5 METHODOLOGY

Abstract

In this chapter I will address the research methodology employed in both generating the primary data and its analysis. Firstly, fundamental ontological and epistemological issues will be discussed, and the paradigm adopted in this research will be described. Secondly, a detailed description of the research process will be provided, including the activities, decisions, and problems faced at each stage. Thirdly, the criteria for the analysis of the data and its interpretation will be described. Finally, the methodological limitations and ethical aspects of the research will be discussed.

5.1 INTRODUCTION

This research aims to deal with the subject of knowledge workers and HR practices in the context of Chilean oenologists. As was previously discussed in chapter 1, empirical research on knowledge workers is scarce, confusing and lacking in scientific rigour. The knowledge worker concept has been analysed from different perspectives, has been described ambiguously, and has covered a wide range of subjects, creating scepticism, confusion and criticism among specialists. Likewise, as was pointed out in chapter 3, the relation between knowledge work and HR practices has not been fully addressed. Although there is consensus that the emergence of knowledge workers is a serious challenge to the prevailing HR theories, there is still a big gap in the theory about how HR managers can deal with these workers and their specific needs. Finally, as was seen in chapter 4, there is little research about HR practices in the Chilean context, and studies relating to

Chilean oenologists are almost non-existent. In this sense, this research could be considered an exploratory approach to the subject, yet leading to highly original insights into an under-researched area.

Thus, considering the scarcity of research available on both knowledge workers and HR practices, and people management in the context of Chile, this study has focused on five leading questions: firstly, and fundamentally: are Chilean oenologists knowledge workers? Secondly, what are the HR practices in the context of oenologists? Thirdly, is the management of knowledge workers consistent with the way in which, theoretically, they should be managed? Fourthly, are they satisfied with current people management practices? and finally, what is the impact of the Chilean context on the management of knowledge workers?

5.2 FUNDAMENTAL METHODOLOGICAL ISSUES

Research is generally understood as a process of inquiry and investigation, carried out systematically and methodologically, and which aims to increase the extant body of knowledge in a particular field (Hussey & Hussey, 1997). One of these fields of knowledge is the social sciences, which has been defined as ‘...the study of human society and social relationships’ (Oxford dictionary [online], 2009). In the social sciences, two main philosophical positions, also called paradigms, have prevailed: positivism and phenomenology. These have fundamental implications for the methodology and research methods used by researchers (Hussey & Hussey, 1997). While these opposing paradigms have also been reflected in the dichotomy between quantitative and qualitative approaches (Creswell, 1994, in Hussey & Hussey, 1997), this association is still controversial (Bryman, 2004). Thus, the researcher’s assumptions about the nature of reality are crucial, as once defined they will affect the whole methodology of the project, including the data collection techniques.

In simple terms, positivism can be described as ‘...a model of the research process which treats ‘social fact’ as existing independently of the activities of both participants and researchers (Silverman, 2006, p.403); it assumes that reality is

objective and value-free, and that it can be reached from the direct experience of the observer. In the methodological field, positivism is usually linked to the deductive process, and a cause-effect view of phenomena, and findings are subject to generalisation, leading to prediction and explanation (Hussey & Hussey, 1997).

On the other hand, the phenomenological approach, also called interpretivism, attempts to grasp the reality from the individuals' frames of reference. Some of the most mentioned characteristics of this perspective are that it assumes that reality is subjective and multiple, as seen by individuals, and that the research is not value-free. In the methodological field, phenomenological research takes an inductive approach, assuming that social phenomena are produced by mutual simultaneous shaping factors, are contextualised, and attempts to develop its own descriptive models of the studied reality. Phenomenological research uses small samples and a variety of different methods in order to grasp the subjective perceptions of individuals, and seeks to develop descriptive models that can be used to describe similar situations in other contexts. In addition, the phenomenological perspective is focused on knowing the meaning, rather than the frequency of the phenomena. Finally, the phenomenological approach stresses the quality of the data over its quantity. Although quantitative and qualitative approaches have been seen as exclusive, they are better understood as a continuum, in which intermediate positions can be taken (Hussey & Hussey, 1997).

Although traditionally the social sciences have tended to endorse either a quantitative or a qualitative approach, recently there has been an increasing tendency to use combined methods, which, it has been argued, could help to increase the validity and reliability of research (Hussey & Hussey, 1997). Multi-strategy research is a methodological approach which assumes that qualitative and quantitative approaches are technically compatible (Bryman, 2004). Although this view recognises the ontological and epistemological differences between the qualitative and quantitative, it considers that they can be mutually beneficial. The concept of triangulation is based on the idea that both methods can coexist and support each other by allowing the data emerging from one to be cross-checked

with that emerging from the other. In the process of triangulation, it is important to determine which set of data will prevail over the other, as contradictions can emerge. There are three ways in which qualitative and quantitative data can be combined: qualitative data can facilitate quantitative research by providing in-depth knowledge which can be used in the design of survey questions. Secondly, quantitative research can support qualitative research by providing information about the relevant people to be interviewed. Thirdly, quantitative data can be used to locate the results of a qualitative study in a broader context (Silverman, 2006).

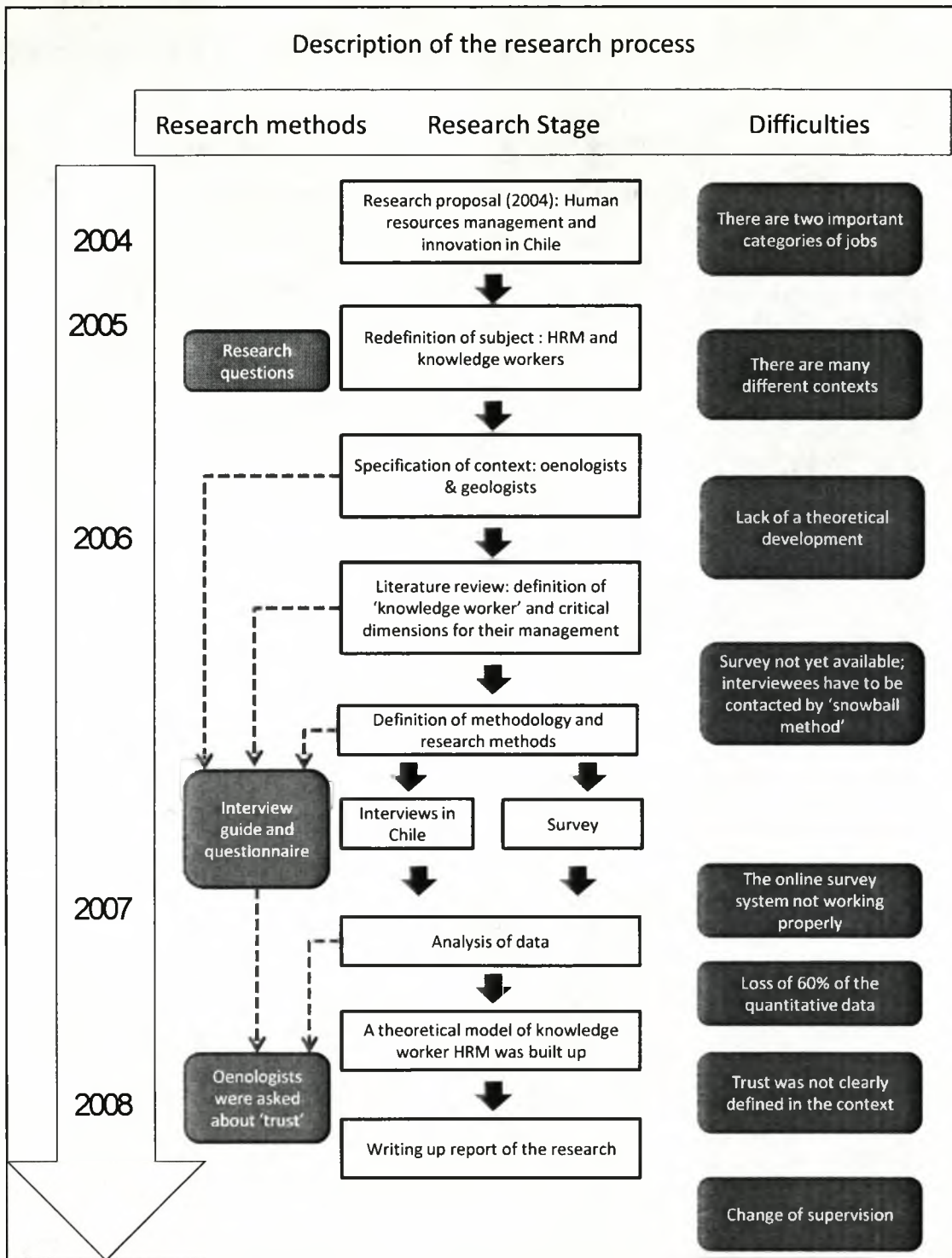
This research has adopted a multi-strategy methodological approach, using both qualitative and quantitative data, but giving priority to the former. This approach was taken in order to explore the still relatively unknown phenomenon of knowledge worker management in the Chilean wine industry from two different angles, focusing on the meaning that individuals give to the reality, but also exploring specific topics quantitatively. In addition, the decision to take this approach was based on the fact that there is little existing quantitative data on wineries, and less about their internal management. Moreover, research on winery management is almost non-existent. Oenologists' perceptions, and the way in which they interpret their environment, were used to analyse the human resources management of the firms. In the triangulation process used to cross-check the data, some findings from the qualitative approach were confirmed, while others were contradicted. In the latter cases, qualitative data was privileged.

From the phenomenological perspective, the researcher's own values are very important as they shape the way in which the research is conducted and how the data is interpreted (Hussey and Hussey, 1997). In this sense, awareness of blind-spots and reflexivity increase research validity and reliability by reducing possible bias. This process involves the description of all those attributes, values, beliefs, and feelings that may imply lack of neutrality, and potential areas of conflict between the researcher and the research subjects (Robson, 2002). In this thesis, a brief reflexivity statement has been included as an appendix (see appendix VII).

5.3 THE RESEARCH PROCESS

An 'ideal' research process has been described as having the following stages: 1) identification of the research topic; 2) definition of the problem; 3) determination of how to conduct research; 4) collection of data; 5) analysis and interpretation of the data; and 6) writing of the research report (Hussey & Hussey, 1997). However, it is widely accepted that the 'real' process is commonly less straightforward and involves a considerable number of transformations and reformulations, as well as frustration when problems arise. In the next section the research process as a whole will be described, as well as the changes it has undergone over time. Figure 5.1 shows the main stages of this process.

Figure 5.1 Description of the research process



5.3.1 Stage 1: definition of the subject

The origin of this research lies in an exploratory study on organisational culture and innovation in Chile, carried out between 1997 and 2001, which was presented at the British Academy of Management (BAM) (Rodriguez & Perez, 2002), and in the author's experience as a lecturer in HRM in Chile. In the years prior to this doctoral programme, the author noted a manifest lack of the literature about people management in the Chilean context, reflecting the lack of research in this area. Thus, in 2004 a research proposal was sent to the doctoral programme of the University of Liverpool Management School, dealing with the subject of HRM in innovative organisations in Chile.

5.3.2 Stage 2: Redefinition of the subject

After the first literature review about the work environment in the Chilean context, the research project had to be refocused as it was then clear that there were acute social differences and inequalities in Chilean society (see chapter 4) that would, inevitably, make it impossible to describe human resources policies and practices as one single homogeneous reality. Two different types of job were found: on the one hand, a vast majority of poor quality and low-income jobs such as temporary agricultural work and casual and informal jobs; and, on the other hand, a minority of high quality, well-paid, highly skilled jobs involving well educated professionals. Although the literature on HR practices is very limited in the context of Chile, it was found that there was a considerable number of studies about poor quality jobs and the social problems around them (see chapter 4). However, very little research has been conducted in regard to high skill workers in Chile. Thus, highly skilled workers were taken as a subject for research because there was considerably less research in this area.

5.3.3 Stage 3: definition of the context

The next task was to narrow the subject down to a more specific context in which to study knowledge workers. The large number of different contexts in which

knowledge workers can be found meant that it was necessary to restrict the problem to a particular industry. Originally, two economic sectors were addressed, mining and wine. The former was chosen because mining, particularly copper mining, has been the most important productive sector in the Chilean economy in the last century (see table 5.1). The latter was addressed because it has become an emblematic industry, representing the economic progress of the country in the last three decades, and, according to some authors, changing the image of Chile both inside and outside the country (Lacoste, 2005). Within these sectors, two types of specialist, geologists and oenologists, were found to play a central role in the success of firms. Thus, the research project was redefined as a study of geologists and oenologists from the perspective of knowledge work and people management.

Table 5.1 Chilean Leading Exports

Leading Exports (US\$ Mn)			
Share in 2004	Item	2003	2004
1	Copper	7,421.6	14,341.6
2	Salmon and trout	1,012.4	1,251.3
3	Molybdenum concentrates	301.6	1,213.5
4	Wood pulp	881.9	1,211.5
5	Wine	680.0	845.3
6	Lumber	428.3	613.7
7	Grapes	571.6	592.3
8	Methanol	438.0	505.4
9	Fishmeal	370.3	338.2
10	Fresh apples	262.8	337.9
	Subtotal	12,368.5	21,250.8
	Other exports	7,769.4	9,645.8
	Total	20,137.9	30,896.6

Source: ProChile [online] www.prochile.cl accessed on 20/04/06

5.3.4 Stage 4: definition of critical dimensions for knowledge workers

As was already described in chapter 1, the concept of knowledge worker has not yet been clearly defined, but has been used in a non-academically rigorous way as a synonym of professional, service worker, IT worker, etc. In general, in the knowledge workers literature there is a lack of precision, confusion, and even contradictions (see chapter 1). Thus, one of the initial aims of this research was to

describe what a knowledge worker is and to determine a number of qualities that allow them to be identified. The most important aspects found here were:

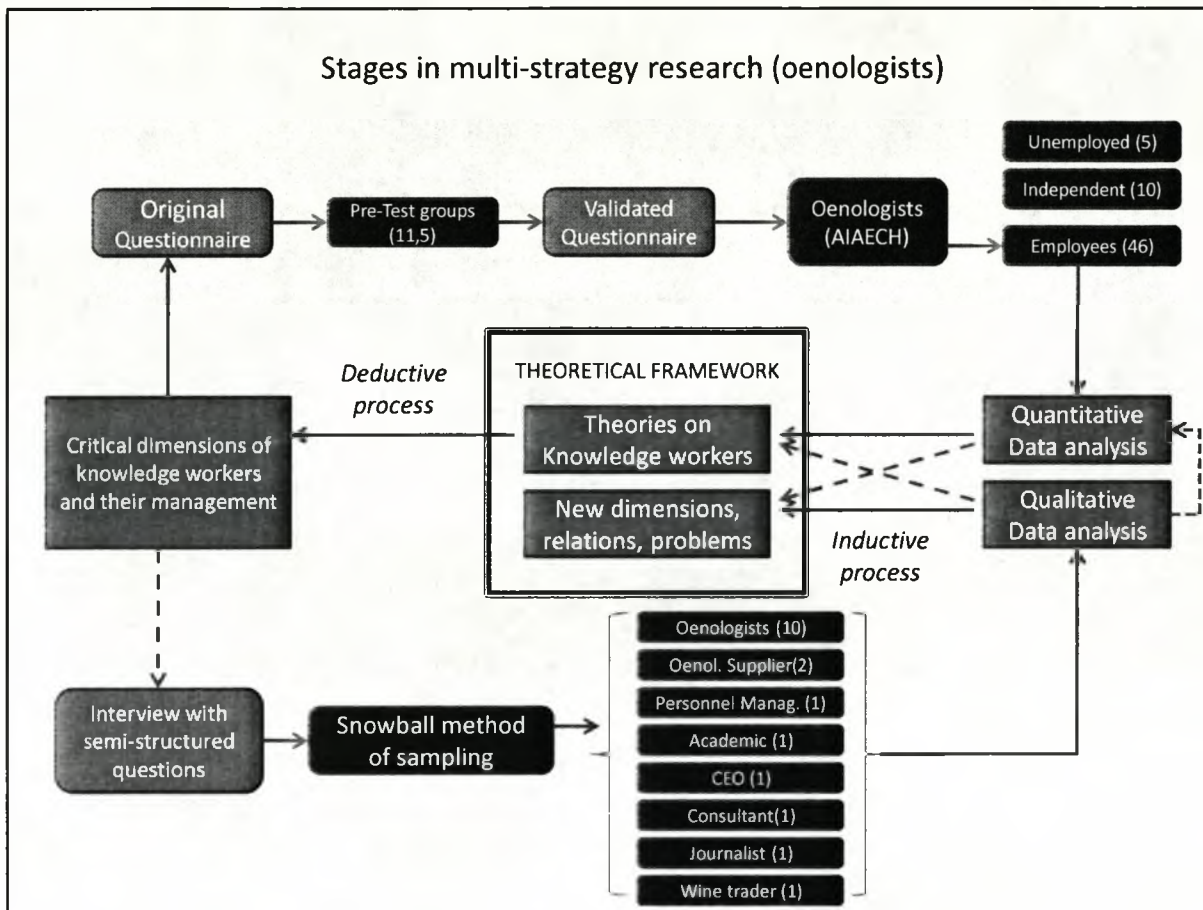
- *They use knowledge as the main resource in their work*
- *The work they do is complex, unstructured and not routine*
- *Knowledge workers are highly educated and experienced*
- *They are intrinsically motivated and highly committed*
- *The management of their identities is a very important factor in their work*
- *Continuous learning is an essential part of their work*
- *They belong to and participate actively in networks*
- *Trust plays a critical role in their work*

In addition to these characteristics of knowledge workers, a list of relevant topics was drawn from the literature in relation to their management, and this was used to create a questionnaire. This list included traditional management aspects such as recruitment, selection, rewards, etc., as well as novel aspects related to knowledge workers such as autonomy, flexibility and challenging tasks (see chapter 3)

5.3.5 Stage 5: definition of the methodology and research methods

In this research, while qualitative and quantitative methods were used to explore HR practices in the context of oenologists, more qualitative data was collected in the fieldwork and qualitative data takes priority in the subsequent process of interpretation. A cross-sectional research (collection of data in one single point of time) design was created, including semi-structured interviews and a survey. The multi-strategy design used involves an inductive dimension, carried out by interviews, and a deductive dimension carried out by a survey (see Figure 5.2).

Figure 5.2 Stages in multi-strategy research (oenologists)



Interviews were included because they are a suitable and economical method to obtain 'new' knowledge, dimensions, and problems, which have not yet been addressed in knowledge worker theory. This is especially relevant in this research, considering the early stage of development of the field. The interviews were conducted in a flexible way, consistently with a qualitative inductive approach, with guide questions being used only to initiate in-depth exploration of particular topics. The issues discussed in the interview were drawn from the literature, and related to the characteristics of knowledge workers and their management (see chapter 1&3). The dimensions included were:

1. Basic data (speciality, years of experience, firm size, etc.)
2. Formal education (university, specialist courses, etc.)

3. Professional career (work experience, reasons why they left previous jobs, interests, how they were recruited, etc.)
4. Description of their job (technical aspects, people they work with, etc.)
5. Description of themselves and their relations with other members of the organisation
6. Learning and networks (methods used to upgrade their knowledge, training activities, networks, etc.)
7. HR practices in their workplace (satisfaction with HR practices, rewards, job description, labour relations, etc.)
8. Creativity and innovation (open question)
9. Organisational culture (open question)

The full Interview guide can be seen in appendix IV.

In addition, an online survey was designed to collect and describe data on some of the most critical dimensions related to knowledge workers and their management (see appendix V), drawn from the literature. The online survey was chosen because it gave the researcher access to a larger number of respondents, geographically dispersed throughout the different wine regions. Although no clear model was found that linked HR practices and knowledge workers, a number of variables were mentioned by different authors as fundamental to the successful management of knowledge workers (see chapter 1 & 3). Most of the questions required yes/no answers, others asked for figures; and others were open-ended questions (for example, main problems perceived in the workplace) or multi-response questions. The questions in the survey referred to opinions (for example, satisfaction with rewards), behaviours (for example, the number of times they have changed jobs) and attributes (sex, age, etc.). Yes/no answers were used to simplify the respondents' task, given the large number of questions, because it was a self-completion questionnaire, and also because it was thought to be more appropriate for an exploratory study. The following aspects were covered in the questionnaire:

- A. Introduction: A brief description of the author, the research objective, and the ethical considerations (confidentiality, anonymity, use of the information, etc.)
- B. Basic information (Open questions, numerical, and multiple choice): age, sex, number of employees in her/his firm, etc.
- C. Educational background (multiple choices): specialist courses, languages, etc.
- D. Satisfaction with HR practices (yes/no questions): HR specialists/department, training, job stability, recognition of their job, flexibility, reward, supervision, participation, etc.
- E. Main problems and optimum job conditions (open questions).
- F. Type of training received and means for knowledge upgrade (yes/no questions): different types of courses (short courses, long courses, abroad, etc.), informal talks, and other means of upgrading knowledge (internet, talks by suppliers, informal talks, etc.) were listed.
- G. Recruitment: a list of different recruitment methods were listed
- H. Turnover (numerical)
- I. Innovation (yes/no questions; open questions)
- J. Trust (yes/no questions)
- K. Presence of external consultants (yes/no question)
- L. Willingness to collaborate with the research in the future if necessary (email address was requested)

In order to validate the questionnaire, two pilot tests were conducted. This was especially important, considering that the study was located in the culture of a developing country, which is not typically addressed in the literature on knowledge workers and people management. In the first test, questionnaires were administered to eleven people, who were then interviewed by phone in order to make sure that it was of a suitable length and clarity. In addition, they were asked for their general opinion about the questionnaire and whether they thought that there were other critical aspects related to people management that had not been

included. This questionnaire was sent to one academic expert on the Chilean economy; two geologists; one oenologist, one academic expert on oenology; and several other Chilean graduate professionals. As a result of this pre-test, the questionnaire was shortened, and some questions were modified because they were not useful or were misunderstood. For example, they were asked whether they were satisfied with the 'HRM strategy of the firm' and the pre test showed that many of the respondents did not understand what was meant by 'strategy'. Following these amendments a second pre-test was carried out, this time on five professional graduates in Chile. As a result the last minor corrections were made.

A critical aspect in every survey is the quality of the sampling. In this study, access to oenologists and geologists was one of the major problems. After several months of letters and phone calls to the *Asociacion de Enologos de Chile* and the *Colegio de Geologos de Chile*, the researcher's request was finally accepted. However, the collaboration agreement with these associations was quite weak, and they neither provided a list of members nor access to the email list. Instead, they just offered to send the questionnaire link to their members. This was not exactly the kind of collaboration initially hoped for, as the idea was to conduct a probabilistic sampling. However, and given the dilemma of 'take it or leave it', the author took the chance he was given and conducted the study, although it was clearly limited by the fact that the results would be less representative than expected, and also by the fact that the quantitative analysis would be considerable more constrained.

5.3.6 Stage 5: Interviews in Chile

In order to answer the research questions, eighteen interviews were carried out between October and December 2006 with people related to the wine industry and eight with people related to geology. Originally, the research plan was to contact knowledge workers for interview through the survey, since the questionnaire included a question relating to the respondents' willingness to participate in an interview, but technical problems (details will be given in 'stage 6') made this impossible, and a 'plan B' had to be implemented. This 'plan B' involved the use of

a 'snow ball' mechanism to contacting potential interviewees, in the case of oenologists, and access by formal request to a specialist firm, in the case of geologists.

Although 'snow ball' is a common method used by researchers, one of its disadvantages is that it involves a certain degree of bias in the sample, which affects the data collected, and eventually introduces a certain degree of bias in the research findings. However, at the same time, in the Chilean context, which is characterised by low trust and the prevalence of personal contacts, 'snow ball' is one of the most effective ways to penetrate the closed social circle of the winemaking environment

In the wine sector, the first interview was with the academic, who was accessed through the authors' personal contacts, allowing an initial understanding of the technical work of oenologists to be reached, as well as increasing familiarity with the terms used in the winemaking field. The academic gave the researcher contact details of a supplier oenologist, who later played a key role in contacting other oenologists. Later, further interviewees were contacted using the 'snowball' method. Most of those interviewed were oenologists working in the Colchagua Valley and surrounding areas, and interviews were conducted at their workplaces.

In the end, a total of eighteen interviews were carried out (see appendix I): ten of those interviewed were oenologists employed in a vineyard, one was an oenology consultant (self-employed), two were oenologists working for a supplier of production inputs, one was a wine journalist, one was a personnel manager, one was CEO of a large winery, one was an oenologist in the wine trading business, and one was a senior academic researcher in a university agronomy department.

In the case of geologists, seven of these interviews were with geologists working as employees in the same company, one was with a self-employed geologist, and one was with a personnel manager in a specialist geology firm. As opposed to the oenologists, one specialist firm was contacted initially in order to get access to the geologists. This firm was in the process of carrying out an organisational change

related to knowledge management, so they were very willing to help and benefit from the potential findings about knowledge workers.

The time spent on each interview was between one and two hours, depending on the availability of the interviewee. Because the interviews were semi-structured, special attention was paid to achieving a *rappont* between the interviewees and the interviewer. All the interviews were recorded with the consent of the interviewees.

After the fieldwork in Chile in 2006, two oenologists, a supplier oenologist (X8), and an assistant oenologist (X14), were contacted by the researcher in order to clarify ambiguities arising from the interviews, as well as providing further information in relation to emerging topics. This process, known as *member checking*, allowed uncompleted information to be obtained and consequently improved the validity of the study.

5.3.7 Stage 7: Survey

Subsequently, an online survey was conducted, in collaboration with the *Colegio de Geologos de Chile* and the *Asociacion de Enologos de Chile*. An email was sent to members of their mailing lists (approximately 500 and 700 members respectively), inviting them to answer an online questionnaire. The invitation included information about the author, the educational institution endorsing the research, and ethical aspects such as anonymity and the academic use of the data (see appendix III). In the case of oenologists, it also specified that the questionnaire should only be answered by oenologists working (or looking for a job) in a cellar, in winemaking functions, as qualitative data from the previous interviews clearly showed that they can work in highly diverse functions. This particularity was not found in the case of geologists. After the 'invitation email' the questionnaires remained on the system for about six weeks.

In all, 132 questionnaires were completed, 78 by oenologists and 54 by geologists. Out of the 78 completed by oenologists, 61 were considered valid. Of these, 5 were unemployed oenologists, 10 were independent or entrepreneur oenologists, and

46 were oenologists working as employees in wineries. Based on the classification of firm size used by the European Commission (<http://ec.europa.eu>), 24 (52.2%) respondents were working in micro or small firms; 17 (37.0%) in medium size firms; and 5 in large firms (10.9%). There were 17 women (37%) and 29 men (63%). In terms of labour experience 16 (34.8%) oenologists had 0-5 years experience; 22 (47.8%) had between 6-10 years experience; and 8 (17.4%) had 11 or more years experience. The experience categories were designed to ensure a similar number of people in each group. More experienced oenologists were underrepresented in the survey, but it is not clear why.

Three problems seriously affected the execution of the survey. Firstly, the time taken by the University of Liverpool Computer Service Department to upload to the online survey to the internet was considerably longer than expected, making it impossible to use the survey as a mechanism for accessing potential interviewees, and forcing the researcher to use a 'plan B', a technique called 'snowball' in the case of oenologists, and a formal access request to one organisation in the geology business, in the case of geologists. A second problem arose when the online survey was already on the internet, but was unavailable for a number of days, just at the moment when the geologists' association sent out their 'invitation email', presumably denying access to potential respondents. A third, and more serious problem occurred when the online survey finished and the Computer Service Department sent the researcher a file with about 60% of the data missing, including all the questionnaires from geologists and seven from oenologists. The loss of this data led to the research being re-addressed towards only one group of knowledge workers: oenologists.

5.3.8 Stage 8: Analysis of the data

5.3.8.1 *Data from the interviews:*

If anything is apparent about the analysis of qualitative data, it is that it is far less clear and far more ambiguous than quantitative data (Hussey & Hussey, 2007; Bryman, 2004). One consequence is that there is no consensus on which

techniques should be used to analyse qualitative data. In comparison with quantitative data, the analysis of qualitative data starts when the data is collected, and the process is much more interactive and flexible. Instead of a clear and predetermined analytical process, qualitative analysis is more similar to a jigsaw puzzle which has to be completed, sometimes without having all the pieces (Saunders et al., 2007).

In this research, the analysis of the qualitative data started at the time of the interviews. Thus, although an interview guide was used initially, later interviews also included relevant issues emerging from earlier ones. Thus, some questions were omitted or changed as they had no relevance in the specific context of oenologists, and sometimes other questions emerged as key aspects for the research. This flexibility gave the researcher the opportunity to explore several issues that were not previously included and opened up the opportunity for an inductive research process.

Following the most common advice on qualitative research (for example, Robson, 2002; Saunders et al., 2007; Bryman, 2004), the interview data was analysed by examining the oenologists' stories, point of views, opinions and experiences in relation to their workplaces and careers. Then, significant units (words, sentences, paragraphs, etc.) were identified and grouped according to the main categories drawn from the literature. The same process was carried out with the interviews with non-oenologists (journalists, students, etc.). The analysis aimed to describe their careers and their experience in organisations, attempting to recreate the world from their own subjectivity. The analysis was focused on understanding the meanings given by the actors, in their cultural context, and the feelings behind their narratives, with the aim of finding original patterns, 'common realities' and, at the same time, 'relevant differences' between them. Likewise, special emphasis was placed on finding new relationships between variables, whether or not these had previously been included in the theoretical framework. In this sense, both the interview and the analysis sought to describe typical characteristics relating to knowledge workers as well as 'seeing beyond' existing theories.

5.3.8.2 *Data from the survey*

As was mentioned above, the main type of data collected was in the form of yes/no answers, which is descriptive (dichotomous) data. Hence, it is not possible to define the category numerically or to rank it (Saunders et al., 2007). Instead, this type of data can only be described in its frequency. Originally, it was planned to use this data only to describe the frequency of knowledge workers' satisfaction with HR practices in their firms, but, after a first analysis of the qualitative data, it was considered worthwhile to categorise it by attributes such as sex, experience, and size of firm in a cross-tabulation. In the case of sex, several 'problems' were detected in relation to labour relations, which suggested that a gender perspective could contribute to a better understanding of the situation. In the case of experience, the qualitative data showed that there were relevant differences between assistant oenologists and chief oenologists, so this categorisation was included as well. Finally, the size of firms was found to be very important, as it could dramatically shape the way in which HRM was carried out. Thus, contingency tables were produced, giving the frequency (and percent) of 'yes' answers for a number of HR variables according to sex, experience, and firm size.

Multi-response questions were also tabulated and analysed, and their frequencies (and percents) were given in tables. This category included, for example, questions about studies, language skills, and recruitment methods. Likewise, numerical data was also requested in some questions, for example the number of times that oenologists changed jobs in the last six years⁵. In this case, it was possible to express the central tendency by calculating the mean and standard deviation. In addition, open-ended questions, such as 'name the three main problems that you face when carrying out your job', were also tabulated, but, as opposed to the structured questions, here the number of variables collected was the same as the number of different responses to the topic. The analysis consisted in grouping all

⁵ Six years was decided arbitrarily after the pre-test, based on the number of times that people there said that they changed their jobs.

the 'problems' mentioned according to their similarity, and then sorting them by frequency.

Although the data obtained from the questionnaire came from a non-probabilistic sampling, which makes the answer less representative and its generalisation consequently more problematic, the quantitative data obtained gave an initial understanding of the degree of satisfaction of oenologists in relation to their working conditions and HR practices. This data was compared with the qualitative data, in some cases confirming it and in others challenging it.

One particularity of this survey was that it was 'completed' more than one year after it was started. This is because a second stage was conducted later as a consequence of a perceived gap in the research design in relation to the meaning of the term 'trust'. The presentation of preliminary findings at two academic events, and the feedback received there, made it evident to the author that it was necessary to clarify exactly what 'trust' means in Chilean culture. Although trust is a complex concept by nature, this second stage of the survey aimed to give at least an idea of what trust means in Chile. Thus, an email was sent to all those participants (oenologists) who expressed a willingness to collaborate with the research in the future. Twenty four emails were sent to these oenologists, containing six open-ended questions on the subject of trust. Six completed questionnaires were received (see appendix II). These were analysed and then summarised in chapter 8.

5.4 RESEARCH LIMITATIONS AND ETHICAL ISSUES

Reliability and validity are two fundamental aspects of scientific research. On the one hand, reliability refers to '...the extent to which your data collection techniques or analysis procedures will yield consistent findings (Saunders et al., p. 149), and is generally understood as meaning that it should be possible to reach same findings if the same method is applied at a different time, or if the research procedure is conducted by another researcher. Validity, on the other hand, refers to 'whether the findings are really about what they appear to be about' (Saunders et al., p.

150). The degree to which a research study appears to be reliable and valid determines its credibility.

Although there is relative consensus on what constitutes validity and reliability in the context of the natural sciences, in social science these concepts are much more controversial and problematic. This problem also has consequences as to what extent social research findings can be generalised. This is particularly true in qualitative and flexible design research (Robson, 2002; Bryman, 2004; Silverman, 2006). Reliability of qualitative research is still controversial, with authors even suggesting that replicability is very difficult in studies of this type, as social reality is always changing (Bryman, 2004; Hussey & Hussey, 1997).

Qualitative research can be seen as a result of the interplay of the description of the phenomenon, its interpretation, and the theory (Maxwell, 2002 in Robson, 2002). In this process, researchers are threatened by several problems which can undermine the validity and reliability of their research, for example, inaccuracy of the data, research and/or respondent bias, taking data as 'self-evident', lack of reflexivity about the interference of the researcher in the study, poor samples, research naivety, etc. However, it has been suggested that both reliability and validity can be attained, for example, by training of interviewers, pre-testing the interview guide, using fixed-choice answers, and low-interference descriptions, etc. (Silverman, 2006). In addition, researcher reflexivity, triangulation, peer evaluation, member checking, flexibility, good listening, lack of bias, and transparency, among others, can help to improve the credibility of the research findings (Robson, 2002).

This study attempted to avoid the common problems of social research as mentioned above by applying diverse measures to ensure the validity and reliability of the research. At the description stage, all of the qualitative data was recorded, avoiding the problems of 'anecdotalism' and of selective memory on the part of the researcher. At all times, an attempt was made to understand the underlying causes behind individuals' stories and to establish common behaviour patterns among interviewees. In this sense, flexible design was fundamental to adapting the original

interview guide to 'reality', as new patterns of interpretation emerged. The researcher's previous experience as an interviewer helped to avoid nervousness and lack of confidence during the interviews.

In addition, access to the interviewees (in the case of oenologists) was made by the 'snowball' method, involving trust relationships between the person who provided the 'new contact' information and the 'new contact' her/himself, automatically generating a better 'starting point' in establishing a *rapport* between interviewer and interviewee, and hence, improving the quality of the data obtained/provided. Also, face to face interviews, generally outside the workplace, helped to create a better atmosphere, which contributed to a more open and sincere conversation. Presumably, the fact that the interviewer was a 'doctoral student' from a highly prestigious university provided better access to 'gatekeepers' in knowledge workers' associations and to the interviewees themselves. However, as was mentioned above, the 'snow ball' method inevitably introduces a certain degree of bias in the sampling and, consequently, in the data collected and research findings. Finally, initial ethical statements at the beginning of both the interview and survey may have helped to create trust in the researcher and the purpose of the research, and hence improve participation.

Additionally, in the survey, the validity of the questionnaire was assured by doing a double pre-test, and consequently creating an understandable, culturally, and contextually appropriate set of questions, as well as an introduction and instructions for completion. In addition, the fact that the 'invitation email' was sent from the geologists' and oenologists' associations respectively presumably increased the number of answers, as the senders' email address was 'familiar'.

In the interpretation process, several measures were taken in order to avoid biased interpretation. To start with, triangulation was applied by constant comparisons between the data provided by the interviews and that provided by the survey. In those cases in which the findings were inconsistent an alternative explanation was explored. In addition, the interpretation of the data was made bearing in mind the

biases mentioned in the reflexivity statement, reducing the blind-spots of the observer (researcher). Also, regular peer reviews were carried out in order to detect research weaknesses, by attending academic conferences, informal chat in the Management School, and attending meetings for doctoral students. For example, the concept of trust in Chilean culture was explored as a consequence of these experiences. Finally, possible bias and misunderstanding were checked thanks to regular contact with two key informants, with whom the researcher kept in regular contact after the interview stage. They not only answered questions related to particular issues which emerged during the data analysis, but were also asked their opinions about the core arguments developed in this research, such as the behaviour of oenologists in the network, and the way in which recruitment was carried out.

Nevertheless, it is inevitable that the analysis of qualitative data and its interpretation were affected by the personal judgement, prejudices and values of the individuals. All types of research, but research on human matters in particular, are strongly affected by subjectivity; therefore this research does not aspire to be value-free. In this sense, it is important to recognise that this research is influenced by the researcher's subjectivity, in the first place, the interviewees, and the time and context, and hence its generalisable capacities are limited. However, the research method used was the most reasonable considering access restriction, time constraints, and theory limitations.

Finally, several ethical considerations were discussed between the author of this research and his supervisor in 2006, before the fieldwork took place. It was concluded that the data collection, and the research in general, did not threaten ethical conditions such as participant dignity, self-determination, and right to privacy (Robson, 2002). The research fulfilled all the requirements described in the University code of ethics for research in 2006. At the fieldwork stage, participants were recruited on a voluntary basis, and an accurate description of the research was given. The study was introduced to participants as related to personnel management practices in the winemaking/geology business environment. They

were also informed of the research objectives, purpose, commitment to confidentiality and anonymity, and how the data would be used. Additionally, after the interview, all the participants were offered further information and details if they wanted. In the case of the participant associations, the researcher also gave them a full description of the research and committed to providing them with a summary of the findings when the study finished.

5.5 CONCLUSIONS

In this chapter the process and criteria used in the research design, the collection of data, and its analysis and interpretation was described. Given the exploratory character of this research, a multi-strategy research approach was adopted, in which the phenomenological paradigm was prevalent, and in which quantitative data was used as a complement. As a consequence, the research focused on the meanings given by the individuals, as well as their feelings about their experiences, rather than trying to grasp an 'objective' reality. Eighteen interviews with oenologists were carried out in 2006, and a survey was conducted in 2007. On the one hand, the analysis of qualitative data was made according to the inductive criterion, identifying common views and experiences among the interviewees and creating new theories to explain phenomena, when existing theories did not accurately describe them. On the other hand, quantitative data from the survey described participants' degree of approval or disapproval with HR practices. Several measures were taken in order to validate the research, the most important being questionnaire pre-tests, triangulation between qualitative and quantitative data, and reflexivity. Although the research is restricted by the subjectivity of the researcher and other factors mentioned in this chapter, and the fact that is limited to a particular context, this research is a valuable contribution to a barely explored subject.

6 THE MANAGEMENT OF KNOWLEDGE WORKERS IN THE CONTEXT OF DEVELOPING COUNTRIES: THE CASE OF CHILEAN OENOLOGISTS

Abstract

The purpose of this chapter is to describe Chilean oenologists from the perspective of knowledge workers. It was found that there is little research in relation to knowledge workers and that the existing literature only explores specific aspects of the subject. Secondly, it was found that Chilean oenologists fulfil most of the characteristics of knowledge workers as described in the literature. Thirdly, surprisingly, oenologists refused to be considered responsible for a successful wine, and, instead, mentioned the quality of the grapes, the marketing strategy, and even 'celebrity' oenologists' image management as the main reason for the success. Fourthly, it was found that oenologists do not work in isolation, but together with a number of other knowledge workers. Finally a new typology of knowledge workers is suggested.

6.1 INTRODUCTION: THE CHILEAN WINE INDUSTRY

Chilean wine can be considered one of the most successful businesses in Chile. According to the International Organisation of Vine and Wine (www.OIV.com) in 2006, Chile was ranked tenth of the leading wine producing countries, and in 2003 it was the fifth largest exporter in the world (www.wineofchile.org). In 2004, wine was fifth in the ranking of most exported products from Chile and also second in non-mineral exports (www.prochile.cl). In the UK, one of the most important

markets for wine exporters, Chile increased its sales by 25% in 2007, overtaking Spain to reach sixth place, and this year its sales are expected to exceed those of South Africa (Hickman, 2008). In the current global wine market, Chile is seen as one of the most important producers.

The success of the Chilean wine has been exciting not only for its profits, but for the fact that wine is not entirely a commodity (Dell' Orto, 2002; Lacoste, 2005). Wine production has been considered as having two aspects: the production of raw materials such as grapes, and the industrial production of wine, including linked economic activities such as the manufacture of bottles, corks and labels, and so on. In addition, the production of wine involves a considerable amount of knowledge from a diversity of professionals and skilled workers, which is applied to all parts of the process, and is critical for a wine to be successful in the market. Also a number of sales and marketing experts participate at different stages in the process. This particularity of the wine industry, of involving more than the exploitation of natural resources, has led to it being labelled an 'emblematic industry' (Lacoste, 2005) and a symbol of the country's economic success (Del Pozo, 1998). The achievements of the Chilean wine industry are such that it has been suggested that it is changing the country's identity (Lacoste, 2005).

At the centre of wine production is the winemaker or oenologist. This expert is currently considered the most critical worker in the creation of a high quality wine. To some extent, she/he could be metaphorically called the "rainmaker", because they are the main person who organizes, coordinates, and combines all the elements to obtain the best possible wine from a particular quality of grape. Some of the most common activities of an oenologist involve a close working relationship with the viticulturist, including permanent monitoring of the grapes, supervision of many procedures such as crushing, pressing and filtering, and the testing and tasting of wine during the different phases of the maturation process.

6.2 THEORETICAL BACKGROUND

6.2.1 Knowledge workers and HR practices

While knowledge workers and their management were described in chapters 1 & 3, in order to analyse the work of oenologists under the prism of these theories, it is important to bear in mind some of the most relevant topics in the current debate.

In the last decade the concept of the *knowledge worker* has become very popular in the management arena. It was first introduced by Drucker in 1959, and was described by him as '*...the man or woman who applies to productive work ideas, concepts, and information rather than manual skill or brawn*' (Drucker, 1969, p.247). However, it was not until the 'nineties when the concept gained popularity among experts.

In the literature, the characteristics most frequently mentioned are: (Newell et al., 2002; Drucker, 1975; Drucker, 1994; Harrigan & Dalmia, 1991; Pyöriä, 2005; Horibe, 1999; Davenport, 2005; Hislop, 2005; Amar, 2002; Frenkel, 1995; Scarbrough, 1999)

- Knowledge workers are highly educated and experienced
- They use knowledge as the main resource in their work
- The work they do is complex, not structured and not routine
- They are intrinsically motivated and highly committed
- The management of their identities is a very important factor of their work
- Continuous learning is an essential part of their work
- They belong to and actively participate in networks
- Trust plays a critical role in their work

6.2.2 Knowledge workers and HRM in the wine industry

As discussed in chapters 1 and 2, the knowledge worker concept is relatively new and still in an early process of development. For that reason, it is surprising that the concept has already been used in the academic literature to refer to oenologists and, moreover, in research carried out on the Chilean wine industry. Investigations on knowledge workers have been conducted in relation to networking and knowledge transference in the wine industry (Giuliani, 2003); to oenologists' loyalty and turnover (Hojman, 2007), and to management practices in winery firms (Kunc, 2007). Additionally, Perez Arrau (2006) and Perez Arrau & Eades (2008) presented an initial approach to describe oenologists' work from the HRM and knowledge worker perspective. However, further research and discussion is still necessary to understand the complexity of the concept and its implications. There are many questions that have not yet been answered. For instance, one needs to know whether oenologists are, indeed, knowledge workers as portrayed in the literature, what kind of HR practices are usually applied to them, and whether those practices fit with how, in theory, knowledge workers should be treated by the firm. Finally, and considering that Chile is a developing country, in what ways does national culture and society shape the way in which those knowledge workers are managed?

In contrast to the concept of knowledge worker, people management issues have received much more academic attention; however, in the agricultural sector in particular, both topics appear to have been neglected. This is particularly noticeable in the wine industry field, where research on personnel management is frankly very rare. One possible reason for this situation is the fact that, although large corporations do exist in the wine producing sector, a significant number of the firms are actually small businesses, where formalisation and highly developed HRM systems are seen as unnecessary (Kidwell and Fish, 2007). In addition, a large proportion of these firms are family businesses, in which personnel issues are generally subordinated to family ones (Pedraza, 2003; Thach & Bynum, 2004), and where owners are generally reluctant to adopt modern people management

practices (Kidwell and Fish, 2006). One should also note that wineries work with a large number of part-time and seasonal workers, sometimes working through an agency (*contratista*), a situation that may mitigate against the implementation of long-term HRM initiatives (Thach & Bynum, 2004). Other unique aspects of HRM in the wine industry, suggested by Thach & Bynum (2004), are the generalised problems of turnover in some specific posts, peculiarities of the rewards system such as creative perks and special bonuses, and the importance of networks in recruitment (Thach & Bynum, 2004). However, it must be noted that these observations have not yet been empirically supported.

On the other hand, there is a considerable amount of evidence to support the importance of social context in the implementation of HR practices. National culture, economy, politics and legislation, along with national institutions, shape the scenario in which organisations have to operate, and they have a significant impact on organizational performance (Özbilguin, 2005; Calveley, 2005; Girgin, 2005; Geringer, 2002; D'Iribarne, 1991). It is generally accepted that Western HRM policies and practices cannot be applied universally without the consideration of local particularities. However, there is a scarcity of literature on HRM in the international context (Mandonga & Kanungo, 1996; Geringer et al., 2002; Kamoche, 2001; Huo et al., 2002; Clark, 1999), with Latin America in particular identified as one of the least researched geographical areas (Özbilguin, 2004).

As was discussed in chapter 4, research carried out in the last decade has found that Chilean HRM and organisational culture are mainly characterised by *paternalism* (Rodriguez y Rios, 2007; Rodriguez et.al, 1999; Rodriguez et al., 2005); *inconsistency* (Hojman & Perez Arrau, 2005); *authoritarianism, fatalism, pessimism, conservatism, male chauvinism ("machismo")* (Lehman, 2003; Hatum, et al., 2006), *legalism* (Gomez, 2001; Gomez & Rodriguez, 2006); *lack of trust, short-term planning, individualism* (Valenzuela & Cousiño, 2000; Rodriguez et al, 1999; Rodriguez et al.2005, Salazar et al., 2003); *a culture of fear* (Rodriguez et al. 1999; Perez Arrau, 2008; Schurman, 2001), several forms of negative *discrimination* (Rodriguez & Gomez, 2001; Perez Arrau, 2008; Mauro, 2004); *traditionalism*

(Salazar et al, 2003); and decisions *led by personal links* ('*compadrazgo*', '*pituto*') instead of rational thinking (Gomez, 2001; Gomez & Rodriguez, 2006; Barozet, 2006).

Additionally, the Chilean organisational context has been characterised as very *unequal* in relation to the qualities of jobs, from the high quality top positions to low skilled employment at the bottom of the organisational pyramid (Lear & Collins, 1995), and from the variety of resources in the large organisations to the well-known financial difficulties of small firms, with the latter identified as situations where employees have less opportunity to develop a satisfactory career (Salazar et al.2003). Additionally, Chile has been identified as a country with one with the highest national average working hours, whilst still not being one of the most productive (Perez Arrau, 2008). In some specific sectors, researchers have identified as relevant the lack of formal HR practices such as work assessment and career management (Acuña, 2005). Finally, the Chilean business context is characterised by low union affiliation, in the context of the political legacy, cultural and economic changes in the last decades, and the large proportion of temporary workers (Drake, 2003; Pedraza, 2003).

Additionally, in the specific context of the agriculture sector, researchers have found that, although labour conditions have improved in the last three decades (Schurman, 2001), informality, paternalism and the logic of social links are still a strong presence in the HR practices in the sector. These traditional methods of managing to coexist with more modern techniques, in a context in which HRM departments are fairly rare (Vargas & Paillacar, 2000; Vargas et al., 2002; Pappelenbos, 2005). Inequalities are significant, with the existence of flexible and precarious female jobs ('*temporeras*') in the fruit export sector (Barrientos, 1997) and deficient working conditions of rural wage labourers (Matear, 1997), in a context in which dependency is endemic (Kay, 2002). Deficiencies in planning, training, and incentives have also been identified as features of the agriculture sector (Pedraza, 2003). However, most of these investigations are related to the

agricultural labourer classes, whilst the professional in the agriculture sector has been rarely considered.

In the case of the Chilean wine industry, there has been very little research into HR practices. This seems quite surprising considering the importance of the wine industry in Chile today. An article published on a specialist wine industry website identifies the lack of education and training amongst 'shop floor' workers as one of the problems undermining the competitiveness of the national wine industry at the present time (www.vendimia.cl, March-April, 2004). There, illiteracy and reading problems in understanding work related documents are described as two of the main difficulties with the current labour force, where 35% of the workers did not complete even a basic level of school education. In this article, the most educated workforce is not mentioned, as if there are no problems with regard to their management.

The lack of research on HR practices is possibly even more peculiar in the case of oenologists, who have been regarded by the international media as having the main responsibility for the quality of wine, and have been seen as 'celebrities' in the business environment of the country (Hojman, 2007; Thach & Bynum, 2004). On the contrary, the literature on HRM policies and practices in relation to the management of oenologists is almost non-existent, being only indirectly approached through subjects such as knowledge management or labour economy (Guilliani, 2003; Kunc, 2007; Hojman, 2007). However, Chilean oenologists are not the only nationality in this position, the lack of research about how these particular professionals are managed by firms is universal. For example, if we type the words "oenologist" and "HRM", or "winemaker" and "HRM", in the well-known academic search engine Google Scholar, in November 2008 the result in both cases is no more than a dozen, being many of them only marginally related.

To summarise, wine is a major economic product of Chile and represents an important source of jobs and income for the country, and oenologists are seen as central to wine production, but there is little research about these "knowledge

workers" and, in particular, how are they managed. Considering the increasing demands of, and for, quality and innovation in the wine business sector, and the increasing competition in the market, more research about their management, and particularly issues related to performance improvements, would seem to be overdue.

6.3 ARE CHILEAN WINEMAKERS KNOWLEDGE WORKERS? : EVIDENCE OF 'KNOWLEDGE WORK'

As we noted earlier, the first question to be answered is whether or not Chilean oenologists can, in fact, be considered knowledge workers. This is a not a trivial question given the fact that all the theory on knowledge workers so far has been created in developed countries for the developed world. It is not clear whether the same kind of social transformation, in which knowledge is central, is happening in poorer economies, where sometimes firms are more concerned with survival and the exploitation of commodities rather than developing high technology.

Based on the data from the interviews, it was found that Chilean oenologists fulfil most of the criteria to be considered knowledge workers. They are well educated and experienced; their working tasks are complex, unstructured and changing; they are highly committed to their work; continuous learning is essential for their work; they actively participate in networks; and they are socially recognised as the core of the business.

One of the most important criteria for knowledge workers fulfilled by oenologists is that they have had a long formal education. To become an oenologist in Chile, one needs to hold a relevant degree (*Ingenieria agraria*), which, in Chile, involves at least 5 years of university studies. After that, one must take an examination in order to be granted the title of 'oenologist' by the *Asociacion de Enologos de Chile* (Oenologist' Association of Chile). It is not possible to make wine for profit without this qualification in Chile (at least not as a chief oenologist). In the sample studied, many oenologists took postgraduate courses both in Chile and abroad (Table 6.1) and most of them described their command of a second language as intermediate or high level (see Table 6.2), whilst only 2% of the general population can speak

English fluently (Revista Capacitacion-SOFOFA, 2006). Thus, in the context of Chile, they can be considered amongst the most educated people.

Table 6.1 Oenologists' education

Oenologists' education (n=46)	
Graduate course (complete)	46 (100%)
Short course of specialisation in Chile	26 (56.5%)
Short course of specialisation abroad	4 (8.7%)
Postgraduate course in Chile	1 (2.2%)
Postgraduate course abroad	8 (17.4%)

Table 6.2 Level of Proficiency in languages

Level of Proficiency in languages (n=46)			
	ENGLISH	FRENCH	GERMAN
Advanced	22 (47.8%)	9 (19.6%)	1 (2.2%)
Intermediate	18 (39.1%)	3 (6.5%)	0
Basic	6 (13.0%)	15 (32.6%)	1 (2.2%)
None	0	19 (41.3%)	44 (95.7%)

Apart from this technical knowledge, a winemaker needs a lot of experience. All the interviewees agreed that experience is an essential determinant of an oenologist's performance, and also that the main source of improvement for an oenologist is trial and error. For example, the development of taste sensitivity is fundamental in achieving the exact blend of wine, and experience is also fundamental in predicting the behaviour of a particular type of grape in different environmental conditions. According to one interviewee, an oenologist can take several years to find the 'perfect balance' of elements and factors needed to produce a high quality wine in a particular place. Moreover, the importance of experience is reflected in the fact that vineyards are willing to hire consultants to improve their production, thus buying in expensive yet crucial "experience" as necessary. In our sample, 20% and 50% of respondents pointed out that their firms buy the services of a Chilean or foreign consultant respectively.

The working activities of the oenologist can be described as highly complex. Modern wine production involves a wide range of activities, requires interactions with many people and with the environment, and depends on dynamic interwoven factors. In addition, each part of the process uses sophisticated technology, which is constantly changing. Moreover, their work involves supervision of others, collaboration with marketing professionals, working together with viticulturalists, organising wine tasting events for potential customers, and keeping up-to-date with the latest developments in the wine industry. Although the craft production of wine was based on the traditional knowledge transmitted by generation after generation of farm workers, the modern industrial production and commercialisation of wine require more sophisticated techniques. For example, the current mass production of wine involves not only knowledge about oenology, but also production planning, global marketing, wine media, distribution, sales, financial issues, wine supply chain, the legalities of wine production, and the no less important subject of human resources management (Thach & Matz, 2004). Lately, environmental issues and quality certification have been added to the list of issues that oenologists should be familiar with.

Oenologists have to become adept at solving problems under stress. In particular, during the harvest period, oenologists have to consider every aspect of the production process, and must ensure that all the necessary resources are available when they are needed. For example, if rain is forecast, they have to be ready to harvest the grapes as soon as possible. One of the interviewees compared his work to that of a GP, stating that: *'the oenologist is like a medical doctor in charge of a very fragile patient, and the oenologist has to be ready and there in case the patient has any complications'* (X1). Thus, oenologists have to monitor the wine constantly, in order to detect any anomaly or problem. They must then analyse the symptoms to obtain a quick and certain diagnosis, and seek a fast solution. To fail in this work means that the wine could be ruined and thousands of litres of wine could literally be sent down the drain. But, as with medical doctors, diagnosis is not always simple, and requires a great deal of knowledge and experience, as well as intuition.

According to our findings, oenologists are also very motivated and highly committed. They described wine as *'a passion'*, which they were constantly seeking to perfect. Although the degree of *'passion'* was different for each interviewee, the main trend was people expressing satisfaction or great satisfaction in making wine. One of our interviewees said *'I am happy making wine; to choose this profession has been the best thing ever to have happened to me'*, another oenologist said *'...you feel very happy when people like your wine, when they buy it, when they call you to say your wine is good, I really feel happy with that... independently of what it means in terms of money'* (X2). Another pointed out: *'...for me it is exciting to think that every 3 seconds somebody in the world is drinking one of our bottles of wine!* (X4).

Along with that, oenologists' work was described as very hard, especially during the harvest, when the vulnerability of the wine necessitates a zealous vigilance and intensive care. At that time of year, oenologists have long working days in the cellar and have to be constantly watching the process. Work commitment is essential during the harvest, as a failure in supervision can be devastating to the wine. The findings suggest that work commitment is very high amongst oenologists, with most interviewees accepting these demanding conditions despite the high personal cost. For example, it was found that when a knowledge worker decides to leave her/his job, they usually negotiate and programme their leaving, in order to avoid harming the wine.

As was mentioned, the wine business environment is always changing, whether in terms of process or product. In this context continuous learning is a real necessity for oenologists. According to our interviewees, there is always something relevant to learn with a direct relationship to their job. For example, new materials, machines, discoveries in microbiology, etc. are constantly coming out. The most common methods for updating knowledge are the oenologist network, colleagues in the same company, presentations by suppliers, short university courses, etc. Additionally, and due to the perfectionist spirit of oenologists, they are willing to leave a job when they feel that there is nothing new to learn in a particular firm.

Contrary to the idea of salary as a pivotal aspect of their decision to remain in a job (Hojman, 2007), learning seems to play an even more important role, as some of our interviewees said that they had left stable and well-paid jobs for new ones in which they saw better opportunities to learn.

They also actively participate in networks. They meet other oenologists, in formal or informal events, and talk about their wines, exchange experiences, taste their wines, and express opinions on them. This finding confirms Giuliani's research on the networks in Colchagua Valley, in which she found highly cooperative links between oenologists. According to the data collected, this phenomenon is present both in boutique and 'in bulk' wine production, not only in Colchagua Valley but across all the wine regions. These networks apparently have a social character but they go beyond this, since they are useful for learning purposes and for accessing better job opportunities. Networks also create a sense of belonging and shape their identities. In the interviews, professional networks were mentioned as the main source of information when a problem needed to be sorted out quickly, for instance, when a reliable opinion on a particular ingredient was needed. They also play an important role in recruitment and selection activity, since they provide an efficient way to contact candidates and obtain an accurate assessment of their abilities. According to the survey, colleagues were the main source of access to new jobs (see Table 8.1, Chapter 8). Networks also provide a sense of identity and a feeling of belonging to a social group, and allow oenologists to establish professional connections for the future.

In addition, oenologists are socially recognised as knowledge workers, which could be a factor in the creation of their identities. National and international customers, agricultural workers, specialist journalists and employers acknowledge them to have special talents essential in producing quality wine. Some of them are 'celebrities' (Hojman, 2007; Thach & Bynum, 2004), having been mentioned in the specialist media, their names are printed on wine bottles, and their average salaries are considerably above those of other professionals with similar qualifications in Chile (see chapter 8). In addition, inside the organisation, they are seen as having

the principal responsibility for the wine production, and are treated by the rest of employees, including managers and vineyard owners, with 'special consideration'.

Finally, Chilean oenologists possess one of the typical characteristics of knowledge workers, which is being a scarce 'resource' in the labour market (see chapter 8). Previous research has shown that oenologists are scarce in the labour market as a consequence of the rigid supply of graduates from universities plus the sharp increase in production in the last two decades (Hojman, 2007). Although the exact rate of employment and unemployment in the specific field of oenologists is not known, it was possible to identify examples in which young oenologists found their first job very easily. One of our interviewees, X14, had two years' experience as an assistant oenologist, although she had not yet achieved her *Asociacion de Enologos* certification. She had worked in a small size family winery for two years, as a main oenologist (the owner of the winery, also an oenologist, was formally the oenologist in charge of production), when she decided to change her job to her current post as assistant in a medium size winery. Her career is interesting for this research, both because she found a job without having a proper 'certificate' as an oenologist, and secondly, the fact that she got a post as a chief oenologist without significant experience. Likewise, X1, X4, and X9 were employed by their firms after time as an apprentice. Thus, the fact that X14 was employed without the traditional requirements and experience, and the fast absorption of the new oenologists in the labour market, suggests the scarcity of oenologists in the context of Chile.

6.4 ARE OENOLOGISTS KNOWLEDGE WORKERS? THE OENOLOGISTS' PERSPECTIVE

Despite the massive evidence that oenologists do what we understand to be 'knowledge work', a surprising finding was that most of the oenologists interviewed think that the quality of the grapes is the most important factor in the quality of the wine, and that the contribution of the oenologist is only marginal. The merit of oenology, they suggest, is to make the most of the potential of a particular class of grapes, as even the best winemaker can do little with a bad quality input material.

For instance, one of the interviewees said, probably overstating his argument: *'we actually do nothing! ... the quality of the grape is everything'* (X8). In this regard, another oenologist pointed out that: *'...today there is no secret to oenology...everybody knows everything...we use the same machines, the same production ingredients ...80% of the quality of the wine comes from the raw material: the grapes...the role of the oenologist is to ensure that the quality of the grapes is reflected in the quality of the wine'* (X9). This finding is consistent with Giuliani's (2003) conclusion referring to the fact that, in the wine industry, the mere transference of knowledge, techniques, materials and equipment from one winery to other does not necessarily produce the same result.

Another claimed that: *'... the secret of a superb wine is that it comes from a very good grape, nothing else'* (X4). The fashionable concept of *terroir*, popular amongst oenologists, represents the importance of environmental factors such as climate and soil on wine quality. Even when they were asked to explain the success of famous oenologists, one of the interviewees said: *'well, they are undoubtedly good, but it also has to be borne in mind that they work with the best quality grapes'* (X11). Therefore, the view given by most of the Chilean oenologists interviewed is that the main determinant of a premium quality wine lies in the environmental conditions, rather than in the knowledge of the winemaker!

In addition, they also pointed out the critical role of marketing in the success of a particular wine, and how that limited their creativity. Above a minimum quality, they said, the perception of a wine's quality is not necessarily objective, since the appraisal of its quality will depend on the consumer's expectations and likes. For example, a wine which may be considered as very good in the UK, may not be regarded as such in the USA, and a wine considered a good buy for £5, can be considered not good enough when it is priced at £10. Thus, the marketing department has an essential function in determining what kind of wine will be produced, how it should taste, in what markets it should be sold, and at what price. For example, in a newspaper interview, Aurelio Montes, one of Chile's most important oenologists, pointed out that the key elements of his success were *'...to*

be very honest in the development of my own style of wine, but at the same time, to keep your ears open to what the market tells you and asks of you' (Fredes, 2005). This market-oriented production of the new world producers strongly contrasts with traditional production, in which consumers likes are secondary. To quote a French producer: *'We don't make wines to please consumers. We make wines that are typical of their terroirs'* (Quoted in Aylward, 2005a, p.425).

In addition, the marketing department also have an important role in promoting the wine and in the search for new markets and new business opportunities, since journalists and the media can be crucial in determining a wine's success (Gwynne, 2006). One interviewee said: *'...we are, of course, an important part of the team, but we can't do anything if we do not have a proper distributor...which depends on the marketing director...or if the wine is spoiled because the quality of the cork is not good, etc.'* (X4). Another pointed out: *'...oenologists work with their sensory sensibility, but more and more with their "tongue on the calculator"..."[in the sense that] they can be artists [making wine], but mathematicians when managing the production'* (X17). *'...Oenologists have to make the wine that the customer likes, not the wine that they want to make'* (X17). Therefore, the romantic view of the artistic creativity of the winemaker is severely channelled by rational decisions from the business perspective. Thus, contrary to a argument claiming an inherent conflict between creative oenologists aiming to produce high quality wines against firms trying to increase their profits (Hojman, 2007), this study found that oenologists are very aware of marketing issues, including the critical importance of the customers' likes. Likewise, firms are very concerned about quality, and, depending on their strategy, it can be prioritised over other factors.

Also, consistent with the importance of marketing in the wine industry, the management of the self- image of the oenologist was identified by interviewees as another important determinant of their success. One oenologist pointed out: *'...what makes a oenologist successful is in part a sensibility, but there is also a communicational side...the work of journalists....it is a field which is related to the media, not like a singer or actor, but it has its dimension of marketing. In Chile,*

sadly, we are very far from the market, so we have to 'tell a story' ('vender la pomada') in some way... we have a good product, but why should people buy it instead of Californian or Australian wines? ...so it is like selling a perfume...' (X3). This is consistent with one journalist's comment that one of the most important characteristics of a successful oenologist, apart from making good wines, was to be physically attractive and photogenic (Fredes, 2005).

Social recognition from peers and from within the business environment plays an important role if an oenologist is to become famous. Nevertheless, several interviewees expressed disapproval to the 'celebrity style' of certain oenologists, and, on the contrary, espoused the view that the role of an oenologist is actually rather ordinary. Many very good oenologists keep a low-profile and are relatively unknown outside their field, whilst being equally skilled as the 'celebrity' oenologists.

One interviewee said that: *'there are two types of oenologists: one, that I do not like, has a 'celebrity style'... they think they are 'gods', 'idols'...although it is true that they do have great experience, they think they are 'superior' and feel like an elite, just for doing normal work... to be an oenologist gives you great status in the society....then there is another class of oenologist which is more common, and that I like much more...they work hard every day and get much more done'. '...sometimes when I go to Santiago and people know I am an oenologist, from winery LP...they say wow! ...they can't believe it! [The fact of being an oenologist] gives prestige... and there are many people [oenologists] that really believe that they are 'superior' and use it for their own benefit...well, I don't like that! (X9).*

However, it was also pointed out that this stardom is encouraged by the firms themselves, seeking to promote their wine through the fame of the oenologists. Therefore, although many oenologists said that they do not like the celebrity, both firms and oenologists benefit from it. A consultant oenologist pointed out that: *'...many firms promote the stardom of their oenologist, through marketing, magazines, etc. in order to improve the image of their own brand; for example, it is*

common for oenologists to sign the bottle and the label, and there is a picture of the oenologist...' (X15).

To conclude, this apparent contradiction, with oenologists claiming that the main factor in producing a successful wine is not the oenologists' knowledge and talent, but the quality of the grapes, the contribution of the marketing department, and the role of image management, is no more or less than a reflection of the fact that oenologists are knowledge workers, as their work is complex and involves a number of interwoven factors, and, hence, it is difficult to demonstrate the contribution of the oenologist in a simple way.

6.5 THE WINEMAKING DYNAMIC: MORE THAN ONE TYPE OF KNOWLEDGE WORKER?

Another interesting finding in this research is the fact that oenologists do not work alone, but in close relationships with a number of other employees, some of them knowledge workers as well. When oenologists were asked about their work and how they acquire, share and use their knowledge, it appears that actually they work in teams containing other types of knowledge workers, in which oenologists play the central role, coordinating, communicating and taking decisions. Some oenologists are aware of their team relationships, others, in turn, are not, but recognise the high degree of interdependence between their work and that of these other workers.

Other knowledge workers working with oenologists are:

The consultant, who is also an oenologist, has a critical role in the introduction of innovation in products, process and technology; she/he controls the production process and the quality of the product. She/he is also a permanent support for the oenologist and works closely with them. The consultant is trusted by the firm's owner or its board of directors, and provides information about the performance of the in-house oenology team. She/he also has an important influence on the strategic decisions of the business, such as where to buy land for planting, what type of wine to produce, or which oenologist to hire. The ideal consultant provides

significant knowledge and experience, a global vision of both wine production and the wine business, and can also act as a mentor for the cellar oenologist. According to the data from the survey, 50% of the respondents said that their firm had a foreign consultant and 20% said they had a Chilean consultant. This agrees with Giuliani (2003), who found that 56% of firms use foreign consultants, especially from South Africa, Australia and France.

The cellar manager (*jefe de bodega*) was identified by interviewees as a critical support for knowledge workers. Usually male, with a basic formal education (usually secondary), he will have gained his knowledge through long years of experience, perhaps supported by a few training modules in the workplace. He is likely to have a great deal of tacit knowledge on both wine production and practical issues, and this knowledge is closely linked to the particular context of the organisation for which he works. For example, he will know the exact amount of storage capacity in each cask (which is never precise). Cellar managers have been described as very clever and skilful, and possibly even more importantly, as 100% trustworthy. He is in charge of every physical activity and movement in the cellar, and has to deal with supervision issues, control of materials, hygiene and safety issues, etc. As with the oenologists, he has to solve various types of problem, act quickly, show inventiveness and take responsibility. Learning to become an excellent cellar manager can easily take as long as 5 years, and according to interviewees, they are very difficult to replace. These workers are so critical to the oenologist that one interviewee said '*my cellar manager is like my own eyes in the cellar*' (X1). Moreover, a general manager who was interviewed described a situation in which an oenologist had to leave his job because he had a bad relationship with the cellar manager, and in which the head of the firm settled the dispute by suggesting that the oenologist should look for a new job. For these reasons, many oenologists include the hiring of their own cellar manager as a prerequisite when they negotiate with a new employer. As a result, these workers can earn considerably more than general cellar workers.

The finding that cellar managers can be seen as knowledge workers challenges several of the assumptions in the literature mentioned in chapter 1, such as the need for formal education. However, it is consistent with those who argue that it is not necessary to have a graduate degree in order to be a knowledge worker (Alvesson, 1993), and with those who claim that knowledge work is a discretionary behaviour which everybody can perform in their specific work (Kelloway & Barling, 2000 & Withey, 2003).

In addition, the wine marketing expert, although not necessarily an oenologist, is also a professional colleague. This member of staff is described as a university graduate who works closely with the oenologist, and gives them direction in order that they can create suitable wines for the market. The type of wine to produce, the quantity, and its features, such as wood taste, acidity, sweetness or fruitiness, will be determined according to rational marketing decisions. For example, the increasing production and promotion of *rosé* wines in the world market is a consequence of firms' marketing strategy, seeking to open up new business opportunities, rather than of the 'creative instinct' of the oenologists. In some wineries, this marketing role is played by the consultant oenologist, if s/he is sufficiently knowledgeable. Marketing experts are seen by oenologists as professionals with great knowledge about the wine business and also about international trade. According to the interviewees, it is not unusual for such staff to spend as much as ¼ of their annual working time travelling abroad, promoting the wine, coordinating with distributors, and obtaining information about future business and markets.

In Chile, the viticulturist will usually have a similar formal education profile to that of the oenologist, as both will have an agronomy degree, although with different specialisations. The importance of viticulturists is generally less acknowledged, and they are not 'celebrities' in the same way as some oenologists have become. However, they have a fundamental role as high quality grapes are essential for a high quality wine. They monitor and control the vines and apply several sorts of product to keep the vines healthy and improve their quality. Interestingly,

viticulturists were not generally mentioned by oenologists during the research interviews. Nevertheless, the work of viticulturists has been recognised recently, and oenologists are more aware that improvement in wine quality depends strongly on the quality of the grape (Gwynne, 2006). One journalist interviewed (X13) said *'in the past, the oenologist was always in the cellar and never went out to the fields, so there was a lack of communication between the oenologist and the viticulturist, but now things have changed because the oenologist is asking for a very particular quality of grape, which is exactly the grape he needs for the wine he wants to make... as a result, they are starting to work together. Although in the past the oenologist used to be 'the celebrity', now viticulturists have started to be present in the presentation of the wines to the public...' 'furthermore, there are some vineyards that give great importance to their viticulturists, including them as part of the marketing strategy, in particular in those vineyards that are into organic and biodynamic issues, where the viticulturist is the real celebrity'*. Another interviewee, a consultant oenologist (X15), pointed out that the importance of the role is now starting to be recognised, and suggested that their profile and importance is likely to be raised in the future.

Also, the oenology supplier, whilst not part of the organisation, plays an important role in both the process and the outcome. The main contribution of this oenologist is to introduce the latest technology available (from the firm she/he represents), and, in this way, to update the production process to meet international best practice benchmarks of competence. They provide, for example, wine yeast, large barrels, flavouring woods, machines, etc. The supplier not only brings the latest technology, but also teaches and trains the oenologist in its use. This finding is consistent with Guilliani (2003), who mentioned that suppliers provide technical assistance, training and up-to-date courses to firms. This training role is provided by suppliers as part of their marketing strategy. Moreover, suppliers were identified by interviewees as the main source of training for oenologists, through presentations on issues related to their products.

Suppliers represent international and national technological firms, which have invested considerable resources in R&D, bringing the latest world innovations to the wineries. To give an example of the relevance of suppliers to Chilean wineries, in particular international suppliers, Chilean wineries were the biggest importer of European winemaking equipment in the world between 1992 and 1997 (Duijker, 1999 in Gwynne, 2006). These suppliers are generally oenologists who belong to the oenologist network, so they are also a crucial vehicle for news, information, technical and business knowledge, and even gossip.

Finally, a feature of the Chilean wine business is the strong presence of the owner in wine production, which is also a common characteristic of small organisations in general (Beaver & Hutchings, 2004; Taylor et al., 2004; Hornsby & Kuratko, 1990; Mayson & Barrett, 2006). Due to the fact that most wineries are SMEs, the massive use of low skilled workers, and the low number of management staff, winery owners often take part in day to day management decisions. They are usually very knowledgeable about the wine field, and are highly educated members of the Chilean upper class; some are oenologists, others come from families with a long tradition in the wine industry or other agricultural businesses, and others are successful entrepreneurs in different business areas. In this study, several oenologists described the role of owners as central to winemaking, participating not only in investment decisions, but also defining what type of wine to produce and the target market, etc. Thus, the owner can also be considered to be a knowledge worker and member of the team.

6.6 SUMMARY

To summarise, wine is a major economic product of Chile and represents an important source of jobs and income for the country, and oenologists are seen as central to wine production, but there is little research about these 'knowledge workers' and, in particular, how are they managed. In the agriculture field in general, there is little research into either knowledge workers or HR practices. In the latter, it is generally agreed that small and medium size family business are

prevalent, and that a large proportion of workers in the sector are seasonal workers, making the implementation of HR practices more difficult. In general, the scenario in the agriculture sector is not one characterised by development of its workforce. Considering the increasing demands of, and for, quality and innovation in the wine business sector, and the increasing competition in the market, more research about their management, and particularly issues related to performance improvements, would seem to be overdue.

This chapter has aimed to answer the question of whether oenologists are or are not knowledge workers. It was found that Chilean oenologists have most of the characteristics of knowledge workers described in the literature, consequently they should be seen as knowledge workers. The data showed that Chilean oenologists are highly educated and experienced, engage in work which is complex and non-routine, have to be creative in solving problems and introducing innovation in their work, are highly motivated to learn, belong to knowledge workers' networks, and are socially recognised as knowledgeable workers with a critical role in the business.

Although they have most of the features of knowledge workers, an interesting finding in this research was that oenologists refuse to be considered as such, and instead attribute the responsibility for a wine's success to the quality of the grapes, the marketing strategy, or an oenologists' image management. This finding is contrary to the expected discourse of a knowledge worker, considering the relevance of identity matters to knowledge workers. Several possible reasons were outlined in relation to this.

One finding emerging from the data was that oenologists, as knowledge workers, do not work alone, but with several other types of knowledge worker such as the consultant, the marketing expert, the cellar manager, and the supplier oenologists. Each of them plays a fundamental role in the production of wine.

6.7 DISCUSSION

Although both the quality of the grapes and the oenologists' work are essential for the creation and production of a high quality wine (Thach & Bynum, 2004), many oenologists insist that their contribution is minor, or at least, less important than grape quality. In addition, oenologists stressed the fundamental importance of marketing to the success of the wine, and downplayed their own role. Thus, it becomes apparent that oenologists attribute the success of the wine mainly to external factors instead of the knowledge of the oenologists. However, it is clear that the complexity of their work, expressed in a number of critical factors mentioned by them, is a corroboration of their status of knowledge worker.

Although oenologists recognise the importance of image management and personal marketing to their success, many of them reject the 'celebrity' adjectives given to some of their colleagues. This finding is particularly interesting considering the importance of the 'expert identity' for knowledge workers (Alvesson, 2004). As knowledge work is ambiguous, changing, and difficult to evaluate, the construction of the image and reputation of a 'knowledgeable person' is fundamental to their work. It is difficult to believe that oenologists really think that their knowledge is not important and that the 'celebrity' adjectives given to some famous oenologists are exaggerated. Their superior salaries (in comparison with other agricultural professionals), their privileges within the organisation, and the prestigious environment of oenologists seem to confirm that they feel comfortable with their 'knowledgeable reputation'. Even more, most of the vineyards' owners, who have a strong responsibility for the rise of the oenologists' fame, are people who generally have a strong background in the wine industry, and it is unlikely that they would pay high salaries and give 'special treatment' to oenologists if they were not 'real experts' with 'valuable knowledge'.

The discourse of many oenologists who downplay their real contribution to the production of high quality wines suggests several different plausible explanations. Firstly, a simple reason behind this behaviour might be the 'false modesty' of some

oenologists, as a way to highlight the value of humility which lies behind their fame. Secondly, it is possible that their famous reputation (and consequently high salaries) is part of a deliberate tactic from the producers as a way of increasing the attractiveness of the wine, because, from the point of view of the general public, a 'famous' oenologist would be expected to produce a high quality wine, so both companies and winemakers benefit from this celebration of the oenologist's skills. This phenomenon is quite recent, as in the past oenology used to be a low profile profession. Perhaps the fact that some oenologists are not accustomed to such overexposure in the media leads them to believe that they are not 'celebrities' as they are portrayed. Alternatively, this modesty could be a rational response to the necessity to downplay their importance in the eyes of other members of the team, whose collaboration is vital to the oenologists, since the oenologist's stardom might provoke feeling of jealousy or distance among the rest of team. Fourthly, another plausible explanation could be the traditional 'double standard' in the Chilean working environment, where people say things which they do not really believe, perhaps out of humility or 'fatalism' (Perez Arrau, 2008; Gomez, 2001).

However, an alternative interpretation of the modesty of the oenologists and their rejection of the 'celebrity' style could lie in the fact that they were asked for a spontaneous answer to what can be seen by them as an exaggeration of the attributes and skills and the consideration of their knowledge out of context. This perception is a consequence of the clash between the messages from media trying to highlight 'the knowledge' involved in the production of a wine bottle (especially in expensive ones), versus the particular character of oenologists' knowledge. Contrary to the positivistic view of this knowledge (Chapter 2) in which oenologists have objective valuable knowledge 'in their heads', from the PBV their knowledge cannot be taken out of context, which means the place and moment in which the particular practices of winemaking are carried out. Moreover, as a sensible experience, this knowledge is not objective in nature but related to the aesthetic experience of a particular moment and place, which can even change depending on the situation.

A successful oenologist learns how to make a great wine in a particular vineyard, with their specific vines, the specific climate, working with the vineyard's workers, creating a trustful relationship with the cellar workers and collaborative links with the oenologists and suppliers of the particular networks of the region. Thus, oenologists' knowledge is not universal, but context specific, and they do not know how to produce the best wine possible in any winery, but only in the winery in which they currently work. This is the reason why they do not care about other oenologists knowing their oenology 'secrets'. From the point of view of oenologists, the over-estimation of their skills and the assignation of 'rainmaker' status, without a clear statement of the context in which this can happen, can lead to an embarrassing situation if they are not able to reproduce the high quality of wine in a different place. In other words, they may genuinely not think/feel that they possess such 'valuable knowledge' as has been claimed.

In terms of Polanyi's theory, to learn how to work in an specific context takes several years, and involves a slow process of indwelling of numerous subsidiary elements most of which they are not even able to recall, but which are essential to the making of the wine (focus). Thus, they genuinely do not know all the elements that they directly and indirectly integrate in order to successfully make a good wine, and consequently are neither able to articulate this tacit knowledge, nor to share it with others. The only way to 'transmit' what they know is by means of face-to-face interaction in practice, in the form of an apprenticeship, as mentioned by Polanyi. This may be the reason why, despite the increasing sophistication of the winemaking process, the consultant still has a preponderant role, as their experience cannot be grasped and reproduced in a medium such a book.

Over time, the young oenologists gain the experience and connoisseurship that will give them the 'criteria' and 'wisdom' of the consultants and senior oenologists, and allow them to interpret the signs, symptoms, facts, etc. that they are exposed during the winemaking process. It is for that reason that they said that the only way to learn how to make wine, is to make wine.

Finally, although the mainstream literature on knowledge workers has approached the phenomenon from an individual perspective, the data collected suggests that the responsibility for the creation of a great wine lies not with one oenologist, but with a small number of different knowledge workers interacting over a period of time. They could be considered a group, team or system. According to the data collected, they all play different roles, which come together to make up the whole, thanks to the synergy and the diversity of their contributions to the winemaking. All of them are, in some part of the process, critical to the wine's success. However, the main oenologist is the intersection and the common link between them, so, to some extent, the oenologist's contribution can be considered the most critical. For example, the consultant contributes the experience, the cellar manager the contextual knowledge, and the oenology supplier the latest innovations. They should be recognised as different types of knowledge worker, since they have different functions, participate at different moments, and base their contribution on different knowledge roots. This finding suggests that knowledge worker theory should move from an individualistic approach to a more collective one.

7 HR PRACTICES IN THE OENOLOGISTS ENVIRONMENT: KNOWLEDGE WORKERS' SPECIFIC NEEDS

Abstract

As we noted in an earlier section (chapter 3), this study is focused on two dimensions of the management of the oenologists: knowledge workers' special needs and traditional administrative tasks. This chapter will assess how knowledge workers perceive their working environment related to the 'knowledge workers' special needs', and whether or not it meets their needs as described in the literature. The findings suggest that they perceive their working conditions as suitable, and this is reflected in a high average rate of satisfaction (73.10%). Additionally, important differences were detected depending on the firm's size, and the sex and career stage of the respondent. Finally, it is important to note that although the general evaluation of the knowledge workers' working environment is positive, some special topics were perceived as being deficient. Details of the findings are described below.

7.1 INTRODUCTION

According to the literature discussed above, HR specialists/managers should provide, and keep, the best working conditions for knowledge workers, according to their needs for intellectual activity. In this sense, the role of 'knowledge worker guardian' is perhaps the most important of all. Different from a traditional worker, a knowledge worker needs a high degree of autonomy, flexibility, challenging work, 'special treatment', team quality, and learning opportunities. Failing to provide appropriate working conditions means that the organisation is not maximising

knowledge worker's contribution, weakening their commitment to the firm, and could be putting their human capital at risk.

In the next section it will be argued that, in their work place, oenologists enjoy most of the essential conditions for knowledge work. This argument is drawn from the analysis of the qualitative and qualitative data (See table 7.1), in which they described their working environment as suitable for their creative and intellectual work, although there are still several aspects that could be improved.

Table 7.1 Knowledge workers specific needsby firm's size

Knowledge workers's specific needs by firm's size								
	AUTONO.	FLEXIBIL.	PARTICIP/ EQUALIT	CHALLEG. WORK	TEAM QUALITY	LEARN.ENV SUPERV	LEARN.ENV . TRAIN.	LEARN.ENV INFORMAL LEARN OPPORT.
MICRO & SMALL (n=24)	19	17	18	21	17	16	13	17
%	79.17	70.83	75.00	87.50	70.83	66.67	54.17	70.83
MEDIUM (n=17)	12	13	11	15	13	10	7	12
%	70.59	76.47	64.71	88.24	76.47	58.82	41.18	70.59
LARGE (n=5)	5	5	5	5	4	5	3	4
%	100	100	100	100	80	100	60	80
	36	35	34	41	34	31	23	33
%	78.26	76.09	73.91	89.13	73.91	67.39	50.00	71.74

Table 7.2 Knowledge workers specific needs by sex

Knowledge workers's specific needs by sex								
	AUTONO.	FLEXIBIL.	PARTICIP/ EQUALIT	CHALLEG. WORK	TEAM QUALITY	LEARN.ENV SUPERV	LEARN.ENV . TRAIN.	LEARN.ENV INFORMAL LEARN OPPORT.
Women	14	12	12	16	13	9	8	11
%	82.35	70.59	70.59	94.12	76.47	52.94	47.06	64.71
Men	22	23	22	25	21	22	15	22
%	75.86	79.31	75.86	86.21	72.41	75.86	51.72	75.86

Table 7.3 Knowledge workers specific needs by experience

Knowledge workers's specific needs by experience								
	AUTONO.	FLEXIBIL.	PARTICIP / EQUALIT	CHALLEG. WORK	TEAM QUALITY	LEARN.ENV SUPERV	LEARN.ENV . TRAIN.	LEARN.ENV INFORMAL LEARN OPPORT.
1-5 years (n=16) %	12 75.00	12 75.00	13 81.25	15 93.75	14 87.50	13 81.25	10 62.50	12 75.00
6-10 years (n=22) %	18 81.82	15 68.18	14 63.64	20 90.91	14 63.64	13 59.09	9 40.91	15 68.18
11+ years (n=8) %	6 75	8 100	7 87.5	6 75	6 75	5 62.5	4 50	6 75

7.2 WORK FLEXIBILITY

In the literature, a flexible work environment has been identified as being of fundamental importance in relation to knowledge workers, as they need freedom for creating and developing their ideas. Flexibility can take many forms in the management of people, for example it can relate to function, working time, location, rewards, and staff numbers. However, in relation to oenologists the flexibilities most normally referred to are functional flexibility and time flexibility. The former refers to a worker having the freedom to perform a range of skills, without being limited by job titles and demarcation issues; the latter to the idea of working in different time patterns, to suit individual and organisational circumstances. Most of the interviewees felt that their work had functional flexibility, in the sense that the scope of their activities, and the way they organise their work was self determined. In the survey, 76% of the interviewees said that they are satisfied with the degree of flexibility in their work.

One female, when asked if it was difficult to be a mother in this job, pointed out: *'one of the things that I value about working for this company is that it is quite suitable [for mothers], in the sense that I do not have to be in at 8am. Clocking-in with a timecard....they have a philosophy of responsibility, and while I accomplish*

results they are happy'. '...of course I am also flexible if there is a night time tasting, or a particular process is carried out and needs to be supervised, or if we are making a blend...' (X3)

However, the oenologist's flexibility in terms of time seems to be rather more one-sided. On the one hand, the managing of their time and work is not flexible, because the process of wine production is not flexible in nature. Particularly during the harvest, the oenologists have to focus exclusively on the wine, its fermentation, and any other problem which may occur. There is no time for anything else. Working time is absolutely subordinate to wine care, since just six hours of inattention can lead to a ruined wine. This means, for oenologists, long working hours, and the resulting potential for neglect of personal issues. Moreover, some of the interviewees pointed out that during harvest time, the oenologist cannot afford to be ill, and that, *'...during harvest, they do not have families'* (X1). For example, most of the women interviewed said they have to program their pregnancies to give birth out of the harvesting period. In this regard, some of the interviewees expressed dissatisfaction with this part of the work, but they also showed resignation, as they believe that this is just a feature of the *winemaking world* and is not therefore seen as a consequence of any organisation's particular management style.

On the other hand, the organisational structure, in particular the perceived lack of an effective middle management layer, was identified as one of the problems preventing the achievement of more flexibility in the workplace. Although outside of harvest time oenologists feel that they have some more freedom to manage their working time, the lack of technical education of the workforce, and the traditional paternalist culture in the vineyards are all seen as causing problems when they try to arrange time off. Many of them identified the difficulties they had in delegating tasks, as they doubt the ability of staff to supervise the wine production processes properly. One of our interviewees said *'...With the course of time, you can give more and more responsibilities [to your subordinates], but you*

can never leave them totally on their own... you always have "to keep an eye on them"...because you never know...' (X5)

Another oenologist said:

'...the most important thing is to have a good team working for you...the people who work for you have to be very good, otherwise.... because they maintain the quality of the grape.... and to find them [good workers] is a long process, and then training continuously...."and here we have all sorts of workers, some of them came from the previous winery firm and have been doing the same job for many years and now it is difficult to say....well, now you have to change the way you work!' '...it is a relationship that involves a lot of trust, day-to-day....and we try to make them understand their importance in the organisation...make them understand that their work really matters to this organisation'. (X3)

Other types of flexibilities identified as relevant in people management, such as numerical flexibility, location flexibility and pay flexibility, were not considered significant in the management of oenologists working in the cellar. Oenologists in the cellar are not a flexible workforce, in the sense that they have permanent contracts and employment stability, which is especially important for them. Moreover, they really value the fact that they do not normally have to think about where to get a job next year, as they have to be 100% focussed on the wine. Similarly, location flexibility was not detected in this research, and payment flexibility was minimal. Nevertheless, numerical flexibility was very important and extended practice along wineries during the harvest. This practice is carried out through subcontract firms, which provide the vineyards with low skilled workforces, avoiding long-term ties. Thus, although a vineyard can double or triple the number of people working in it during the harvest, the formal numerical size of the firm remains stable. In this context, the responsibility of the management is limited to a general negotiation with the subcontractor.

Although this study was focused on the 'typical oenologist', generally understood to be an oenologist working on a permanent contract in a cellar for a winery, there

are other type of jobs for oenologists which have a major degree of flexibility. This is the case with consultant oenologists and young oenologists working on harvests around the world, also called 'flying winemakers'. Their temporary contracts allow firms to have numerical flexibility; they are flexible about the geographical location of their place of work; and they are subject to pay flexibility as they are paid according to the time worked. In the case of 'flying winemakers', functional and time flexibility are included in their deal, because it is expected that they will contribute to the winemaking process in many different ways. Consultants, in turn, are more focused on the 'advice' task, which is quite clearly defined, but they are very time flexible as they are 'always available' should an emergency arise.

Consequently, although it is possible to find a variety of different flexibilities in oenologists' work, the 'typical' work of oenologists working in cellars is quite rigid, because it is subordinated to the process of winemaking, which is rigid by nature. However, they enjoy considerable functional and time flexibility. Additionally, lack of middle management and an educated workforce were cited by oenologists as reducing their flexibility, as they are not able to delegate as much of their work as they would wish .

7.3 AUTONOMY

Although paternalism has been pointed out as an important feature of the Chilean organisational culture (see chapter 4, page 124), it seems that oenologists can work with enough autonomy to carry out their work. However, as with most knowledge work, their autonomy is limited by organisational strategic decisions such as kind of product, quantity, market, etc (see chapter 6, page 166). In other words, oenologists enjoy a high degree of autonomy from the organisation, but it is always subordinated to rational business decisions. Thus, the idea of a creative winemaker creating wine purely according to her or his intuition, interest or wishes appears to be unrealistic. Although there is some space for creativity and innovation, the current trend, particularly in the new world wine industry, is rationally driven in accordance to the market and consumer tastes (Aylward, 2005a, 2005b).

Along with that, the degree of autonomy will depend on the rank of the oenologist, because whilst a chief oenologist has a high degree of autonomy, an assistant oenologist has to communicate every important decision that will be taken. In the case of the young oenologist working at harvest time, they basically have to follow instructions with very little degree of discretion. One of our interviewees pointed out: *'well, I would say that I have a considerable degree of autonomy because I take a great number of day-to-day decisions related to the quality of wine and its production, but I am always under the supervision of X7 [chief oenologist] who commands and controls my work regularly. He, in turn, follows the direction of the owner, whose decisions are based on the advice of the [international] consultant oenologist and the marketing expert.... They meet two times per year to discuss, among other things, the opportunity of introducing new wines into the market, according to what they see as the latest trends in the international market'* (X3) .

As a knowledge worker, an oenologist is the most knowledgeable person in the firm, and it is difficult for a non-specialist in wine-making to make an informed objection to their criteria and decisions. Because of that, they enjoy considerably more freedom than the rest of the workers. In this regard, one interviewee pointed out, *'...winery managers and owners usually feel insecure about challenging the professional opinion of oenologists, because they know that the oenologist knows much more than they do about how to get the best quality of wine, and so they give to the oenologist a greater degree of autonomy'* (X15)

This autonomy is also expressed in other sorts of decisions such as training and development. Most of the oenologists interviewed pointed out that their training was dependent upon their own initiative, in the sense that they identify their own training needs, the courses available, and the best time to do it. One personnel manager pointed out: *'...they are autonomous in the sense that they detect training opportunities they are interested in, the opportunity to increase their competences, and then they ask to the firm for financial support'* (X16)

According to the survey, 78.26% of the respondents pointed out that they were satisfied with the degree of autonomy in their work. However, oenologists working in large organisations were more satisfied (100%) than oenologists working in medium (70.59%) and small companies (79.19%). Also, there were no marked differences between women (82.35%) and men (75.86%), or between oenologists with different levels of experience, as those with 1-5 (75%), 6-10 (81.82%), and 11+ (75%) years of experience showed similar figures.

The control of the work of oenologists is quite ambiguous, as only a few of the organisations studied had formal procedures in this regard. The wine production is controlled from time to time by the owner in the case of small and medium size businesses, and by the chief oenologist, in the case of a large organisation. It was also mentioned that, in many wineries, the production process is also controlled by the external consultant oenologist, who periodically monitor the production. In general, this control is quite ambiguous, and not embedded in the day-to-day routine. Nevertheless, there is a critical moment of evaluation when the wine is finished. Many of the interviewees pointed out that the *'the moment of truth'* is when the first bottle is opened, which usually happens in the presence of the winery's owner. No disasters were reported by interviewees.

7.4 PARTICIPATION

In the literature on knowledge workers, it has been pointed out that they are essentially different from the ordinary worker and that they need to be treated in a 'special way' (see chapter 3, page 99). Although it is not at all clear what 'special' means in this context, it generally refers to a high degree of participation, being treated as equals by managers, intensive development and a high standard of working conditions. The reason for this 'special' requirement lies not only in the intellectual nature of their work and the fact that they are aware of the higher power emanating from their core position in the business process, but also in the necessity to create and recreate their identity as knowledge workers, which is a fundamental part of knowledge work (Alvesson, 2001, 2004; Scarbrought, 1999).

It is worth mentioning that equal treatment and a high degree of participation is not a trivial aspect, given that Latin American culture has been characterised by high power distance, masculinity, and paternalism (Hofstede, 2001; Oglisastri et al., 1999; Martinez, 2005; Davila & Elvira, 2005; Romero, 2004). In the specific case of Chile, authoritarianism is still a prevalent aspect of labour relations (Gomez, 2001; Gomez & Rodriguez, 2006; Hatum et al., 2006). Furthermore, the scenario can be even more difficult in the case of women oenologists, since in Chilean culture there is a strong prevalence of *machismo* (Owen & Scherer, 2002; Lehman, 2003). Consequently, it could be expected that these aspects would be present in the oenologists' work environment.

Bearing in mind the previous discussion, this research was focused on finding out more about the 'special' treatment and participation of oenologists in the workplace. It was found that they are indeed treated in a 'different way', with privileges, and that, in general, they are satisfied with the degree of participation they are given in decision making. Two examples illustrate this different treatment. Firstly, oenologists are considered 'celebrities' and 'artists' by the other members of the organisation, and, secondly, they have a number of exclusive privileges when carrying out their work. One of the interviewees pointed out (X15):

'...many times the oenologists, encouraged by the firms, tend to create a kind of "stardom", because it is good for a firm that its oenologist appears in magazines and newspapers, because it helps to promote its own brand. Thus, it is common to see not only the name of the oenologist on the bottle, but also his photo and signature...' '... and that has created a kind of artist... and then this "artistic spirit" has led to a situation in which, for example, an oenologist decides not to go to the vineyard for two days, because he has a "Van Gogh day" and he just does not want to go. Afterwards, the next day, he arrives at 11am and works until 3am. and the next day the same...and consequently generates a sort of "artistic freedom", but at the same time he makes a "tremendous wine" so the company allows him that and much more!... because of his image of being passionate about wine...' '...Thus, on the day he produces the final wine blend, he works until 3am. and the cellar

workers have to sleep on sofas outside his office in case he decides to take a new sample in the middle of the night...I would say he is 'cracked' for trying to achieve a perfect taste for his wine' (X15).

Secondly, oenologists have preferential and direct access to the vineyard's owner, which is not the case with other professionals such as the viticulturist or marketing experts, who have to communicate via the general manager. Despite the fact that in the organisational structure oenologists report to the general manager, most of the interviewees said that they usually have a direct conversation with the owner if they consider it necessary to do so. For example, one of the interviewees mentioned the case of a famous oenologist who was often invited for dinner at the house of the very wealthy owner of the vineyard in which he worked, while the general manager was never invited. One consultant oenologist pointed out: *'...there is direct contact [between the owner of the vineyard and the oenologist] that skips all the [organisational] structures, which is a privilege unavailable to other members [of the organisation].*

In this context, the personnel manager has minimal or no influence in the management of oenologists. One personnel manager interviewed, when asked about his function in the organisation, pointed out: *'I deal with all HR matters in the organisation, I usually participate in several decisions relating to the firm's policies, but in the case of oenologists my work only consists of administrative tasks because all other matters are dealt with directly by the general manager or the owners'* (X16).

7.5 CHALLENGING WORK

Another important aspect for knowledge workers is to have challenging tasks. Although in the literature the definition of challenging work is ambiguous, it generally refers to interesting work which satisfies the knowledge workers' curiosity and which they find intellectually demanding (see chapter 3, page 99). As was mentioned previously (see Chapter 6, page 161), all the interviewees described their work as highly motivating. In the survey, most of the oenologists who

responded to the survey appear to be working in a quite challenging environment, but those working for large firms seem to be slightly more satisfied in this respect (100%), than those working for medium (88.24%) and small size firms (87.50%). In addition, women (94.12%) seem to be a happier with the level of challenge provided by their work than men (86.21%), although the difference is not really significant. Finally, less experienced oenologists (1-5 years=93.75%; 6-10 years=90.91%) are more satisfied in this respect than oenologists with more experience (11+, 75%).

A plausible hypothesis on why more experienced knowledge workers are less satisfied is, perhaps, that with time, making wine becomes more routine and, consequently, they feel less excited about their work. One journalist interviewed (X13) said that the reason why the number of oenologists with long term experience, working in winemaking, is so low, is because many of them retire early or change career because their work is so hard. In general, the quantitative data in the table confirms the interview finding, which is that oenologists' work is challenging and satisfied their expectations.

One of the questions that arise is what the firm is doing to keep the knowledge workers' tasks challenging. The organisation should be aware of this important work requirement of oenologists. However, it is apparent from the problematic retention of oenologists (see chapter 8, page 247), from the interviews, and from the low rate of satisfaction of the more experienced oenologists, that they do little or maybe nothing in this matter. Oenologists expressed their passion for wine (see chapter 6, page 161), and described winemaking as exciting in itself, as it involves technical and creative skills as well as experience. In the interviews, oenologists appeared to be happy making wine. Most of the learning and development initiatives around oenologists that keep their work challenging are described by oenologists as their own initiatives, with management playing only a controlling and indirect supporting role. For example, in the interviews, the oenologists used words and expressions such as 'passionate'; 'obsessed with achieving the perfect tasting wine'; 'the satisfaction of producing a great wine', 'in the end, the greatest

motivation is to produce your own wine', 'we do this because we really like it, but it is a huge sacrifice during the harvest', etc.

7.6 TEAM QUALITY

Team quality is also an important aspect of the knowledge workers' environment. The quality of the team, as well as the organisational climate, is fundamental for knowledge sharing, learning, creativity and innovation (James, 2002; Storey & Quintas, 2001; Newell et al., 2002).

In general, most of the oenologists interviewed are satisfied with the quality of their relationship with, and the intellectual skills of, their colleagues in their work place. In the interviews, they described their colleagues in the workplace as intelligent, professional, and knowledgeable people, with whom they can freely exchange information, knowledge and valuable experiences. They also described their relationship with their managers (many of them also oenologists) as good and constructive. However, they expressed much more concern in relation to workers at a lower level in the work hierarchy, especially with those they work closely with and whom they consider part of the team, such as the cellar manager. As will be seen, the creation of a trustful and collaborative relationship with the cellar manager is complex and takes time.

In general, cellar workers have a low level of education, and are accustomed to an authoritarian, paternalistic and *macho* environment. As a result, oenologists (especially women) describe their first experience of managing vineyard workers as '*traumatic*', because they have to abruptly change their ideas about trust, egalitarian treatment, and even the tone of voice they use when they talk to their teams. As a part of their socialisation, Chilean knowledge workers have to learn to be more authoritarian and paternalistic, and leave behind them their 'naive' thinking on labour relations. The critical moment occurs when non-experienced young assistant oenologists become permanent members of staff and part of the oenology team. This is when the friendly and pleasant relationships they previously enjoyed with the cellar workers are transformed by the fact that the oenologist is

no longer 'one of us', but is now the 'boss'. Then the former open and collaborative attitude become a hostile one, and the oenologist has to use authority, and even threats, to make the team work efficiently. For example, one of the interviewees described her experience of becoming part of the staff as 'horrible'. She said:

'At the beginning you are a bit 'innocent' about things, so people trick you all the time...but over the course of the time you learn not to believe everything you hear ... when I thought that I already knew how to treat people in this environment, you realise that there is always somebody who want to try to fool you... it is a "never-ending story" ...there are many things that nobody teaches you about how to deal with workers, that you have to learn by bitter experience ("a porrazos!")' '... we are in the 21st century, but in this field the majority of women have had some sort of problems at some time in their career because we are women...' '...and the problem is that nobody tells you anything to your face, it is all rumour within the group' '... when you arrive from another place, because you are a woman, maybe nicer, in some way you see them in a more friendly way, but in the end, the reality is different'. '...although they argue that they do not like an authoritarian boss, sadly, if you do not put pressure on them... they do not work'. (X5).

Another oenologist mentioned that:

'I have problems with the oldest of the workers in the cellar... although I treated him with 'kid gloves' ('con algodón') because I knew he was grumpy (complicado)...he is a man with 30 or 35 years of experience....and he was used to following the paternalistic style ('estilo patronal')... he used to be the manager ('el dueño del fundo'), so now that he has to deal with somebody who is his boss, and 'on top of it all' is a woman and is younger than him, it has been a tremendous conflict for him...and he has not been able to adapt to this situation'. '...I was always very respectful with him... I always tried to tell him off in a respectful manner, and that frustrated me because he makes feel like a 'witch'... and then I spent a long time questioning myself about what I was doing and my management style' (X2)

When oenologists were asked about what support they received from their firms in managing the problematic relationship with cellar workers, the most common answer was that the firm (or the personnel department) left them to deal with the situation practically alone. Sometimes firms took disciplinary action, but this was not usually severe or did not have much effect. Even worse, oenologists did not agree with the action taken, as this could result in an escalation of the conflict and the response from the suspended worker (or group) could lead to more serious consequences. For example, an interviewee described one possible 'serious consequence' saying that it only needs one person to throw a battery into a wine cask to ruin thousand of litres of wine, clearly referring to industrial sabotage. From the oenologists' answers it appears that the firms' management take a paternalistic/authoritarian approach, which assumes that cellar workers need to be treated with a 'firm hand' (*'mano dura'*), and that this is the oenologists' responsibility. When a personnel manager (X16) was asked about the situation that most women have to face in wineries, he answered: *'...we cannot do too much about it...it is expected that each oenologist develop a good relationship with their group of workers...and it is very complicated for us to intervene in it'*.

Surprisingly, the data from the interviews contradicts the findings from the survey. While many of the oenologists interviewed were concerned about their relationship with cellar workers, considered by them as part of their team, in the survey, 73.91% of the respondents said they were satisfied with their team's work, with no significant difference between women and men or with size of firm. One plausible explanation is that when they were asked about their satisfaction with the team in the survey, they were thinking only of their fellow oenologists, although it was clear from the interviews that cellar managers and other key workers were, in fact, considered part of the team. In Chile, a country with wide social disparities, great importance is given to professional status, so people expect to work in teams of workers of the same social level. Most of the oenologists referred to 'my team' as including these non-professional workers. Another explanation may be that oenologists perceive the paternalistic and often

problematic relationship with cellar workers as a 'law of nature', which has always been there and to which they have to adapt. In other words, this is the reality, and they have no choice other than to accept it. Although we can give a certain explanation, it would be reasonable to presume that both factors are part of it.

One expression of this contradiction, of being paternalistic while working in teams, is the answer of Aurelio Montes, a famous Chilean oenologist, when he was asked for the 'recipe' of his success. He said: [the key to the success of a vineyard is] '*...the owner always being present, lots of team work, and above all, having a great faith that what we are doing is the right thing*' (Fredes, 2005). While team work assumes trust and empowerment, the permanent presence of the owner represents the paternalistic style of management, in which it is believed that the employee is not able enough to work properly without direct and continuous supervision.

Despite the remarkable initiatives of some wineries to complete the basic education of their workforce and, in some cases, to sponsor technical education, the management still tends to react to problems when they become serious, instead of dealing with them proactively. Several of the women interviewed said that they had to change their initial management style, in which they attempted to improve communications, labour relations, and teamwork, to one which was more authoritative and paternalistic, because they could not change the workers' mindset. As one oenologist pointed out: '*...I cannot change the way he thinks after more than thirty years of paternalistic style*' (in reference to a particular problem with an experienced cellar worker) (X2)

7.7 THE LEARNING ENVIRONMENT

One of the most important characteristics of knowledge workers is that they need and want to work in a 'learning environment', in which they can keep their knowledge up-to-date (Drucker, 1969, Storey & Quintas, 2001). Although the 'learning environment' is a very popular concept in the literature on knowledge workers, knowledge management and HRM, it is not at all clear what it means, since many factors have been mentioned as constituents of a 'learning

environment' (Clarke, 2005). For example, it has been linked to training, suitable infrastructure, superior communication, transformational leadership, egalitarian culture, etc (Clarke, 2005; James, 2002; Garavan, 2002). In this research, four variables were analysed: quality of leadership, quality of training, informal learning opportunities, and networking. However, networking was only dealt with in the interviews because the complexity of the variables makes it difficult to ask a simple yes/no question about it.

7.7.1 Leadership

In a learning environment, leaders have been mentioned as having a pivotal role in providing the best conditions for knowledge workers. There is agreement in the literature that the traditional form of leadership does not satisfy the requirements of the knowledge economy, and that leaders need to move to a facilitator role (Quinn Mills, Friesen, 1992). But, while some authors advise a change in the role of supervisors and managers (Kessels, 2001; Garavan et al., 2002; Tannenbaum, 1997), others go beyond that, and warn that leaders need to become more transformational (James, 2003) and also practice a more shared leadership style (Pearce, 2004). On the one hand, supervisors and managers should be more concerned with training activities, social support, networking, and flexible structures in regard to knowledge workers. On the other hand, they should focus on learning, teaching, change and innovation within the organisation (James, 2002)

According to Bryant (2003), transformational leadership is the only way in which leaders can deal with some of the unique features of knowledge workers, such as the fact that they usually know more about the work subject than their own supervisors; that they rely heavily on co-workers and networks for knowledge updating; that they are self-motivated and do not need direct control; and that the means by which their work can be accomplished is not clear (and sometimes even the work itself!).

Transformational leaders have been defined as '*...active leaders that have four distinguishing characteristics: charisma, inspiration, intellectual stimulation and*

individualized consideration' (Bryant, 2003, p.36), where charisma is '*...the extents of pride, faith and respect leaders encourage their workers to have in themselves, their leaders and their organisations*'; inspiration is '*...the ability to motivate followers largely through communication of high expectations*', intellectual stimulation is '*...the frequency with which leaders encourage employees to be innovative in their problem solving and solutions*', and individualized consideration is '*...the degree of personal attention and encouragement of self-development a leader imparts to the employees*' (Bryant 2003, p.36).

Shared leadership has also been named as an important tendency in knowledge work, since the extent of knowledge available, its complexity and the variety of contexts in which knowledge can be applied makes it extraordinarily difficult for one person to master all the knowledge in a particular field. Thus, it has been argued that teamwork is becoming more and more relevant in the management of knowledge workers (Jackson et al., 2006). In this sense, shared leadership has been mentioned as particularly effective in the context of knowledge workers. Shared leadership is present '*...when all members of a team are fully engaged in the leadership of the team and are not hesitant to influence and guide their fellow team members in an effort to maximise the potential of the team as a whole*' (Pearce, 2004, p.48)

The increasing importance of transformational and shared leadership does not mean that the vertical, directive or transactional dimensions of leaders should be left aside. On the contrary, it has been argued that the transformational style, on the one hand, and the vertical, directive and transactional aspects of leadership, on the other, must coexist, since every leader, unavoidably, exerts both types of leadership in practice (Bryant. 2003; Pearce, 2004; James, 2002). The difference with other workers lies in the fact that the management of knowledge workers requires a higher degree of emphasis on transformational rather than directive leadership.

In regard to leadership, this research explores the relationships between knowledge workers and their supervisors, managers and the owners of the firms (depending on the size of the organisation and their place in the hierarchy). It focuses on the oenologists' perspective on this issue, through a qualitative and quantitative approach. The focus is not on evaluating the whole relationship, but just describes to what extent that relationship satisfies the oenologists' requirements as knowledge workers.

The survey results show that 67.39% of oenologists are satisfied with their supervisors, with no significant differences between SMEs and large organisations. However, the data collected from interviews suggests that there are important differences between assistant oenologists and chief oenologists. For the former, the main leader and supervisor is the chief oenologist, so that, from a knowledge work perspective, they seem to enjoy a suitable supervision, in which their supervisor understands the nature of their creative and technical work, learning demands, and promotes open and sincere communication, flexibility and autonomy. Chief oenologists also provide proper mentoring to young oenologists, teaching them much of the 'not-written' knowledge on winemaking.

In general, the assistant oenologists interviewed expressed satisfaction with their oenology supervisors, and refer to them as people *'...who understand my work, because we speak the "same language"'*. Additionally they described their relationship with them as one of open communication and trust, because *'we are all in the same team'*. One interviewee said: *'... If I have any doubts about what I am doing, I go straight to X7 and ask him, and I am sure he will tell me clearly everything that he thinks and knows about the problem... and if it is necessary he will ask somebody else...'* *'...he prefers me to ask him if I am not sure, even if it is a silly question, rather than keeping quiet and then risking everything, because a serious mistake in winemaking can cost so much'* (X9). The finding that assistant oenologists have appropriate supervision is consistent with the results of the survey, in which oenologists with 1-5 years of experience are more satisfied with

their supervision (81.25%) than those with 6-10 (59.09%) and 11+ years of experience (62.5%).

But in the case of chief oenologists the situation seems to be different. In general, the data suggests that, rather than a *facilitator* and *transformational* style, the supervision applied looks more like a *laissez-faire* type, in which the organisation is reactive to the oenologist's requests. In other words, the supervision seems to follow what Davenport (2005) called the HSPALTA approach ('*hire smart people and leave them alone*'), since they simply respond to knowledge workers' demands rather than take the initiative. Although they are fairly happy with the amount of autonomy and flexibility they are given (62.5% of the most experience oenologists are satisfied with their supervision!), management support ought, in theory, to be able to contribute to improving their work further. Moreover, the high rate of satisfaction expressed in the survey may be the reflection of a conformist attitude among knowledge workers, who do not know another work reality, and genuinely think that this is 'the best of all possible worlds'. The literature suggests that leaders/supervisors should proactively monitor their environment in order to provide the best conditions for knowledge workers and help to implement change and innovation, a situation which was not found in the research.

In addition, it was also found that, in the context of oenologists, the role of leader is shared by several 'experts'. For example, in a medium size winery one of the assistant oenologists interviewed was under the supervision of the chief oenologist, who played the main role of directing, controlling, and assessing their oenological work, as well as mentoring. At the same time, the general manager (or her/his assistants) directs most of the administrative tasks, including production matters and marketing, is critical in the buying of machines and materials, and also has 'the final say' on training, participation in events and conferences, and work-related travel abroad. In addition, the consultant oenologist has an influential role not only on the most important business issues, but also in mentoring each oenologist within the organisation. This consultant is internationally renowned, and provides advice on winemaking to many vineyards around the world, so in this vineyard they

nickname him *the guru*. Every suggestion or criticisms from him has a strong influence on the oenologists' work.

Along with the chief oenologist, the general manager and the consultant, the owner of the vineyard is also involved in the majority of the most important management decisions. Although the modern wine industry is more sophisticated and more rational than before, in SMEs firms the owner wants to be involved in every decision, even in those areas in which there is a technical expert in charge. In the end, s/he always has the 'last word'. It is assumed that wine production has an 'artistic face', which allows the owner to contribute to the winemaking with her/his 'good taste'. In the previously mentioned vineyards, the owner had significant experience in winemaking, and, consequently, was strongly involved in the production of wine, the marketing strategy, and in several aspects of management. However, this is not the case for large firms in which marketing decisions seem to overrule the 'subjective' perspective of winemaking. For example, the enormous production of the internationally known wine '*Casillero del Diablo*' is guided by rigorous market research. Every year the firm tries to emulate the same taste as the previous year, in order to keep the product identity, while introducing small changes according to new market opportunities detected.

Finally, outside the organisation, but in the same geographical area, there are other oenologists whom everybody know and recognise as talented and experienced in the production of wine. They are recognised, informally, as 'local leaders'. Because oenologists actively participate in local networks, exchanging information and advice (Guillianni, 2003), these leaders exert 'expert influence' on their colleagues. Consequently, in this research, the idea of a single leadership was challenged. Instead, we found that different people exert leadership on oenologists in regard to different subjects, at different times, and in different contexts, including experts outside the organisation's boundaries. However, shared leadership seems to occur not as result of rational decision making, but as a result of chance and spontaneous adaptation.

A third element in relation to supervision is related to the chief oenologist and her/his unique relationship with the owner of the vineyard. As it was mentioned in page 187, although many of the medium size and large wineries have middle and high management levels, many oenologists described their relationship with the owner as a narrow one, which often ignores the mediating role of management specialists. The reason for this was, according to interviewees, the particular nature of wine production, which is not only technical but also 'artistic'. One consultant oenologist pointed out:

'...in most of the firms, the general manager should be the person who knows best how to do the business, but in the case of the oenologists, [the wine production] is more subjective, and it is a generator of insecurity, because the manager is never going to know as much as the oenologist about (X15).

However, although in the literature the 'artistic nature' of winemaking has been mentioned (Thach & Bynum, 2004), this can be severely challenged in the light of the rational marketing strategies of modern wine production. Modern industrial wine production, especially in the 'new world', is much more technical than in the past, and consequently there are much fewer 'creative factors' and 'secret ingredients' in wine production. Consequently, the great involvement of the landlord (patron) in the process, even over technical considerations, may be caused by the paternalistic culture that is still prevalent in Chile. Although modern management practices have been incorporated into the wine industry, such as market research, there is still a strong influence of the owner in the whole business.

Finally, notorious differences were found in the survey between female and male respondents. Whilst 75.86% of men are satisfied with their supervision; only 52.94% of women responded positively to that question. This answer is contradictory to data collected by the interviews, in which they answered that they had not felt discriminated against in any way by their direct supervisor or another manager of the organisation. Perhaps the low satisfaction is not related with any

issue of discrimination, but rather in relation to the lack of support for undertaking knowledge work, including the lack of help for dealing with the high degree of *macho culture* and lack of education on the shop floor.

To summarise, in order to describe the leadership style and supervision in the context of knowledge workers, it is essential to differentiate between different types of oenologists. While less experienced assistant oenologists enjoy quite suitable leadership from chief oenologists, more experienced oenologists face a more complex scenario of shared leadership and passive support. In addition, oenologists work in a narrow relationship with the vineyard owners, who direct and participate in part of the process, skipping organisational structure and management levels.

7.7.2 Formal Training

Learning has been identified as one of the key elements of knowledge work (Carneiro, 2000; Drucker, 1999; Storey & Quintas, 2006). Learning is recognised as a complex process which takes place through formal, informal and incidental ways (Garavan et al., 2002).

As was described in chapter 3, training can be defined as '*...a process which is planned to facilitate learning so that people can become more effective in carrying out aspects of their work*' (Bramley, 2003, p.4, in Marchington & Wilkinson, 2005), and involves the identification of training needs, planning or designing of training programmes, the implementation of training, and its final evaluation (Marchington & Wilkinson, 2005; Bratton & Gold, 2003).

Every organisation, whether formally or informally, has an 'organisation training philosophy', which expresses the importance of the training for a particular organisation (Armstrong, 2006). It refers to shared principles, beliefs and values, underlying attitudes towards employee training and development, and decisions taken in this field (Reid et al., 1992; Garavan et al., 1995). There are many types of training approach described in the literature, some of the most commonly

mentioned being: the strategic approach; problem-based; performance-related training; continuous development; market-driven; career planning; educational; the 'rifle' approach; elitism; voluntarism; centralism and authoritarianism; conformism (and non-conformism); humanism approach, etc. (Garavan et al. 1995; Reid et al., 1992; Armstrong, 2006). Although training has been considered a fundamental element of people management, and also an essential topic for organisations given the current time of social change, organisations will give more or less importance to it depending on what kind of 'training philosophy' is adopted.

Training was one of the topics in the research on oenologists. Although there are a variety of situations depending of the features of each firm, three aspects were found to be common to most of the organisations: firstly, it is evident that there is low satisfaction with the training opportunities provided by the firms; secondly, oenologists play a central role in the determination of what kind of training they need and finding out how it is carried it out, while personnel specialists only play an administrative role. Thirdly, suppliers' firms are the most important source of training for oenologists.

With the first aspect, oenologists interviewed expressed a moderate satisfaction with the way this issue is dealt with in their organisations. In the same way, training was the worst dimension evaluated in the survey, with only 50% of the respondents satisfied with it. In the interviews, most of them agreed that it is possible to obtain financial support from their employer for a training activity, but only once its utility has been clearly established. *'There is no money to spend on experiments'* said an interviewee working in a medium-size exporter winery (X1). Another interviewee described the typical winery owners' attitude as *'...they don't invest in anything if they don't see a clear usefulness and the way the in which they will get a short-term return on investment'* (X18). So, oenologists have to persuade managers and winery's owners to spend money on training and to convince them that it will have a practical impact upon the firm's bottom line. However, it is clearly not always possible to identify a direct outcome of any one particular training activity, given the highly complex nature of their work. This especially the

case with the artistic and creative side of winemaking, which could involve, for example, less structured training or learning experience abroad, which is more difficult to express in quantitative terms. Thus, in general, to receive support for training, oenologists have to face a more traditional management focus on short-term, measurable and visible results.

The situation of oenologists in relation to training is worse in the case of those oenologists working in the 'bulk wine' industry, in which the management is not only traditional in the sense mentioned above (see case cited in chapter 7, page 201.), but also perceive training as a cost rather than an investment. Under the label of 'low cost' producer, managers and owners neglect all forms of human resources development, training being one of them. One of the interviewees (X11), whose request for more time flexibility to take a management course was rejected, was told that *'...in this sort of business cost management is tight and there is no money for that kind of thing'* (X11).

The survey shows a slight difference in the oenologists' satisfaction levels according to the size of their companies, large firms being better evaluated by the oenologists (60%), followed by small size (54.17%) and medium size (41.18%). *In the same way, slight differences* were observed for oenologists with different experience, oenologists with 6-10 years experience being the least satisfied with training opportunities (40.91%), followed by those with 11+ years experience (50%), and 1-5 years experience (62.50%) respectively. Finally, *no significant differences* were found by sex, since men (51.72%) and women (47.06%) have similar rates of satisfaction.

A second finding refers to the major role of oenologists in determining their own training needs as well as the way in which this training is provided. Although it is true that knowledge workers know better than anyone else what they need, this draws attention to the passive role played by the firm's management in determining skill gaps, and implementing and evaluating training. According to the information collected, the initiative for training came mostly from the oenologists

themselves, and sometimes from the chief oenologist (when the trainee is an assistant) or consultant. In this context, the role of the firm is limited to giving financial and time support. In this sense, it was found that the philosophy of most vineyards fits with what has been called the *voluntarism* approach. This philosophy has been described as:

'...a laissez-faire philosophy of training [that] assumes that requirements for skilled and professional staff will be produced as a result of initiatives taken by individuals and/or by their managers, as and when they seem appropriate – that is, that the working conditions do not need to contain an injunction to learn or train, and the continuing work system does not need to provide for its regular or periodic planning' (Reid et al., 1992, p.54).

When oenologists were asked about the last training event they attended, they all said that the training came about as a result of their own initiative. In the case of assistant oenologists, it was sometimes the result of a joint planning process between the chief oenologist and the assistant oenologists, but in the case of chief oenologists they always played the main role in coming up with and promoting the idea. In addition, the concepts of 'strategy', 'future business plans', or other similar concepts were hardly mentioned in the interviews, so it seems improbable that the training was linked to strategic management in any way. Finally, financial support was not always given, even if the training was considered essential by the oenologist. One of the interviewees, in reference to her former employer, said: *'...last year I asked my boss [the owner of the winery] to sponsor me to attend a conference in Argentina, which I was particularly interested in, and she said "no", so I paid the fees and went anyway' (X14).*

When oenologists were asked about what was the answer or reaction to their last training request, five different types of answers were perceived by the oenologists: firstly, the request was positively received because it was linked to organisational improvement and the firm's future plans. For example, one oenologist asked for support for improving her command of English and, due to the fact that her idea

was linked to the benefit of the company, it was approved. She said: *'I discussed the idea with X (the chief oenologist) and both agreed that it was a great idea to spend time abroad improving my English... then we presented the idea to the management... as the winery is having more and more contact with foreign people, and then they also agreed that it was a great idea (X9)'*. Secondly, the training was provided as a 'reward' for excellent performance and loyalty to the firm. For example, one interviewee described the outcome of a request for training as follows: *'...I wanted to take a short course given by a university, so I asked for support from the chief oenologist and, later, the general manager...they decided to support me, because the firm's results were quite good last year and there was money available,' (X6)*. Thirdly, it was given as a 'favour' to the oenologist, more for her/his own benefit than the development of the organisation. For example, one interviewee (X1) described his general manager as 'generous' (*'paleta'*) in relation to the fact that he usually accept his training requests. The second and third types of reaction by the firm, that is, training as a 'reward' or 'favour', were the most mentioned by the interviewees. Fourthly, when it was related to an 'urgent' matter, such as a new legal requirement, a particular certification, or when an unexpected problem arose, such as the presence of *Brettanomyces* in the cellar, the training request was accepted. Finally, some oenologists claimed that training was their organisation's lowest priority, for example the production manager in a bulk winery (X11) mentioned above. Overall, only a limited amount of training activity was provided by the firms, with off-the job training particularly scarce, with little link to strategic aims established.

Finally, the research found not only that oenologists are unsatisfied by the training provided and that they play the principal role in the whole training process, but also that the role of supplier firms is pivotal. When oenologists were asked about what training activity they had participated in recently, the first thought that sprang to their minds was the technical talk provided by suppliers. This meeting can take several different forms: firstly, it can be an event organised by the supplier firm in which an expert, oenologist or not, Chilean or foreign, presents a particular

subject related to the field of oenology, and which is directly linked to a product offered by the supply firm. According to one of the suppliers interviewed (X8), the number of participating oenologists is usually between 15 and 50, and these meetings take place roughly 6 times per year. Sometimes, when the expert is extraordinarily important (for example, a top researcher from France or a famous wine journalist), the event can be massive, and include oenologists from all geographical regions. These events include a stall, from which the supplier firm offers products and makes deals.

A second form is by direct visits to oenologists in their workplaces. These can be at varying frequencies depending on the size of the firm and its importance to the supplier. According to one supplier (X8), the most important firms are visited once a month; those of medium importance, once every two months; while less important firms are visited between 2 and 4 times a year. In Chile there are between 300 and 350 wine cellars (www.todovinos.cl), with no more than 10 of them being of large size. In this type of meeting oenologists representing the supplier firm show the product, present technical information and scientific evidence supporting the product, and even provide practical demonstrations. To give an idea of the quality of the knowledge exchanged, the supplier oenologist interviewed (X8) not only had significant experience as an oenologist, but also as an academic researcher in an important Chilean university. This professional had extraordinary reticulist skills, speaks both English and French fluently (he works for a French company) and travels abroad several times a year for technical training, including direct contact with the R&D department of the parent company in France. He has also served on the board of directors of the oenologists' association. He not only sells his firm's products, but also operates as a knowledge transfer agent among oenologists.

A third form can be an invitation to oenologists to visit the supplier's factory in order to show them in more detail how the product works, or how it is made. This invitation can be for one visit to witness the production process, or a whole series of visits, which may include participation in experiments with the product. This is

probably the least frequent form of training provided by suppliers, as it takes more time and coordination, but it happens when the oenologist needs to obtain specific and detailed information in order to resolve a specific problem. For example, executives from *Toneleria Nacional* (www.toneleria.com), one of the most innovative Chilean supplier companies, not only visit firms regularly, but also invite oenologists to visit their factory. For them, this is a very important resource given the lack of trust shown by Chilean oenologists in Chilean products. According to the Marketing and R&D manager of this company, *'...the most difficult customers are, paradoxically, Chilean oenologists because without doubt they prefer a product from France or Australia, even if they do not know how good it is, rather than a prestigious Chilean product like ours. For this reason we "open the door" to anyone who wants to know how we work! ...in this way they can see the quality of our product and how we work (X17).*

To sum up, based on the theoretical description provided earlier of optimum training management practice within organisations, formal training in the Chilean wine industry could be described as fairly poor. In the vineyards studied, training depends on fragile decision-making systems, which depend on aspects such as the oenologist's ability to persuade, and the frame of mind of the winery manager/owner, over which personnel specialists have little influence. In addition, oenologists play a central role in determining the what, when, and how of their training needs, while the organisation mainly provides financial support. Finally, supplier firms play a central role in providing training, designing and managing events in order to carry out their own sales strategy. Thus, training, which has been described as a key aspect of management in the context of the knowledge economy, is, in the case of wineries, left to control by chance, oenologists' intuition, and external agents.

7.7.3 Informal learning opportunities

Although organisational literature has focused its attention on formal learning activities such as training, recently much more attention has been placed on

informal learning (IL) (Marsick & Volpe, 1999). As knowledge workers, most of the oenologists' knowledge is tacit, which makes it technically impossible for the firm to appropriate it, make it explicit, or transmit to other employees (see chapter 2, page7). Consequently, permanent IL appears to be fundamental to organisations in the changing business environment of today. Studies demonstrate that IL has considerably more impact than formal learning activities (Marsick & Watkins, 1990, in Conlon, 2004; Boud, 1999). Traditionally, IL has been seen as accidental, and consequently out of the sphere of control of the management. However, there are those who claim that IL can be intentionally enhanced (Macneil, 2001; Marsick & Volpe, 1999), and, hence, it can become a powerful tool of adaptation for organisations. Nevertheless, it has been suggested that the full potential of IL has not yet been realised in most organisations (Macneil, 2001).

IL can be defined as '...learning that is predominantly unstructured, experiential, and non-institutional...[and which] takes place as people go about their daily activities at work or in other spheres of life...[and] ...It is driven by people's choice, preferences, and intentions' (Marsick & Volpe, 1999,p.4). IL has been described as giving more flexibility and freedom to learners than formal learning; as taking place around more formal work activities and through a diversity of forms; as invisible (so difficult to measure); spontaneous and haphazard; not conscious; and finally, as complementary to traditional training (Eraut, 2004; Marsick & Volpe, 1999). IL takes place by asking questions, listening, observing, and interacting socially (Conlon, 2003), not only in the workplace but also at conferences, work meetings, social events, and networks (Horibe, 1999; Honk & Kuo, 1999; Rylatt, 2001; Marsick & Volpe, 1999). It involves action and reflection, the latter being described as 'looking back on what we have done, measuring it against what we wanted to achieve, and assessing the consequences (Marsick & Volpe, 1999, p.7).

Supervisors can play a pivotal role in improving the organisation's capacity for IL. In order to achieve this, the traditional supervisor needs to become a learning facilitator, defined as '*...someone who creates a learning environment, and is responsible for providing the resources which will enable people to learn*' (Macneil,

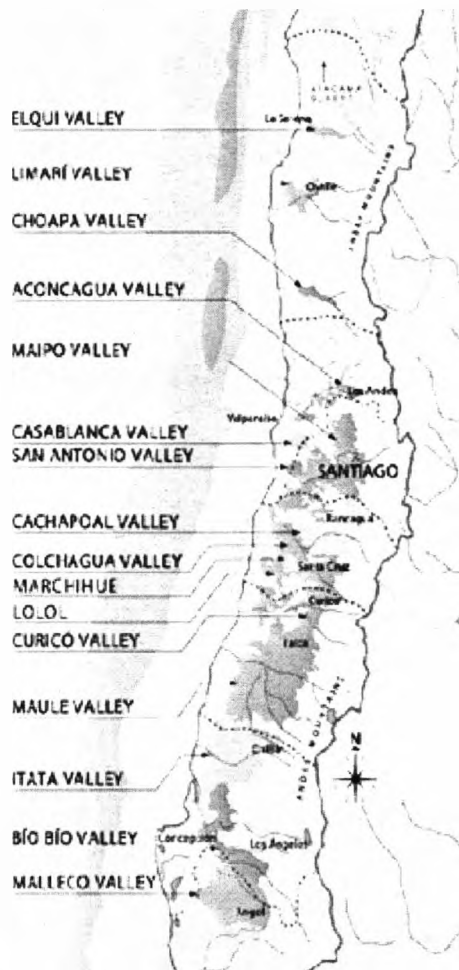
2001, p.246). The facilitator cannot directly influence an individual's willingness to learn, but can make organisational changes in order to encourage individuals to take responsibility for their learning activities; to promote and reward curiosity and experimentation instead of punishing the learner's failures (generative environment); can design jobs and organisational structures that facilitate informal talk and the exchange of knowledge; can create an environment that encourages communication, trust and collaboration (Marsick & Volpe, 1999; Macneil, 2001). Thus, although the facilitator cannot act directly on the learners, she/he can influence them by creating the right environment for IL to take place.

The data collected through interviews shows that oenologists enjoy many of the favourable conditions mentioned as necessary for IL. Oenologists are curious and work-motivated by nature, and they are aware that they have the main responsibility for keeping their knowledge up-to-date. Since their work is highly complex, they have a flexible and unstructured job description, giving them the opportunity to talk with anybody they think they need to. Furthermore, it was found that the oenologists' environment is perceived by them as made up of high-trust relationships and a spirit of collaboration with most co-workers, company managers, and cellar managers (following a long period within which trust and collaboration has been established). They also participate in networks, and other oenology-related activities. The only limitation to IL was the aforementioned problems at the shop floor level, which lead to the IL process being more difficult between oenologists and less educated workers.

In addition, as was previously mentioned, informal talks with suppliers were mentioned as a very important source of knowledge as they bring the latest technology available to oenologists. The supply of oenology materials and ingredients is not a simple sales process, but may involve many months of negotiation between the oenologist and the seller, during which the seller may provide the oenologist with products on trial. Thus, this relationship between oenologists and suppliers can also be considered an important IL activity.

In the survey, oenologists seem to be happy with their IL possibilities. 71.74% of respondents said they were satisfied with their IL opportunities. In micro & small firms, 70.83% of oenologists are satisfied; in those of medium size, 70.59%; and in large firms, 80%. In the analysis by sex, 64.71 % of women declare themselves to be satisfied with their IL opportunities; while the figure for men is 75.86%. Finally, there are no significant differences related to experience, as 75% of individuals with 1-5 years experience; 68.18% of those with 6-10 years of experience, and 75% of those with 11+ years of experience are

Figure 7.1 Chilean wine regions



Source: <http://www.squaremeal.co.uk/feature/life-edge-extreme-viticulture-online> accessed 17/04/09

satisfied in this respect.

However, although most of the oenologists perceive that they have access to IL, it seems to be not as a result of the firm's management, but as a result of spontaneous adaptation, oenologists' interest in learning, and even merely chance, rather than any form of intentional management intervention, whether direct or indirect. No evidence was found, from the interviews, about any action from the firm in order to encourage IL. On the assumption that IL can be intentionally enhanced, the question arising from the data is why oenologists have a considerably high rate of satisfaction while firms seem not to play a central role in it. Perhaps the mute

acceptance of the networking activity and the role of supplier firms is the form in which the organisation plays a passive role in facilitating knowledge work. The

findings bring the discussion about the role of management specialists in the management of knowledge workers out into the open.

7.8 NETWORKS

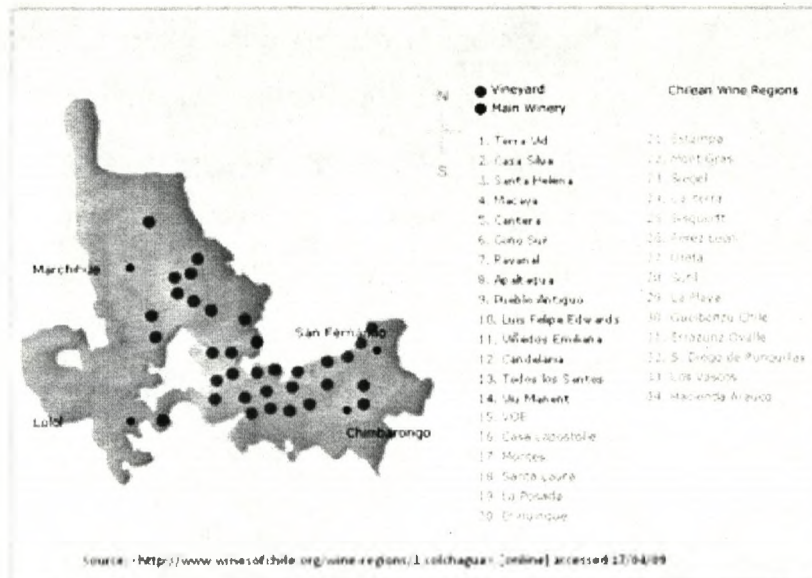
In the knowledge literature, networks have been related to knowledge exchange and innovation (See chapter 1, page 44). In the winemaking field it is known that there are geographical regions which are more favourable than others for wine production because they possess unique climate conditions. Thus, wineries tend to settle very close to each other in the same geographical regions. Over the course of time, this geographical concentration of wineries leads to the creation of economic clusters, from which firms can obtain significant benefits such as better infrastructure, research and education bodies, support organisation, etc. (Aylward, 2006). In Chile, there are thirteen important wine regions, for example, Limari, Maipo, Cachapoal, Curico, etc. (See figure 7.1).

Several studies have reported the existence of networks among Chilean oenologists working in the same geographical region, and how they act as vehicles of intense knowledge exchange (Giuliani, 2003, 2005a, 2005b, 2007a, 2007b; Hojman 2006, 2007; Visser & Langer, 2006). One wine region studied by Giuliani (2003) was Colchagua, in which there are about 34 wineries placed very close to each other (see figure 7.2). This phenomenon is not exclusive to Chile, but is present in most wine producer clusters around the world (Aylward, 2006).

In a networked region, a 'learning environment' is created through the contribution of each oenologist, and every member of the network benefits as a result. Giuliani (2003) described the Colchagua group as an 'epistemic community', as opposed to a 'community of practice', because its members not only possess practical knowledge but also the necessary scientific background for understanding, improving and, eventually, creating new knowledge. In addition, as an 'epistemic community', the members share common goals of product improvement and knowledge creation. She mentioned 'informal chit chat' as a way in which codified knowledge flow through circle of professionals, but does not describe, in detail,

how, in fact, these networks work and how the process of knowledge transfer occurs within. In this regard, the aims of this research were to describe the mechanism by which these networks operate; and to ascertain whether or not these networks are perceived by oenologists as a useful tool for their work.

Figure 7.2 Colchagua Valley



The oenologist network is not only an important vehicle for social relationships, but also the main conduit for IL. As knowledge workers, oenologists' networks represent an essential part of their work, as they provide a very effective way to obtain fast help, technical advice, and 'a second opinion' in the sometimes ambiguous world of wine production. Additionally, networks are linked to work mobility (see table 8.3), and are an important means in the creation of the oenologists' identity. From the qualitative data collected, oenologists' networking was found to take several forms: firstly, one-to-one contact, which could be named *close partnership*, which is expressed in regular and fluid communication, whether face-to-face, by phone, or by email, which can take place at any time. This relationship usually involves no more than two or three oenologists, and assumes a high degree of mutual understanding, trust and collaboration. It is not perceived by them as a 'rational relationship', but above all as a friendship, which can additionally bring work and career benefits.

Although these oenologists are also part of the wider group of oenologists, they enjoy more privileged and exclusive communication between themselves. As this is a high-trust relationship, they do not need to pretend to know when they do not, as they do when they are with other oenologists in order to keep up appearances. One interviewer described her relationship with her best friend: '*...with X we are talking all the time, maybe two or three times per week, sometimes we eat in a restaurant or watch a DVD, or just talk ... well, there is not too much to do here, you know...*' (X9). Another oenologist said: '*well, obviously among the oenologists in the area, you have one or two people with whom you are closer... in my case, we go out together with our girlfriends, go to restaurants, sometime we organise outings together, other people become closer because they have their children in the same school... we are all friends but as in every group you have better relationships ('mejores migas') with some people* (X4).

As opposed to other studies about networks of oenologists based in the same geographical region (see for example, Giuliani, 2003), our study suggests that *close partnership* is not limited by geographical proximity, but operates over a wider area. Thanks to the latest communication technologies, especially mobile phones, oenologists have permanent access to their *partners*. Also, considering the '*extra close*' factor, and the fact that they enjoy '*extra trust*', they can communicate virtually with their best friends at any moment, from anywhere, and can ask any question. For example, X14 described how she communicated by mobile phone many times a day with her best friend, also an oenologist, working in a winery in a different geographical region, not only talking about typical '*friendship issues*', but also about work, including questions about the winemaking process, products they are using, gossip about other oenologists, and even the strategies and policies of their firms. It is assumed that the '*best friend*' will have the willingness to collaborate as much as s/he can, and as soon as possible. In the Chilean culture friendship and work can go together.

A second form includes a wider group of oenologists, which could be named *circle of friends*, and which are generally created within geographical areas, for example,

the Colchagua valley, Curico, Limari, etc. This wider network is expressed mainly through social meetings of small groups of 'friends', at which work information is freely shared by the members. A high degree of openness about their work experience is assumed, along with trust and collaboration, but, as opposed to the case of *close partnership*, members are not 'obligated' to share all they know. However, it is expected that participants will still be willing to share relevant knowledge, make suggestions, and give advice to others. To refuse to share work experience or to hide relevant information is interpreted as an act of betrayal of the group. We can epitomise this argument with the example of one chief oenologist (X4) interviewed, who was angry with another chief oenologist who did not allow him to visit his cellar, although assistant oenologists at the same vineyard were happy to do so. He argued: *'...it is stupid that he does not want to open his cellar to me... as if it were a secret...it is ridiculous; in the group of oenologists that regularly meet here [in the valley] we encourage all of them, but particularly the youngest, to help each other, and this kind of thing does not help to create good relationships between us!'*

In anthropology, there is a long tradition of studies on food and culture, in which food is not analysed as a physiological requirement but as a symbolic expression (Montecino, 2006; Mintz & Du Bois, 2002; Jones, 2007). From this perspective, food has been described as a means of social integration and creation of social identity. In Chile, oenologists have a preference for weekend barbecues (*asados*) in which they create and recreate their social lives. These barbecues are also a main vehicle of networking, in which oenologists share knowledge, experience and all sorts of social information. Barbecues create the perfect social atmosphere of motivation, willingness and trust, which has been described as fundamental to knowledge exchange (Guzman & Wilson, 2005)

This is not surprising considering that barbecues have been a typical cultural expression of Chilean society for a long time. Orlove (1997) described how, at the beginning of the 20th century, meat was a central element of the Chilean diet, and also how its consumption was related to position in the social structure, was linked

to celebrations, and was used as a mechanism of social integration. Also De la Parra (1998) described Chilean barbecues as a traditional expression of *macho* culture and as a yearning for the primitive hunting of prey, in which men stand around the fire drinking and sharing their 'secrets' about how to make fires and cook meat. Although meat consumption is no longer the privilege of wealthy people, and *macho* symbolism has decreased considerably, barbecues are still an important expression of current Chilean culture. Montecino (2006), in a study in the south of Chile, describes how the type of barbecue, type of meat, and degree of cooking are still linked to social class, gender, and ethnic issues. For example, she distinguishes four types of barbecue: *asado al palo*, *a la parrilla*, *al horno*, and *al disco*, where *asado al palo* is the most valued by all social classes, while *asado al disco* is perceived by high and middle class as 'common'. In the same way, the degree of cooking ('*quedar a punto*') of the meat is linked to masculine or feminine preferences, and social class. Recently, an important minister of the Chilean government referred to the great effort they are making to create jobs as: '*estamos tirando toda la carne a la parrilla*' (we are throwing all the meat on the barbecue), in an attempt to communicate more clearly with the masses (El Mercurio, 09/02/2009). Barbecues are not only the main form of celebration, but are also used to reduce tensions in the work place, as a way to create solidarity within social groups, and even as part of the funeral ceremony in some rural geographical regions.

Likewise, oenologists said that they actively participated in barbecues from their first year of agronomy studies, where they were used to celebrate the end of each academic semester and other important events. At a barbecue they know the rules and their roles, they feel as if they are participating, and consequently they feel part of the group. A barbecue is a familiar environment which they trust. It is not clear how often barbecues occur and how many people actually participate in each wine region, but in Colchagua, where several interviews were conducted, there are one or two per month, when it is not harvest time. One of the most interesting findings was that, at these barbecues, each oenologist brings her/his own wine

made by her/his winery, so they have the opportunity to taste other wineries' products and ask each other as many questions as they want about how their products were made. Thus, this open and friendly environment creates the perfect situation for knowledge exchange.

A third form of networking is through the *Asociacion de Enologos de Chile*, which is the largest network involving oenologists. Within this organisation it is also possible to distinguish internal groupings by geographical regions, type of industry, and university of origin. Oenologists are also able to identify each other by generation, called by them '*cabros*'(the youngest) , '*treintones*'(thirties) , '*cuarentones*' (forties) and the '*viejos*' (oldest generation). This last category is usually associated with consultant oenologists and directors. As the boom in the wine industry is quite recent, it is not rare to find chief oenologists in their forties, thirties or even younger (e.g. X4). In the interviews it was found that oenologists were able to describe the features of each generation with a high degree of precision, including their habits of work. This network, which can be named the *oenologist network* is much more complex than the others, and involves a lower degree of trust and collaboration, although it was possible to note a high level of unity and solidarity. The *Asociacion de Enologos* represents homogeneous interest group and, as far as it was possible to detect, there was no disagreement about its function and aims. The network operates through regular association assemblies, usually organised by geographical regions, and mainly communicate through emails and their web site (www.enologo.cl). Recently, *facebook* groups have also been used for networking. For example, the facebook group '*enologos UCHILE*' is open to all former oenologists students from the Universidad de Chile, and explicitly gives its objective as sharing experience and information about job opportunities.

Consequently, it is apparent from the data collected that oenologists in Chilean wineries enjoy favourable conditions for IL and networking, which facilitate their knowledge exchange and learning process. Their workplace flexibility, trust and collaborative environment, as well as their active participation in networks, are key aspects of their learning. Previous work and this research confirm that knowledge

flows freely both inside and outside firms in the wine industry. However, it is clear that neither IL nor network activity are products of organisational management, but are the result of chance, spontaneous adaptation, or the self-interest of oenologists. It is paradoxical that firms, being part of a particular cluster, benefit from IL and networking, while not making any effort to encourage them.

7.9 SUMMARY

The main question of this chapter focused on how oenologists perceived their working conditions and if they are considered suitable for knowledge work, according to what has been described in the literature assessed in chapter 3. The data analysis suggests four interesting topics to be highlighted: firstly, oenologists are, to a greater or lesser extent, satisfied with their working conditions related to what was described in this research as the knowledge worker's guardian role. They have function and time flexibility; their activities around the wine production are manifold, and they can *manage their time according to their* convenience. They have a considerable degree of autonomy (especially if they are the chief oenologist), their only restriction being the business plan. They are treated with 'special' care and enjoy privileges over the rest of the workforce, including direct access to the winery's owner if they want. In addition, they consider their work as challenging, in which they can give their best intellectual and creative contribution. They also think they have a suitable team, from which they can get help and collaboration, though sometimes with a problematic relationship with the cellar manager. Finally, oenologists enjoy a suitable learning environment, because they have reasonably appropriate supervision, they have access to training, proper conditions for informal learning, and can participate in networks.

Although oenologists' work environment can be described as suitable for knowledge work, a second topic of discussion that arose from the data is about a number of limitations and several problems they have in the work environment. Some of them may be labelled as 'unavoidable' and others as 'avoidable'. It is 'unavoidable', for example, the fact that knowledge workers' flexibility is

subordinate to the seasonal wine production process, which is not flexible by nature, and that their autonomy and creativity is restricted by the business strategy. But there are a number of situations or problems in the oenologists' field which are 'avoidable', at least in theory, and if avoided would improve the conditions for knowledge work. For example, the problematic *macho* and *paternalistic culture* among cellar workers, or the difficulty of having a suitable cellar worker.

Oenologists reported a complicated relationship with cellar workers with whom they have to deal most of the day. Most of the agricultural workers are used to being managed in a *paternalistic* way, and this makes it difficult for oenologists to integrate them in to being part of the team. The situation is more critical in the case of young women oenologists, who are especially affected by the *macho culture*. This situation is particularly critical in the case of the cellar manager, who is generally considered as part of the team by the oenologists. The information provided here demonstrates that oenologists strongly depend on this worker, but to reach a suitable and reliable relationship with him (it is usually a man) can take many years. Both, the problematic culture of the shop floor and the lack of middle management cause limitations to the oenologists work flexibility, as they cannot (or do not feel confident enough to) delegate responsibilities in the wine production process.

Likewise, since oenologists consider cellar managers as part of their team, their lack of education also affects the whole team performance. Knowledge workers like to work together with other knowledge workers, in a learning and stimulating environment, in which they can exchange experience and information, discuss and analyse innovative ideas, and, in general create team synergy. The data demonstrates that cellar workers cannot be fully treated as knowledge workers by oenologists, and that they cannot delegate all the activities they want. At the end, and given the fact that the cellar worker has a lot of contextual knowledge, the result is a team of knowledge workers in which one of the members is treated according to the paternalistic character of Chilean culture.

A third aspect to highlight is negligence in the management of training by personnel specialists, who delegate the responsibility for training to the oenologists themselves to external firms. In addition, oenologists reported problems in obtaining sponsorship for training, especially because of the difficulties in demonstrating short-term visible results. Training activities appear to be a kind of 'no man's land' with no explicit link to the strategic orientation of the business. This topic is, from the perspective of the author, a critical example of the lack of management (or lack of proactive management!) of oenologists. There is plenty of information describing the fundamental role played by personnel specialists in diagnosing, implementing and evaluating training, according to a firm's training philosophy. As was pointed out in chapter 3, training is an essential aspect of people management, which allows firms to develop their human capital and to adapt to the changing environment. It is also seen as an important aspect of knowledge workers' careers. Training linked to a strategy for development was a key aspect of the Australian success in innovation in the wine industry (Aylward, 2005a, 2005b), so it is surprising that Chilean wineries do not have a more proactive approach to dealing with training needs.

Fourthly, in the literature, several knowledge management activities have been mentioned, which can be carried out by firms through the support of communities of practice, internal and external networks and the development of suitable environments for IL (See chapter 3, page 91). In this study significant network activity was observed, operating through *close partnerships*, *circles of friends*, and the *Asociacion de Enologos* (Oenologists' Association), which was passively accepted by employers. Perhaps ignorance of the knowledge exchange activity involved in these networks, or an awareness of the mutual benefits to be gained from economic clusters in a global market, lead the firms' owners and management to permit networking activities. Whether or not the outcome of this practice is good or bad for the firms, what is important from the perspective of this research is to highlight the lack of any kind of participation by the management specialists of the firm.

Fifthly, it was found that, in relation to the role of guardian, there is no significant difference between large, medium and small organisations. The data collected in this study shows that, no matter what the size of the organisation, it has to deal with similar issues in the management of knowledge workers. In general, oenologists working for firms of all sizes faced similar conditions, problems, and opportunities.

Finally, although knowledge workers have mainly been studied on an individual basis, the data shows that they work collectively, in permanent relationships with other knowledge workers in the vineyard, including consultants; cellar managers; oenologists' suppliers; wine marketing experts; viticulturists; and the owners of the wineries (see chapter 6, page 170). These groups of knowledge workers can be considered as teams, as they interact dynamically, interdependently, and adaptively in pursuit of a common objective, which in this case is to create the best possible wine. In addition, it was found that their work normally implies shared leadership, which shifts according to a complex pattern in which knowledge, organisational structure, and culture are mixed. Furthermore, oenologists, and other knowledge workers, actively participate in local and wider networks, in which lateral communication between organisations is fundamental. Finally, although a formal structure exists in each organisation, the evidence shows that the work of oenologists obeys more dynamic and complex rules, according to their requirements as knowledge workers.

7.10 DISCUSSION

Firstly, an obvious question here is what role management specialists play in the management of the 'avoidable' situations previously mentioned. As was seen in chapter 3, in theory, they ought to be proactive, strategic, and should deal with the organisational culture and climate, according to the needs of the business. At the same time, oenologists seem to be dealing with a *paternalistic* and *macho culture* with little support from the firm's management. It would be expected that a *knowledge workers' guardian* would 'protect' knowledge workers against an

inadequate labour environment, but this is not the case. The evidence suggests that most oenologists have to adapt to these circumstances by reducing their expectations of what they will be able to achieve in their work and adapting their style of management to this reality. For example, the problematic *macho* and paternalistic culture that most of the women have to face has led to drastic changes in their leadership style, from egalitarian to more authoritarian and paternalistic.

A second topic for discussion is the change in the traditional forms of organisation in wineries. The traditional hierarchy is no longer the prevalent form in the oenologists' work environment in Chilean wineries, as oenologists work in teams, share leadership, have intensive networking activity, and are able to access higher levels of management directly without going through the formal hierarchy if necessary. On the contrary, what was observed is something more similar to a heterarchy (see chapter 1, page 44). Although there has been little research on the link between heterarchy and knowledge workers, and oenologists in particular, the findings suggest that, at the knowledge worker level, the winery seems to take the form of a heterarchy, in which each worker participates by exchanging fundamental knowledge laterally, which contributes to improving the adaptation process of the organisation. This seems to be also the reason why there are no significant differences between the situation in large, medium and small organisations. Wineries seem to be mutating to different forms of organisation, although it seem not to be aware of such as big change.

Likewise, it was found that the management of the firm does not play a role in the determination of the what, when, who and how of training. Notwithstanding, another interpretation of this situation is possible. As was mentioned in chapter 3, there is increasing controversy about the limitations of formal training in the context of knowledge work, and the necessity to adopt a more dynamic approach. It has been claimed that the new paradigm of training involves 'on-demand' training, IL, and a focus on self-development, which includes the self-diagnosis of training needs (see chapter 3, page 91). Although sometimes it is difficult for

oenologists to get support for traditional formal training, they do actually have access to training provided by suppliers, such as attending events, technical visits and demonstrations, and occasionally having the chance to experiment at the supplier's plant. They also seem to enjoy appropriate conditions for IL and networking. Thus, from this point of view, what is occurring in the context of Chilean oenologists may be interpreted as a natural transition to more flexible forms of training management. However, two questions arise from this interpretation: firstly, why, in the survey, the rate of satisfaction expressed by oenologists with their training is low; and secondly, how firms can add a 'strategic touch' to this apparently *voluntarist* approach.

Thirdly, the results of the research raise a paradox, in that knowledge workers have suitable working conditions with, apparently, minimal participation from the managers. In theory, managers are responsible for providing suitable working conditions (from the business perspective), but, in this case flexibility, autonomy, challenging tasks, team quality, and a learning environment have been shaped by 'others' with a low level of participation by them. This contradiction is critical to this research, because it challenges the 'traditional' view of managers as the main actors in organisational development. What seems to occur in the case of oenologists is that, as knowledge workers, they have the power to create, seek and negotiate the best possible working conditions for themselves in non-structured, non-planned, and spontaneous ways.

To summarise, managers should not only provide support with 'avoidable' problems, but also play a more 'proactive' and 'facilitative' role. Although oenologists are, in fact, quite satisfied with their working conditions, from the data provided in this research it is clear that they could be better managed and, consequently, organisations could exploit their knowledge, talent, and motivation in a better way.

8 TRADITIONAL ADMINISTRATIVE TASKS IN THE OENOLOGISTS' ENVIRONMENT

Abstract

The purpose of this chapter is to describe and analyse the management of the oenologists from the perspective of the traditional administrative tasks. In doing that, job description, HR planning, recruitment and selection, along with performance assessment, training and career management are described. Also, labour relations and the oenologists' rewards are addressed. Finally, the current role of the personnel management department, including its role in retention, and the implications for the current and future management of knowledge workers are discussed.

8.1 INTRODUCTION

As has already been mentioned in chapter 5, this research attempts to answer the question of whether oenologists are knowledge workers or not. The evidence shown in chapter 6 suggests that they fulfil most of the characteristics mentioned in the literature, since they are highly educated and experienced, are engaged in complex and non-routine work, use their creativity and innovation at work, are highly motivated to learn, network with other knowledge workers, and are socially recognised as knowledgeable workers in their business environment.

Another objective of this research is to describe the degree of satisfaction of oenologists with the HR practices applied to them in their firms, and whether or

not they are akin to those described in the literature on knowledge workers. In the previous chapter 7 it was argued that oenologists are indeed satisfied with their working conditions, and also that these seem to be similar to those described as fundamental for knowledge work in the literature.

In the literature it has been claimed that knowledge workers are essentially different from the traditional worker, and that they need to be managed in a different way (see chapter 1). While the tasks related to *knowledge workers' specific needs* have received considerable attention in the literature, the traditional administrative dimension seems to have been neglected. However, it is evident that traditional personnel management functions are still necessary, and that these functions urgently need to be adapted to the needs of knowledge workers.

The *traditional administrative tasks* were described in chapter 3. Its main objective is to build an efficient infrastructure for the organisation, and to carry out traditional personnel management functions such as organisational design, recruitment and selection, performance assessment, training and development, and career management. Although these personnel functions have been downplayed recently, according to Ulrich (1997) they are still very important as they provide the basis for organisational efficiency. In this research, staffing and resourcing; development; labour relations; and rewards will be described and analysed in the light of knowledge worker theories.

8.1.1 Staffing and resourcing

In order to analyse the HR planning function, it is first necessary to differentiate between core and peripheral workers. Studies carried out in the Chilean agricultural sector suggest that firms make extensive use of the services of external contractor firms to obtain additional workforce during the peak season (Barrientos, 1997; Matear, 1997; Kay, 2002), while a smaller number of core employees have permanent contracts. One of the interviewees (X14) said that in the cellar of the winery where she currently works there are only 10 workers during the year, but at harvest time the number can rise to 60, due to the presence of temporary workers.

This tendency is also common in most wineries around the world (Thach & Bynum, 2004).

According to the data collected from the interviews, HR planning activity is mainly limited to estimating the number of temporary workers needed for the harvest period and then negotiating with the external contractor firms. The two managers interviewed (X10, X16) mentioned this process as one of the most important activities in relation to the personnel function. They mentioned simple mathematical operations (e.g. number of workers per square metre) and expert judgements (by oenologists, viticulturists, and general managers) as the main methods used in their calculations. Oenologists interviewed confirmed that they participate in this decision, and also that the main criterion they use is their experience of the previous harvest. They also pointed out that the tendency is to use the same contractor firm every year, and that this firm is expected to provide the same workers, as they already know the particular environment, machines, and style of work of the firm.

Oenologists are employed on full time permanent contracts, except when they play the role of consultant. According to the data collected, the HR planning effort related to permanently contracted oenologists is low or nonexistent. On the contrary, the demand for oenologists seems to be contingently managed, usually with time constraints, and based on informal contacts. The lack of planned staffing is inferred from the fact that most of the interviewees described their recruitment as a spontaneous opportunity, by chance, mediated by personal and professional contacts, and informally driven. This tendency was found not only in SMEs, but in large organisations as well. For example, a young oenologist in one of the largest wineries described her recruitment process as:

'I started working in this winery in 1999 as a cellar worker. At that time, I knew that a former student of the University of Talca was working in the cellar of this winery, so I phoned him and asked him if there was a vacancy for the next harvest. Then he told me that I had to send my curriculum vitae. Later on, he phoned me back,

interviewed me and I got the job. One year later, a friend of mine who was working in the winery, phoned me, and told me that she was leaving the job because she was getting married, and thought that maybe I would be interested in taking her place here. So I phoned straight through to the same chief oenologist (the former U. Talca student) and asked him if he was looking for an assistant. Then he told me "yes" and that I had to meet him...I met him, had a chat, and then I got the job'.
(X2)

Similarly, X9 was recruited in a very spontaneous way. She said: *'during my last year of university, in the 2000 harvest, between February and April, I worked for L (the winery) as an intern, working in the cellar...in the 2001 harvest, I was talking with the former chief oenologist of L. and he asked me if I already had work for the next harvest, and offered me work both in the harvest and in writing HACCP (Hazard Analysis and Critical Control Points) manuals. Just as I finished work on the harvest, the assistant oenologist resigned to take up studies in France, and I was offered his job'.*

In addition, a personnel manager who was interviewed (X16) argued that they do not do any planning relating to oenologists because: *'...this firm is very small, so we manage the human resources management accordingly. In the case of oenologists, when one leaves the organisation, then we start looking for someone to replace her/him.'*

Although the answers of X2 and X9 do not describe the planning process itself, they depict how informality and spontaneity is prevalent in the management of oenologists. From their answers, it is difficult to infer a more formalised planning procedure behind these firms' recruitment processes. It is especially interesting that X2 works for one of the largest wineries in Chile, as this demonstrates that an informal culture extends beyond SOs. This characteristic is also clear in the answer of X16, a personnel manager of a medium size organisation, who believes that, as there are only four oenologists on the staff, there is no need for any personnel planning. In addition, personnel management units do not have a preponderant

role in the management of oenologists, as their function is directly controlled by owners or general managers.

Another HR practice is the production of job descriptions. Apparently this is not common practice, or at least oenologists are not aware of their existence. In general, their duties are vaguely described as for example 'being in charge of wine production' (in the case of the chief oenologist) or 'assisting the chief oenologist in wine production' (in the case of the assistant oenologist), or 'being in charge of cellar X', etc. But it is understood that this involves all activities linked to wine production, including a number of indirect activities such as evaluation and purchase of new machinery, promotion of wine at the cellar, in other places in Chile or abroad, and supervision of people working in the cellar. In the same way, working hours are not clearly defined, since it is expected that oenologists will be flexible depending on circumstances, especially during the harvest. Likewise, the prevailing means of communication of their tasks and duties is face to face, not regulated by bureaucratic rules. This scenario was common to most of the organisations studied, whether large- or medium-sized, boutique or bulk wine. One interviewee (X14) said about her former job:

'My last job was madness!...there was nothing! I wanted to create a job description of the "duties" of each worker, the organisational structure, and how to make the work more efficient, but they only put barriers in my way: "there is no time!", "let's do it tomorrow!", they said, so I realised that there was not will to change anything, so finally I gave up.' (X14)

However, it was found that in large wineries job descriptions tend to be more formal and structured. For example, one of the interviewees who works in one of the largest wineries of Chile described four hierarchical levels for oenologists: the oenologist leader of the wine, the main oenologist of the cellar, the assistant oenologist, and those young oenologists working temporarily during the harvest.

Recruitment of oenologists was also studied. In general, the recruitment of oenologists is characterised by informality, spontaneity and extended use of

personal and professional links, instead of formal HR practices. The examples given above (X2, X9 and X16) depict this situation. Three more cases epitomise this tendency:

'When I finished university, one of the lecturers, who has links with this winery, told me about a opportunity to take up an internship, so I sent my CV and I got it, and when the internship finished they offered me the opportunity to carry on working here'. (X1)

'...the chief oenologist of the winery phoned me and asked me if I was interested in a permanent job here ...He contacted me because he met me one year ago in the harvest of 2002 and had had a favourable impression of my work' (X5)

Similarly, the chief oenologist (X7) of a middle size family business winery was recruited because the consultant oenologist suggested his name as a suitable person for the post. He initially arrived to Chile to replace another oenologist for a short period of time, and was later hired as the permanent chief oenologist.

This tendency is also confirmed by the qualitative data collected. In this study, a number of oenologists working in wineries were asked how they heard about the vacancy for their current job (see table 8.1). It was found that roughly half of the respondents were informed through the network (48.9%). Surprisingly, only 15% of them were told by a friend or relative, which is curious considering the importance of these links in the Latin American literature (see chapter, 4, page 115) and the fact that many wineries are family businesses. 10.6% were hired as a part of a team, possibly as an assistant to a chief oenologist. Universities (6.4%), consultants (6.4%), unsolicited applications (6.4%), and information from the professional association (4.3%) were less relevant. None of our sample identified their current job vacancy through newspapers, which is a very common recruitment method in large organisations in Chile.

Table 8.1 Way in which they knew about the vacancy for their current job?

Way in which they knew about the vacancy for their current job? n=46	%
Colleague	48.9
Friend or relative	14.9
Former boss (as a part of a team)	10.6
University	6.4
Consultant	6.4
Sent my CV to the firm for a possible vacancy	6.4
Association or another organisation	4.3
News paper	0.0

In most of the cases, owing to the fact that candidates are recruited by personal and professional contacts, there is only one candidate to consider. In addition, the most common method of selection used by organisations was the interview. This interview can be more structured when the candidate is not previously known by the interviewer, but it can be more flexible and distended when the candidate is already known (which is quite common). In both cases, a number of critical issues will be addressed such as salary, starting time, and style of work. But, in the case of candidates who are 'strangers', education and previous experience are also discussed. From the data it is possible to infer that interviews with new 'strangers' will be focussed on technical aspects and work experience; while interviews with senior oenologists tend to be more oriented towards 'vision of the winemaking' and negotiation about her/his role in the process, and possibilities of experimentation and innovation. For example, the negotiation can involve to what extent the owner, the market guidelines, or the consultant will determine the nature her/his work. According to the only consultant interviewed, X15, in the case of senior oenologists, it cannot be taken for granted that they will take the first opportunity of a job, even if the salary were adequate. In fact, quite the opposite, *'...to reach an agreement about what wine will be produced is required... especially in the case of a famous oenologist'*.

One interesting topic mentioned by a couple of oenologists that were questioned about having been a 'stranger' (X4, X14) was the fact that their interviews started with a 'formal and distant tone', but soon took an emphasis that was more upon

'social links' and 'social references'. In the interview, a number of questions were made in order to place the candidate in the social network; for example the interviewer tried to find people they mutually knew, such as people with whom the candidate worked or was linked with in the past. For example, X4, described that he knew neither the firm nor the interviewer, but after a short time, when he was describing his studies and (short) experience, the interviewer started to ask about some of the academic lecturers in the university in which he had studied. According to X4, this situation happens because *'...the Chilean winemaking environment is very small and everyone knew each other'*.

Although undoubtedly the job and salary are important for oenologists, it was found that their expectations were strongly linked to personal development. When they were asked about whether they were satisfied or not with the job offered, they usually mentioned intrinsic rewards and development opportunities as the most important aspects. They mentioned 'gain experience and knowledge', 'firm's prestige', 'work with a top oenologist', 'working conditions', and even 'time flexibility' and 'quality of life', as pivotal aspects of their decision to take a job. For example, X14 said that she took her last job because it enables her to have a good quality of life (it is near to Santiago, where she lives), because she was bored of the management style of her former firm, and also she pointed out that money was not the first aspect she took in consideration in her decision.

Thus, the evidence shows that the recruitment process is informal, with selection based on highly elementary interviews of questionable reliability, which are focused on issues such as formal education, experience, and social links and membership of networks.

8.1.2 Performance assessment

In terms of performance assessment, a wide range of situations was found. In most of the wineries, performance assessment is made informally and spontaneously, without the use of conventional HRM procedures, tools and forms. Most oenologists can get some idea of what the manager or owner thinks about their

performance through informal conversations. In some cases they get spontaneous, direct and *ad-hoc* feedback, as described by X1 who said that in his winery, which is a family business, *'the owner directly supervises the work of the oenologist and when he is not happy with it, he goes to the cellar and expresses his dissatisfaction directly to the oenologist...that's the way in which I receive feedback'*. In other cases, oenologists are able to find out if they are doing well in their work indirectly, through customer feedback. For example, X11, an oenologist working in the bulk wine sector, said that the way in which he usually finds out how well he is doing his job is from the number of complaints from suppliers and customers. Finally, other oenologists mentioned more formalised methods, for example, X4, who said: *'my work is evaluated by the commercial director (director comercial) and the general manager, and, because the commercial director is also an oenologist he comes once a week and we taste the wine together, so he is the link between the general manager and the oenologist'*.

Although assessment is mainly made informally, there is a unique moment in which the whole performance, not only of the oenologist but of all the workers in general, is 'symbolically' assessed. In the winemaking environment this moment is called 'the moment of the truth', and is when the owner of the firm opens a bottle (symbolically, the first) of the wine in front of the oenologist and the other workers and tastes the wine. During this moment, the owner usually gives a short speech, which reflects, to some extent, the perception and degree of satisfaction with the work of the winemaking team. Although this speech is generally 'positive' and highlights the hard work putting by all the workers, the data suggests that most of the employees of the winery, including the oenologists, can decode and interpret the underlying meaning in the owner's message in terms of her/his satisfaction (or otherwise) with the quality of the wine and, consequently, their work. For example: X4 said that *'...he generally gives thanks to everybody for their effort and hard work in the production of the wine, but you can tell from his words if he is really happy with the wine or if he is just satisfied'*. However, more research is needed to

understand the real implications of this moment and how it can affect the management of workers in the winery.

Despite the evident informality, in the survey, a considerable proportion of respondents expressed satisfaction with the way in which their work is assessed (60.87%). As with most of the variables in the survey, a large majority of oenologists working in large organisations were satisfied (80%), while a lower percentage of people in medium size (52.94%) and small & micro firms (62.50%) were happy on this issue. A plausible explanation of this difference may lie in the tendency towards formality of the HR practices in large organisations, which could reduce uncertainty and the stress of a more personalistic style. However, further evidence would be necessary to demonstrate this hypothesis.

In addition, a large percentage of less experienced oenologists, with between 1-5 years of experience, were more satisfied (75%) with this aspect than those with 6-10 years (54.55%) experience and 11+ years experience (50%). This could be linked to the normal enthusiasm of young oenologists, their eagerness to learn from more experienced workers, and their flexibility and tolerance when they face harsh working conditions; more experienced oenologists are presumably less tolerant and demand a more equal treatment. Finally, a slight difference was detected between women (52.94%) and men (65.52%), which could be a reflection of a masculine oriented performance appraisal.

8.1.3 Training

As was previously mentioned in chapter 3, training is also a very important aspect of the management of oenologists. Training can be understood as '...a process which is planned to facilitate learning so that people can become effective in carrying out aspects of their work' (Blamley, 2003, p.4, quoted in Marchington & Wilkinson, 2005). In chapter 7, the training issue was dealt in depth. In a nutshell, oenologists are not fully satisfied with the training they receive in their organisations as only 50% of survey respondents expressed satisfaction on this issue (table 8.4). In addition, oenologists play a pivotal role in determining what

kind of training they need and also where, how and when to get it. Also, it was found that oenologist suppliers and their companies play a central role in the provision of training. As has already been pointed out, formal training is not strategically managed, but left entirely up to oenologists and subject to their environment.

Table 8.2 Traditional administrative tasks by firm's size

Traditional administrative task by firm's size						
	REWARD	TRAINING	CAREER	ASSESSMENT	RRHH	
M&SMALL (n=24)	12	13	14	15	13	
%	50.00	54.17	58.33	62.50	54.17	
MEDIUM (n=17)	9	7	11	9	7	
%	52.94	41.18	64.71	52.94	41.18	
LARGE (n=5)	5	3	5	4	5	
%	100	60	100	80	100	
TOTAL	26	23	30	28	25	
%	56.52	50.00	65.22	60.87	54.35	

Table 8.3 Traditional administrative tasks by sex

Traditional administrative task by sex						
	REWARD	TRAINING	CAREER	ASSESSMENT	RRHH	
Women (n=17)	9	8	9	9	9	
%	52.94	47.06	52.94	52.94	52.94	
Men (n=29)	17	15	21	19	16	
%	58.62	51.72	72.41	65.52	55.17	

Table 8.4 Traditional administrative tasks by experience

Traditional administrative task by experience					
	REWARD	TRAINING	CAREER	ASSESSMENT	RRHH
1-5 years (n=16)	11	10	11	12	12
%	68.75	62.50	68.75	75.00	75.00
6-10 year (n=22)	10	9	12	12	10
%	45.45	40.91	54.55	54.55	45.45
11+ year (n=8)	5	4	7	4	4
%	62.5	50	87.5	50	50

8.1.4 Career management

For oenologists working in making wine, the typical career starts with harvest work in Chile and/or abroad, usually followed by a job as an assistant oenologist for a number of years (for example X2, page 224). After many years, the next step is to become a chief oenologist. A further stage would then be to become a consultant oenologist; however, this is not the only path as many oenologists take management positions or try to start their own wine businesses. According to some of the interviewees (X13, X15), oenologists do not expect to be in the wine cellar until the end of their careers, because of the harshness of the work during the harvest and the often isolated places of work. Working as a consultant is definitely a less stressful way to be in contact with wine, without being exposed to long working hours and difficult shift patterns. According to data collected in the interviews, the main methods of progressing up the career ladder are to gather a significant amount of experience, take part in social networking, and engage in self-marketing and promotion.

The career development of oenologists is complex, owing to the average size of the organisations in which they work and the role they play in them. In the Chilean wine industry (and in the wine industry in general), most of the firms are of medium and small size, and consequently they have little chance to offer an attractive 'traditional career'. Small organisations have considerably fewer

resources, provide less certainty about the future, and are tightly controlled by their owners, giving restricted possibilities for career development. For example, in her previous job, X14 felt very controlled and limited by the personal views of the owner, who decided whether or not she can take a training course based on her personal opinion of the matter, and sometimes even on her mood at the time.

Recently, the traditional view of the career has been replaced by a more flexible one, in which it is not necessarily bound to only one organisation. Currently, for many oenologists, the best way to gain significant experience and knowledge is to work in many different vineyards. Moreover, to work in the same winery for a long period of time can even be viewed suspiciously, because it may be interpreted as demonstrating a lack of success in getting another job, or the absence of an innovative attitude. X4 said '...the fact of being poached by another firm also means that you must have a fairly good reputation in the oenologists' environment'. Thus, it is clear that in the oenologists' environment, a successful career includes a high number of different jobs.

The data collected did not find evidence of career planning on the part of the firms, or any other signs of a planned organisational ladder for oenologists. Apparently, organisations manage oenologists' careers in a spontaneous and informal way, often driven by contingency, for example, in the way that X2 and X9 were recruited (see above, page 224). However, oenologists seem to be quite satisfied with the career opportunities in their current jobs. According to the data collected by the survey, 65.22% of the oenologists are satisfied with the possibilities given by their current job to progress in their careers. It is not surprising that large firms obtained a higher rate of positive answers (100%), but it is curious that medium size (52.94%) and micro & small organisations (62.50%) also get quite a reasonably high percentage. It is obvious that larger organisations can provide better career opportunities to their employees than medium- and small-sized organisations. One plausible explanation for this could be that in the professional culture of oenologists it is assumed that their career is not linked to one organisation and that it involves lateral movement through different firms. Thus, despite resource

constraints, small organisations are viewed as a valid step in oenologists' careers, which can lead to personal and professional progress.

In the survey, there are significant differences between women and men. 52.94% of women expressed satisfaction on this topic against 72.41% of men. It is possible that this figure could reflect negative discrimination against women; however, this interpretation appears to contradict the opinion of the women interviewed, who said that they do not actually feel discriminated against by gender (see chapter 7). Despite this apparent equal treatment of women and men, in the interviews it appeared that, for women, the high intensity of the work and the long shifts during harvest time were incompatible with their condition of mother. For example, many women reported that it is a common practice in the winemaking environment to plan pregnancy in order to give birth outside of the critical time of harvest, and also X3 (chapter 7 page 182) mentioned that one of the things she valued about her current job was precisely that it is quite suitable for mothers. Thus, the lower level of satisfaction could emerge from the problematic reconciliation of winemaking and maternity.

Finally, oenologists with 11+ years experience (87.5%) were more satisfied with their career opportunities in their current job than oenologists with 6-10 (54.55%) and 1-5 years experience (68.75%). The difference in these figures could be connected with the higher autonomy, flexibility and learning opportunities of chief oenologists in wineries; and the enthusiasm of the younger oenologists at the beginning of their careers (see for example X3, X4 in chapter 6, page 161). From this perspective, the fact that oenologists with 6-10 years experience were less satisfied could be explained by the fact that some of them can be at a transitional stage, in which they are not happy with their assistant role, and want to move up in the career ladder to positions involving more autonomy and power in the decision taking. Thus, it is not surprising that they may feel a bit disappointed with the current direction of their careers.

8.1.5 Labour relations

The management of labour relations is another function of the management of the firm. Labour relations between oenologists and the firm take place without mediation either from the firm's union or the oenologists' association, which represents oenologists at a national level. Oenologists deal with the firm directly. In general, the qualitative data shows that oenologists have a working environment that could be characterised as 'high commitment management' (see chapter 3, page 94), because they have a high degree of participation in the decision-making process, enjoy suitable physical working conditions, have suitable rewards, fluid communications with the management board and owners of the firms (see chapter 7), etc. This last aspect, privileged communication with the owner, is to some extent both a consequence of working in SOs, and also of the generally paternalistic control of owners over their firms. However, this 'high commitment' environment is clearly not the norm for all workers in the agricultural business, as the working condition for ordinary and temporary workers are radically more precarious and adverse (see chapter 6, page 157).

Although traditional labour relations have focused on the inherent conflictive relationships between the workers and the firm, the 'high commitment management' approach tends to focus on a wider range of factors in the organisation, one of them being the organisational climate. In this regard, another aspect found was the problematic relationship with less-skilled workers, which was described in chapter 7 (page, 182). This was a common problem for oenologists, especially woman. Daily interactions between non-skilled workers in the team and the oenologist were reported to be very difficult, as non-skilled workers expected an authoritarian and paternalist relationship with the oenologist. Although not all non- skilled workers are 'problematic' for oenologists, this was found to be a common problem.

Another interesting finding was that the external environment of the firm, and, the network in particular, help to regulate internal labour relations between

oenologists and their firms. Since the winemaking industry environment is a closed, small, and networked group of people, every event or incident is quickly communicated in the form of comment or gossip (see chapter 7). This situation was described by an expert as: *'in Chile, we know each other. It's like an extended family. If you are an outsider, you don't get credit. But trust is common among insiders'* (Visser & de Langer, 2006, p.190)

Thus, oenologists and the managers/owners of their firms maintain a mutual relationship of respect, in part because they know that news of any mistreatment, misconduct, disloyalty or, even worse, betrayal will be quickly spread throughout the network. On the one hand oenologists know that a rumour that puts their reputation on the line means that other employers will hesitate over whether to hire them or not. In the end, nobody wants to have a 'problematic', 'disloyal', or 'incompetent' oenologist in her/his firm. One of the interviewees said that, if she had serious problems with her owner/manager, she would prefer to avoid conflict, and would instead resign and look for another job, because she knows that, in the end, it is not good to get a reputation as a 'trouble maker' (X9). Another mentioned that: *'The world of Chilean oenology is a very small one, so it is very easy to find out about everyone's problems and achievements'* (X21). On the other hand, a firm with a bad reputation is unlikely to attract skilled knowledge workers, who prefer to work in a firm with good labour relations, working conditions, and opportunity for development. Therefore, one of the particularities of labour relations with respect to knowledge workers is that its regulation mechanisms go beyond the limits of the organisation.

In the context of oenologists, the role of personnel specialists has been characterised as low profile, whether as managers or internal consultants; instead, they are limited to basic 'personnel management' functions, such as the management of contracts, payroll and benefits. Even in large organisations, oenologists negotiate their labour conditions directly with the general manager or technical management, with little or no participation by the personnel specialists.

Trust in the oenologists' context

One aspect that demonstrates the good labour relations in the oenologists' environment is the high level of trust they enjoy in their workplace. As was pointed out in chapters 1 and 3, trust is fundamental to the work of knowledge workers, as they need a high degree of flexibility, autonomy, and knowledge exchange. Trust is so important that it could be considered the metaphorical 'glue' of the knowledge workers' relationships at work. Trust is also a fundamental element in the 'high commitment practices'.

In common with most of spheres of Chilean society (see chapter 4, page 124), in the wine business context, there is a lack of trust between firms and between firms and the government (Visser & de Langen, 2006; Tienhoven, 2008). Additionally, labour problems in the agriculture have been characterised by a lack of trust and conflict between employees and employers (Matear, 1997, Kay, 2002; Barrientos, 1997). More recently, labour conflicts in the wine industry have also been reported, due to the creation of unions by temporary workers, reflecting the lack of trust between workers and owners (De la Fuente, 2008). But, paradoxically, Chile has also been portrayed as a low-corruption country, in which apparently trust is in the air. For example, Pedro Grand, co-owner of Viña Montes, described Chile as 'very serious and honest' place to do business (Tienhoven, 2008, p.96). Because of this apparent contradiction, one question that needs to be addressed is to what extent knowledge workers enjoy trust in their work place. With that purpose in mind, the survey included questions about their trust in their firms, supervisors, colleagues, and workers under their supervision.

Trust is a difficult and ambiguous concept, and many forms of trust have been mentioned in the literature (chapter 1, page 47). Because of this, the oenologists were asked about what makes them trust in somebody else. Based on the analysis of the answers (X19, X20, X21, X22, X23, X24), here, interpersonal trust will be understood as closely linked to reciprocal respect, open communication

(*transparencia*), and job competence. The answers have been summarised as the table 8.5

Table 8.5 Trust: what makes an oenologist trust ...?

Trust: what makes an oenologist trust ...?	
the firm s/he works for	the firm's prestige and future viability; firm's capacity for innovation; firm's profitability; firm's respect for customers; when quality materials are used to make the wine; the quality of the winery's wines; the opportunities for development it gives to its employees; respect and decent treatment of employees.
her/his supervisor	Support given to oenologist (even when s/he makes a mistake); good, open and transparent communication with the employee; when they provide opportunities for oenologist's development, respect for oenologists ('reciprocal respect'), when the supervisor got their post by merit.
her/his colleagues	When they communicate in a transparent, direct, and open way; when they behave respectfully to other oenologists; when they have proper knowledge and skills (including the capacity to recognise their own limitations); when they are willing to collaborate; and the quality of her/his wines.
her/his supervisees	When they communicate in an honest, open and clear way; when they respect the oenologist; when they have proper skills; when they are punctual, responsible and hard-working.

Respect was generally mentioned by the respondents as crucial for trust. As was previously discussed in chapter 4, respect has a double meaning in the Latin American context; on the one hand, it means consideration, dignity and benevolence; on the other hand, it is linked to the subjugation of the individual to authority. Thus, when oenologists mentioned respect as a basic ingredient of trust, this may have different meanings depending on whether they are referring to their supervisor, colleagues, or workers in charge. It is probable that oenologists trust their supervisors and colleagues when they are treated with dignity and consideration, while they expect respect from the cellar workers in the form of obedience. In both cases, trust could be seen as closely linked to compliance with both social morality (dignity) and order (obedience).

Open communication was also mentioned. This response is not surprising, considering the fact that communication in Chile has been described as 'double-talk', in which people do not say what they think directly (Perez Arrau, 2008). This

is consistent with the description given by some interviewees of the problems they have to face with the shop floor. For example:

'At the beginning you are a bit 'innocent' about things, so people trick you all the time...but over the course of time you learn not to believe everything you hear ... when I thought that I already knew how to treat people in this environment, you realise that there is always somebody who wants to try to fool you...and the problem is that nobody tells you anything to your face, it is all rumour within the group' '...in fact, some people appeared to be friends, but in reality, they never showed their true feelings' (X5).

Finally, oenologists said that they trust in people who have the necessary competencies to do their job. Again, this is not surprising considering some of the problems mentioned in chapter 4. For example, although there has been a notable movement towards a more individualistic society, in the Chilean context 'personal connections' (*Pituto*) are still important in getting a job, sometimes without having the competences required for the post. Thus, the fact that oenologists trust in supervisors who get the job by merit is reasonable considering that many supervisors do not even have the necessary knowledge and skills for the post, because knowledge workers need highly capable leaders that understand the nature of their work.

In addition, and given the enormous social differences in Chilean society (see chapter 4), traditional agricultural workers normally lack education. Some of the oenologists interviewed said that there are some workers who can hardly read a written manual or understand a slightly complex oral instruction. Consequently, it is not surprising that oenologists are suspicious of the workers, as they can never be sure about how capable are they to do what they have to do. Thus, oenologists trust is narrowly linked to the reduction of uncertainty in some of the factors that have been mentioned as critical defects of Chilean society such as lack of direct and honest communication ('double talk'), the privileging of personal contacts over merit ('*pituto*'), and lack of education in a vast part of the population.

The data confirmed that oenologists enjoy high trust in their labour relationships (see table 8.6). In general, the survey shows that they enjoy high-trust relationships with their firm (89.13%), with their supervisors (76.09%); with their colleagues (93.48%), and with the workers under their supervision (91.3%). These figures are consistent with those who claim that knowledge workers need to work in an environment characterised by high trust relationships; however, it does not reflect the everyday reality in Chile, in which people do not usually trust each other (chapter 4). This finding is surprising, and it is not at all clear why the oenologists' environment is different. A plausible explanation, as was pointed out in chapter 4 (page 124), is that in the Chilean labour market two types of job can be identified; a small group of professional and well paid jobs, and, another group including the vast majority of low-paid and low-skilled jobs. The former group can be linked to knowledge work activities, which demand high-trust relationships. Thus, although low interpersonal trust prevails in the Chilean context, there are small 'spots' in the labour market in which this trust has to be created in order to carry out knowledge work.

The figures are also surprising considering the difficulties mentioned by women in managing the workers on the shop-floor. It is remarkable that 94.12 % of women (see table 8.7) answered that they trust in the workers supervised by them. It is possible that the period of conflict with the shop-floor only lasts a short time at the beginning of the relationship, and that afterwards oenologists and workers adapt to one another by establishing a more authoritarian and paternalistic relationship style. Thus, in the long term, communication and management in general improve, and trust is established. X9 commented that *'After all, it is impossible to work in the cellar and make wine if you do not have trust relationships with your cellar workers'*. Thus, although most women attempted to implement a more democratic and equal management system, in the end, they were forced to move towards a system in which trust is subordinated to the authoritarian paternalistic criterion. The answer of one oenologist to the question: *'what makes an oenologist trust in the workers under her/his supervision'* reflects the dual nature, of trust with

paternalism, in the relationship between oenologists and cellar workers. She said that:

'...the relationship between the oenologist and the worker needs time to develop real trust, it is necessary to work together as a team during the harvest, and to share in social meetings...and workers have to feel that their work is important to the firm and that they are a part of it. But, it is important to supervise them at all times in order to make them feel that they are not alone and to avoid them making the wrong decisions'(X21).

Table 8.6 Oenologists trust by firm's size

	TRUST FIRM	TRUST SUPERV	TRUST COLLEG	TRUST SUPERVISED
MICRO & SMALL (n=24)	21	17	22	22
%	87.5	70.83	91.67	91.67
MEDIUM (n=17)	15	13	17	15
%	88.24	76.47	100	88.24
LARGE (n=5)	5	5	4	5
%	100	100	80	100
TOTAL	41	35	43	42
%	89.13	76.09	93.48	91.3

Table 8.7 Oenologists trust by sex

	TRUST FIRM	TRUST SUPERV	TRUST COLLEG	TRUST SUPERVISED
WOMEN (n=17)	15	13	15	16
%	88.24	76.47	88.24	94.12
MEN (n=29)	26	22	28	26
%	89.66	75.86	96.55	89.66

8.1.6 Reward

Chilean oenologists are usually well paid. As was mentioned above, every oenologist in Chile has to have a degree in agronomy. According to figures from the Ministry of Education (www.mineduc.cl), in 2001, a graduate with a degree in

agronomy would be expected to earn about CHP\$650.000 (about £750⁶) per month (pm) after two years of experience; and about CHP\$825.000 pm (£960) after four years. According to Rappoport et al. (2004), this figure could rise to near CHP\$1 000 000 pm. (£1170), after five years of experience, being similar to some highly reputed professions such as dentistry, architecture, and some types of engineering. The income of these graduates is quite high if we take into consideration that the current minimum monthly wage in Chile is about CHP\$ 160.000 pm (£185) and the national average salary is about CHP\$300.000 (£330) pm (www.ine.cl, 2008). However, these figures refer to graduates with agriculture degrees, working in all areas of agriculture, oenology being only one of many. According to the qualitative data collected in this research, the current average salary of an oenologist may be between CHP\$ 1.500.000 pm (£1750) and CHP\$ 5.000.000 pm (£5800) per month, depending on job function and responsibility; this is considerably more than the average for other professional in the agricultural sector.

Oenologists working in vineyards usually receive a steady monthly salary, and also a yearly bonus payment that usually fluctuates between one and two month's salary. This bonus is given after the harvest, as compensation for the great effort and the long shifts put in during this period. In general, the oenologists' payment structure was quite conservative. In relation to benefits, the data collected suggest that oenologists are treated in the same way as other professionals in the firm. No special benefit packages or similar incentives were found.

In the survey (table 8.2), 56.52% of the respondents expressed moderate satisfaction with their rewards, with no significant differences between micro & small (50%) and medium firms (52.95%), but with important differences between these and large size firms (100%). As was previously suggested, one reason for this difference could be the great inequality of resources between SMEs and large organisations. In addition, differences were found (table 8.4) between oenologists with 1-5 years experience (68.75%), 6-10 years experience (45.45%), and 11+ years (62.5%). No major differences were found (table 8.3) between women (52.94%)

⁶ Values at 09/04/09, £1=CHI\$855, <<http://www.xe.com>>

and men (58.62%). There is a degree of contradiction between this data and that collected by qualitative methods, in which most of the oenologists expressed satisfaction with their salaries. The underlying cause may be that the survey respondents could include many oenologists from the bulk wine industry⁷, in which the salaries are probably less than in 'boutique wineries'. In addition, people tend to think that their work is worth more than it is valued at in the labour market, and that they should be paid more than they are. Additionally, in the same survey, few oenologists mentioned 'Salary & incentives' as one of the main problems they currently face in their job (See table 8.8), which confirms the qualitative findings.

8.2 PART 2: THE PERSONNEL MANAGEMENT DEPARTMENT'S ROLE IN THE ORGANISATION

Knowledge workers are not unanimously satisfied with the personnel management department. Only 54.35% of survey respondents said they were satisfied with the HR practices in their organisation (table 8.2), which is consistent with the interview findings. Many oenologists think that the personnel management departments could do more in relation to personnel matters. Moreover, many of them are not even clear about what the role of the personnel management department in the organisation is, and several linked it merely with payroll and the management of benefits. One interviewee, who works for a bulk wine producer (X11), described the management of the firm as: *'...deficient, because everyone in this firm seems to work informally and without a clear purpose of improving... there are no organisation charts, vision, mission, or objectives'*.

In the same way as with other variables in this study, significant differences were found in the number of oenologists satisfied between micro & small (54.71%); medium size (41.18%); and large firms (100%) (table 8.4), and also between those with 1-5 years (75%), 6-10 years (45.45%), and 11+ years experience (50%) (Table 8.4). But no great differences were found between women (52.94%) and men (55.17%) (Table 8.3). Although it is not surprising that more oenologists working in

⁷ The meaning of 'in bulk' wine is '...wine that's not yet packaged for retail sale'. In wine dictionary, <http://www.epicurious.com/>

large organisations are satisfied with their personnel departments, it is curious that younger oenologists are considerably more satisfied than older ones. A plausible explanation for this difference could be deficiencies in human resources development, in the form of a lack of formal training, career management, performance appraisal systems, etc., which is presumably more noticeable to those at a more advanced stage in their career, when they need to obtain knowledge beyond their direct environment.

Along with the low level of satisfaction with the personnel function, oenologists named a number of problems in which personnel specialists should provide support. In the survey, they were asked to mention three HR related problems currently affecting their work. The problems mentioned are grouped by subject and listed according their frequency, in the table below (Table 8.8):

Table 8.8 Main problems and obstacles for working

<i>Main problems and obstacles for working</i>	<i>%</i>
Material/economic resources	32.6
Team quality & human resources availability	28.3
Leadership/management style	23.9
Bureaucracy	21.7
Planning, objectives & structure	21.7
Others	17.4
Communication & coordination	13.0
Human relations	10.9
Lack of time and overstress	8.7
Physical environment & infrastructure	6.5
Technology	4.3
Salary & incentives	4.3
Social recognition	4.3
Lack of innovation	4.3
Trust	2.2

Many of the subjects mentioned by oenologists as current problem are related, directly or indirectly to personnel management functions. 'Team quality & human resources availability' (28.3%); leadership & management style' (23.9%); 'communication and coordination' (13.0%); 'human relations' (10.9%); etc., are organisational problems that should be addressed by HR specialists. However, the

HR area do not have great incidence in these issues. Lack of an appropriate HRM policy can affect oenologists' work, making them less efficient and limiting their ability to deploy their knowledge and talent to the full. For example, lack of a suitable team can lead to frustration, lack of trust, and the depletion of the oenologist's capacity for creativity and innovation; while lack of suitable management can limit oenologists' development, leading to voluntary resignation (see chapter 3). Thus, although the Chilean wine industry appears to be successful in the external labour market, lack of HRM could be causing a lack of efficiency and productivity in the management of oenologists.

8.2.1 The retention of knowledge workers

One of the problems in the management of oenologists is retention. In the case of knowledge workers, high turnover is problematic as firms lose tacit knowledge critical to organisational performance (see chapter 2). Along with that, knowledge workers have more opportunities for mobility as their skills are scarce in the labour market (Redmand & Wilkinson, 2006).

While several authors have suggested that there is a high turnover among Chilean workers in general (Reinecke & Velazco, 2005; Gatica & Romanguera, 2005), the literature is quite limited about specific rates of turnover by economic activity and type of job. Thus, it is difficult to know exactly what the turnover rate among oenologists is, and even more difficult to know whether that rate is 'normal' according to the characteristics of the business and the Chilean economy. However, the subjective estimation of experts in the Chilean wine industry is that oenologists are characterised by a high rate of turnover, affecting firms of all sizes, ages, and levels of innovation (Hojman, 2007). This study confirms that oenologists and managers in the Chilean wine industry also perceive that they have a tendency to change jobs too frequently, more than they should. Moreover, one of the interviewees (X4), working in the Colchagua valley, described a typical situation in which one oenologist is poached by another winery, and then the 'affected' winery seeks to fill the vacancy by poaching another oenologist from the competition,

producing a knock-on effect. This situation is nicknamed by the local oenologists as 'musical chairs' (*'el juego de la silla'*), because, in the same way as in the children's game, it produces a number of simultaneous movements, in which each participant tries to get a chair, which in this case is 'the best job'.

In our sample, oenologists changed jobs on average 1.17 times in the last 6 years, with a standard deviation of 0.94 (see table 8.9). The majority of people who answered the questionnaire have not changed job in this time (34.78%), or have changed only once (34.78%), which could be considered quite normal. However, some oenologists changed twice (15.22%), three times (8.70%) or four or more times (6.52%), which could be considered excessive bearing in mind that interviewees thought that the minimum time for a oenologist to become 'familiar' with the specific characteristics of a vineyard is two years.

In the same sample, no significant differences were found between large (1.2), medium size (1.06) and micro & small firms (1.25). However, women tended to change more times (1.41) than men (1.03), and oenologists with 1-5 years experience (1.05) tended to change more often than those with 6-10 years experience (1.09) and 11+ years experience (0.75).

Table 8.9 Number of times oenologists have change job in the last 6 years

Number of times oenologists have change job in the last 6 years		
TIMES	FREQUENCY	%
0 time	16	34.78
1 time	16	34.78
2 times	7	15.22
3 times	4	8.70
4 times	3	6.52

Table 8.10 Average number of times oenologists have changed job in the last 6 years by firm's size

Average number of times oenologists have changed job in the last 6 years, by firm's size		
	JOB CHANGE LAST 6 YEARS	TURNOVER AVEDEV
MICRO & SMALL (n=24)	1.25	0.94
MEDIUM (n=17)	1.06	1.02
LARGE (n=5)	1.2	0.64
TOTAL	1.17	0.94

Table 8.11 Average number of times oenologists have changed job in the last 6 years by sex

Average number of times oenologists have changed job in the last 6 years, by sex		
	TURNOVER AVERAGE	TURNOVER AVEDEV
WOMEN (n=17)	1.41	1.19
MEN (n=29)	1.03	0.74

8.12 Average number of times oenologists have changed job in the last 6 years, by year of experience

Average number of times oenologists have changed job in the last 6 years, by year of experience		
	TURNOVER AVERAGE	TURNOVER AVEDEV
1-5 (n=16)	1.5	1.13
6-10 (n=22)	1.09	0.87
11-+ (n=8)	0.75	0.56

Interviewees questioned about what leads oenologists to resign voluntarily gave several reasons. Firstly, as knowledge workers are quite sensitive to social issues, any perception of a *cul-de-sac* situation in the organisational climate or lack of opportunities for learning can trigger a quick resignation. This was the case for one

of the interviewees (X11). He worked in a firm in which he was not only in charge of the winemaking, but also of its trading, and after the repeated denial of support for him to study for an MBA, he left the firm in search of better opportunities. Likewise, in another interview, a chief manager of one of the largest vineyards in Chile described how several oenologists, one after another, left the firm because of bad communications with the cellar manager.

Secondly, another common reason for leaving that was identified was the perception of the end of a cycle of learning in a particular place. Some of our interviewees perceived that the winery does not expect to have the same oenologist forever; nor does the oenologist expect to stay in the same job his entire career. Instead, oenologists agree that 'fresh air' is a good thing when you no longer have anything more to learn in a particular winery. One interviewee pointed out that: *'...I think the firm and the oenologists do not want to live together forever... it is good to change the wines from time to time...'* (X4)

A third reason mentioned for turnover was the family business environment very common in the Chilean wine sector, where expectations of advancement may be limited as the main managerial positions are taken by family members. Fourthly, oenologists may leave, or even emigrate when they see an opportunity for more responsibility, especially when they are offered the opportunity to produce their 'own wine'. Finally, it was suggested that high turnover among oenologists is a way to gain prestige and reputation in the eyes of their peers.

Contrary to authors that have suggested that salary could be a central factor in the problematic high turnover of oenologists (Hojman, 2007), this was not mentioned by oenologists as a main reason for moving. Although more responsibility was usually linked to better salary, for the interviewees it seems to be a secondary issue. For example, a chief manager of one of the largest vineyards (X10) mentioned the case of one of their best young oenologists who was recruited by the university while he was working for them, for a considerably lower wage, because he was attracted by a promise to be sent to California to enrol in a

doctoral programme. Another interviewee (X13) mentioned the importance of travel and training as a way of retaining oenologists, who are, according to him, always on the lookout for new experiences in order to improve their winemaking skills.

In this scenario, it seems odd that winemaking firms do not do more to retain their 'best talent', when a so-called 'war for talent' seems to be taking part among wineries. Few interviewees related experiences or cases in which an organisation tried to persuade an employee to stay in the organisation by offering an improved salary or better working conditions. On the contrary, managers seem to be resigned to losing their knowledge workers. For example, one of the oenologists interviewed, working in a large winery, pointed out that the week before the interview a very skilful and expert oenologist resigned from the firm and that the management did not do anything to prevent it. In another large winery (X10), the chief manager described a case in which he tried to retain a talented oenologist by increasing his salary by 20%, but the board of directors did not approve his request.

It is not clear why firms passively watch while other firms take away their knowledge workers. Some plausible explanations could be that firms believe, as do many oenologists that their oenologists' knowledge is not as critical to wine production as the quality of the grapes or the way the product is marketed (see chapter 6), so that if an oenologist leaves it will not dramatically affect their production. Or perhaps they are still working on the assumption that the labour market is full of skilful winemakers waiting for a work opportunity and that any employee can be easily replaced (which is the case with non-skilled workers). Or maybe the wineries are still governed by people who are not professional managers but owners of small and medium size firms, or directors of larger firms, and they do not see the organisation from the KBV. Consequently, the reason underlying the high turnover among oenologists is still a riddle, but what is clear is that firms are not making enough effort to retain them.

8.3 SUMMARY,

Although the literature on management has tended to highlight the 'novel' aspects that make knowledge workers different from traditional workers, such as their need for autonomy, flexibility and networks, inevitably their management also includes a number of 'traditional' administrative aspects. This less striking face of knowledge work has been neglected in the literature; however, as with many other management functions, organisations could seek ways to improve its performance by designing suitable management systems for their knowledge workers. In general, in the scarce literature on this issue, there is agreement that traditional HR practices do not have the same effect on knowledge workers as on traditional workers, and that 'innovative' HR practices could contribute to getting the best from their knowledge and talent.

In this research several people management practices were addressed. Firstly, although HR planning activity was found in regard to low-skilled workers, firms do not do any formal planning in relation to oenologists. Likewise, the evidence suggests that organisations only have general, rather than detailed, job descriptions. Secondly, it was found that oenologists are mainly recruited by personal contacts, by informal and *ad-hoc* means; while selection is made by non-sophisticated methods, mainly by interviews. In addition, it was found that both recruitment and selection privilege 'cultural fit' as main criteria, and that even when the candidate is a 'stranger', the interviewer will attempt to establish try a social connection with the candidate.

Thirdly, formal training is limited by lack of strategic orientation, long-term vision, and also strongly influenced by the personal view of the owner. Fourthly, Chilean wineries do not have formal mechanisms for performance assessment, but give personalised, *ad-hoc*, and spontaneous feedback to oenologists. Furthermore, sometimes this feedback is given at highly symbolic moments, in which the message is released in a very ambiguous way.

Fifthly, it was found that small wineries do not have formal pay structures and that the criteria and negotiation for determining salary are individualistic. Contrary to those who claim that knowledge workers require highly innovative people management practices, the rewards package of oenologists is highly conservative, with fixed salary and typical benefits. Although the oenologists interviewed seemed to be satisfied with their salaries, the survey shows noticeable differences in their satisfaction levels according to the size of firm.

In addition, the career management of oenologists was addressed. It was found that although many oenologists work in SMEs, where any advancement on the career ladder is difficult, they seem to be fairly satisfied with their careers. Furthermore, most of the oenologists do not expect to work for the same organisation for a long time, and perceive job movement as an opportunity for learning, which is consistent with emerging theoretical career models.

Finally, In terms of labour relationships it was found that oenologists have an atomistic and individualistic approach, in which each oenologist deals with her/his own problems. It was also found that labour relations between firms and oenologists could be characterised as 'high commitment' oriented, similar to the model mentioned in the literature. This is also confirmed by the high level of trust between oenologists and their firms, supervisors, colleagues, and workers in charge. However, most oenologists have to address problems with the shop floor at some point in their careers, and this is clearly a counterproductive aspect of their labour relations. Another interesting finding was that external factors can shape labour relations in the context of oenologists, as both the oenologists and their owner/managers know that any rumours about labour problems within the organisation will quickly spread through the social network, with negative consequences for them.

The second part of this chapter describes the oenologists' perception of the role of the HRM specialists in those aspects related to 'traditional' administrative tasks, and outlines some possible consequences. One finding was that personnel

specialists do not play a decisive part in the management of the 'traditional' tasks of the personnel function. Instead, these are often carried out in a very simple and traditional way, and, in some firms, are strongly affected by the owners' influence and organisational culture. In general, HR practices are characterised by the use of non-sophisticated techniques, and by a lack of strategic orientation. Consequently, oenologists, especially those working for medium-sized companies and those with less experience, evaluated their HR specialists negatively. This low rate of approval may have an important impact on the organisations, as many of the main problems and obstacles mentioned by the respondents to the survey were related, directly or indirectly, to the personnel function.

One of the problems currently affecting wineries is the assumed excessive turnover among oenologists. The main causes triggering an oenologist's decision to resign are linked to the problematic social environment; the perception of the end of a cycle of learning in a winery; the 'typical' limitations of the family business; or the opportunity to take up a more exciting and challenging job. As most of these aspects are linked, directly or indirectly, to people management, it could be presumed that the lack of suitable HRM policies and practices is damaging to the organisation, as it results in a loss of human and intellectual capital. In addition, according to the interviewees, little effort was made by firms to retain oenologists poached by other firms. It is not clear, however, why firms do not do more to retain their oenologists.

8.4 DISCUSSION

The aim of this research was to find out how people management is carried out in the context of oenologists, and then to assess its suitability for their knowledge work. However, the picture emerging from the data is not a simple one, as the data is, to some extent, contradictory. Most of the literature on knowledge workers suggests that they need to work in an autonomous and flexible environment. In fact, Chilean wineries are characterised by informality, *ad-hoc* decision making, and owner orientation, which arguably give a higher degree of flexibility to the

organisation. Given this situation, it could be argued that knowledge workers should feel very comfortable working in them.

In addition, this research shows that oenologists are, in fact, satisfied with several important aspects of HR practices such as rewards, career opportunities, and assessment; and that they enjoy high-trust working relationships, and suitable work flexibility (in chapter 8). Thus, at first glance, wineries could be seen as being more flexible and adaptable, and hence it could be expected that knowledge workers working for them would be happy with their working conditions. However, a deeper analysis suggests another interpretation. To start with, organisational flexibility is severely limited by their owners' views, while many of their strategic decisions are culturally biased. For example, critical feedback is given by the owner at the 'moment of truth' in an ambiguous way, and the 'best fit' approach dominates selection criterion, limiting the diversity necessary for innovation.

Moreover, the lack of formalised HR practices is reflected in low levels of satisfaction, which should be taken seriously as oenologists are 'core knowledge workers' in the production of wine (see chapter 6). In the interviews, oenologists expressed their feelings that HR practices are not adequate for their needs, and that they should be better helped, supported, and assisted in relation to HR matters. In addition, several aspects in the list of problems mentioned by oenologists were closely linked to the people management of the firm. Finally, a failure to retain knowledge workers can be linked to a 'passive' and 'reactive' people management style.

Although some wineries do not see turnover as a problem, because it can be seen as a way to introduce new knowledge to the firm, high turnover can bring a number of difficulties. On the one hand, oenologists can take a long time to adapt to the particular oenology environment of a winery, so high turnover inevitably means a loss of valuable intellectual capital. And in addition, the time invested in adapting to the organisational culture and achieving an acceptable level of trust

and communication with cellar workers is also lost when an oenologist resigns. On the other hand, a new oenologist does not necessarily bring a substantial amount of 'new knowledge' since oenologists tend to share most of their knowledge in the network (see chapter 7, page 211), and consequently, 'there is no secret in winemaking' (see chapter 6, page 166)

In addition, there are several 'informalities' that have to be taken seriously as they can be seen not only as problems of formalisation, but as trends in knowledge worker management. This is the case both for the influence of the external network on the internal organisation of the firm. The fact that labour relations are shaped by the actors' calculations of consequences in a 'small networked world' is fundamental as organisational structures evolve towards heterarchies and networks. The same situation occurs with training, which is provided by suppliers at no financial cost to the firms, and in an informal way. Similarly, social networks play an important role in recruitment (see chapter 7), allowing managers to find suitable candidates, and to quickly obtain others' opinions about them from the network. Since these sorts of phenomena are an increasing tendency in the world of work, firms that aim to be managed strategically need to be aware of the challenges they imply, as many changes are triggered outside the organisation.

Finally, this study highlights the urgent need for more knowledge about knowledge worker management, including the apparent transformation of traditional personnel management practices. It could be predicted that, as traditional forms of work become less important and knowledge work becomes more prevalent, these subjects will be fundamental issue for organisations.

9 CONCLUSION

This chapter brings all the themes together and provides clarity on the research questions outlined at the beginning of the study. The research has addressed four main areas of knowledge: knowledge work, HR practices, wine, and the Chilean context, and the conclusions will be grouped according to which of these areas they contribute to.

At the start of this research several questions were outlined. The first question was whether Chilean oenologists are knowledge workers or not, which was considered a cornerstone of this research. After many months of literature review and investigation on what the term 'knowledge worker' means and what characteristics knowledge workers have, the following characteristics were identified: a high level of education and experience, engagement with complex and non-routine work, use of creativity in solving problems and introducing innovation in their work, high level of motivation to learn, membership of knowledge workers' networks, and being socially recognised as knowledgeable workers with a critical role in the business.

The data collected in the field demonstrated that oenologists are, indeed, knowledge workers, as they have a long formal education, their work as winemakers involves a great number of interwoven and dynamic factors (complexity), is highly creative and involves a continual introduction of innovations. It was also found that they possess one of the distinctive characteristic of knowledge workers, which is that they are passionate about their work. They are also highly motivated by intrinsic aspects of the task. In addition, it was found that they have a very active participation in networks, in which they exchange experience, knowledge and others job matters with other oenologists. And finally,

it appeared that knowledge workers are seen as 'celebrities' in their work environment and in the market.

The next two questions in this research were: what are the people management practices in the context of oenologists? And, are they consistent with the way in which, theoretically, knowledge workers should be managed. In order to answer these questions two dimensions of knowledge workers' management were analysed: the new *knowledge worker's specific needs task* and *traditional administrative tasks*. In relation to the former, it was found that oenologists have most of the suitable working conditions for knowledge workers, though limited in several aspects. With relation to the latter, the management of oenologists is characterised by informality, lack of resources, and the central role of the owner-manager.

A fourth question was whether oenologists are satisfied with their working conditions or not. The findings show that they are satisfied or very satisfied in most of the aspects, but also that there are problems in some specific issues of their organisations management. The level of dissatisfaction might be related to cultural aspects and the lack of proactive management.

A fifth question was what is the impact of the Chilean context on the management of knowledge workers? Although this is obviously a broad question, several aspects of the Chilean context were identified in this research. Firstly, the still present problem of paternalistic values and *macho culture* amongst the workforce, in particular at the cellar workers level. Secondly, the great impact of social inequalities in the knowledge workers environment, especially related to, for example, the lack of education of cellar managers. Thirdly, social and family links in the management of wineries prevail over more rational criteria. And last but not least, Chilean cultural institutions such as barbecues were shown to be important as a vehicle of networking.

9.1 CONCLUSIONS ON KNOWLEDGE WORKERS

Despite the fact that the concept of knowledge worker has gained increasing popularity among specialists, it remains ambiguous, and academic research appears to be lacking in clarity, confusing, and sometimes even contradictory. Part of this confusion has its roots in the ambiguous nature of the concept of knowledge itself, which is still the subject of philosophical discussion. In order to move forwards on knowledge about knowledge workers, it is fundamental to have clarity on what a knowledge worker is. In this research, after an extensive review of the bibliography, a definition based on the knowledge workers' characteristics was proposed.

A number of critical characteristics of knowledge workers were identified: they are highly educated and experienced, knowledge is critical to their job; their work is complex, unstructured, and non-routine; continuous learning is an essential part of their work, they are highly motivated; and their primary commitment is to their own work rather than to the organisation. Also, their identities as knowledge workers play a fundamental role in the way they behave, which is clearly different from traditional workers. Another important aspect is their membership of networks, which reinforce their identities and allow a constant flow of knowledge between them. Finally, for knowledge workers' work, trust is the fundamental 'glue' of their work relationships and knowledge exchange.

A new definition of knowledge worker was proposed, based on the features identified: A knowledge worker can be understood as an employee (or self-employee) who dedicates most of her/his time to applying (up-to-date) knowledge to solving complex problems and creating innovative products (abstract or physical). Her/his main contribution is her/his intellectual capacity to transform ideas into valuable products. Although her/his sphere of work is more or less delimited, s/he has to face changing tasks, problems and situations, which demand a high degree of flexibility. S/he is a worker with a genuine interest and motivation

in her/his job, and is eager to learn more about it. In the context of the knowledge economy, this sort of person represents a key resource for their organisation.

Another conclusion was that knowledge workers do not work alone but in teams. Contrary to the mainstream literature on knowledge workers, which portrays them as knowledgeable individuals, I found that oenologists do not work alone but rather with a team of other knowledge workers such as the consultant, the marketing expert, the cellar manager, and the supplier oenologists. Each of them plays a fundamental role in wine production, creating synergy from the diversity of their disciplines, experiences, and knowledge. The chief oenologist is the intersection of all of them, playing the role of coordinator and recipient of their knowledge contribution for the benefits of the wine making process, and, to some extent, her/his contribution can be considered the most critical. Given the collective nature of their work, it is suggested that future research should be more group-oriented.

The research also demonstrates that special attention has to be placed on the special nature and character of the oenologists' knowledge as this explains some of their particularities as knowledge workers. For example, the rejection of 'celebrity' status, which is contrary to the expected discourse of knowledge workers, and which can be related to the practice-based origin of their knowledge, and the fact that it cannot be separated from the context. In addition, the central importance of experience to their work can be related to the need for connoisseurship, which was mentioned by Polanyi (1966) as a fundamental part of the tacit integration. In addition, the sensorial and aesthetic character of their knowledge introduces a high degree of subjectivity which makes the articulation and sharing of their knowledge even more complex. Given the fact that oenologists' work is context-specific, sensorial-aesthetic, and involves a number of subsidiary elements, the only way of learning is through experience, and the only way to transmit this tacit knowledge is through a direct master-apprentice relationship. Thus, the description of oenologists differs from the common picture of knowledge workers as portrayed in the mainstream literature.

Finally, the inclusion of cellar workers as part of the team of knowledge workers brings the debate about the non-formal educational background of some knowledge workers out into the open. Although in an early stage of debate, the increasing number of knowledge workers without formal education and working outside their original disciplines has led theorists to question to what extent formal education is compulsory. This research demonstrates that there is room for non-graduate knowledge workers, who replace their lack of formal studies with intensive informal learning in the workplace.

9.2 CONCLUSIONS ON PEOPLE MANAGEMENT

The first and most evident conclusion in this field is that the arrival of knowledge workers in the business environment has challenged traditional people management practices, as current theories and models, in their current state, are not capable of dealing with the complexity of knowledge work. They do not fully explain knowledge workers' behaviours and requirements, as their underlying assumptions are not necessarily true in the case of knowledge workers. In addition, existing research on the management of knowledge workers tends to be dispersed, dealing with multiple dimensions, and leaving unclear the role of personnel specialists in this field. Existing personnel management best practices have proved to be limited in grasping some of the most critical dimensions of knowledge workers, for example, training and retention. Thus, it was concluded that the current body of knowledge on the management of knowledge workers is not yet consistent and reliable.

The findings of this research bring some issues out into the open; for example, the future role of the job description and specification, given the flexible, dynamic, and wide roles of knowledge workers. Oenologists were described as being 'in charge of the wine' which actually included everything related to that. In addition, this study demonstrates the fact that knowledge workers' main concern is not for extrinsic rewards, but for the intrinsic satisfaction of the task and learning opportunities. Consequently, knowledge workers change their job to meet their learning needs

when the learning opportunities in their current job are exhausted. In addition, this research describes what could be seen as a new career pattern, involving a shorter time in each job, and more rotation between firms. Finally, this study also demonstrates that traditional training is changing in the case of knowledge workers, and that a new wider approach is needed. In the oenologists' context, training needs to involve 'on-demand' training, IL in all its forms, and a focus on self-development, including the self-diagnosis of training needs.

In addition, the HR practices needs to be upgraded to take account of the fact that the hierarchical organisational form prevalent in organisations in the past has given way to more complex heterarchies, in which organisational boundaries are blurred, and in which networked knowledge workers have a central role. Hence, it is safe to say that the knowledge workers are governed not only by the firm's management but also by diverse externalities. In this context it is suggested that HR practices could incorporate the N-form organisation, introduced by Hendlund (1994), as an underlying premise of knowledge worker management, and a more clear strategic orientation, by for example, considering recruitment via networks, training by suppliers, and a wide and open learning process occurring both inside and outside the organisation. Firms should explore new forms of people management in an interconnected and dynamic environment, in which knowledge flows through knowledge workers.

9.3 CONCLUSIONS ON THE WINE INDUSTRY

In this study two dimensions of the management of knowledge workers were studied: the *knowledge workers' specific needs* and the *traditional administrative tasks*. The former is concerned with several critical dimensions: autonomy, flexibility, challenging work, 'special treatment', team quality, and learning environment (see chapter 3). The study concluded that oenologists are, to a greater or lesser extent, satisfied with these dimensions. They have functional and time flexibility; they have a considerable degree of autonomy (especially if they are chief oenologists), only restricted by the business plan, the owner-managers' input,

and other cultural and social factors. They are treated with 'special' care and enjoy privileges over the rest of the workforce, including direct access to the winery's owner if they want. In addition, their work is challenging, involving great demands on their intellects and creativity. They also consider that they have a suitable team, from which they can get help and collaboration, although they sometimes have a problematic relationship with the cellar manager. Finally, oenologists enjoy a suitable learning environment, because they have reasonably appropriate supervision, they have access to training, proper conditions for informal learning, and can participate in networks.

One particular topic studied in this research was trust, which has been claimed to be fundamental for knowledge work and knowledge exchange. The evidence shows that oenologists enjoy a high level of trust in their work place, and that their management is characterised by high commitment practices. Given the ambiguity of the term 'trust', oenologists were asked about what makes them trust in others. Their answers show that interpersonal trust was understood to be closely linked to reciprocal respect, open communication (*transparencia*), and job competence. In addition, the survey reflects a very high level of trust between oenologists and their firms, their colleagues, their supervisors, and their supervisees. This finding is very interesting for two reasons: firstly, because of the common problems between oenologists and cellar workers, and secondly, because the Chilean context, and especially the agricultural sector, have been described as low trust environments. Although this research did not explore further the reasons for this difference, one plausible explanation for this paradox is epitomised by this quote from one of the interviewees: *'After all, it is impossible to work in the cellar and make wine if you do not have trust relationships with your cellar workers'*.

The second dimension studied in this research was that of the *traditional administrative tasks*. This category includes several sub-dimensions such as: organisational design, recruitment and selection, performance assessment, rewards, training and development, career management, and labour relations.

Here, I found that most wineries manage their knowledge workers informally and that the owner manager plays a pivotal role.

Firms do not carry out any formal planning in relation to oenologists; job descriptions are vague; oenologists are mainly recruited through personal contacts, selection is made by non-sophisticated methods, and 'cultural fit' is privileged as a main criteria. Formal training is limited by lack of strategic orientation, long-term vision, and also strongly influenced by the personal view of the owner; firms do not have formal performance assessment, but give personalised, *ad-hoc*, and spontaneous feedback to oenologists, do not have formal pay structures, and the criteria for determining salary are individualistic. Most of the oenologists work in SOs, where any advancement on the career ladder is difficult; despite this, they seem fairly satisfied with their careers. In terms of labour relationships, it was found that oenologists have an atomistic and individualistic approach, and have a 'high commitment' orientation. In addition, high levels of trust between oenologists and their firms, supervisors, colleagues, and workers in charge were found.

As firms are not using their oenologists' talents to their best advantage, the assumption made on the firm's underutilisation of knowledge workers is confirmed. Firstly, in the dimension of the *knowledge workers' specific needs*, it was found that behind the apparently 'positive' scenario, oenologists' flexibility is severely limited by the conflictive relationship with cellar workers, which is particularly difficult for women. The problem lies in a long history of paternalism, an embedded macho culture, and shop floor workers' lack of education. In addition, the centrality of the role of owner-managers limited the oenologists' autonomy in many cases. Secondly, in the traditional *administrative tasks dimension*, it was found that organisations use non-sophisticated management techniques, that there is a lack of strategic orientation, and that the oenologists' perception of the role of personnel specialists is negative. From oenologists' perspective, personnel specialists are exclusively engaged in administrative tasks.

One symptom of the lack of adequate management is the recognised problem of high turnover among oenologists, in which organisations losing their knowledge workers are mere spectators. In this research it is concluded that turnover is a problem for most wineries, and that this represents a loss of valuable human and intellectual capital for the firms. This research shows that this problem is caused by the passivity of management in the wineries, who do not provide adequate learning opportunities or a suitable organisational culture. This finding suggests that Chilean wineries could be still in the *chaotic stage* of knowledge management, described by KPMH (1999, cited by Shelton, 2001), when the organisation is still unaware of the importance of their knowledge to their success in reaching their goals.

9.4 CONCLUSIONS ON THE CHILEAN CONTEXT

A first and obvious impact of the Chilean context is in relation to the still prevalent paternalism and *macho* culture on the shop floor. As was mentioned in chapter 4, paternalism is a strong value in Latin American countries, including Chile. On the one hand, this involves employees receiving esteem and social approval from employers, who in return obtain flexibility, loyalty and trust, but, on the other hand, the authoritarian face of paternalism demands *respeto* (respect) to the *patron*. Although it is generally agreed that Chilean labour relations are authoritarian, no specific studies have been made in the context of oenologists. This research concludes that paternalism is still strong in the winemaking context, but instead of being a problem between owners (*patrones*) and oenologists, the conflict emerges from the relationship between oenologists and cellar workers, who are used to being managed in an authoritarian style. This is especially problematic for women, as the culture is also impregnated with macho values.

A second conclusion is that acute social inequalities, especially differences in levels of education, have serious implications for the management of knowledge workers and the firms' performance in general. Although this problem is expressed in many ways, it is especially evident in the case of cellar managers, who are generally

educated by the oenologists on-the-job, over a period of several years. As they are not highly educated, and given the paternalistic culture, oenologists not only have to deal with their lack of technical knowledge but also with their style of work and attitude towards the rest of workers. In this sense, it was found that achieving a satisfactory and reliable relationship with them can take many years. It is therefore recommended that firms should pay more attention to the training and development of less-educated workers, as currently they are still holding on to traditional ways of creating their human capital.

Thirdly, it is concluded that decisions based on social connections are still prevalent in the wine business environment. Although the wine industry has become more and more sophisticated and competitive, social relations still play a central role in the management of the wineries. The social environment of oenology was described by the oenologists as a 'small world' in which everybody knows each other. However, this conclusion has to be taken cautiously, as social networks and knowledge workers' networks can be superimposed.

Finally, it was demonstrated that Chilean oenologists have significant network activity, and that this activity is carried out through cultural institution. In this study barbecues were found to be a central tradition in Chilean society, and a cultural vehicle for knowledge workers' networking. This finding gives light to the neglected subject of networks and knowledge exchange in the cultural context of developing countries.

9.5 OVERALL CONCLUSIONS AND AREAS FOR FURTHER RESEARCH.

This research represents a step forward in the understanding of the popular but still ambiguous concept of knowledge workers and their management. It also gives a description of the dimensions involved in the management of oenologists in Chilean wineries, and describes several problems related to the Chilean context and the people management practices which impact on the way they are managed. In addition, it also contributes to the theory of knowledge workers by providing an

original definition of them, a description of two important dimensions for their management, and an outline of a knowledge worker typology.

Also this research describes the character of the oenologists' knowledge and suggests the importance of a further discussion on the nature and role of knowledge in the work of knowledge workers.

This research has opened up a number of interesting issues which would benefit from further exploration. Initially, I would like to finish the analysis of the qualitative data on geologists, which was not included in the thesis due to technical problems with part of the data (see chapter 5). There are a number of interesting aspects to investigate, some of them reinforcing the findings in the oenologists' context. For example, recruitment was similar to that of oenologists, basically via networks, but as opposed to oenologists, personal links were minimal. Moreover, family links were found to be counterproductive as there are a number of legal regulations in their context. In addition, socialisation processes in the work place and networks were identified as very unusual and worthy of further investigation, as these have important implications for people management practices.

Finally, this research focused on oenologists' perceptions of HR practices. An interesting aspect to explore in the short-term would be the perceptions of personnel/HRM managers. As a consequence of this research, a number of useful contacts in the wine industry were created, which could be very useful in gaining access to these managers. It is possible that this analysis could reinforce some of the findings mentioned here, as well as shedding new light on the subject.

APPENDIX I:
MAIN INTERVIEWEES

NAME	OCCUPATION	POST	SEX	Geographical region of work	EXPER. (YEARS)	SIZE OF FIRM (according number of employees)	Property Familiar?
Marcelo X1	Oenologist	Oenologist Assistant	M	Colchagua	3	Medium-size	Y
Fabiola X2	Oenologist	Oenologist Assistant	F	Curico	6	Large	N
Andrea X3	Oenologist	Assistant Oenologist	F	Colchagua	8	Medium-size	Y
Cristian X4	Oenologist	Chief oenology	M	Colchagua	5	Medium-size	Y
Ximena X5	Oenologist	Assistant Oenologist	F	Colchagua	7	Large	N
Yanira X6	Oenologist	Assistant oenologist	F	Limari	9	Medium-size	N
Jaques X7	Oenologist	Chief oenology	M	Colchagua	24	Medium-size	Y
Fernando X8	Oenologist	Supplier, Technical specialist South America	M	based in Santiago	12	Large	N
Paola X9	Oenologist	Assistant Oenologist	F	Colchagua	6	Medium-size	Y
Carlos X10	Oenologist	CEO	M	Curico	27	Large	N
Milton X11	Oenologist	Production manager	M	Talca	9	Large	N
Mauricio X12	Oenologist	Fine wine trader	M	Santiago	-	Small	-
Valentina X13	Journalist	Editor <i>Revista Vitis</i>	F	Santiago	20	-	-
Carolina X14	Oenologist	Assistant oenologist	F	Rancagua	2	Medium size	N
Klaus X15	Oenologist	Oenologist Consultant	M	Santiago		-	-
X16	Business degree (<i>ingeniero comercial</i>)	Personnel management	M	Santiago	1.5 years in the wine industry	Medium-size	
Aldo X17	Oenologist	Supplier, Manager Toneleria nacional	M	Based in Santiago		small	Y
Tania X18	Agriculture engineer	Academic	F	Santiago	10 years	-	-

APENDIX II:
 OENOLOGISTS QUESTIONNED BY EMAIL ON THE SUBJECT 'TRUST'

X19	Oenologists	-	M	Curico	-	Medium-size	Y
X20	Oenologists	-	M	-	-	-	-
X21	Oenologists	-	F	-	-	-	-
X22	Oenologists	Assistant oenologists	M	Colchagua	-	Medium-size	Y
X23	Oenologists	Chief oenologists	F	Central Valley	-	Medium-size	Y
X24	Oenologists	Assistant oenologists	F	-	-	-	-

APPENDIX III:
INTRODUCTION EMAIL USED IN THE SURVEY

Research on Human Resources Management and innovation practices in the working environment of Chilean oenologists.

Dear Oenologists,

This email is an invitation to **oenologists working in wineries** to participate in a research study, which is part of my Doctoral studies in the University of Liverpool. Its subject is **Human Resources Management and innovation practices in the working environment of Chilean oenologists**. Therefore you are asked to fill in a survey (which should take you approximately 8minutes to complete), about aspects of your everyday working environment.

Your participation is anonymous, voluntary and is been regulated according to the British Universities code of ethics for research, which means that any data obtained through the survey will be used confidentially and only for academic purposes.

Please fill in the questions below, bearing in mind that there are no "right" or "wrong" answers. Any information you give, will be useful in that it reflects the reality perceived by you. When you have completed the questionnaire, please click "DONE" to send your answers.

To begin, please click on the one of the three links below which reflects your current job status.

If you are an employed geologist/oenologist (permanent contract of employment), please click here →EMPLOYED OENOLOGIST

If you are an independent or self employed/businessman geologist/oenologist, please click here →INDEPENDENT/BUSINESSMAN

If you are an unemployed geologist/oenologist, please click here

→ UNEMPLOYED GEOLOGIST/OENOLOGIST

Thank you for your participation

APPENDIX IV:

INFORMATION PROVIDED DURING THE SURVEY

Matters of confidentiality and uses of information

1. The purpose of this survey is **strictly academic**.
2. The participation is voluntary.
3. The collected data will be processed in a **confidential and responsible** way, according to the University of Liverpool **code of ethics** for research.
 - a. The data will be **used exclusively by the researcher**. Under no circumstances will it be shared with any third persons.
 - b. In the thesis itself, or any other document, report or article produced from the collected data, **no names of individuals, companies, or organisations** will be identified. No other data that could permit the identification of the person who has provided any information or responses will be included.
 - c. The information will always be used responsibly, **protecting the integrity of the people** who provided it.

APPENDIX V:

GUIDANCE FOR INTERVIEWING KNOWLEDGE WORKERS

Occupation/Career: _____

Speciality/Expertise: _____

University where you have carried out your studies (undergraduate and post graduate, whether finished or unfinished)

Years of experience: _____

Languages: _____

What region or country are you from? _____

1. Previous education

- a. How did you come to this job/career? What factors influenced your decision? Do you have relatives who work in this area?
- b. Where did you study? In what school or college? In what university?
- c. Where did you specialize? Why?
- d. Where did you learn foreign languages?

2. Your professional career (check chart)

- a. In how many companies or organisations have you worked since you left university?
- b. In which of them have you had the best experience? Why?
- c. In which of them have you had the worst experience? Why?
- d. Could you describe briefly the main jobs and companies where you have been recently employed (the last two to three)
- e. What kind of companies were they? (area, size, ownership, city, etc)
- f. How would you describe your experience there?
- g. Did the company fulfil your expectations? Did you feel able to work effectively and comfortably there? Why?
- h. How long did you work for them and why did you move?

3. Job description

- a. What do you do? Could you describe your job and your speciality?
- b. What is your most important task or role? Which activities are critical?
- c. How your capabilities and knowledge are put to the test?
- d. What kind of team do you usually work with?
- e. What is the most attractive aspect of your job?
- f. What is the least attractive aspect of your job?

4. Identity

- a. How would you describe oenologists in general?
- b. How do you think other people who you work with but who are not themselves oenologists, perceive your job?
- c. How do you think that society in general perceives your job?
- d. Do you consider yourself as a special employee of the company? Do you think you receive a "special treatment"?
- e. What is your main contribution to the company?

5. Learning and networks (chart attached)

- a. How important is it to you to keep your knowledge up to date?
- b. How do you bring your professional skills and knowledge up to date?
- c. Are you a member of any group, association or organisation for your profession?
- d. Do you have friends, colleagues or counterparts with whom you can share knowledge of your profession? How does this happen? Why do you do that?

6. Human Resources policies

- a. How were you recruited?
- b. Did you receive any training? If so, was it suitable for your requirements?
- c. Who supervises and controls your work?
- d. How is your work evaluated? Is there any formal procedure? Are you satisfied with how your work is evaluated?
- e. Is the method of your payment variable or fixed? Are you satisfied with the salaries system and with the salary itself?
- f. Do you think you could develop an interesting career in this firm?
- g. How would you personally evaluate the quality of working relationships (climate) in your current organisation?
- h. Do you think the company has good personnel management?

7. Creativity and Innovation

- a. How do you use your creativity in your job?
- b. What do you do when you get a good idea?

- c. Could you describe the last innovation in which you have participated? What was your role? Did you feel supported by the working team? Did you feel supported by the company? How? Were you able to implement your idea?

8. Organisational culture

- a. Please describe your company
- b. Please describe the people you work with

APPENDIX VI

SURVEY FOR PEOPLE OF EMPLOYED STATUS

Thank you for your participation in this survey. Below, you will find 23 questions about your working activities and satisfaction levels with your current job.

Filling in it should take you about 8 min.

Please, answer the following questions about your working activities, in your current employment situation.

1. Occupation or job: _____
2. Total years of studies in high education (pre and post grade included): _____
3. Total years of work experience: _____
4. Gender:
 - a. Female
 - b. Male
5. Do you speak any foreign language? Which one and at what level?

	Basic	Medium	Advanced
German			
French			
English			
Other			

6. Identify any training course done and the academic grade achieved (could be more than one)

Yes	
	unfinished professional training
	completed professional training (degree)
	national course of specialization
	international course of specialization
	post-grade course in a national university
	post-grade course in an international university

7. How many employees work in your company/organisation? _____
8. What is the ownership status of your organisation?
 - a. National private
 - b. Foreign private
 - c. State company/organization
9. What are your main tasks or targets in your current job?

- a. _____
- b. _____
- c. _____

10. Have you travelled for professional reasons in the last 12 months? How many times?

11. Are you satisfied with the human resources management (also called personnel management) in the company with regard to your working conditions?

- a. Yes
 - b. No
- Why?
- _____

12. Are you satisfied in your current job with respect to ...?

Yes	No	
		Your salary, including bonuses, rewards and benefits (considering the market average in similar post and qualification)
		The professional development and training that you are allowed from your company
		Informal learning opportunities in the workplace
		The job stability
		The acknowledgement of your intellectual and creative contribution
		The professional quality of your working team
		The chances given to you to improve your professional career
		The status and prestige given to your professional career
		The understanding in your organisation of the intellectual nature of your work
		The culture of collaboration in your close working environment
		The way in which your work is supervised and controlled
		The available technology to carry out your work
		The company's effect strain on your motivation
		The level of flexibility in hours considering the nature of your work
		The way in which your work is assessed
		The level of autonomy you have to take decisions about your work
		The opportunity you have to participate in taking decisions in your area
		The degree to which your work is challenging and enjoyable
		The physical conditions and space in which you work

13. Could you name 3 features of what you consider to be "optimum working conditions" (in order of priority)

- a. _____
- b. _____
- c. _____

14. Could you identify the main problems and troubles (if there are any) which impact on your ability to produce your best work:

- a. _____
- b. _____
- c. _____

15. Currently all areas of knowledge are permanently changing. How do you "update yourself" regarding innovations and advances in your subject area? Identify below any of the ways that you have updated your knowledge in the last 12 months.

Yes	No	
		Short courses in Chile (within or without the company)
		Short courses abroad
		Long courses in Chile (Diploma, Master)
		Long courses abroad (Diploma, Master)
		Courses and lectures given by providers of supply for your work
		Lectures/talks organized by the professional association of your area
		Visits to trade fair, events or conferences of the specialization in Chile
		Visits to trade fair, events or conferences of the specialization abroad
		Formal and informal chats with colleagues within the same organisation or company where you work
		Formal and informal chats with counterparts outside the organisation or company where you work
		Specialised magazines
		Specialised web pages in Internet
		Conferences on subjects of your personal interest
		(Answer just for oenologists) Formal and informal chats with the external consultant (if there is one)

16. How did you find out about your current job?

- a. In a newspaper advertisement
- b. In the university job bank
- c. A specialised agency offered me the vacancy
- d. Through a counterpart or someone who works in the same field/area
- e. A former boss picked me as part of her/his team
- f. Through friends or relatives
- g. Through the chartered association of specialists
- h. You left your CV in the company
- i. Other: _____

17. How many times have you changed employer (company) in the last 6 years?

_____times

18. Would you say that in your current job you have ...

Yes	No	
		... a favourable and pleasant environment to encourage creativity and innovation?
		... support, resources and time to put in practice your innovative ideas?
		... a suitable working team to carry out innovations?
		... the chance to be "updated" in your field, to positive approach to data and information to generate innovations?

19. Can you be creative and innovative in your current work activities?

- a. Yes
- b. No

20. If your answer is yes, what are the ways in which you can express your creativity and innovative attitude? Give 3 examples:

- a. _____
- b. _____
- c. _____

21. Regarding your perception of trust, please answer the following questions:

Yes	No	
		Is there mutual trust between you and the company?
		Do you trust in your boss/supervisor?
		Is there trust between you and colleagues?
		Is there trust between you and the external clients? (answer just if you have direct contact with them)
		Do you trust the people in your charge? (answer only if you have them)
		In Chile, can you trust in people generally?

22. Has the vineyard where you currently work contracted the services of an external consultant for any oenology issue in the last 12 month?

- a. Yes, we have a Chilean external consultant
- b. Yes, we have a foreign external consultant
- c. No, the vineyard management does not consider it necessary
- d. No, for other reasons not mentioned above

23. Last question... VERY IMPORTANT!

In order to deepen some interesting aspects of my research, I would need to contact through email, some individuals who have filled in this survey.

Would you like to collaborate with this research?

- a. Yes (please enter your email address)
- b. No, thanks

Your email: _____

(*) Obligation of confidentiality and appropriate use of the information

All data collected in this survey, as well as that collected in the interview, will be used only for academic purposes, handled confidentially and retained, without the mention of individual surnames or firm names, in accordance with the British Universities code of ethics for research.

THANKS FOR YOUR PARTICIPATION!!!!!!

Additional information

If you would like to know more about this research, please visit the following Blog:

<http://chileanknowledgeworker.blogspot.com/>

In a near future, the results of this research will be published in this Blog. You are invited to go through the results, to compare your answers and to give your opinion about the issues.

APPENDIX VII

Reflexive statement

This is my reflexion about those aspects that I think could constitute possible bias in the way in which this research has been conducted and in my interpretation of the data. To start with, my gender identity as a man may be one blind-spot which could have affected my relationship with the interviewees, and the way in which I interpreted what they said to me. Some of the issues addressed in the interview, such as labour relations, could, possibly, be sensitive to sex differences. A second aspect could be age bias, especially when it came to understanding the youngest and most senior oenologists. Possibly I could have missed some details specific to these career stages. In addition, as someone who was brought up in an urban environment, country life is not that familiar to me, so there are a number of day-to-day aspects of oenologists' routines that they may not have considered worth mentioning to me because they thought they were obvious, but, which may have been, nevertheless, relevant to the study. Finally, my status as a doctoral student of a British university may have impacted on the way knowledge workers responded to my questions, perhaps trying to give 'correct' answers in front of a 'highly educated person'.

At the level of values and beliefs, I think it is important to establish two possible personal biases. Firstly, I came to this study with the pre-conception that wealthy landowners were authoritative, paternalistic, and oriented towards *macho-values*. This view was influenced by the political role they played in the recent history of Chile, especially during the seventies, and the long-term prejudice among urban people that they hold very conservative values. Secondly, my perception of oenologists and geologists as highly educated people may have caused me to overestimate their capacity to understand specialist management and human relation problems in their workplace.

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