

**Job-sharing in the South African Labour Market:
*Its Potential, Feasibility and Impact on
Unemployment, Productivity and Quality of Work Life***

by

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DECLARATION

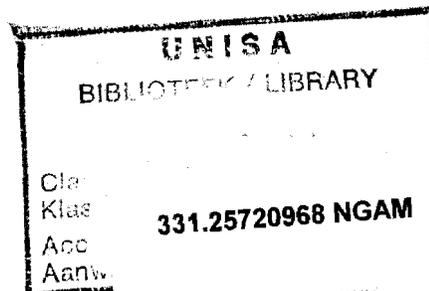
I, Hellicy Chakosamoto Ngambi declare that

The Doctor of Business Leadership Thesis entitled: " Job-sharing in the South African Labour Market: Its Potential, Feasibility and Impact on Unemployment, Productivity and Quality of Work Life", is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references

SIGNED:

Hellicy C Ngambi

February 1999



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DEDICATION

I dedicate this doctoral thesis, with love to:

My children Nothulu and Kondwani

My dad and mum Becalm Chakosamoto and Edinala

My elder brother Davellias

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ABSTRACT

The primary aim of this survey is to:

- * explore whether there is potential for job-sharing in the South African labour market;
- * describe the characteristics of potential job-sharers and
- * to explain why Job-sharing would be an appropriate and feasible solution to unemployment, massive retrenchments, poor quality of work life (QWL) and low worker productivity

Job-sharing has been used in many developed countries to address a variety of problems at the individual, organisational and national level. These include allowing workers to have a balance between their work and non-work life; to increase worker productivity and QWL and to increase employment opportunities.

The literature survey affirms that these problems are prevalent in Africa as a whole and in South Africa specifically. The survey results reveal that **the environment in South is Africa is conducive to job-sharing** and that slightly over one third of the workers and organisations and two thirds of the job-seekers are willing to job-share. The results of this study also reveals that **QWL, productivity and unemployment does influence the willingness to job-share** and that **approximately 80% of the employees would rather either job-share, work-share or opt for some other alternative than to have retrenchments**. Thus by implication, job-sharing would address the problems relating to poor QWL, low worker productivity, fewer employment opportunities, as well as massive retrenchments in South Africa.

The study has also explored possible **reasons and obstacles to job-sharing** and found that whether these are perceived as significantly important or not, depends on whether one is an employer, employee or job-seeker. The job-seekers feel more than others, that there is no reason insurmountable or obstacle preventing the introduction of job-sharing by which to avert their unemployed status. There are also **differences in willingness to job-share among subgroups** with regard to the industry, area of work, position held in the organisation and the availability of job-sharing positions in the organisation. This thesis reports that **there is potential for job-sharing in the South African labour market**, to address a variety of problems pertaining to workers, organisations, job-seekers and, therefore, the whole nation at large.

KEY TERMS DESCRIBING THE TOPIC OF THE THESIS**Title of thesis**

Job-sharing in the South African Labour Market: Its Potential, Feasibility and Impact on Unemployment, Productivity and Quality of Work Life

KEY TERMS:

Job-sharing; Quality of work life; Productivity; Unemployment; Employment opportunities; Lay-offs; Retrenchments; Alternative work schedules; Alternative work arrangements; Job-seekers.

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CHAPTER 1

THE RESEARCH PROBLEM AND OBJECTIVES

1.1 INTRODUCTION

This research study aims to explore the potential for job-sharing in the South African labour market in addressing a variety of needs pertaining to workers, employers and job-seekers. This chapter first addresses the background to the research problem, the challenges that affect South African organisations and how these might be addressed. The chapter proceeds to give statement of the purpose, research questions and objectives, definitions, delimitations and assumptions pertaining to this study. The chapter ends with highlighting the significance of this study and giving a summary of the chapter. The background to the research problem is presented next.

1.2 BACKGROUND TO THE PROBLEM

South Africa has been experiencing an economic crisis common to the African continent. This crisis is so widespread that it reveals a depressing situation of poverty, escalating degrees of inflation, high levels of unemployment, social and industrial unrest, mass retrenchments, declining productivity and poor quality of life. These conditions are compounded by natural disasters such as drought or floods (Gerber, Nel & Van Dyk 1995; Blunt & Jones 1992; Kiggundu 1988).

Africa, in general, is characterised by an ever changing environment which creates uncertainties that make it difficult for most organisations to adapt to new demands and opportunities in order to survive and thrive. Blunt (1983:3) points out that:

“The continent of Africa is assailed by forces of change and disunity which make

it an exceedingly volatile place ... changes on the African continent are probably greater in magnitude, more varied, numerous and occur more quickly than anywhere else in the world. The challenge which such an environmental minefield poses to organisational adaptation and survival is considerable.”

Africa arguably has a greater degree of diversity in terms of ethnicity, cultural and linguistic pluralism than any other continent (Kiggundu 1988; Blunt 1983). It would not be far-fetched to assume that this factor contributes to the many problems facing Africa.

In a state of diversity and rapid change such as the one characterising Africa, employee preferences are likely to vary and change rapidly. One of these changes is the increasing number of women and blacks (in the case of South Africa) in the workforce, which poses new challenges for African organisations. Some of these challenges are discussed below.

1.3 CHALLENGES THAT AFFECT SOUTH AFRICAN ORGANISATIONS.

As briefly alluded to above, some of the challenges (problems) facing most of the organisations in the South African labour markets, include high levels of unemployment, low productivity and poor quality of work life. These challenges are discussed next.

1.3.1 Unemployment

Past trends and prevailing speculations indicate that unacceptably high levels of unemployment could persist for many years into the future (Best 1981). South Africa is no exception. As pointed out by Gerber *et al.* (1995:189):

“Unemployment is one of the greatest problems currently facing South Africa. If

it is not overcome soon, South Africa is heading for disaster...South Africa's productivity is so low that it will have to become an absolute priority if South African organisations are to compete in international markets. Even the re-distribution of wealth will hold no long-term advantage without increased productivity."

This state of affairs can be said to be true for most of the African countries. In South Africa the unemployment situation is said to be deteriorating (Loots 1997). It is reported by Loots (1997:28 - 31) that the latest official unemployment rate is 29.3%, and that,

" A comparison of the level of unemployment in South Africa with that in other countries shows that South Africa has one of the highest levels of unemployment in the world... South Africa does indeed have a very complex employment situation and...economic growth does not presently contribute significantly to the creation of sufficient employment opportunities. New approaches are therefore needed to expand and improve employment opportunities in order for the broader population to participate in growth and benefit from it."

It is clear from the above that many factors contribute to unemployment and poverty in Africa. One of the most obvious reasons for high levels of unemployment and hence poverty in Africa, is that there are just not enough employment opportunities for all those who need jobs.

Samuel Gompers (In Best 1983:3) puts it more succinctly when he says:

"As long as we have one person seeking work who cannot find it, the hours of work are too long."

With the affirmative action policies, practical alternative strategies to lay-offs have to be developed to promote equity, if discriminatory law suits and social or industrial unrest are to be avoided. Neither the last-in-first-out (LIFO) nor the first-in-first-out (FIFO) strategy might be acceptable. The LIFO would be defeating the Affirmative Action (AA) goals and efforts, and might lead to long, unproductive and expensive litigations, just as might FIFO. These could be avoided by opting for job-sharing or work-sharing strategies (MaCoy & Morand 1984). As stated by the Home Affairs Deputy Minister, Maduma (1994:3):

"Both the constitution and the RDP (Reconstruction and Development Programme) White Paper envisaged a critical role for affirmative action to address the gross imbalances in South African society."

Hence, any strategy that defeats the AA efforts would not be welcome in many forums, an indication that there is need for other alternative solutions to lay-offs. This concept of unemployment will be defined and discussed further in Chapter Five. Another major challenge facing South African organisations is low productivity, as discussed next.

1.3.2 Productivity

Productivity, to a great extent, does determine how effectively organisations and nations compete, both internally and at the global level. Ivancevich and Matteson (1996:57) define productivity as:

“...the relationship between real inputs and real outputs, or the measure of how well resources (human, technological, financial) are combined and utilized to produce a result desired by management.”

South Africa is said to be ranking very low globally with regard to productivity (Gerber *et al.* 1998). Since productivity has an impact on economic prosperity (Cherrington 1995), and therefore the standard of living, this paints a very bleak picture of South Africa's position. Hillard (1996:16-18) emphasises that in spite of the outcry over low productivity in South Africa, it appears that little is done to improve the situation. Hillard (1996:16) reports that:

“ In 1995 South Africa stood 42nd in the productivity line out of a total of 48 countries surveyed. Except for some isolated instances of increased productivity, predominantly confined to the private sector, it is no use beating about the bush: South Africa's productivity is deplorably low compared to her international competitors.”

This calls for an urgent action to address the low levels of productivity. In an attempt to address low productivity levels Morgan (1998) talks about creating a productive culture. Morgan (1998:16) lists some factors that are guaranteed to inhibit productivity

improvements. These are:

“poor quality of work;
absenteeism;
injuries;
breakages;
lack of motivation; and
high labour turnover.”

It is clear from this list that the human resource, being the one that utilises other resources, is the most critical in increasing productivity. This is especially significant in South Africa where unemployment levels are high, hence the desirable method used to increase productivity would have to avoid cuts in the workforce (Morgan 1998). This concept of productivity will be defined and discussed further in Chapter Five.

1.3.3 Quality of Work Life

Quality of work life (QWL) which can generally be said to be primarily concerned with humanisation of the work place (Blunt & Jones 1992), is also an important challenge facing South African organisations, especially in view of the legacy of apartheid. Even though Hillard (1990:4) alludes to the fact that QWL means different things to different people, he defines it as a:

“collaborative attempt by labour and management to improve the working lives of employees to enhance their ability to produce.”

In the wake of industrial unrest and strikes, most organisations in South Africa are likely to have cognizance of the fact that human resources can no longer be treated or used as "obedient workhorses", or adjuncts of the machine, since their level of tolerance of exploitation has declined drastically (Manning 1996). It is becoming more apparent that organisations have to develop more humanistic work places, if they are to thrive competitively on the global market. The strong forces motivating the concern with issues affecting the QWL, as witnessed by the recent Cosatu strike, show just how important the answers are. One of these changes is in the workforce composition and characteristics, which calls for appropriate strategies that would pay closer attention to the well-being of the diverse labour force, to yield positive outcomes for both the employees and employers.

The most commonly cited benefits of QWL programmes include job satisfaction, increased productivity, reduced absenteeism and a lower labour turnover (Hillard 1990:5), all of which are not satisfactory in the South African organisations (Butler 1995; Gool 1996).

As pointed out above, South Africa is experiencing acute productivity problems that need immediate attention for survival. It was discovered in some studies done in South Africa that organisations that pay close attention to QWL receive large productivity gains (Taylor 1988). Thus, it would be important that there is an appropriate balance between improvements in productivity and QWL, if actual positive results are to be realised. Alluding to this view-point Parsons (1992:8) states that:

“...productivity improvements must occur in such a way that quality of work life also improves. Either/or must yield to the philosophy of both/and!”.

Thus it is clear that the QWL challenges in South Africa, in view of diversity, must also be addressed to alleviate the adverse effects of its low levels. This is discussed further in Chapter Four which specifically presents the literature and studies relating to QWL.

1.4 ADDRESSING THE CHALLENGES

One aspect revealed by studies conducted in Africa that might help in finding the appropriate solution to these problems, is its "sharing" characteristic, in terms of being compassionate and caring (Hofstede 1980; Kiggundu 1988; Harari & Beaty 1990; Blunt *et al.* 1992; Christie, Lessem, & Mbigi, 1993; Aliquo 1994; Mbigi & Maree 1995). Terms such as communalism, collectivism, Afrocentrism, Ubuntu and so forth all express some aspect of the "sharing" values that characterise most of the African countries.

In describing the relevance of Ubuntu in African Management, Mbigi and Maree (1995: 1) state that:

"Ubuntu is a metaphor that describes the significance of group solidarity on survival issues, that is so central to the survival of African communities, who as a result of the poverty and deprivation have to survive through brotherly group care and not individual self-reliance".

Against such a background, it seems that sharing employment would be an appropriate, and even an effective alternative strategy to address the unemployment, massive retrenchments, low productivity as well as QWL problems facing South Africa. Job-sharing, which can be defined as, "an arrangement where two or more people voluntarily share one permanent full-time job with benefits prorated", has been used by many

employers and employees as a strategy to address these challenges. (Walton 1990; Meltz *et al.* 1981; Meier 1978).

There is an urgent need to find solutions to the turbulent conditions in Africa. One of these alternative solutions is job-sharing. As pointed out by Blunt *et al.* (1992:2) :

"A great deal has been, and continues to be, written about Africa's seemingly endless economic crisis...If the descriptions of Africa's economic predicament are accurate, urgent action is certainly needed".

It is not debatable that these turbulent problematic conditions in Africa call for no less answer than a search for practical ways to address them (Blunt *et al.* 1992; Kiggundu 1989). It is the researcher's belief that policies to encourage job-sharing deserve serious consideration as a practical response to the problems of lay-offs, unemployment, flexibility, poor quality of life and low productivity in Africa.

To date, there is no empirical data on job-sharing in Africa. In the absence of such a "pool" of information on job-sharing in Africa, it would be impossible for potential users to make knowledgeable decisions or choices on its use or lack of its use, to address these problems.

Without such empirical evidence, it would be fatal to attempt to emulate the industrialised nations in the use of job-sharing in any African country. In the view of Kiggundu (1988), cited by Blunt & Jones (1992:1),

"African organisations may find they can apply western management concepts and practices to their technical core with few major modifications. These imported ideas and practices are generally found to be inadequate and/or inappropriate for the organisation's relationship with its environment."

Many agree that solutions to problems in Africa have to be found in Africa by people who are familiar with the environment (Balogin 1989; Jones *et al.* 1992; Christie *et al.* 1993).

Without empirically derived knowledge on the potential of job-sharing, the costs, the type of employee and employer most suited to each job-sharing option, and the appropriate environment and policies, the potential user would be ill-equipped to decide whether it is feasible, what obstacles to anticipate, which options and to whom such job-sharing strategies would best be suited.

Related literature does reveal that job-sharing has been beneficial and that there is need for further empirical research into job-sharing in various industries, occupations and countries (Olmsted & Smith 1989; Meltz *et al.* 1981).

It is against this background that this researches undertook to study the potential and feasibility of job-sharing in South Africa, and to explain under what conditions job-sharing would either be beneficial or not, as an alternative strategy to address problems of unemployment, mass retrenchment, low productivity and quality of work life (QWL) that South Africa is faced with. This also led to appropriate recommendations for further research in South Africa and other African countries. This concept of job-sharing is further defined and discussed in Chapter Two. The purpose of this study is now presented.

1.5 STATEMENT OF PURPOSE

The purpose of this research survey is to explore and describe the characteristics of potential job-sharers; the types of organisations, employees and job-seekers amenable to job-sharing; perceived reasons and obstacles; and potential costs and benefits. Based on this information, the study attempts to explain why job-sharing is a feasible and appropriate alternative work schedule that can be used as strategy in South Africa to:

- be an alternative to lay-offs and reduce unemployment;
- increase employee productivity; and
- meet diverse needs for flexibility and equity in the work place, thereby improving quality of work life.

Job-sharing has mostly been used as a strategy to address the aforementioned issues in the United States of America and in Europe (Olmsted & Smith 1989; Meltz *et al.* 1981).

Sample survey data was obtained from workers at all levels, job-seekers and informed persons in the organisation, and cross tabulated and analysed for this purpose. This has provided a data base which can be used by job-sharing users to assess its feasibility in the South African labour market and the appropriate policies and conditions required to facilitate its use. A theoretical model has been proposed which can guide potential users of job-sharing to determine the antecedents and possible consequences and assess its feasibility in South Africa. The major research questions and objectives for this study are outlined below.

1.6 RESEARCH QUESTIONS AND OBJECTIVES

To achieve the purpose stated above, this study addressed the five research questions and objectives outlined below.

1.6.1 **Research Question One:** Can employees and organisations opt for job-sharing as an alternative work schedule?

The objectives of this question were two-fold:

1.6.1.1 to explore, through literature review, whether job-sharing has been used as an alternative work schedule and to identify the subgroups amenable to job-sharing.

1.6.1.2 to explore, through literature, the antecedents and consequences of job-sharing in organisations.

1.6.2 **Research Question Two:** Are employees (workers) , employers and job-seekers (the unemployed seeking employment) in RSA willing to job-share?

The objectives of this question were two-fold:

1.6.2.1 to determine through the survey of workers, organisations and job-seekers whether job-sharing is perceived as a suitable and preferred work schedule.

1.6.2.2 to explore through the survey of workers organisations and job-seekers whether there are differences among subgroups in the willingness to job-share.

1.6.3 Research Question Three: Based on the opinions of employees, employers and job-seekers, with regard to current work-scheduling practices, is the work environment in South African organisations conducive to job-sharing; to what degree are employees and employers receptive to change; and how is the degree of receptivity to change related to the willingness to job-share?

The objectives of this question are:

- 1.6.3.1 to explore the affective reactions of employees and employers toward the current work schedule and determine the impact on the willingness to job-share
 - 1.6.3.2 to explore the perceived interferences of the work schedules with non-work activities by the employees and job-seekers and to determine the relationship to their willingness to job-share.
 - 1.6.3.3 to explore whether the current work-scheduling practices, as perceived by the employer, are conducive to job-sharing.
 - 1.6.3.4 to explore the receptivity to change of employees and organisations and to determine its relationship to their willingness to job-share.
- 1.6.4 Research Question Four:** Based on the perception of workers, organisations and job-seekers in South Africa, what are the antecedents and impediments to job-sharing and how do these impact on the willingness to job-share.

The objective of this question is to:

1.6.4.1 to explore the perceived antecedents and obstacles to job-sharing and their impact on the willingness to Job-share-share.

1.6.5 **Research Question Five:** To what extent would willingness to job-share be influenced by the workers perceived QWL, productivity and employment opportunities (unemployment)

The objective of this question is to:

1.6.5.1 to explore the relationship between workers' perceived quality of work life, productivity, unemployment and their willingness to job-share.

Research Question One is addressed through the literature presented in chapters two to five. The results for Research Question Two to Five are presented in chapters eight to eleven. The next section presents the definition of terms, delimitations and assumptions of the study.

1.7 DEFINITIONS, DELIMITATIONS AND ASSUMPTIONS

The definitions of the major terms as they shall apply to this study as well as the delimitations and assumptions are given below.

1.7.1 Definitions

Job-sharing : Shall be defined as a voluntary arrangement between two or more people to share one permanent full-time job, with responsibility, authority and benefits prorated. It is not the same as shift-working or traditional part-time employment.

Work-sharing : Shall usually refer to a temporary strategy employed during an economic slump, as an alternative to lay-offs, so that instead of some employees being laid off, all keep their jobs but work less hours with less pay.

Flexi- time : Shall refer to an alternative work schedule where, instead of the traditional 08:00 to 17:00 working schedule, employees may start earlier or start later and leave later as long as the minimum required number of working hours per day (usually 8 hours) is met, with the limitation of the core hours (e.g., 10:00 - 15:00) when everyone is expected to be at work.

Compressed Work Week : Shall refer to an arrangement where employees work ten hours a day for four days a week, instead of working the traditional eight hours a day for five days.

Alternative Work Schedule : Shall refer to all possible alternative working arrangements to the traditional, permanent, full-time, 08:00 - 17:00, five days, 40 hours work-week. Job-sharing, Work-sharing, Flexi- time and Compressed Work Week are examples of this.

Unemployment : Shall be defined as zero hours of work, either voluntary (due to insufficient demand, or involuntary dismissals (layoffs), of all those that have actively sought work and have a desire to work. It shall be defined in terms of lay-offs and employment opportunities for the job-seekers.

Productivity : Shall be defined as that which an employee can produce with the available resources and methods within a period of time, in view of effective and

efficient utilisation of human resources. Thus, productivity shall be defined in terms of amount of work/worker energy, absenteeism, tardiness, attendance and continuity.

Quality of Work Life (QWL): Shall be defined and understood as a goal, as a process for achieving that goal and as a philosophy setting out the way employees should be managed in order to facilitate the translation of the concept into practice (Mullins 1993:499). It shall defined in terms of satisfaction with organisation, co-workers, work, supervision, pay and work; autonomy and flexibility; and physical working conditions.

1.7.2 Delimitations, Limitations and Assumptions

1. This study is confined to the South African labour market only and does not enter into inflationary implications of job-sharing, apart from the general indication that more employment opportunities would be available and more skills would be obtained in cases where certain skilled employees would opt either to share a job or not be gainfully employed. The study only regard, the classical view of the determinants of unemployment, being demand for labour and supply of labour (Froyen 1983).
2. Due to the diversity that characterises the African continent (Kiggundu:1988), this study, being limited to the Republic of South Africa, does not generalise the findings as applicable to other African countries, even though it does suggest areas of further study, as implied by the findings.

3. This study does not assume that job-sharing is the only solution to the problems outlined above, but proposes to suggest it as an alternative solution, which may either be used on its own or in conjunction with other feasible alternatives.
4. A possible bias is envisaged in the responses of employees and union representatives, due to the poor economic stance in South Africa and the changes currently being effected, to view job-sharing negatively, in fear of a possibility that they might be forced to share jobs.
5. Lack of familiarity with the term job-sharing is considered a possible constraint on the accuracy of responses.
6. Whilst translation, back-translation and focus groups are recommended for cross-cultural research (Harari & Beaty 1990), it is "costly and time-consuming and does not detract from the fact that the quality of the translation still depends on the insight and skill of the translator" (Hofstede 1980 : 36), and was therefore not done.

1.8 SIGNIFICANCE/ BENEFITS OF THE STUDY

To the author's knowledge, there have been no empirical studies on job-sharing in Africa, and what exists pertains to the industrialised nations (Olmsted 1989; Blyton 1985; Meier 1978). In the absence of such studies, any job-sharing strategies used would have very little chance of success.

This study yields multiple benefits to several kinds of audiences including employers, employees, job-seekers, trade unions, government policy makers, family members and the society at large.

This study provides empirical data on the work-scheduling practices as they relate to the willingness to job-share, potential obstacles and benefits of job-sharing; the job, the employee, the organisation most suited to job-sharing; the appropriate environment and policies, and the ways in which it would contribute to improved employment, productivity and QWL.

This information would equip the potential users of job-sharing to make effective decisions with regard to its use (or lack of use). That is, decisions on which jobs, area of work, type of industry, etc. and how such strategies can best be employed, would be facilitated.

The results of this investigation would allow for better informed decisions and choices by potential job-sharing users and reduce the probability of failure. Hence, the job-sharing objectives of:

- * spreading employment amongst more people, or
- * allowing employees to share their jobs instead of laying some off, or
- * meeting the diverse flexibility needs to balance family (and/or personal) and work life, or
- * meeting specific human resources needs, or
- * meeting any other of the employers' and employees' diverse preferences and needs, would be effectively achieved.

Considering the accelerating unemployment levels, growing number of females and blacks in the workplace, the urgent need for equity and affirmative action, and the growing need to balance family and work life, South Africans cannot afford to postpone the need to find empirical solutions to these problems. This study on job-sharing provides a practical alternative solution to these problems and determines possible future research questions and framework.

In no way, however, does this study assume that job-sharing is "the" solution to all the problems outlined above. It aims, however, at suggesting that under certain conditions, it might be an alternative solution, either where other strategies are resisted and ineffective, or in conjunction with other strategies.

In the overall scheme of things, job-sharing should not be ignored as a potential supplement to existing employment policies, nor as an alternative work schedule that can meet a range of diverse employee and organisational needs, as outlined above. Available and applicable literature on job-sharing, which will be discussed in the next chapter, does support this contention.

1.9 SUMMARY

This chapter addressed the background to the problem and highlighted that high levels of unemployment, low productivity and poor QWL are some of the current challenges facing South African (SA) organisations and the nation at large. It has also indicated how, in view of the SA's environment job-sharing might be an appropriate alternative solution. The primary purpose of the study was also given, followed by an outline of the major research questions and objectives. This chapter also gave definitions of the major terms

used in the study and the delimitations and limitations of the study. The importance of this study, in terms of its benefits to a large constituency, was also highlighted.

Available and applicable literature on job-sharing with regard to its origin, use and benefits, shall be discussed in the next chapter, which also addresses Research Question One and shall provide the basis for the subsequent discussion on other major variables in the study. This shall be followed by a conceptual framework for the study and literature on QWL, productivity and unemployment. The research methodology and the description on the analysis used to address the research questions shall be presented next. The last part of this research report presents and discusses the results. The report concludes with a summary of the findings, recommendations and suggestions for further research.

CHAPTER 2

JOB-SHARING

2.1 INTRODUCTION

In the previous chapter it was established that there are problems in the South African labour Market which pertain to employees, organisations and the society, which could be resolved by the implementation of job-sharing. This chapter reviews the relevant literature on job-sharing, which addresses the problems raised in the previous chapter and addresses the first research question, which is, "Can employees and organisations opt for job-sharing as an alternative work schedule? This question has two objectives, namely:

1. to explore through literature review, whether job-sharing has been used as an alternative work schedule and to identify the subgroups amenable to job-sharing; and
2. to explore through literature the antecedents and consequences of job-sharing in organisations.

2.2 HISTORICAL OVERVIEW

Whilst the standard hours of work vary from country to country, the trend reveals that they have been declining.

"A common assumption about working time is that it has become gradually but progressively shorter through history, or at least from the medieval periods onwards" (Blyton 1985:15).

Among the pervasive changes that have been occurring in recent years, are changes in working time. Significant changes have occurred in a number of facets of working time. Different reasons have been advanced for the need either to reduce or rearrange working hours, including social, family, education, economic, organisational efficiency, and leisure (Lundall 1990; Blyton 1985).

Arguments (Pierce, Newstrom, Dunham & Barber 1989:10-11) employed by workers unions in the early twentieth century, in order to secure a reduction of the work week, included that short working hours:

- are essential to good citizenship in that it affords workers time for education and participation in politics;
- are necessary in order to protect the health of the working population;
- Leads to an increase in leisure time which stimulates the demand for society's products;
- leads to an increase in efficiency of labour and organisational productivity;
- would create more jobs hence increase the consumption and product demand which would add to the profits and the growth of the organisation.

"Now, however, shorter working hours are often identified as a vehicle that will contribute to a better society, a healthier worker and a growth-oriented economy" (Pierce *et al.* 1989:11).

According to Fred Best (1981:3):

"The Great Depression of the 1930's fostered the widespread and explicit efforts to reduce work-time in order to spread employment."

Most of the literature with regard to "calls" for a reduction in working hours do indicate that these calls were made during previous periods of high unemployment, by which to combat it, by attempting to distribute jobs among the working population as a whole (Olmsted *et al.* 1989; Blyton 1985; Meier 1978).

However, each country has its own understanding of the meaning with regard to working hours:

"Within individual countries this general call has been translated into various specific demands for change in the pattern of work-time, including the introduction of a shorter working week, longer holidays, reductions in overtime working and greater provision for early retirement" (Blyton 1985:3), flexitime, work-sharing and job-sharing, etc. (Olmsted *et al.* 1989).

Whilst there seems to be a relative abundance of literature on hours of work in industrialised countries,

"There has been a fundamental dearth of literature on working hours in South Africa" (Lundall 1990:63).

This state of affairs can be said to be true for most of the African countries. Even though one of the traditional aspects with regard to the reduction in working hours has been in terms of spreading work among more people, to facilitate the principle of "sharing the burden" and hence the benefits, in a way of "half a loaf is better than none", the most recent emphasis has been the desire for some workers "to trade income for time off" (Cohen & Gadon 1978:9).

This was confirmed by the Conference Board of Canadian Survey, which found that about one third of working Canadians would like to work less (Warne *et al.* 1992).

"Many people...desire an organisation of work which acknowledges and facilitates what they must do (and want to do) in the rest of their life. Work is no longer to be an inflexible core, around which the other parts of life must bend" (Kanter 1988b in Cohen *et al.* 1978:1).

Cohen & Gadon (1978:9) report on various research studies done in the United States which conclude that:

"...the younger, older and female segments of the workforce, which have been growing, often prefer shorter hours to additional income...It may well be that those who want to work less can be accommodated to the benefit of those who desire greater opportunity. New scheduling options, allowing for better fit between employee desires and timing of work, can help deal with the conflicting pressures over employment opportunities."

Work-sharing and job-sharing are regarded by some as traditional part-time arrangements and are usually discussed with a "broad brush" in that respect. This might provide a logical explanation for their sparse use, especially in Africa. Part-time employment, as it is generally known, is usually in low regard in terms of job performance, status and even in pay (Warne, Lundy & Lundy 1992). Some people might be quick to equate part-time employment with job-sharing and work-sharing, and hence may fail to "render an ear" to any discussion on their viability as strategies which could solve a multi-faceted portion of organisational, employee, family, and social problems.

Beaumont's express (May 1998) suggests that in coping with corporate reorganisation with regard to retrenchments in South Africa, job-sharing is usually suggested by unions as an alternative solution. The article indicates that amongst the barriers to this alternative is the selling of the idea to the workers and that it is a short term solution used in anticipation of surplus labour. Beaumont's article does not give a precise definition of job-sharing. Its contents do suggest that what is being referred to as job-sharing is actually work-sharing. Job-sharing as defined by those that have either used or researched it indicate that it, is a voluntary arrangement by all those involved. Caution should be taken to avoid such misunderstanding of the job-share concept which might hinder its implementation, thereby forfeiting its true benefits to employees, employers, job-seekers and the society at large. The distinction between job-sharing and work-sharing is given in the paragraphs that follow.

Work-sharing, as in some cases part-time employment, is usually an involuntary strategy which is dictated by economic conditions where there is insufficient demand for labour, whereas job-sharing, though it can be used as a strategy to combat unemployment or as an alternative to lay-offs, is a voluntary strategy used to meet the employee and organisational needs to work less than full-time but on permanent basis (Meltz *et al.* 1981; Warne *et al.* 1992). The distinction between these strategies are clearly made by Meltz *et al.* (1981:4) who states that:

"Whereas work-sharing is designed to protect workers' jobs when demand for labour is deficient, job-sharing and regular part-time employment are intended to accommodate persons who prefer to work less than full-time. Job-sharing differs from part-time employment in that job-sharing allows two or more workers to share a job that was (or could be) filled by one full-time worker, while a regular

part-time job is work that for technical or cost reasons cannot easily be converted into a full-time job."

Work-sharing and job-sharing though built on different premises, would mean reduced work-time, hence both would, among many other benefits, ultimately spread employment and reduce unemployment. Job-sharing would, however, not only act as an alternative to lay-offs and as a strategy to reduce unemployment, but it also would meet the needs of those who desire to work less than full-time but on permanent basis. It would meet the need for employees "to share", an element, as alluded to above, which characterises Africa. Hence such "sharing" strategies deserve to be researched as possible solutions to some of the problems in Africa.

Aliquo's survey (1994:5) revealed that managers in Africa prefer an Afrocentric approach to others (e.g. Eurocentric), which reflects the African values of sharing. She said in her report:

"Ubuntu is the foundation for sound human relations in the African society....It means humanness, empathy, humbleness, mutual respect, compassion, dignity and mutual caring and sharing".

History does reveal that reduced work time has been propagated, mostly to encourage sharing the hours of work to reduce unemployment, and also as a solution to a variety of personal, organisational and social problems.

2.3 EVOLUTION OF JOB-SHARING

The perspectives with regard to the background of job-sharing are mixed. As pointed out by Meier (1978:1):

"The term "job sharing" is both new and old. For some readers it implies the poverty sharing during Depression years, for others, the type of sharing experienced during the labour shortage of World War II. As the term is now used, "job sharing" comes from efforts in the late sixties to develop new career level opportunities in part-time jobs by restructuring full-time, 40-hour week positions."

Olmsted *et al.* (1989:105) appears to concur with Meier when he states that:

"The term job sharing was first coined in the mid-1960's. This option was devised as a way to create more part-time opportunities in career-oriented job categories in which the positions could not be reduced in hours or split into two part-time jobs. It represents an attempt to bringing regular, part-time into parity with regular full-time employment....As more employees express an interest in reducing work time at some point in their careers and as employers become interested in offering reduced work-time as an employee option or benefit, the issue of improving of part-time employment has affirmed increasing importance. Job sharing has played a significant role in making part-time work more equitable by emphasizing that it is the employees who are part-time, not the job."

Others view job-sharing as having originated from efforts of employers to meet varying changing needs of employees and organisations. As pointed out by Lussier (1990:9) :

"With the increase in dual career households came the need for more flexibility in meeting the demand to balance work and family life...Job-sharing is an attempt to match the needs of the organisation, requirements of the jobs and the unique characteristics of the employees."

Some point to job-sharing as addressing the issue of equity. Leighton (1988:21) states that:

"The impetus for developing job-sharing was originally equal opportunities policies, specifically, that when women left on maternity leave they should have opportunity to return to a job with comparable demands, though on a part-time basis."

Walton (1990:4) sees job-sharing as originating from the need to address the:

"...rising unemployment and much concern over the decreasing amount of work available for those looking for jobs."

It is apparent from this background that job-sharing, as an alternative work schedule, arose as a strategy that could allow employees to integrate family, recreational, and educational needs with their lives at work; could be used as an alternative to lay-offs; would spread the work over more persons and hence reduce unemployment. (Cohen *et al.* 1978). The origins of job-sharing reveals that not only may it be used as a "double-

edged sword", but also as multi-faceted strategy to address the needs of employees, organisations and the society at large.

2.4. INTEREST IN JOB-SHARING

Interest in job-sharing has been increasing progressively.

"Job-sharing has been suggested as a way of making challenging, high-skilled jobs accessible to men and women who want to pursue a career but prefer not to work full-time" (Meltz *et al.* 1981:4).

Whilst in the industrialised nations most studies indicate that many of the job-sharers are women, there is little known about the users, if any, of job-sharing in Africa. There is an increased interest among men in job-sharing as well. As pointed out by Walton (1990:5):

"Although it is largely women who are jobsharing, men increasingly want to change the balance of their lives, in particular, so that they can be more involved in child care and domestic work."

Warne *et al.* (1992:316-317) quoting the Canadian Commission of Inquiry's findings, in which it was found that 31% of the respondents were willing to take a cut in pay in order to have more time, summarises the reasons for choosing to job-share as follows:

- opportunity for a more balanced life;
- more time for family;
- a mental break from children;

- more flexibility for arranging days off;
- a way to develop team skills;
- an opportunity to keep a foot in the door;
- more time for continuing education;
- an opportunity for working with a more experienced person (on-the-job training);
- personal enrichment and psychological support as a result of close contact with a job partner; and
- a way to maintain one's link to professional networks and to stay in the running for other jobs.

Various research findings on why people want to job-share, support the above views. (Meier 1978; Walton 1990; Dancaster 1993; Lunt 1994). With regard to South Africa, it would appear from a survey reported by Bennett (1998: Np) and also based on the results of this study (see Chapter 9), that women are more dissatisfied with their work environment. It is reported (Bennett 1998: Np), based on the results of the survey that,

“Promotion prospects and a balanced personal and working life are far more important for South African working women than how much they earn...Lack of flexibility of working hours and little allowance made for family commitments are seen as significant obstacles to getting ahead...”

Based on these results it would not be far-fetched to conclude that in South Africa, job-sharing is likely to be more attractive to working women, especially those with school-going children or dependants. The results of this study (see Chapter 8) also reveal that the number of dependants does influence the willingness to job-share.

Job-sharing may also be used to combat stressful situations. Even doctors resort to such work-time reduction solutions. Some of their most "profound" advice to depressed or stressed patients is, "cut down the hours you work; take a holiday" (The Economist 1993 Nov 13: 18t). In her studies Pam Walton (1990:10), quotes Sheila McPhee, a senior manager for British Telecom who returned full-time after maternity leave and eventually found the answer to her stressful situation in job-sharing, as saying:

"It's a very demanding job and I felt I was not performing as well as I did before. In the end I worked full-time for nine months and over that period I felt more and more stressed, and less and less able to cope with the double life."

Others, like Meier (1978) suggest that job-sharing also attracts some management personnel because of the lure of "two for the price of one" as well as a response to the changing needs of employees. The Oklahoma State University, an employer of job-sharers, confirms Meier's suggestion (Olmsted *et al.* 1989:128):

"It has been proven that not only are two heads better than one, but two persons sharing the same job can give an extension of service and often an increase in productivity of 25% or more. There is less absenteeism, tardiness and more pride in work done well. Reasons for this higher quality of work efficiency can be attributed to higher energy, enthusiasm and motivation. Together, job-sharers can frequently offer a lot more than a single employee."

Interest in job-sharing has been growing as revealed by the above literature. However, this interest, if it exists, is not known in the African context. This study has just revealed

that there is interest in South Africa to job-share, as reported in subsequent chapters, which present and discuss this survey's research results.

2.5. JOBS MOST SUITED TO JOB-SHARING

Cases of job-sharing reveal a wide range of jobs that could be shared, even though some are more obvious than others.

"Certain types of jobs lend themselves especially well to sharing, such as jobs with widely varying activity levels, high-pressure jobs, boring jobs and jobs requiring a variety of skills". (Lee 1984:30)

Even high level professional jobs may be shared, as long as proper job specification, the organisation's situation and the job-sharers have been evaluated to establish the suitability and appropriateness of the job to be shared (Polsky & Foxman 1987:33).

"As knowledge of the concept has spread, jobs across a wide variety of occupations and grades have been opened to sharing including librarians, doctors, social workers, teachers, lecturers, researchers, local government officers and health service workers." (EOR No 16 1987:13)

The study conducted by the Industrial Society and the Essex Institute of Higher Education (Leighton 1988:22) revealed that job-sharing could also work in jobs which are often prone to stress...

"the conclusion from the research was that all the job sharers had proved successful, and two outstandingly so. Interestingly, they were in the most senior and policy areas of work."

Lussier (1990:9) is of the view that "...jobs that need continuity, such as supervisory positions, are often unsuitable for job-sharing." He advocates, however, that "jobs that are tedious and physically and/or mentally stressful are good candidates for job-sharing."

A number of research projects conducted in the United Kingdom do reveal that:

"...major areas of work have job-share schemes. They occur in administrative, clerical and a range of professional work, including nursing, computing, teaching and librarianship and, perhaps less predictably, are to be found in manufacturing work and the retail trade" (Dancaster 1993:5).

Job-sharing is also said to be widely used in the librarian profession. As pointed out by Stennett (1993:13),

"As so many women are involved in librarianship, job-sharing is particularly pertinent to this profession."

Both Meier (1978) and Walton (1990) report on research findings that indicate a wide range of areas suited to job-sharing. These include teaching, lecturing, library work, planning, landscape architecture, personnel and training, social work, community work, journalism, medical and health workers, administration, secretarial and research.

In view of the above literature it would probably be safe to agree with the view (EOR 1987:13) that:

"...all jobs were suitable in principle for job-sharing...Both Leeds and Sheffield City Councils state that all jobs are considered eligible for sharing, but have developed procedures to be followed if management takes the view that one is unsuitable."

However, each individual country and organisation needs to establish, through research, the jobs suitable for sharing. This study reports on some of the jobs that are perceived as suitable in the South African environment.

2.6. PROS AND CONS OF JOB-SHARING

Since there are many possible variations of the job-sharing option, it is important that a proper managerial costs-versus-benefits analysis be done before any option is implemented. This section discusses some of the benefits and costs associated with job-sharing.

2.6.1 Advantages/benefits

There is a wide range of benefits of job-sharing to employers cited by Lee (1984), which many writers and researchers (Warne *et al.* 1992; Walton 1990; Lussier 1990; Ivancevich & Matterson 1996) agree with.

"Employers benefit from job-sharing programs in a variety of ways, including: greater flexibility in work scheduling, retention of valued employees, reduction of turnover, wider range of skills in one job, recruitment from a broader labour pool, options for older employees, more energy on the job, reductions of absenteeism, and continuity of job performance." (Lee 1984:28).

The American New Ways to Work studies substantiate these benefits of job-sharing to the organisation. Polsky *et al.* (1987:30), supported by Touby (1993) and Sullivan & Lussier (1995), citing the research findings, state that:

"The primary benefit of job-sharing to organisations is greater productivity through :

- Increased worker energy. Each worker gives more and has more to give.
- Reduced turnover. There is greater job satisfaction, which retains trained employees and experienced personnel.
- Reduced absenteeism. Burnout is decreased.
- Job continuity. When one partner leaves, the other is skilled and able to train a new partner.
- A broader and expanding range of skills. One partner brings new and different skills to the job and to the other partner."

Dupont's Director of Corporate Accounting and Reporting, Dan Smith (1996), states the same benefits resulting from the implementation of job-sharing in his organisation. In addition to these benefits of job-sharing, Olmsted *et al.* (1989:113) adds that of achieving specific human resource management objectives:

- As a way of phasing into retirement, two senior employees may share a job with each other.
- So as to enable the older employee to train his/her replacement while phasing into retirement, a senior employee may job-share with a younger employee.
- So as to permit an employee to advance in situations where there is no full-time opening at the higher grade level (plateauing), he/she can share a job half-time at a higher grade level and remain half-time at his or her current position.
- The organisation may retain the services of the employee during the learning process and end up with a more qualified employee, by allowing him or her to share a position half-time while completing his/her studies.

There are also some indirect job-sharing benefits which Patricia Lee (1984:88) points out;

"Job sharing programs create a lot of goodwill among workers and that spills over to the community in which you function. An intangible result of your program may well be widespread favorable public relations. Many companies employing job-sharers have found themselves overnight stars, with national television, radio and print coverage touting the farsightedness of their employment programs".

Some of the organisations that report a variety of the above-mentioned benefits (Olmsted *et al.* 1989) include Rolscreen, a Midwestern manufacturer of Pella windows and patio doors; Federal Reserve Bank of San Francisco; Northern Utilities, Connecticut; and Oklahoma State University.

Job-sharing also allows individuals to balance their family, leisure, education and work life. One of the Oklahoma State University job-sharers, Marita Jonson, says that:

"Job-sharing in the Personnel Office has provided a way to re-enter the work world which I left to raise my family and yet it provides the flexibility for my partner and me to adjust our work schedules to accommodate our interests and meet the needs of our families. It has also brought my family closer together, because we each assume responsibility to help make each other's day a little bit better" (Olmsted *et al.* 1989:129).

From the above review it is clear that job-sharing would benefit both the individual employee, the organisation and society at large in various ways.

2.6.2 Disadvantages/costs

One of the most cited disadvantages of job-sharing is the increased cost of benefits to the employer (Olmsted *et al.* 1989; Warne *et al.* 1992). The other commonly cited disadvantages of job-sharing include:

"...higher costs of payroll administration; difficulties in recruitment of job-sharers; possible personality conflicts between sharers; work space problems if sharers overlap; increased workload for supervisors (or increased cost of supervision); problems of accountability if responsibility is divided; and the necessity of developing a coordinating mechanism" (Warne *et al.* 1992:318).

Ronen (1984) agree to these disadvantages.

Lussier (1990:10), with regard to job-sharing, indicates that as a result of the planning and organisation requirements, increased supervision, difficulties in coordination and increased cost of record keeping, productivity may decline.

Sheley (1996) also reports on the findings of a study on job-sharing that Management resistance and scepticism, corporate culture, compensation and benefit costs were some of the challenges and problems reported by the study.

For the individual job-sharer, the prospects for career advancement might be limited. The work load as well as commuting expenses might be higher proportionate to the salary of a full-timer (Cohen *et al.* 1978).

2.6.3 Pros and cons: Summary

The cost and benefit analysis depends to a great extent upon the objectives for instituting job-sharing (Olmsted & Smith 1989). It has to be determined whether job-sharing is being considered in response to an employee's request, or due to recruitment difficulties, as an alternative to lay-offs, or as a way to manage several of these problems at once. It has to be established in which areas savings, both current and in the future, may be made. Olmsted *et al.* (1989:155) also points out that:

"In weighing the advantages and disadvantages of using job sharing, the employer will have to take a detailed look at the costs associated with this option. Some surprises may be in store, since the organisation often finds that savings in base salary result...If the job sharers' schedules are set up to enable them both to use the same space and equipment, no extra expense in this area is incurred. And in fact

the decrease in absenteeism and turnover generally associated with the use of job sharing often offsets whatever moderate cost increases may be involved."

Lunt (1994:88) reports that:

"Some banks find that job-sharing costs less than employing one full-timer or two independent part-timers....Nations Bank...pays twice as much for benefits in a job-share than for a single full-time employee. Nevertheless, 'job-sharing is less expensive than replacing somebody', says Virginia Stone Mackin, Director of Work and Family Programs....Banks that allow their employees to job-share often find that a pair of job-sharers is more productive than a single full-time employee."

The above literature (page 34-39) does reveal that if properly implemented, the benefits of job-sharing at least outweigh the costs.

2.7 IMPLEMENTING JOB-SHARING

There is no unanimously agreed upon procedure for implementing job-sharing, even though most writers and researchers agree on the critical importance of sound planning, policy statements and carefully detailed consideration of how the duties and responsibilities are to be divided (Lee 1984; Curson 1986; Walton 1990).

Walton (1990:84-87) outlines the need for trade union involvement; central responsibility; publicity for the scheme; guidelines or codes of practice, training and education; and monitoring and review in implementing a job-share scheme. Meier (1978) and Olmsted *et al.* (1989) agree with Walton on the importance of most of these issues.

Solomon (1994) advises that Human Resources (HR) should guide the planning process to ensure the viability of job-sharing and the effective communication between the sharers and managers.

Lussier (1990:10-11), and also supported by Touby (1993), recommends a proper needs assessment as a starting point when implementing job-sharing:

"If good employees have family obligations or are near retirement, you could ask them if they are interested in job sharing rather than leaving altogether. Another alternative would be to conduct a survey asking for interest in job sharing. A third alternative is to wait until an employee approaches you asking for reduced hours. Using either or these methods, you will know the need for job sharing in your department. If you must reduce your staff, rather than select someone to layoff, determine if employees are interested in job-sharing as an alternative. On the non-employee needs assessment side, if you have an opening you cannot fill, try job sharing."

Marley (1990), a college librarian who job-shares states that compatibility, commitment, communication and consistency, what she calls the four Cs, are vital to a successful job-sharing arrangement. Sheley (1996) also reports on the results of a survey on job-sharing which also alludes to the importance of these four factors for a successful job-sharing arrangement.

In Olmsted *et al.* (1989)'s view, if a job-sharing programme is to be successful, it should be voluntary and the expectations of both employer and employee should be made clear from the outset.

Olmsted *et al.* (1989:156) concludes on the issue of implementing job-sharing, that :

"...a company must focus on generating understanding of, and support for, this work-time alternative; removing any organisational barriers that may discourage the use of job-sharing and defining a comprehensive new policy on its use; developing resource materials that can help both supervisors and employees to systematically consider the entire range of relevant factors before they enter into a job-sharing arrangement; promoting the use of job sharing once the program is in place; and modifying the program on an ongoing basis to eliminate problems that have been noted by the involved parties and incorporate suggested improvements. Successful implementation of a job-sharing program will require the knowledgeable and skilled participation of an organization's supervisory personnel."

Successful implementation of job-sharing requires a proper analysis of the job, the duties, responsibilities, costs and the benefits to be divided between the sharers.

2.8 RESEARCH CONCLUSIONS

Both Walton (1990) and Meier (1978) conclude in their studies on job-sharing that most people who job-share to reduce the number of hours they work, found that it has improved the quality of life. Walton's studies aimed at :

"...providing encouragement to both women and men who want to change their working lives. It gives practical information on how to use job-sharing as a way

of working reduced hours without losing the status and seniority largely associated with full-time jobs." (Walton 1990:6).

She concludes, as she looks at the future of job-sharing that, if it is to work

"...the agreement and acceptance of senior and line managers, trade unions and other members of the workforce, are needed" (Walton 1990:131).

Olmsted and Smith (1989) have provided detailed information about various work-time alternatives, including job-sharing, as well as guidelines on how to choose them, use them and integrate them in a way that will allow organisations, employees, and ultimately, the whole economy and society to function more effectively and humanely. They conclude that:

"The organisational advantages of permitting not only individual jobs but entire categories of jobs to be worked on a shared basis can be considerable for the employer that has examined this scheduling option closely, selected it for the right reasons, and planned its use with care" (Olmsted & Smith 1989:156).

In a survey on job-sharing in Sweden (Fredriksson 1988) it was found out that job-sharing does exist in Sweden, and it is of some interest for continued research, except that it:

"...should be seen from a wider perspective which includes the right to full-time work and the opportunities for part-time work within all types of occupations. There are many aspects of working hours questions where continued research is important..." (Fredriksson 1988:400).

Not all the cases reveal acceptability of the use of job-sharing strategy. Patricia Leighton (1988:22) reports on a study of employers that was conducted earlier in Southeast Essex where scepticism and reservations about job-sharing was detected, especially in the private sector. However,

"Public sector employers were found to be more sympathetic to job-sharing and many had introduced job share schemes" (Leighton 1988:22).

Leighton (1988:23), however, also reports on a new study on job-sharing, where it was found that job-sharing may be an efficient pattern. She says:

"The study's message is clear. Job sharing can be highly successful....If introduced successfully, and it seems to work especially well in senior posts, job sharing can not only deal with some, at least, of the recruitment problems, but the practical experience of it can often have a positive 'knock-on' effect for the organisation."

Some other studies (Curson *et al.* 1986; Blyton 1985; Meier 1978) have taken a broader perspective to include job-sharing as one of the flexible patterns to work. Such a study is that of Curson *et al.* (1986:192-193), which concludes that:

"The evidence we have gathered leads us to the conclusion that most of the changes in working patterns that have so far taken place, have not...created new employment,...part-time working, on the other hand, has increased jobs."

Reporting on many cases of job-sharing especially in the government, Curson (1986:123) points out that:

"In the UK, the creation of new job opportunities through job sharing has been adopted by a number of local government employees. At Sheffield City Council, where about 160 posts are shared, its policy statement specifically declares that job sharing is seen as part of the general employment policy... the needs of staff who wish to work less than full time can help generate job opportunities at a time of continuing high unemployment."

He also points out the need for further research, to determine the extent to which part-time employment can increase employment opportunities. Concluding on job-sharing, Curson (1986:127-128) states that:

"For a small but growing number of organisations, job-sharing has proved that it can serve a range of useful purposes from the perspectives of the employer and the employee, providing an alternative work pattern which can contribute to greater flexibility and productivity."

Yet another authority that indicates the need for more systematic research into job-sharing is Blyton (1985). He points out that:

"Up to now the interest in job-sharing has been expressed more in words than deeds and the institutional, organisational and attitudinal barriers facing a major growth in job-sharing are unlikely to be easily breached. On the positive side, reports on job-sharing schemes in operation offer employers encouraging signs on absenteeism, productivity, work scheduling, costs, etc." (Blyton 1985:123).

Meltz *et al.* (1981: vii) conducted research:

"...to create a theoretical model that could be used to assess the feasibility of work-sharing and job-sharing in the Canadian labour market and to outline possible changes in government policy that would facilitate such practices".

They concluded that where the employer's contribution to fringe benefits are protracted, costs will not be affected by job-sharing. However, job-sharing is;

"...likely to increase hiring and training costs, ...on the other hand it is very likely that job-sharing will reduce turnover, so that hiring and training costs will not be doubled. Unless turnover rates are cut in half, however, a net increase in hiring and training costs will still result." (Meltz *et al.* 1981:83-4).

They also pointed out the possibility of increased administrative costs that result from supervising more employees. Job-sharing has the potential of reducing turnover, and increasing productivity:

"...either by lowering absenteeism or by reducing worker fatigue. It may well be that in the next decade job-sharing will also become an accepted part of certain sectors of the economy where its unique features can benefit both employees and employers". (Meltz *et al.* 1981:83).

Summarizing and concluding on their studies with regard to job-sharing, Meltz *et al.* (1981:88), states that;

"Our impression, and it must remain only an impression because we have no hard data, is that there exists a substantial number of persons already in, or potentially in, the labour force who desire to share a job but lack opportunities. The main barriers to job-sharing appear to be concern by employers that costs will be increased. On the basis of the available evidence (e.g. Meier 1979) we are convinced that job-sharing can be cost-efficient especially when full-time labour is not available. The problem may be a lack of appreciation by employers of the cost reducing potential of job-sharing..."

Among the research topics Meltz *et al.* (1981:79) suggests for further study, is:

"...an analysis of the possibilities of job-sharing in various industries and occupations."

Meier (1978) In her studies which explore why people want to job-share, how they have fashioned different arrangements and what the outcomes are, personally, in terms of the joys and stresses, concludes that most job-sharers perceive their experiences as positive and successful. Management decisions to recruit job-sharers were motivated by the desire to increase affirmative action hirings and make more attractive those positions prone to high turnover rates, etc;

"Job sharing take its place...as one of the various ways to meet needs of the future, as well as the current labor force." (Meier 1978:161).

Meier (1978:155-159) in concluding her studies on job-sharing, states that before predictions can be made as to whether job-sharing will become widespread, "some major questions still remain to be explored". Among these questions are:

- What kinds of jobs may be shared?
- What kinds of people might wish to share jobs if opportunities were available?
- What is the likelihood of sharing in large organisations with relatively rigid personnel?
- What is the role of unions?
- What are the costs and benefits involved?

These are among the questions addressed by this research study with regard to the South African labour market.

The above research findings on job-sharing do reveal that it may be used as a multifaceted strategy to meet individual, organisational and social needs.

2.9 SUMMARY OF THE LITERATURE REVIEW: JOB-SHARING

The reviewed literature on job-sharing does reveal that while work reduction and/or alternative work options have been widely used, at least from the mid-sixties in the industrialised nations, not much is even heard of in this regard in Africa, an indication that there is need for research in this area, as was undertaken by this study.

Even with the current research it is clear from many varying conclusions, with regard to the jobs, the people, and the organisations amenable to job-sharing, that it would be detrimental to attempt to employ the job-share scheme without any empirical research.

Literature does reveal that job-sharing may be beneficial if selected, planned, and implemented knowledgeably - knowledge which may only be obtained through proper research. Most of the studies emphasise on the need for further research to determine the benefits and costs of job-sharing in each organisation.

Another apparent gap in the studies cited above is the lack of an integrated perspective, since most of the studies tend to emphasise only single aspects of job-sharing. For example, Walton (1990) and Meier (1978) focused on the job-sharer in their studies, while Meltz *et al.* (1981) focused mostly on the costs of employment sharing in general.

This research has taken an integrated approach and looks at the organisation as an open system. This perspective enables this study to go beyond the obvious, to examine the variables and concepts in greater detail and to determine the possible cause and effect relationships. This study, therefore, looks at the employee, the work scheduling practices, the employer, the union representatives and the job-seeker to determine whether jobs can be beneficially shared in South Africa, to resolve the wide range of unemployment, mass retrenchments, low productivity, flexibility and quality of work life problems. This seemingly complex process will be simplified for analytical purposes, by employing the basic concepts of systems theory. The next chapter defines and conceptualises these variables as hypothesised in Chapter One and elaborated on through literature reviewed in this chapter.

2.10 CONCLUSION ON RESEARCH QUESTION ONE

Based on the literature reviewed in this chapter, it may be concluded with regard to research question one that employees and organisations can and have opted for job-sharing as an alternative work schedule among different sub-groups, especially women with family responsibilities. The antecedents to job-sharing include to balance work and family and other non-work responsibilities, continued education to combat high levels of unemployment, and addressing retrenchments (see section 2.4 above). The consequences of job-sharing include, amongst other things, better quality of work life, higher labour productivity and more employment opportunities (see section 2.6.1 above).

These concepts (QWL, productivity and unemployment) as they relate to job-sharing, will be discussed further in the next three chapters. We will now discuss the (systems) theory which explains the central hypothesis in the study, in the conceptual framework which follows in the next chapter.

CHAPTER 3

CONCEPTUAL FRAMEWORK

3.1 INTRODUCTION

This chapter presents a conceptual framework of the study. It seeks to specify how and why variables and rational statements as hypothesized in Chapter One, and as reviewed through the literature on job-sharing in Chapter Two, are interrelated, and explores the relationships between the major variables in the study: Job-sharing, quality of work life, productivity and unemployment, and what theories, if any, are applicable.

3.2 THE FRAMEWORK: THE OPEN SYSTEMS THEORY

South African business managers today are confronted with ever-increasing complexity and rapid change. They participate in a global village which is characterised by high uncertainty. They have to deal with a disgruntled, unionised workforce. They have to adapt to technological changes which occur at a rapid rate. Within the organisation they are confronted, on the one hand, with employees who are highly sophisticated and well educated, and on the other, unskilled and semi-skilled employees (Chadha 1995) who need remedial education if they are to effectively perform their tasks. All these factors add up to a greater complexity for managers in South Africa.

In addition, managers can no longer focus primarily on what happens within the organisation. Gone are the classical days when employees were seen to have a strong internal focus. Gone are the apartheid days when labour was seen as a "tool" to be used

and controlled, as management desired. Today an external focus is essential to survival. This study therefore, applies the overarching theory which acknowledges not only the internal influences, but also the external factors which influence the performance of an organisation with regard to job-sharing. According to Kolb, Rubin and Osland (1995:498),

"The theory that first acknowledged the influence of outside factors upon the primary mission of the organisation is open systems theory".

The experiences described and revealed in the discussions above illustrates numerous concepts related to job-sharing. Among the interest groups are the employees, organisations, unions and society at large. The benefits of job-sharing include a better quality of work life, increased productivity, and more employment opportunities. These factors will be organised into a conceptual framework which will make the inter-relationships among them easier to study, by applying the systems theory.

The open systems theory which describes how organisations adapt and survive in their environment, as a result of the dramatic increase in their interdependence on the environment, will be discussed below.

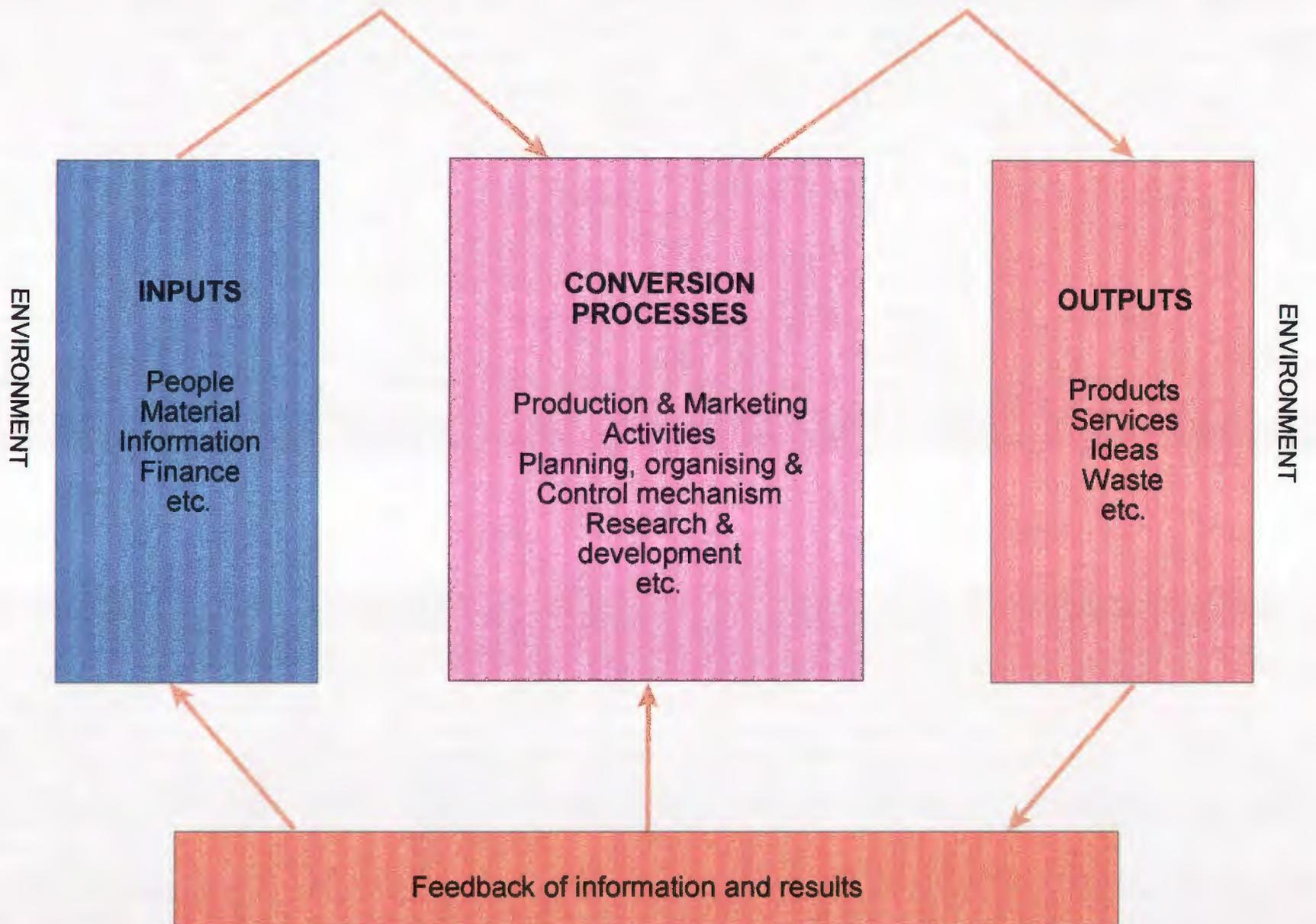
The open systems theory, as developed by Katz and Kahn, (1966) and as cited by many writers on organisational theory (Cole 1990; Armstrong 1991; Cherrington 1994), is applied to this study. The premise of this theory, as it relates to organisations, is that organisations are open systems which receive inputs from the environment which combine to produce outputs which are fed back into the external environment.

This theory is used in this study to explain the relationships among the variables, so that we may be able to explore and predict the potential of job-sharing and its significance in the South African labour market. Unlike a closed (mechanical) system, which assumes a static or stable environment, and hence assumes no "interference" from the outside on the operations of the system (Armstrong 1991, Cherrington 1994), Cole (1990:73) presents an organisation as an open and dynamic (living) system which receives inputs from the environment and processes or converts them to produce outputs which feeds back into the system (Figure 3.1).

A system is said to be open if it depends upon open interaction with its environment. As Armstrong (1991:215) points out,

"Systems theory is basically concerned with problems of relationship, of structure and of interdependence".

The premise of open systems theory, according to Shani and Rau (1996), is that organisations have common characteristics with all other living systems such as animals, plants and human beings. As alluded to above, an open system is dependent on open interaction with the environment. This understanding helps us to apply survival techniques of living systems and thus enables us to increase our understanding of why some organisations fail whilst others thrive and grow. For example, an organisation's flexibility in responding to the environmental changes which requires it to adapt to alternative work schedules like job-sharing, might give an indication as to why some organisations thrive and grow whilst others fail.



Source: Cole (1990:73)

FIGURE 3.1: THE BASIC CYCLE OF THE ORGANISATIONAL SYSTEM

As pointed out by Cherrington (1994:447),

"Viewing an organisation as a system of structured activities is especially useful when diagnosing organisational problems or analyzing the competitive advantage of the firm."

Therefore since organisations are not static, as depicted in figure 3.1, but dynamic and ever-changing entities, an awareness of the systems perspective forces researchers to go beyond the obvious and examine the rest of the system for cause and effect relationships (Gray & Starke 1984, Greenberg & Baron 1995). Such an in-depth review would include an analysis of alternatives (such as job-sharing) to current methods of scheduling work.

The system consists of a number of interrelated, interdependent, and interacting subsystems which combine and strive to reach a state of stability or equilibrium (Cole 1990). Whilst each system has a purpose which guides its existence (Shani *et al.* 1996), it may also have multiple purposes, objectives and functions, some of which might be in conflict (Gordon 1993). Thus in pursuit of these purposes and objectives, systems develop internal targets or goals such as providing employees with a better work and family balance, reducing absenteeism and turnover etc., with which the system measures its progress. The system, being dynamic, has the ability to store sufficient energy, which it continually receives, "to enable a steady state to be maintained even in difficult times" (Cole 1990:90). Figure 3.1 gives an illustration of the systems theory.

This theory holds that when changes in the environment create a state of instability or disequilibrium, the organisation attempts to return to a steady state, which may be similar,

or significantly different from the original state of equilibrium. In this case information about outputs called feedback, will be used to modify the inputs or transformations, to result in more desirable outcomes and equilibrium. Feedback may also indicate which subsystems have similar or conflicting goals.

According to Gordon (1993), organisations as open systems also demonstrate equifinality which suggests that they may employ a variety of means to achieve their desired objectives. This indicates that no single structure or other transformation processes result in a predetermined set of inputs, outputs and transformations.

Systems theory may also describe the behaviour of individuals and groups (Ivacevich *et al.* 1996:24). The inputs of individual behaviour are causes which arise from the workplace. For example, the input could be the directive of the manager to an employee to work a certain schedule. This input is acted upon by the employee's mental and psychological processes to produce certain outcomes, which might be to work satisfactorily or quit the job due to an unsuitable work schedule. In as much as the manager would like compliance to his directive, the outcome, depending on the employee's processes, might be none-compliance. The behaviour of the group may also be described in terms of the systems theory. For example, the behaviour of the group to unionise (outcome) could be explained in terms of perceived managerial unfairness in the assignment of work (input) and the state of group cohesiveness (process). Ivacevich *et al.* (1996:24) is of the view that there are two important considerations emphasised by the systems theory:

"(1) the ultimate survival of the organisation depends on its ability to adapt to the demands of its environment, and (2) in meeting these demands, the total cycle of input-process-output must be the focus of managerial attention."

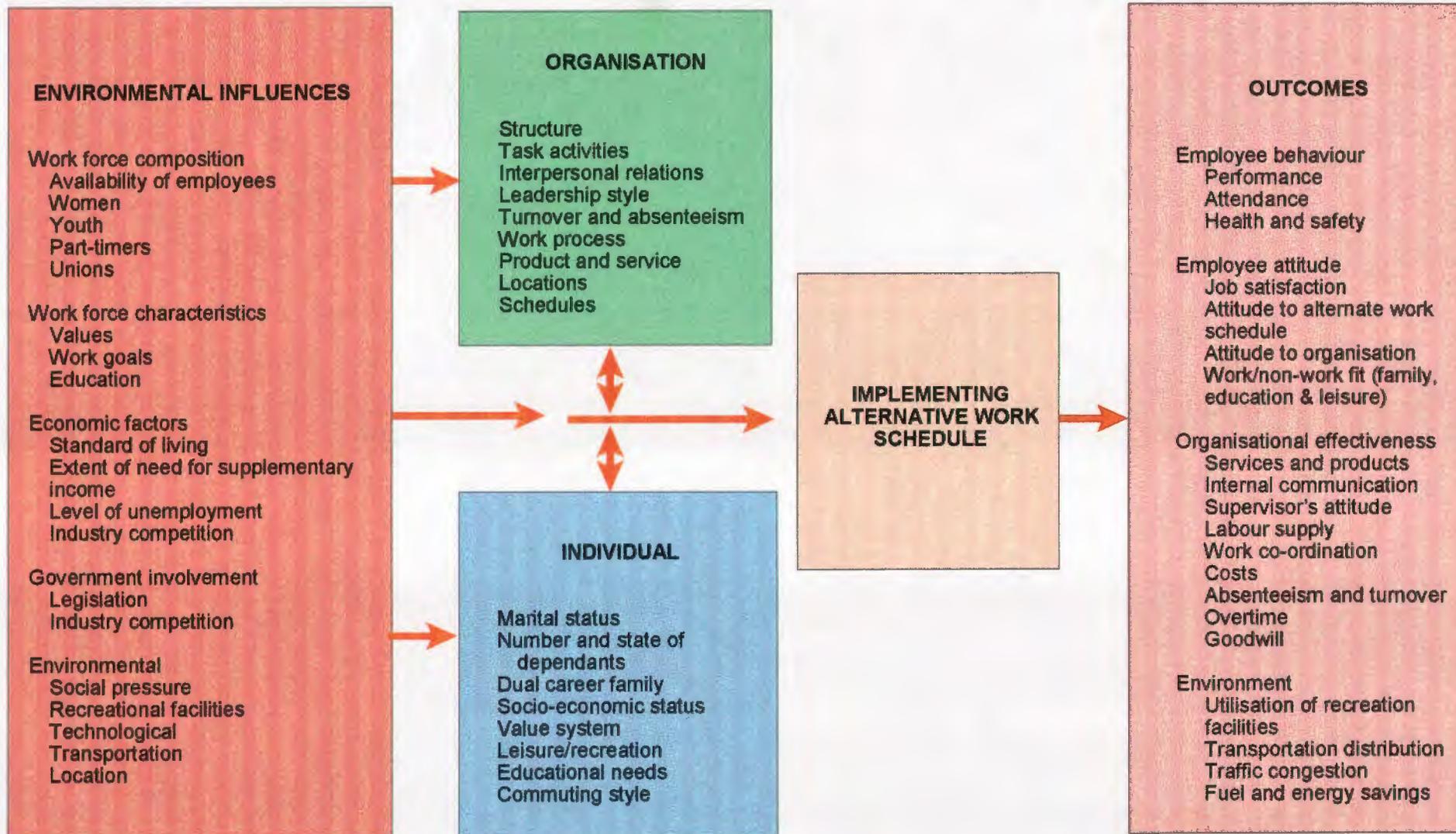
Therefore, to survive, organisations must adapt to changes with appropriate changes to the system. This entails that when organisations fail to adapt or change, an entropic situation may eventually occur, causing the system to decay and ultimately fail.

Receptivity to change would therefore have an impact on whether or not organisations and employees would embrace new methods of work, such as job-sharing. This study has therefore included this aspect, to determine its possible effect on the willingness to job-share. The next section presents the model which is similar to the systems theory, as it applies to this study.

3.3 APPLICATION OF OPEN SYSTEM THEORY TO THE STUDY

As applied to this study, Ronen's (1984) model of the antecedents and consequences of alternative work schedules, which is analogous to the systems theory, will be used as the basic framework. As discussed above, living or social systems exist within a changing social environment, which requires them to adapt to new demands (Cherrington 1994).

Ronen studied the causes (inputs) and consequences (outputs) of alternative work schedules, which includes job-sharing. In his model (Figure 3.2), in the similitude of a system, he illustrates how the environmental changes (inputs) influence the individual and the organisation to interact and respond, by opting for alternatives to the traditional work schedules. This transformation in the characteristics of the individual and the organisation produces outcomes (outputs) in the form of employee behaviour and attitude; organisational effectiveness; and environmental effects. The alternative work schedules which Ronen studied, includes flexitime, compressed work week and job-sharing, the topic of this study.



Source: Ronen (1984:42)

FIGURE 3.2: ANTECEDENTS AND CONSEQUENCES OF ALTERNATIVE WORK SCHEDULES

In the application of the open systems theory to this study of job-sharing, the five major classes of variables identified by Cole (1990), as applied by Ronen (1984), will be defined in the following manner:

1. Motivators are the inputs, Ronen's environmental influences which lead to Stimulation or a shake-up in the status quo of the individual and the organisation, as a result of the energy continually received from the environment in the form of new resources, and/or information.
2. Mutation is the transformation or conversion of the inputs into outputs, leading to the implementation of job-sharing as an alternative work schedule.
3. Implementation of job-sharing is the effect of the transformation at the mutation stage.
4. Outcomes are the outputs or results of implementation of the job-share schedule, to the individual, the organisation and society at large. These are the system's attempts to fulfil its purposes.
5. Feedback is the information about the outcomes which indicates differences between the desired and the actual results within the system, and enables the system to correct deviations.

Drawing on the systems model (Cole 1990; Mullins 1993), when the organisation and individual employees receive new inputs such as information pertaining to the availability of skilled employees, changes in the work values, desire for more leisure by employees

etc., there is a state of instability which they will strive to correct to a state of equilibrium, through stimulation and mutation to produce desirable outcomes. The model has relevance for the situation in the new South Africa. For example, with the first democratically elected government has come new information and legislation that has caused an "instability" calling for corrective action in, among others, the labour market. The poor economic stance, union involvement in wage determination, and hence rising wage rates, coupled with scarce skilled labour, have all led to massive lay-offs, increased automation and hence higher unemployment levels.

Both the organisations and individuals may employ a variety of means, as discussed above, including job-sharing, to achieve the desired outcomes, a demonstration of an aspect called equifinality (Gordon 1993). This entails that we are dealing with relatives and not absolutes, in that no single structure can lead to predetermined inputs, transformations or outputs. It becomes vital, then, that organisations in South Africa adapt to changes with appropriate changes. If they fail to adapt to changes effectively, entropy may occur and the system may decay and ultimately cease to exist (Gordon, 1993). In other words, unless South African organisations effectively respond to the changes in the workforce composition and characteristics, economic, social and governmental pressures; productivity, quality of work life and unemployment will continue to deteriorate and lead to a "downfall" of the whole economy.

3.4 PROPOSITIONS BASED ON OPEN SYSTEMS THEORY.

According to Shani *et al.* (1996:-22), to effectively apply the systems theory, the following diagnostic questions need to be asked:

"What is the apparent purpose or goal of the organisation that causes activities to be coordinated into a pattern?"

What are the key outputs and their major boundary transactions?

What are the key transformation processes, and how effectively are they balanced in achieving the purpose?

What are the key inputs and their major boundary transactions?

What is the reactivating feedback (both positive and negative) being delivered?"

These questions could enable us to detect whether indeed there is a need for alternative work arrangements in South Africa. Once it is determined, by evaluating the answers to the above questions, that there is a need for an alternative work schedule such as job-sharing, then some key processes would have to be examined to determine whether all the parts of the system will still function properly upon the implementation of the new work option. Shani *et al.* (1996:-22), suggests the following guiding questions:

"Information coding. Does the system obtain the needed inputs (feedback) and appropriately block out unneeded items?

Steady state. Can the system maintain its operation within the limits of tolerance related to its targets?

Negative entropy. Is the system able to import more than it exports by changing purposes, goals and practices to match emerging environmental demands?

Equifinality. Is there capacity, self-direction and spontaneous self-regulation by individuals and groups to achieve the needed results?

Specialisation. Does the system grow and expand appropriately without becoming overspecialised?"

This analysis will create a map which would reveal the strengths and weaknesses of the organisation. Thus, with any change to the organisation's plans, including the implementation of job-sharing to improve performance, the same criteria would have to be borne in mind when being analysed.

The discussion above does indicate that there are trends in South Africa stimulating the need for job-sharing. These include increased unit costs of production and hence lay-offs; increased numbers of women in the labour force; a rising number of multiple-earner families, more young workers (including matriculants); older workers who might want to phase out into early retirement to give way to new (affirmative action) entrants; and increased demand for continued education and training whilst earning. Due to these changes which highlight the need for alternatives to full-time arrangements, it can be hypothesised that job-sharing:

- could increase job satisfaction for job-sharers and thus improve their quality of work life. That is, a poor QWL could cause people to desire to job-share.
- could lead to higher organisational participation (attendance and commitment) and hence increased productivity. That is, low productivity due to absenteeism, sabotage and turnover, could cause organisations to allow employees to job-share to avert the situation.
- could be used as an alternative to lay-offs, resignations, dismissals, and increased employment opportunities, hence reducing unemployment. That is, an increase in these factors could lead to the need to job-share as an alternative solution.

These hypotheses are further discussed in Chapter Twelve, which presents major conclusions and recommendations, based on the literature survey and research results pertaining to this study.

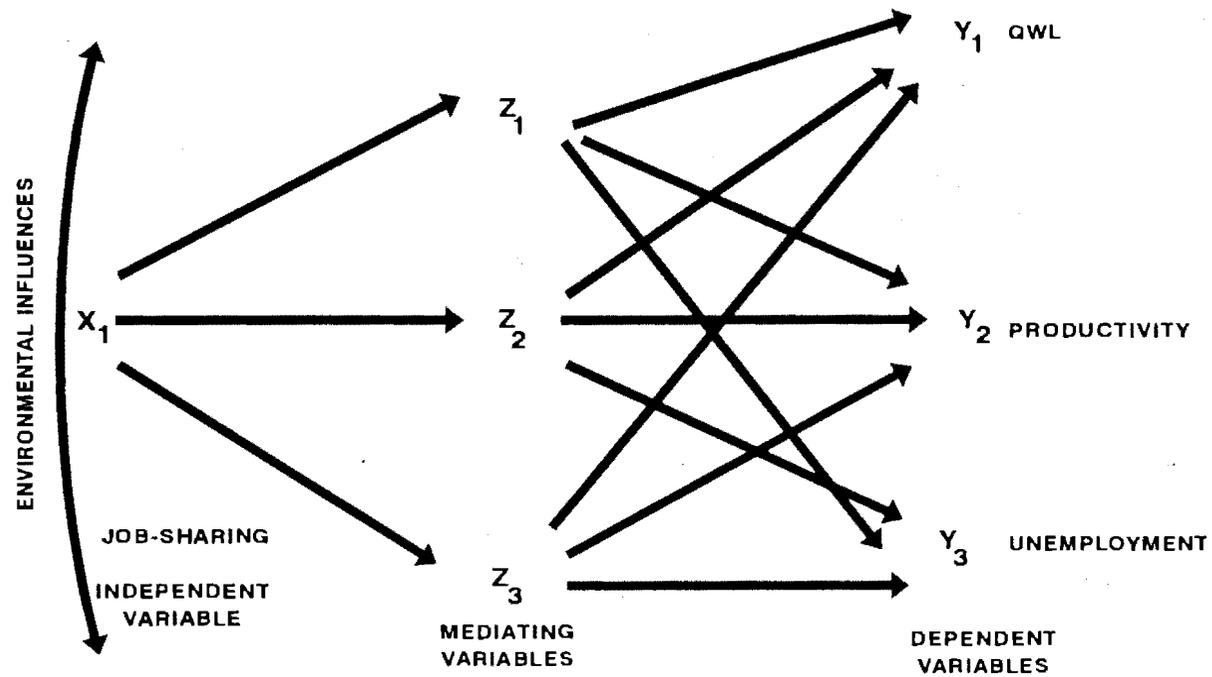
The consequences of any action taken by an organisation with regard to the choice of strategy to be implemented, according to Shani *et al.* (1996), may be measured against three primary criteria namely; productivity, worker satisfaction and organisational health. These criteria in this study shall refer to quality of work life, productivity and unemployment. The relationship between these variables and job-sharing, will now be discussed.

3.5 RELATIONSHIPS BETWEEN THE MAJOR VARIABLES

The literature presents job-sharing as the independent variable and productivity, quality of work life, and employment opportunities as dependent variables, controlling for any mediating variables. The visual picture of the inter-connections and relationships between these variables, are shown below and presented in figure 3.3.

That is: $QWL, PRODY, UNEMPL. = f(JS)$

Figure 3.3 presents job-sharing as an independent variable controlling for any mediating variables and QWL, productivity and unemployment as dependent variables or outcomes. This study, however, presents job-sharing as depending on these three variables.



One independent variable influences three sets of dependent variables, controlling for the effects of any mediating variables

FIGURE 3.3: JOB-SHARING AS AN INDEPENDENT VARIABLE

With regard to this study, as it pertains to the South African labour market where job-sharing is sparse, job-sharing is treated as being dependent on:

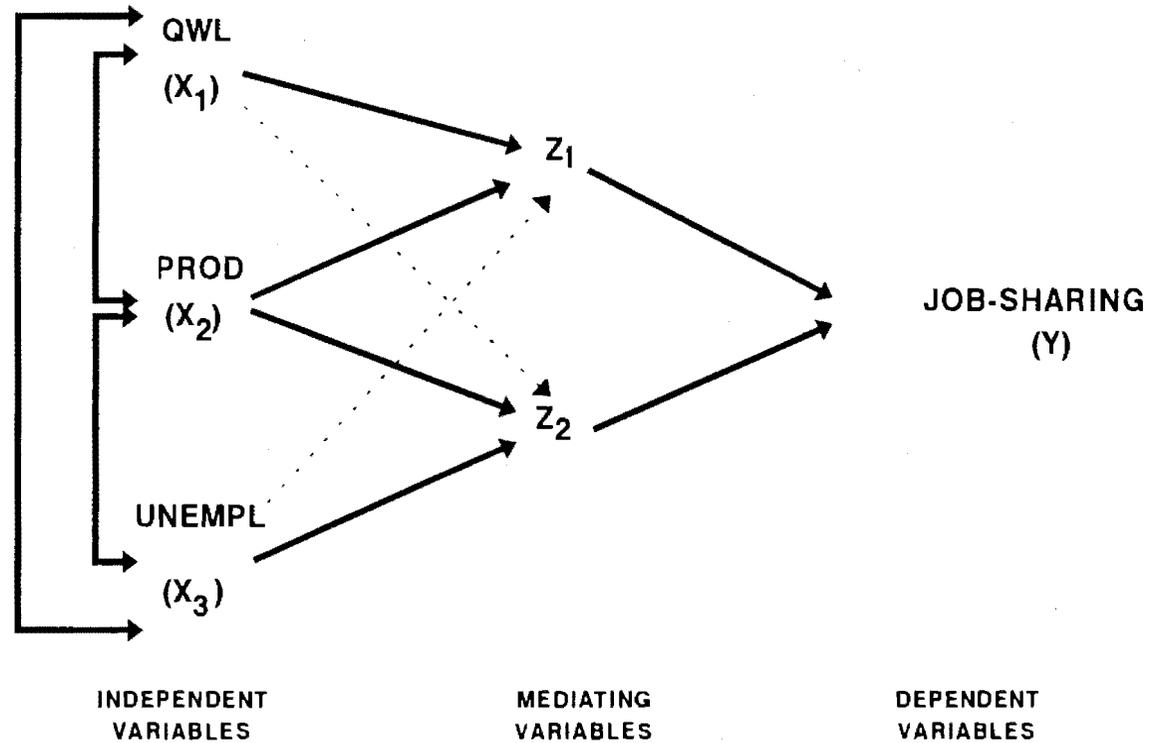
- Quality of work life
- Productivity
- Unemployment.

Since there are no documented cases of job-sharing in RSA, its potential and feasibility will depend on the attitudes and receptivity to change of employees, organisations, unions and job-seekers toward QWL, productivity and unemployment (as caused by factors such as lay-offs).

To treat job-sharing as either an independent variable (as revealed through literature) or dependent variable in exploring its potential and feasibility in RSA, is appropriate to the systems perspective taken by this study. As pointed out by Gray and Starke (1984:45),

"The systems approach means that all the variables in a system are viewed as both consequences and determinants of each other. In other words, all parts of the system are interrelated."

Figure 3.4 presents job-sharing as a dependent variable.



Three independent variables influence one dependent variable, controlling for the effects of any mediating variables.

$$\text{THAT IS: } Y = \text{fn}(X_1, X_2, X_3)$$

FIGURE 3.4: JOB-SHARING AS A DEPENDENT VARIABLE

Whilst it can be said that job-sharing can improve QWL, increase labour productivity and reduce unemployment, it can equally be said that due to poor QWL, low productivity and fewer employment opportunities, employees, organisations and unions could opt for job-sharing as an alternative solutions to these problems.

Therefore, even though literature presents job-sharing as an independent variable (based on countries where it has been implemented), this exploratory study presents it as a dependent variable. That is:

$$JS = f(QWL, PRODY, UNEMPL.),$$

controlling for any mediating variable as discussed below.

3.6 MEDIATING VARIABLES

One of the mediating variable that could affect the potential and feasibility of job-sharing in the South African labour market is receptivity to change by employees, employers and union representatives. This study has attempted to determine this aspect, as reported later in this research report.

Organisational change is bound to occur, given the variety of forces for change that exist both within and outside the South African organisation. However, even if the need for change may be great and resistance to change low, organisational change does not automatically occur. There are other factors which are involved. These include the amount of satisfaction with current work schedules and work scheduling practices; perceived interferences caused by the schedule with non-work activities; perceived obstacles; availability of a desirable alternative; and the existence of a plan for achieving

a desirable alternative (Greenberg 1995). The results of most of these factors, which are reported on later, indicate that they are important mediating factors to the willingness to job-share.

Greenberg (1995) contends that these combine multiplicatively to determine the benefits of making a change. This means that if any one of these factors is zero, the likelihood and benefits of implementing change would be zero. If we assume that people who are not dissatisfied are unlikely to initiate change, or if there is no other available alternative, or any way of attaining them, then this assumption would make sense. It thus requires that we determine receptivity to change before making any conclusive remarks with regard to the potential or feasibility of this new option, job-sharing, in South Africa.

Other possible mediating variables include number and age of dependants; work experience; marital status; level of income; and area of work, etc. These have also been explored in the study, as have the inter-relationships among the independent variables necessitated by the systems perspective discussed in this chapter.

3.7 CONCLUSION

This chapter has attempted to explicate the conceptual framework for the study, using the open systems theory to provide a road map for understanding job-sharing and the factors relating to it. An integrative framework which pulls together the causes and consequences of job-sharing in organisations was presented. The open (rather than closed) systems theory, has assisted in explaining the major variables and their relationships and interdependence in the study. Ronen's (1984) model has been adapted as a basic framework for explaining how the environmental forces would dictate the need for job-sharing as it relates to the quality of work life, productivity and unemployment. Whilst

job-sharing is seen to influence QWL, productivity, and unemployment, as reviewed through the literature, with regard to this study which looks at the South African labour market, it is investigated as dependent on these variables. This chapter has also provided a general explanation of the relationships among the major variables in the study. The next two chapters review the literature and theories on QWL, productivity and unemployment respectively and provide operational definitions for these variables, to allow some measurability.

CHAPTER 4:

QUALITY OF WORK LIFE

4.1 INTRODUCTION

The previous chapter presented the conceptual framework for the study, highlighting the relationships among the major variables including QWL. This chapter reviews the evolution of QWL, its definition, benefits and relationship to job-sharing. A working definition will also be provided to make the measurability of the concept possible.

4.2 REASONS FOR ATTENTION TO QWL

As alluded to in Chapter One (1.3.3) QWL is an important concept, which would bring the employees, management and unions closer together, with regard to the positive outcomes that would benefit all parties.

If employees are not being fulfilled in their careers and only tolerate their jobs as a means to an economic end, they are unlikely to be loyal to the organisation and might engage in sabotage, absenteeism, alcohol and drug abuse and labour-management conflict or suffer boredom at work and personal stress, which would adversely affect productivity (Gray & Starke 1984; Boonzaier & Boonzaier 1994).

In South Africa, workers are becoming decreasingly enthused by conventional jobs in traditional autocratic structures. In essence, employees would like to have substantially more influence than was traditionally acceptable, over the work environment, by participating in decisions relating to their work, thereby enhancing their self-esteem and work-satisfaction (Bluestone 1977; Manning 1996).

Boonzaier *et al.* . (1994), reporting on their study, indicates that the problems alluded to above may be attributed to job alienation and worker dissatisfaction with their QWL including:

- lack of recognition
- uninteresting work
- poor relationships with colleagues
- isolation because of working on their own
- lack of meaningfulness because workers do not experience a sense of fulfilment from what they are producing.

Workers also have different attitudes concerning work. Most of them want more than just a salary and benefits, they also want fulfilment and growth on the job. Employees also want to have a "voice" in decisions. The gap between what employees want and what is available seem to be widening. Organisations need to figure out how to improve jobs and make them satisfying, for a better and productive work environment (Ndala 1996; Manning 1996).

Mullins (1993:498) quotes authors of the American survey on workers' experience at work, who concluded that:

"If one believes that our economic system exists to serve the people rather than that the people exist to serve the system, it follows that increased attention should be directed towards two basic human problems in the workplace: (1) satisfaction of people with the economic and tangible returns from their efforts: and (2) self-fulfilment of individuals through their work. Although considerable progress has been made in solving the first problem, the importance of the second has barely

begun to be recognized. The health of the economy is still measured solely in terms of the efficiency with which it can produce large quantities of consumer goods. A second measure - and concern - is needed: one which considers the contribution work is making to the quality of life and to the growth and happiness of the worker."

Whether the reasons for attention to QWL are genuine social responsibility or economic efficiency, one thing is clear: its primary goal is the satisfaction of employees.

The process of adapting organisations to the needs of employees continues to receive attention.

Gray *et al.* (1984:636) citing Walton's analysis indicates that,

"...the costs of employee alienation are high and organizations are attempting to improve the relationship between work and human needs through a concept known as "quality of work life" (QWL) programs."

If the above adverse effects on the organisation are to be alleviated, it is important that persons affected by a system be integrated into its design and operation.

Stein (1983:8) points out another force in QWL discussions:

"...change in national and international economic environments characterised by an increasing scarcity of critical resources, a growing interdependence of countries and industries, doubts about the benefits of growth,...a questioning of ethics of present economic distribution, a considerable mistrust of technology and, in different countries at different times, high inflation."

According to Stein (1983), since changes create a shifting and increasingly competitive environment, the need to educate employees to cope with these changes means learning to manage in new ways and training people for more responsibility. In addition, increased competition requires that organisations be able to take advantage of every source of new ideas to remain responsive to the market.

Work place issues are some of the legal system's concern, with a significant emphasis on the rights and entitlements that affect the way employers may treat employees. New laws bring new pressures and concerns. Stein (1983:8) asserts that,

"Changes in the labour force produce increasingly dissatisfied workers, including managers and professionals, competing for a scarce resource: good jobs. Under the circumstances, traditional approaches to managing organisations won't work. Quality of work life, understood in this light, is no longer a fringe benefit."

QWL is thus seen, in this regard, as neither theory nor technique (Luthans 1995), but as being more concerned with the overall climate of work. Therefore, the primary purpose of QWL is to change the climate at work so that the human-technological-organisational interface may lead to a better QWL. What is meant by QWL will be discussed in the next section.

4.3 DEFINITIONS OF QUALITY OF WORK LIFE

Even though many writers on QWL appear to agree on its significance, there appears to be little agreement on what the term implies (Kolodny & Hans Van Beinum 1983), as may be seen by the definitions that follow.

Hillard (1990:4) defines QWL as,

"...a collaborative attempt by labour and management to improve the working lives of employees to enhance their ability to produce."

This definition implies a move from the adversarial relationship between labour and management to that which is more collaborative in improving the well-being of employees and enabling them to be more productive.

Kast and Rosenzweig (1985:652) defines QWL as,

"...a way of thinking about people, work and organisations. Its distinctive elements are (1) a concern about the impact of work on people as well as on organisational effectiveness, and (2) the idea of participation in organisational problem solving and decision making."

This definition holds that QWL entails people's perceptions of how their jobs affect their lives and their ability to be productive, and the degree to which they are allowed to participate in problem solving and the decisions which affect them.

Gray *et al.* (1984: 636) citing Suttle defines QWL as,

"...the degree to which members of a work organisation are able to satisfy important personal needs through their experiences in the organisation."

Since work experiences will vary with different environments, this definition implies that quality of work life will mean different things to different people. The environment, therefore, is likely to have an impact in translating it into "workable" programmes, which affect the overall quality of life.

Even though definitions vary, the essence of QWL lies in creating job satisfaction and democratising the workplace. The major components of QWL (Gerber *et al.* . 1995; Gray *et al.* . 1984) include:

- A safe and healthy work environment
- Growth and development of human resources
- Growth and security
- Social integration of people
- Constitutionalism
- Protection of total life space
- Social relevance of work

There is an inherent "systems effect" among these aspects of QWL which affects almost every aspect of the employee's work life and non-work life. This will be discussed later in this chapter (section 4.5).

4.4 BENEFITS OF QWL PROGRAMMES

QWL as a process is designed for and on behalf of the worker. Its philosophical base, rooted in the principles of democracy and participation, is people oriented. From the labourer's view point, therefore, the QWL process, properly effected, represents an

extension of the union's historic goals (Bluestone 1983). The benefits derived from the QWL processes are not just for the workers and unions, but also for management and society (Cherns & Davis 1975). Properly developed and implemented QWL programmes are said to bring forth a win-win situation to the worker, management, union, and society (Bluestone 1977).

According to Hillard (1990:5), QWL programmes may generally result in,

"...job satisfaction, increased productivity, reduced absenteeism and less labour turnover."

QWL programmes may reduce unnecessary and unproductive labour-management friction, in that they aim to improve working conditions (union's primary interest), and encourage workers to identify with management goals (management's primary interest). Whilst adversarial relationships between management and union can probably not be completely eliminated, the collaborative aspect can be increased through proper implementation of QWL programmes. The premise for valuing QWL by both parties, appears to be that jobs which provide more responsibility are more satisfying and frequently more productive (Hillard 1990).

Bluestone (1977:44) asserts that,

"The workers gain the benefit of increased job satisfaction, mainly through meaningful and direct participation in the decision-making process on the job. Rewards - both social and economic - are not only possible but likely ...

management, the union and the workers gain because a more satisfied workforce results in reduced absenteeism, improved quality of product, less scrap, fewer repairs, fewer disciplinary measures, a lighter grievance load - altogether a constructive collective bargaining relationship."

Gomez-Meljia *et al.* (1995) and Gerber *et al.* (1995) agree with Bluestone on most of the above benefits.

Since QWL seeks to empower workers by making them more resourceful and innovative (Kolody *et al.* . 1983), its benefits could include that of "decolonizing" the mind-sets, perceptions and attitudes of many South African workers and managers. However unless QWL is improved, it would be difficult, if not impossible to attain the above benefits.

4.5 IMPROVING QWL THROUGH JOB-SHARING

As a matter of economic and indeed social survival, organisations in South Africa must discover the principles and parameters of a new organisational paradigm which is organic, adaptive and innovative so that it is able to survive.

All workers are not alike, nor do they all have the same job objectives. Workers come to the organisation in what Glaser (1976:43) calls,

"...assorted shapes, sizes, education and experience, attitudes and ambitions."

What constitutes QWL for one employee may not be so for another. That probably explains why there are different methods advanced for improving QWL. These methods

include Alternative Work Schedules, Industrial Hygiene, Job Design, Participative Management, Employee Counselling, Autonomous Work Groups and Career Management (Gray *et al.* 1984). This study looks at job-sharing, an alternative work schedule, and how it impacts on QWL.

According to Bluestone (1977:40), if QWL is to be improved, it would entail:

"...the realistic acceptance by management of the fact that workers are adults in the workplace as they are in society; that the democratic values we cherish as free citizens in our homes and communities are in good measure transferable to the place of work; that these democratic values entail direct individual and collective worker participation in the decision-making process."

This means that organisations in South Africa have to stop paying lip-service to pledges of participation, transparency, and consensus-seeking. They need to acknowledge that it is the same adults who make life and family decisions and are allowed even to choose who governs the country, that are organisational employees. Hence, organisations need to stop treating these adult employees like ignorant and irresponsible children (Manning 1996).

Employees often start work with a willingness to work hard and be productive, but if the job fails to meet their expectations they lose interest. Job enrichment, which is the application of Herzberg's two-factor theory of motivation, entails that factors which meet the needs of individuals for psychological growth, responsibility, job challenge, and achievement must be characteristic of their jobs. However, this does not just relate to the job content but also to its context (Ivancevich 1996). One aspect that relates to the context

of the job, is when the job is performed or what its work schedule is. Giving employees the autonomy to choose when they perform their work, is an approach to redesigning jobs which has led to a variety of innovative ways to schedule work, collectively known as alternative work schedules, which includes job-sharing.

Boonzaier *et al.* (1994) conducted a study that provides the job diagnostic survey as a functional tool for South African managers. From the results of their study they recommend vertical loading as one of the implementing concepts which enriches the characteristics of the job. In vertical loading employees would be given discretion or autonomy to set their own work schedules and methods, which would contribute to their internal motivation and job satisfaction, thus improving their QWL. This implies that strategies like job-sharing, would create job experiences for employees which could simultaneously fulfil their own personal goals as well as the goals of the organisation.

Whilst QWL programmes, including job-sharing, do not present a simple stimulus-response situation, it may be represented as a learning principle (Glaser 1976:44) in a systematic way as follows:

S → C → O → R

Where; S = Stimulus (QWL programme: Job-sharing)

C = Certain appropriate conditions

O = Organisation (its culture, history, receptivity to change, etc.)

R = Responses and results

Thus, if due to poor QWL resulting from rigid work schedules and job context, job-sharing is opted for as a stimulus depending on certain appropriate conditions; the culture; receptivity to change; and commitment of the organisation, then certain responses

and results will occur. These results might give rise to better QWL. If they do not, adjustments in the model should be made to yield the desired results.

According to Ronen (1984), the capacity of a job to meet employee expectations and provide incentives is equivalent to their quality of life. Employees pursue a lifestyle that combines both work and non-work activities as may be satisfactory to them. As pointed out by Pierce *et al.* (1989:22),

"Employees need various kinds of fulfilment and therefore quality of life can be divided into two broad domains: work and non-work".

This implies that when employee needs are satisfied in each of these domains, the outcomes are both quality of work life and quality of non-work life. In Ronen's view (1984:20) there is a relationship between the two domains. He states that,

"...one domain - work or non-work - has the potential to influence values held in another domain".

Figure 4.1 illustrates the effects of job-sharing on the quality of work life and quality of life. This figure implies that priorities in the non-work domain may influence outcomes in the work domain and vice versa. This view point is also supported by Stein's (1983:37) description of QWL. He describes QWL as:

"A programmatic way of generating employee involvement, expanding opportunity, power and attention for the whole person to ensure that organisations and their people grow together."

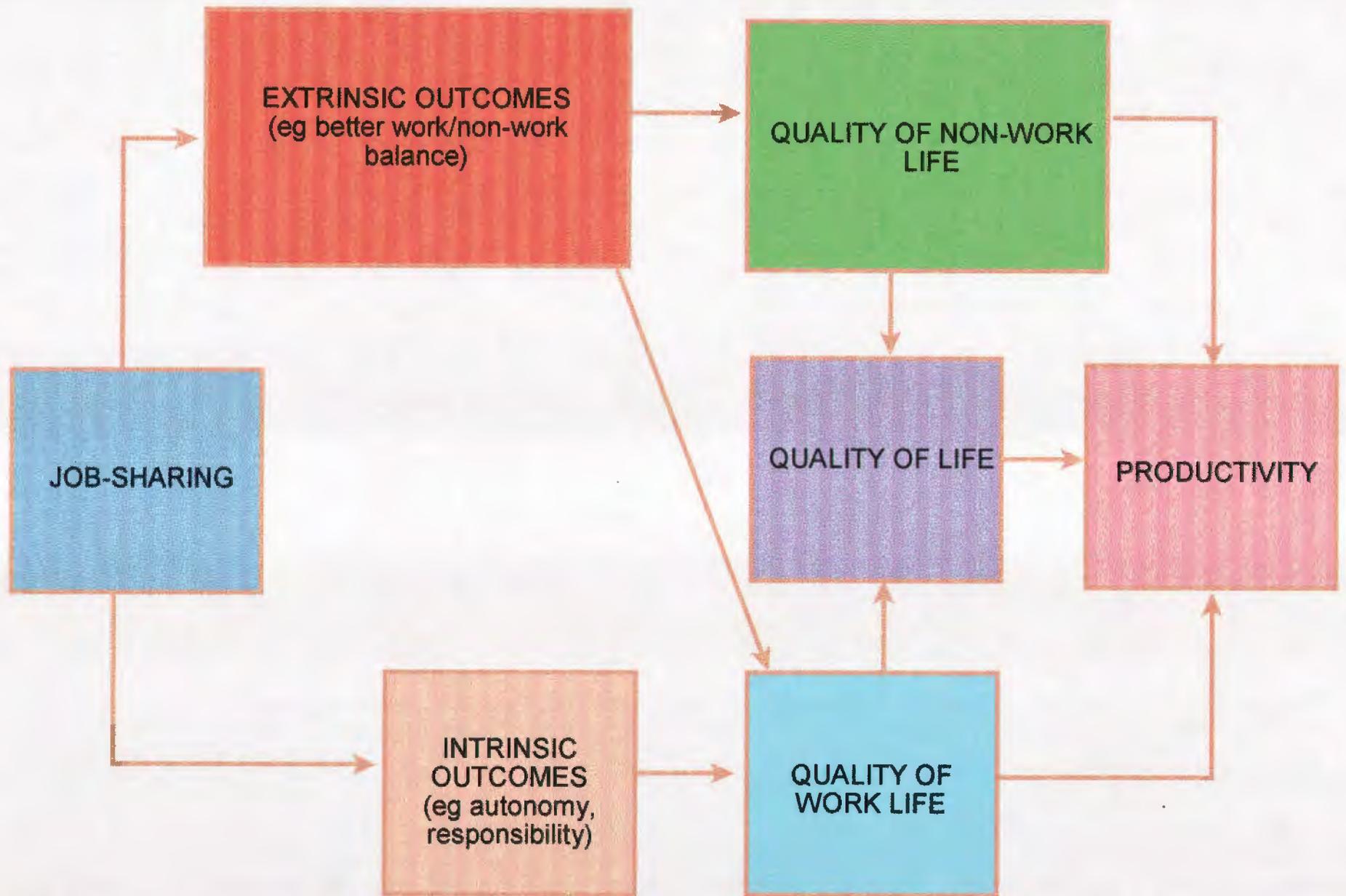


FIGURE 4.1: EFFECTS OF JOB-SHARING ON THE QUALITY OF WORK LIFE, QUALITY OF LIFE AND PRODUCTIVITY

Whilst attempting to improve the quality of work, realistic organisational approaches to improving productivity also pay attention to employees in their non-work circumstances,

"...and that means a sensitivity to their family situations in particular" (Stein 1983:36).

With almost half of all economically active women in the workforce (SA labour statistics 1995), including those with pre-school children and the growing number of single parents, organisations can no longer assume that their male employees have support systems (female) at home, to ensure that family problems do not encroach into the workplace. Astute organisations, especially in western countries, have recognised the need to establish personnel policies, like flexitime and job-sharing, to ameliorate the work and non-work dilemma (Stein 1983).

Since job-sharing as an alternative work schedule affords employees a choice to work less than full time, it would therefore be expected to improve employee autonomy and satisfaction in both work and non-work domain, which translates into a better quality of work life (Gray and Starke 1984, Ronen 1984, Pierce *et al.* 1989).

The effects of job-sharing on quality of life are similar to those of flexitime. Ronen's intrinsic-extrinsic job characteristic taxonomy can be contextualized as a vehicle to further explain how job-sharing influences motivations (Pierce *et al.* 1989:23-25). It may be argued that job-sharing can satisfy needs that are associated with both the extrinsic (work environment or context) and intrinsic (feelings that stem from work itself) categories and can therefore influence QWL and quality of life via both routes, which ultimately impacts on productivity (see figure 4.1 above).

Implementing job-sharing as a voluntary option for employees could provide job satisfaction since their rights (constitutionalism) to this option would be protected. Also, employees would be able to balance their work and non-work life according to their choice (protection of total life space). These translate into a better QWL. Voluntarism is a necessary ingredient for the success of any QWL programme (Bluestone 1977) and job-sharing, being a voluntary strategy, might be well suited as a tool for improving QWL.

Job-sharing could provide the employee with extrinsic rewards, since basic working conditions are improved to include the choice not to work full-time. For example, employees may be more comfortable to only come three times a week in their job-share schedule, giving them time to attend to their children's school or other non-work activities on the other days.

From the reviewed literature above (and in Chapter Two), job-sharing may also be seen as an intrinsic outcome for employees, to the degree that it allows the employees the autonomy and flexibility to choose the option they desire. This would therefore contribute to and/or influence the quality of work life. Therefore, a poor QWL would be indicative of the need for an alternative work schedule, such as job-sharing.

4.6 A WORKING DEFINITION OF QWL

The analysis above reveals that the primary goal of QWL practices is to extend growth, challenge, participation, responsibility and control to all employees, so as to increase job satisfaction, self-esteem, self-fulfilment and to enhance the dignity of the individual worker and enable him or her to produce to their full potential.

QWL is seen by some as a philosophy (Shareef 1990; Gray et al. 1984), and by others as a goal and a process (Ault 1983, Gerber et al. 1995). This study adapts an all encompassing approach, which would enable a practical translation of QWL practices into workable programmes. QWL shall , thus be viewed as a goal, a process, and a philosophy. In this regard, this study shall adapt Mullins's (1993:499) description of these elements of **QWL** as follows:

As a goal: improving organisational performance through the creation of more challenging, satisfying and effective jobs and work environments for people at all levels of the organisation.

As a process: calling for efforts to realise this goal through the active involvement and participation of people throughout the organisation. Through their involvement people can make more meaningful contributions to the business and experience greater feelings of satisfaction, pride in accomplishment and personal growth.

As a philosophy: viewing people as 'assets' to be 'released' and developed, and capable of contributing knowledge, skills, experience and commitment, rather than 'costs' that are merely extensions of the production and which need to be controlled.

The major components that shall constitute the measures of QWL (Stein 1983:12-13) in this study are:

1. **Control or autonomy** - degree of freedom of action or choice on the job.
2. **Recognition** - seen as an individual and visible contributor.

3. **Belonging** - seen as part of the group with shared goals and values.
4. **Progress and development** - available internal rewards; challenge, exercise of competence, skill development, i.e. a sense of accomplishment or fulfilment.
5. **Interesting work** - the degree to which work is satisfying
6. **Decent working conditions** - subject to setting, task or technology.
7. **Dignity** - the need to be treated with respect.
8. **Flexibility** - the degree to which the workers are given the freedom to choose the work schedule.

The indicators of these factors shall include manpower problems like labour unrest and strikes, absenteeism, labour turnover, low labour productivity and sabotage.

If these conditions as they relate to job-sharing, are satisfied then QWL would be expected to be high. If they are low, it would be an indication that there is potential for job-sharing as an alternative work schedule that would help address these factors. The results of the research study, reported on later, reveals somewhat different labels of these QWL variables, which are grouped into five categories through factor analysis (see table 6.4).

4.7 CONCLUSION

This chapter has presented literature on QWL as it relates to job-sharing.. A working definition of QWL has also been provided. There is an implied relationship between QWL and productivity, as revealed by the discussion above. Workers who are satisfied with their QWL can be said to be productive and vice versa. Productivity and employment opportunities are the topics of discussion in the next chapter.

CHAPTER 5

PRODUCTIVITY AND UNEMPLOYMENT

5.1 INTRODUCTION

This chapter addresses the literature on the remaining two major variables of the study, i.e. productivity and unemployment, and provides working definitions for them. As was alluded to in Chapter One (section 1.3.1 and 1.3.2), these two variables constitute some of the problem areas of the South African economy. Productivity is the first variable which will be discussed.

5.2 PRODUCTIVITY

The desire for increased productivity is universal and agreeable to almost everyone. The question of how to increase productivity, however, has been a controversial one. Productivity levels and growth rates for many organisations in South Africa have lagged behind their competitors, both at home and abroad, making it a subject of extensive debate (Pons 1993; McDonald 1996). The effects of this productivity crisis, at the extreme, have been retrenchments, plant closures, etc.

According to Schuitema (1995) the key challenge South African employers face, is to create conditions where there is a willingness to work, so that people work not because they have to, but because they want to. He reiterates that the key to productivity is in people wanting to work, as opposed to having to work.

In view of South Africa's declining productivity (Young 1993) and increasing international competition, many South African organisations have been (or should be) searching for ways to correct what is wrong. This study examines job-sharing as an alternative solution to the problem of low productivity levels in South African organisations. Job-sharing, if implemented in organisations, may be expected to influence productivity (a critical factor in South Africa) in many ways, as is discussed below.

5.2.1 Definitions of Productivity

Though there are a variety of definitions, among the elements included in the definitions of productivity are capital investment, innovation, learning (skill and competence) and motivation and commitment (Stein 1983).

Mondy *et al.* (1991:17) defines productivity as:

"A measure of the relationship between inputs (labour, capital, natural resources, energy and so forth) and the quality and quantity of outputs (goods and services)."

Jay Naidoo in his interview with Productivity SA (Pons 1993:13) gave the following definition:

"Productivity is the basis of all social development. Without increasing productivity growth, our economy will be unable to improve and upgrade itself."

The ultimate and most important source of productivity, according to Stein (1983:11) is motivation and commitment. He says:

"Without it, people may fail to use equipment properly, whether deliberately or otherwise. They will not innovate or explore new ideas, and will have no interest in learning or its application."

Armstrong (1991:83) describes productivity as:

"...increasing efficiency with which human resources are utilised, with particular emphasis on developing flexibility in the type of people employed - as well as flexible working arrangements."

Though there appears to be very little agreement on what the term productivity means, how it is measured and what can be done about it, the continued decline in productivity levels could lead to a downfall of the whole economy. Simply put, organisations exist to produce some product. Failure to do so would cause them to become extinct. In this regard increased productivity may be seen as one of the organisation's primary survival goals. Cherrington (1991:53) is of the view that,

"...increasing productivity is one sure way a nation can afford to raise wages while remaining competitive in an increasingly global economy."

All the above definitions include an aspect of proper human resource management. This indicates that without effective and efficient utilization of people, it would be difficult to improve productivity.

In attempts to find ways to improve labour productivity, organisations have considered methods that would foster worker satisfaction in the belief that a satisfied employee is a productive worker. As it turns out, however, this relationship is not as direct and as clear as supposed. This productivity-satisfaction paradox is discussed below.

5.2.2 The Productivity Paradox

Whether satisfied employees are productive or not, they may not necessarily be in conflict. Gordon (1993) argues that, it is possible to reach a "promised land" of high satisfaction and productivity. There are many models that assume, either directly or indirectly, that it is possible to create an environment where both performance and satisfaction co-exist. These include worker participation, socio-technical system, 9-9 systems, and theory Z (Gordon 1993). The Japanese "miracle" does reveal that valuing both employee satisfaction and productivity can only be beneficial (Arthur 1991).

A concern for productivity in organisations implies a concern for both effectiveness and efficiency, because an organisation may be said to be productive if it achieves its goals and does so by transferring its inputs to outputs at the lowest cost. Organisations wish to know which factors would influence the effectiveness and efficiency of employees as individuals, as groups, and the organisation as a whole (Robbins 1993). According to Robbins (1993) and Cherrington (1991) these factors that impact on productivity include absenteeism, turnover and job satisfaction.

Since absenteeism and turnover are behaviours, its relatively easy to relate them to worker productivity. It is quite obvious that it would be fairly difficult to get an employee who is not at work when he or she is supposed to be, to be productive, just as it is impossible to get someone who has permanently left their job with the organisation, to be productive.

Job satisfaction as it relates to productivity is, however, paradoxical. Job satisfaction is not a behaviour but an attitude. There seem to be no distinct empirical evidence to support the causal relationship between job satisfaction and productivity (Robbins 1993; Gordon 1993), even though it would probably be easier to get satisfied employees to be productive than dissatisfied ones.

One of the human resource problems that contributes to lower levels of productivity in South Africa is absenteeism (Butler 1995; Gool 1996). Butler (1995) conducted a survey in Cape Town which revealed unacceptable levels of absenteeism mostly attributed to ill-health, domestic problems, mode of travel, poor motivation and development opportunities in organisations. Gool's study (1996) confirms these factors. Literature reviewed in Chapter Two (see section 2.3 and 2.4) on job-sharing does reveal that these are some of the reasons why employees opt to job-share, an indication that it could be the best suitable alternative solution to high levels of absenteeism and hence productivity problems.

The adverse effects of absenteeism are many. According to the studies done by Butler (1995) and Gool (1996), these include:-

- Disruption to the work/production flow
- Increase in overtime expenses
- Negative impact on goods and services
- Adverse effects on the morale of other workers
- General standards of performance are lowered

All these factors have negative effects on productivity. Yet another aspect revealed in their respective studies (Butler 1995; Gool 1996) is that absenteeism rates are highest among the female workers mostly due to the family/work conflict. All these are indicative of the potential of job-sharing as an alternative solution, as alluded to in Chapter Two and discussed further in the next section.

5.2.3 The Impact of Job-sharing on Productivity

Declining levels of productivity in South Africa is not just a slogan but a reality that needs urgent attention. Taking into consideration the current instability of the labour market, it would not be far-fetched to assume that worker alienation and sagging morale are contributory factors to the decline in worker productivity in South Africa. If people are to be productive they need to have the knowledge to do the job, possess the actual capacity, be motivated to act effectively and be able to use available resources with appropriate coordination (Stein 1983). This might be the best place at which to start attempting to analyse factors which would lead to increased productivity.

Mondy *et al.* (1991) believes that managers can motivate employees to be more productive by identifying employee desires; the probability of satisfying these desires; the time frame involved in satisfying these desires; and combining them into a satisfying package.

According to Ronen (1984:35),

"If we assume that worker fatigue and lack of autonomy and control of the work environment have caused the decline in productivity, then we can see how

alternative work schedules can enhance organisational effectiveness. Particularly those workers at tedious or hectic jobs may be unable to tolerate the boredom of pressures or a 40-hour work week.

Job-sharing may be what these individuals need and desire. Similarly replacing one unproductive worker with two job-sharers might increase productivity. The essence of the matter is that employees have the autonomy to choose the most suitable work option over which they can exercise control and thus have a sense of fulfilment.

According to Stein (1983) productivity can be increased through capital investment, Innovation, Learning, Motivation and Commitment. He emphasises the importance of people's motivation and commitment, without which it would be difficult to effectively apply the other methods.

It is believed (McCaffery 1983; Ronen 1984, Pierce *et al.* 1989) that matching work times to people's individual time needs allows them to respond with greater productivity, lower absenteeism, less tardiness, and lower labour turnover. People who might be the most able, who were not available under normal working schedules, now become available under the job-sharing alternative.

Allowing the job-sharing alternative may increase productivity by (Touby 1993, Polsky *et al.* 1987) the following:

- Increased job satisfaction and motivation, afforded by greater flexibility in work scheduling.
- Increased worker energy (two for the price of one).

- Reduced turnover.
- Reduced absenteeism.
- Reduced tardiness.
- Job continuity.
- A broader and expanding range of skills.

Mondy *et al.* (1991:510-511) tables a framework for evaluating a worker's contribution to organisational productivity in the following equation:

$$\begin{array}{rcccc} \text{Worker's} & & \text{Quality and} & & \text{Contribution to the} & & \text{Amount of} \\ \text{contribution and} & = & \text{quantity of work} & \pm & \text{performance of} & - & \text{supervision} \\ \text{productivity} & & \text{done} & & \text{other employees} & & \text{required} \end{array}$$

He explains this framework as follows:

Whilst the most important element is the workers own productivity, there is the second factor which is his/her contribution to the work of others. Hence any behaviour that reduces the contribution of a worker to the productivity of others, should be the manager's concern. Since the employee should ideally require no supervision, this is shown as a negative factor.

"Significant amounts of a supervisor's time are spent deciding what to do about people's problems. These kinds of efforts distract the manager from other duties and opportunities for improving productivity" (page 511).

Since the worker is provided with the choice with regard to the work schedule, commitment and motivation is expected to be high and the amount of supervision required for the job is expected to be less or minimal. Because it is also a sharing arrangement, the performance of the other employee(s) would be expected to have a positive effect, thereby increasing all the workers' contribution and productivity. Therefore, allowing the employees the autonomy and flexibility to choose the option that best meets their individual needs (like job-sharing) would enable them to be more productive and contribute better to the work of others, as their job partners.

The commitment model of Pierce's *et al.* (1989:27-29) explains commitment and involvement as the theoretical underpinnings for the flexible working hour-employee response relationship. He states that organisational commitment stems from a wide set of employee experiences, including those that produce satisfaction, create a sense of responsibility for work outcomes and generate a sense of meaningfulness or purpose to one's role within the organisation.

One could contextualize this model to job-sharing as an alternative work schedule. If management allows job-sharing, parents who may be well-educated and highly trained would no longer have to make a choice between raising children and a career. Older workers desiring to phase out into retirement could do so. Employees who desire to learn as they earn would be afforded that chance. Employees who desire to develop team skills and obtain personal enrichment and psychological support as a result of close contact with a job partner, would also have their needs met. All employees who, for whatever reason, desire to work less than fulltime would also be permitted to do so. Thus workers would be satisfied, motivated and committed to the organisation, which may translate into improved productivity.

It is acknowledged that there are many factors other than employee motivational levels that influence productivity. Gray *et al.* (1984) illustrates this point well in his satisfaction-motivation-productivity model. He proposes that managers should first determine the interrelationship of need satisfaction, need structure and job motivation for employees, before predicting productivity. He emphasises the importance of analysing each situation to determine which factors significantly moderate the motivation-productivity link. Thus it would be expected in the current South African environment that, with the changes in the workforce composition and characteristics, the traditional methods of scheduling work would be unsatisfactory, calling for an analysis of alternative work schedules to determine the appropriate one for increasing productivity. It is expected that this analysis would reveal that job-sharing would be one of the most appropriate alternatives to increase productivity. There is considerable evidence that job-sharers are at least as productive as full-time employees and often even more so (Cohen *et al.* 1978). In this study, productivity shall mean labour productivity. A working definition of productivity is provided below.

5.2.4 A Working Definition of Productivity

The discussion above does reveal people (employees) as one of the most important input determinants of productivity levels. This study shall take the same view. Job-sharing, though not the only solution, shall be seen to be one of the possible alternative solutions that could ameliorate the worker productivity problems in South Africa.

Productivity shall represent and be measured in terms of what an average employee can produce, with the materials and methods available to him or her within a specified period of time. This study will thus adapt Ronen's (1984) viewpoint that unless one addresses

issues pertaining to worker fatigue (worker energy), autonomy, and control, productivity is likely to continue declining in South Africa. Thus this study will attribute the decline in worker productivity to alienation and sagging morale, resulting in absenteeism, labour turnover and tardiness, due to lack of motivation and commitment.

The following variables shall constitute measures of labour productivity in this study as they relate to job-sharing (Touby 1993, Polsky *et al.* 1987):

- Amount of work/worker energy (two for the price of one)
- Labour turnover
- Absenteeism
- Tardiness
- Job continuity
- A broader and expanding range of skills.

These indicators shall be interpreted as follows:

If:

- employees express dissatisfaction and lack of motivation due to rigid work schedules;
- there is worker fatigue due to long hours of work;
- there is high labour turnover, absenteeism and tardiness attributed to the work schedules;
- organisations incur high labour replacement costs; and
- there is a shortage of required skills for some jobs,

then it shall be understood that job-sharing is a potential alternative solution to address these problems and increase labour productivity. These productivity variables, based on

the results of the factor analysis (see Chapter Six, table 6.4), were grouped into five categories.

Besides QWL and productivity, the other problem which job-sharing could address is unemployment. There is a relationship between these variables. As Young (1993:4) puts it,

"South Africa faces a challenging environment - high levels of unemployment... The economy will have to produce more with the means available - and that means squeezing more production out of the existing resources."

This means that SA cannot afford to have skilled women or any other persons who cannot work on the current full-time work schedule, to stay away from the labour market. Thus by allowing workers to job-share instead of not working at all, and putting their skills to work, organisations would be "killing two birds with one stone" by increasing productivity and reducing unemployment. Young (1993:4) further asserts that,

"...40% of the population are unemployed, and their productivity is zero. Find jobs for them and productivity levels will rise by infinity... This country cannot allow almost half its manpower resources to stand idle all the time."

What is meant by unemployment, its possible causes and cures as it relates to job-sharing, is discussed in the next section.

5.3 UNEMPLOYMENT

Among the most important problems currently facing the South African labour market, and therefore of great concern to human resource practitioners, are high levels of unemployment and an acute shortage of skilled workers (Gerber *et al.* 1995). Some of the reasons for the soaring rates of unemployment in South Africa are explosive population growth; too rapid mechanisation; low economic growth; and low productivity.

The reasons for pursuing a policy of full employment in South Africa are self evident. Bitter memories of the hardships and social distress of the apartheid era virtually compel all policy makers to give it a priority.

"From a strictly economic viewpoint, unemployment represents a waste of valuable resources and a permanent loss of potential output" (Stanlake 1983:452),

which South Africa cannot afford. What exactly is meant by unemployment will be discussed below, followed by its causes and cures and its relationship to job-sharing.

5.3.1 Definition of Unemployment

According to Gerber *et al.* (1995:189), unless significant improvements in the unemployment rate is made soon, "South Africa is heading for disaster". At the beginning of 1994 unemployment levels soared at 40% of the economically active. The levels might even be higher at present, informal estimates indicate the unemployment rates to be 50% (Du Toit & Falkena 1994/5).

Stanlake (1983:452-453) distinguishes between frictional, structural, seasonal, residual and cyclical unemployment. He explains these as follows:

Frictional unemployment:-	arises from immobilities in the labour force rather than from a lack of demand for labour.
Structural unemployment:-	a type of frictional unemployment which arises when a major industry experiences a permanent decline in the demand for its products.
Residual unemployment:-	refers to people that are virtually unemployable on a permanent basis.
Seasonal unemployment:-	results from marked seasonal demand.
Cyclical unemployment:-	results from inadequate demand for labour.

According to Stanlake (1983) it was unemployment of the last type, associated with the trade cycle which, it was believed, could be eradicated by demand management policies. He contends that,

"Full employment, then, cannot mean zero unemployment. There will always be some elements of frictional, structural, seasonal and residual unemployment" (page 452).

Stanlake does, however, acknowledge that full employment is usually defined in some politically acceptable level of unemployment, which varies with the prevailing conditions and experiences.

According to the study done by Chadha (1995), unemployment in South Africa is largely structural. The National Manpower Commission (Gerber *et al.* 1995:556) considers people to be unemployed if they fall into the following categories:

- “● They have not been working, i.e. they have worked for less than five hours during the previous seven days;
- They have made an effort to get a job during the previous month;
- They are in a position to accept a job within one week;
- They are between 16 and 64 years old in the case of men; or between 16 and 59 in the case of women.”

Arguably, one of the most significant economic factors influencing human resource activities is the rate of unemployment. As Cherrington (1991:51-52) points out,

"Virtually every personnel activity is influenced in some way by changes in unemployment rates, and some activities, such as recruitment and selection, are altered drastically".

The South African situation is unique, in that not only is it characterised by high unemployment, but also by acute shortages of skilled manpower, posing a great challenge to the field of human resource management. As stated by Von Holdt (1995:47),

"South Africa has an extremely fragmented labour market. At one pole are relatively skilled, highly paid permanent workers in the formal sector. ... At the other pole are vast numbers of permanently unemployed... Job creation is therefore the most urgent priority for our newly democratic society. But how to create those jobs?"

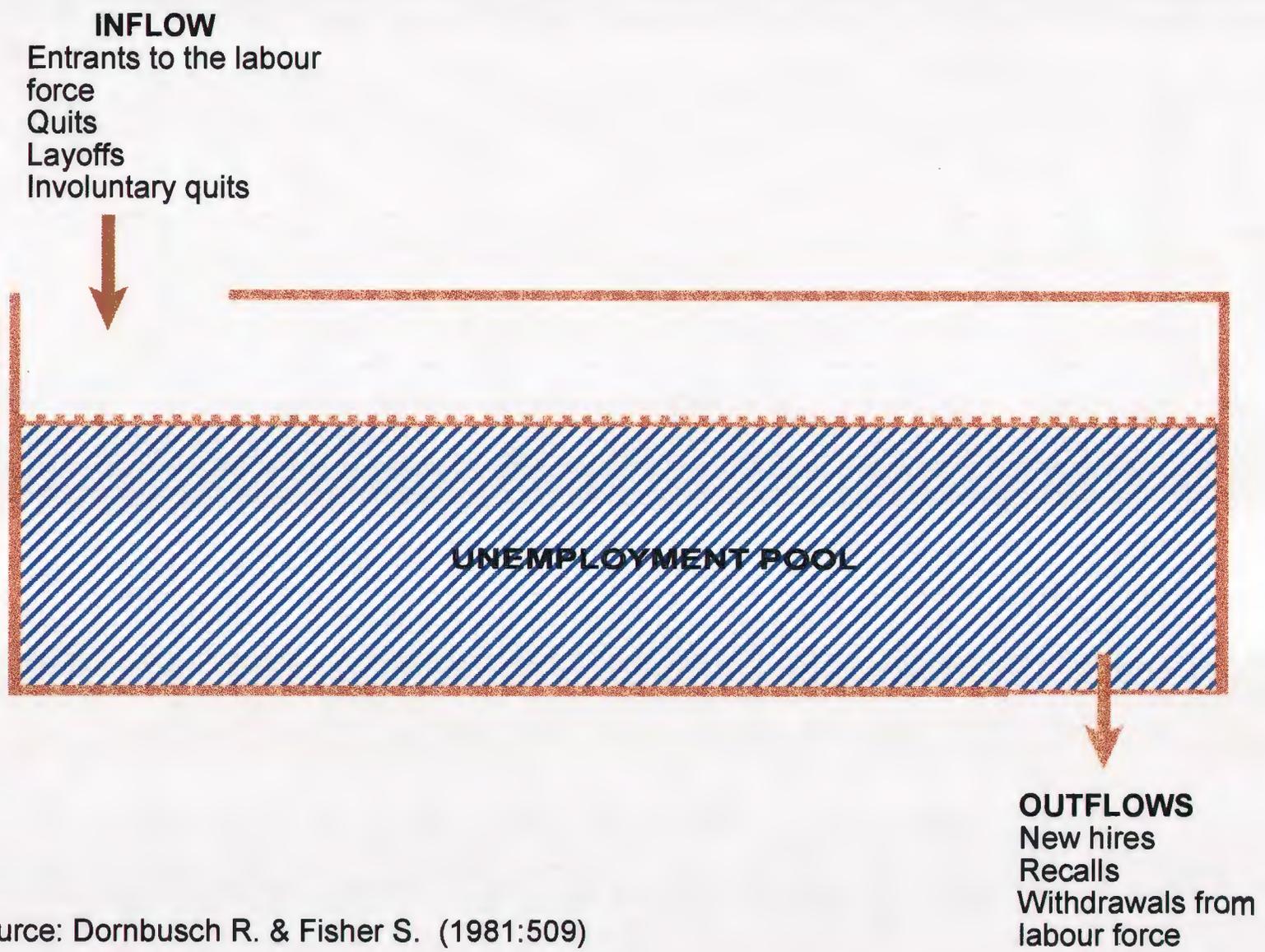
The causes and possible remedies of unemployment, including job-sharing, is discussed next, in an attempt to address this question.

5.3.2 Causes and Cures of Unemployment

Without delving into the economists' "battle", the causes of unemployment and its possible "cures" are briefly looked at. Amongst the reasons advanced for increases in unemployment by classical economists (Froyen 1983, Beardwell & Holden 1994), is deficiency in aggregate demand due to inadequate investment demand. The proposed solution to this is to stimulate demand through government spending. The other reason is downward rigidity of money wages. Here the money wage cuts were seen to provide a solution. However, this did not appear to be successful, since between 1923 and 1933 in the United States there was a 33% cut in wages without stopping the rise in unemployment.

Marshall (1922:260), a classical economist, claims that knowledge is the answer to the problem of unemployment. He says that knowledge would increase the skills of labour and also keep labourers and firms from making poor decisions which result in business failures and unemployment.

Dornbusch and Fischer(1981) explains the causes and remedies of unemployment in terms of a pool. Figure 5.1 shows the flows in and out of the unemployment pool.



Source: Dornbusch R. & Fisher S. (1981:509)

FIGURE 5.1: FLOWS IN AND OUT OF THE UNEMPLOYMENT POOL

According to this model, presented in figure 5.1, the reasons for someone becoming unemployed includes seeking employment for the first time (new entrants); quitting a job in order to look for another (better) one; by being laid off: through involuntary quits, i.e. permanent loss of a job, either due to being fired or due to business closure.

One of the most serious threats facing the South African worker to day is retrenchment (Bethlehem 1991) which, according to this model (figure 5.1), represents an inflow into the unemployment pool. This threat has caused COSATU to continue to make anti-retrenchment campaigns (Bethlehem 1991:39-40):

"Cosatu launches campaign against retrenchment...called 'No retrenchment, jobs for all', and would centre on the demand for an end to retrenchments in all sectors...accompanied by other demands that will begin the long process of orientating the economy to meet the needs of the people."

The magnitude of the unemployment problem in SA implies that it is imperative to find ways of moving out of the unemployment pool. According to Dornbusch *et al.* (1981:510) there are essentially three ways of moving out of the unemployment pool. A person could be hired to a new job (assuming there is one); a person laid off could be recalled; or an unemployed person may stop seeking for a job and by definition, therefore, no longer be in the labour market.

Whilst economists have made attempts, they still appear to,

"...remain a long way from agreement about the causes of unemployment and the reasons why its level fluctuates constantly and sometimes very high. Accordingly,

they are a long way from agreeing on the best way to reduce high levels of unemployment" (Parkin & King 1992:830).

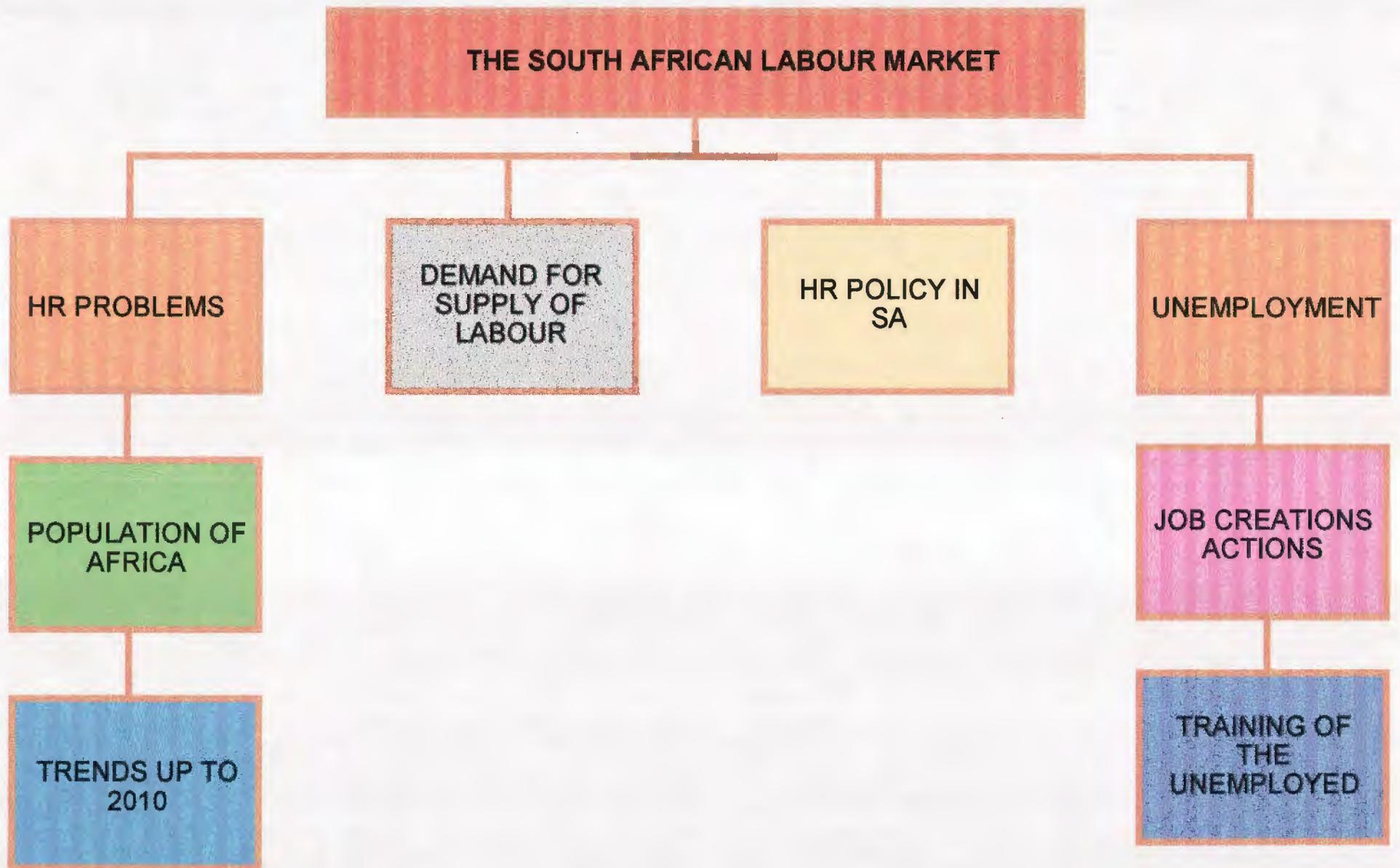
Whilst there might be many reasons for high levels of unemployment in South Africa, one logical reason is that there are just not enough employment opportunities for all those who are seeking jobs.

Gerber *et al.* (1995), in their model of principal learning components of the review of human resources in South Africa (Figure 5.2), cites training of the unemployed and job creation actions as some of the solutions to the problems of unemployment.

He also advocates the use of more labour intensive methods; stimulation of economic growth; promotion of the formal and informal small business sector and a sensible population policy that would slow down population growth, as some of the guidelines for creating employment opportunities. According to Gerber (1995:557)

"The development, utilisation and preservation of human resources: These are active and effective means of providing people with more and improved employment opportunities."

However, if you train people but do not create job opportunities for them, the training would obviously go to waste. This is where job-sharing comes in as an alternative that could create more employment opportunities. This would be accomplished if job-sharing is used instead of laying some people off; if it reduces voluntary resignations by providing job satisfaction and motivation; and if it attracts more committed and skilled entrants to the labour force. All these aspects of job-sharing would contribute to the outflows of the unemployment pool, i.e. would create more job opportunities and reduce unemployment.



Source: Gerber *et al.* (1995:533)

FIGURE 5.2: PRINCIPAL LEARNING COMPONENTS OF THE REVIEW OF HUMAN RESOURCES IN SOUTH AFRICA

It can therefore be assumed that any strategy that could provide for more employment opportunities would have an impact on the level of unemployment in South Africa. The reviewed literature (Walton 1990, Cohen *et al.* 1978, Pierce *et al.* 1989) does indicate that job-sharing has been one such strategy that has been employed to combat joblessness and as an alternative to lay-offs.

5.3.3 Job-sharing As A Cure for Unemployment

There has been an outcry for years now, especially by the trade unions, for a reduction in working time (though not necessarily accompanied by a reduction in income), echoed by many government policy makers in an attempt to "share the work" so as to reduce unemployment (Owen 1989; Beaumont 1998). This is further supported by Best (1981:1) when he states that:

"Persistence of high unemployment over the last several years has led many persons to advocate work-time reduction as a means of combatting joblessness by spreading work among a larger number of persons."

Problems of lay-offs and unemployment have called for work-sharing policies in many industrialised countries (Meltz, Reid & Swartz 1981; Best 1981). The effects of lay-offs are devastating on both the incumbent and his/her family, as well as the survivors of the lay-offs who experience grief, guilt, anger, fear and frustration (McCabe 1996). All these factors have an adverse effect on productivity. Marshall (Froyen 1983:94) elaborates on this when he says:

"Forced interruption to labour is a grievous evil. Those whose livelihood is secure, gain physical and mental health from happy and well-spent holidays. But want of work, with long continued anxiety, consumes a man's best strength without any return. His wife becomes thin; and his children get, as it were, a nasty notch in their lives, which is perhaps never outgrown."

Due to the African extended family dependency system, "redundancy for one employee is likely to cause hardship to many" (Blunt *et al.* 1992:2). This is echoed by the COSATU (Congress of the South African Trade Unions) motto, "*An injury to one is an injury to all*". These expressions are indicative of the critical need to find alternative strategies to lay-offs.

Among the social issues which job-sharing can address in South Africa, are unemployment, affirmative action and phased retirement (Ronen 1984). As unemployment continues to rise, whether due to plant closures or massive lay-offs, or population explosion in RSA, job-sharing could provide a means of finding more jobs for the unemployed and focus on using people's talents and skills. Job-sharing could also present an alternative to affirmative action programmes threatened by slow growth and lay-offs. As pointed out by Ronen (1984:190),

"Job-sharing programs initiated as an alternative to lay-offs often aim to attract higher-paid senior employees and, consequently, to ease the burden of lay-offs on newer staff, who are typically the first to be fired in periods of slowed growth."

Job-sharing would mean there are more jobs available for people, so that the needs of those who desire to work less than full-time would be met, whilst at the same time

providing opportunities for those who are economically active but lack jobs, to be employed and retaining the competent skills of those who would otherwise retire. Job-sharing could therefore influence employment levels by increasing employment opportunities and thus reducing unemployment. Job-sharing could be:

"...applied especially in times of economic recession to prevent people from losing their jobs. Instead they would do less work, but would still receive an income and maintain some measure of quality of work life" (Gerber *et al.* 1995:291) and hence increase employee productivity (Cherrington 1994).

Job-sharing has been beneficially used in different organisations as an alternative to lay-offs, thus reducing unemployment. Du Pont, for example, during a down-scaling of its work force in 1991 used job-sharing to avoid lay-offs (Gomez-Mejia, Balkin & Cardy 1995:104). In the next section a working definition of unemployment is provided.

5.3.4 A Working Definition of Unemployment

Unemployment, in this study, shall be defined as zero hours of work, due either to insufficient demand or voluntary (due to lack of an appropriate work option) or involuntary dismissals, of all those who have taken active steps to find work and have the desire to work (Gerber *et al.* 1995, Parkin & King 1992).

The variables which shall constitute measures of unemployment as they relate to job-sharing are:

- Lay-offs
- Resignations

- Dismissals
- Scarcity of skilled labour
- Desire of job-seekers to job-share

Thus if it is determined that there are many lay-offs, resignations and dismissals and there are some jobs which cannot be done (at least effectively) due to scarce skilled labour, and if there is willingness among job-seekers to job-share, then these shall be indicative of high unemployment levels to which job-sharing presents an alternative solution.

5.4 CONCLUSION

Whilst the decision to opt for the job-sharing schedule might be due to poor QWL, low productivity, and fewer employment opportunities, there is also a systems effect among these variables. QWL has the potential to influence productivity and vice versa, both of which have an impact (whether direct or indirect) on employment opportunities.

This chapter has discussed the relevant literature and theories on productivity and unemployment. Productivity as it relates to worker satisfaction and job-sharing was also discussed, as was the causes and possible cures of unemployment. Job-sharing as one of the alternative cures was also addressed. Working definitions to allow measurability of productivity and unemployment has also been given. The next chapter presents the research methodology for the study of the major variables.

CHAPTER 6

RESEARCH DESIGN AND METHODOLOGY

6.1 INTRODUCTION

The previous chapter presented the literature and working definitions for productivity and unemployment as they relate to job-sharing. It was concluded that job-sharing could provide a feasible alternative in addressing low productivity and unemployment problems.

This chapter outlines and describes the methods and procedures used in collecting data to answer the research questions and to address the relationships among the variables as conceptualised in the previous chapters. It describes the procedures and methods used to select the sample, collect the data and to capture the data.

Figure 6.1. describes the method followed in addressing this chapter and all other chapters that follow. This chapter will address the method, sampling design, instrumentation and data collection procedures. The next chapter provides the description of the analysis used to address the research questions. The rest of the report presents and discusses the results and the findings and makes final conclusions and recommendations.

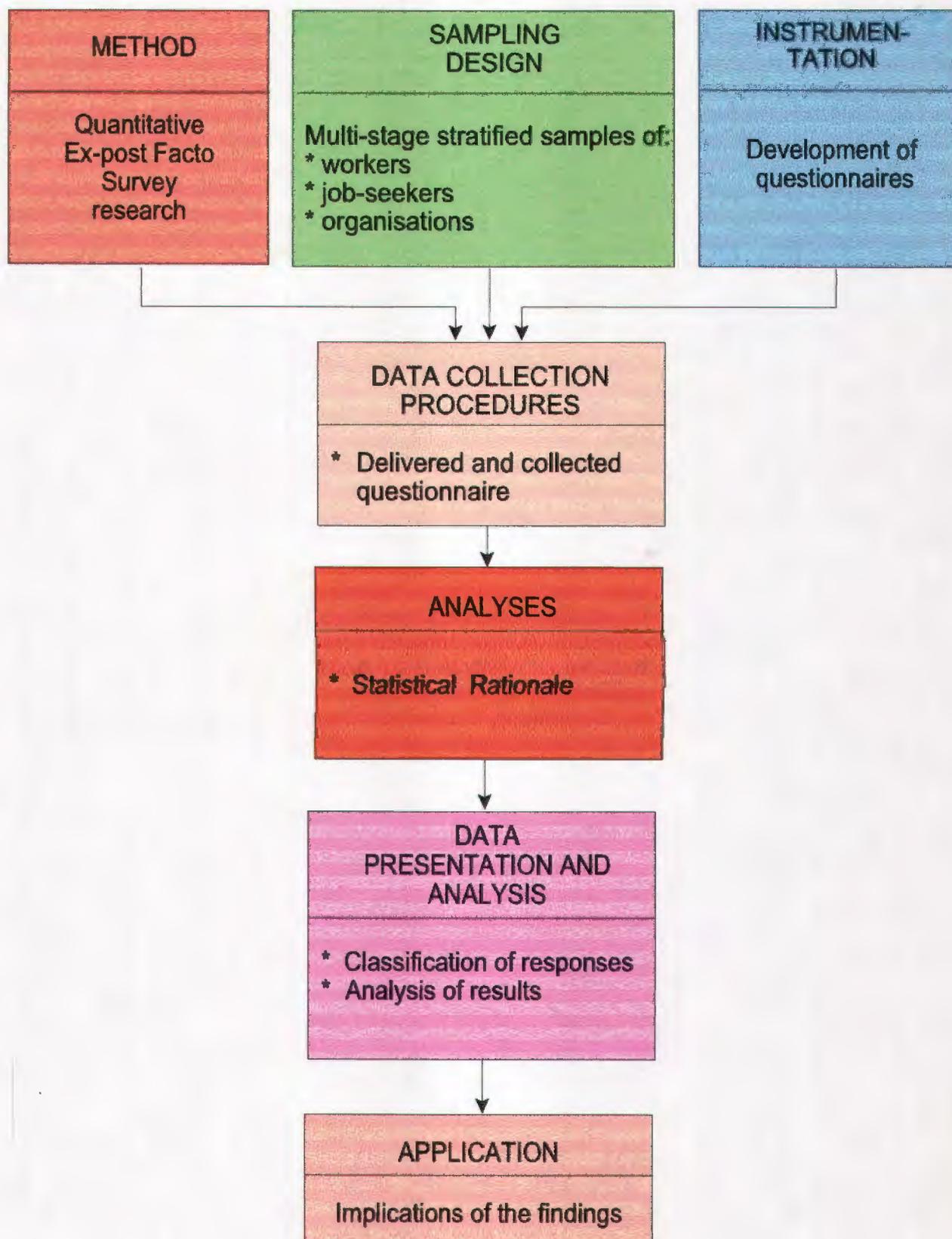


FIGURE 6.1: RESEARCH DESIGN

Following is the description of the research design and methodology as depicted in figure 6.1 above. The method used in conducting this study is now presented.

6.2 METHOD

This section discusses the methods used in conducting this study. A quantitative, ex-post facto survey research methodology was used to conduct this study and obtain data from employees, organisations and the unemployed seeking employment, who for the purpose of this study shall be referred to as job-seekers. Creswell (1994:2) defines a quantitative study as :

"...an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers and analysed with statistical procedures, in order to determine whether the predictive generalizations of the theory hold true."

Even though it is debatable as to whether certain problems are more suited to either qualitative or quantitative studies (Cresswell 1994; Reinhardt & Rallis 1994), it is clear that there is a substantial body of literature on job-sharing with known variables and theories (see Chapters Two and Chapter Three) which still need to be investigated and tested in the African context. In this regard, the most appropriate paradigm is the quantitative approach (Creswell 1994). Since little, if any, is known about the job-sharing concept in Africa, it does not render itself to observation in the "natural" work setting in a qualitative way (Gay & Diehl 1992).

Social research is generally said to have three purposes: exploratory, descriptive and explanatory (Babbie 1992, Cooper *et al.* 1995). To the extent that this research study has

developed questions for further research in the African context (in which the job-sharing concept is new) it can be said to be exploratory. To the extent that this study sought to describe the potential job-shares, in terms of their demographic stance, sector and industry, it can be said to be descriptive. To the degree that the study has explained why people want to job-share, it can be said to be explanatory. As indicated in Chapter One (section 1.5), the purpose of this study was therefore three-fold: exploratory, descriptive and explanatory. Most studies are said to have some elements of all these purposes (Babbie 1992, Cooper *et al.* 1995).

Even though this study is also interested in the question of causation, it cannot be carried out experimentally by manipulating variables. Subjects could not be assigned to treatment and control groups in advance. It is therefore possible that there might be multiple causes rather than just one, to any of the responses, thus the ex post facto design was used as the most appropriate to determine causal explanations between variables (Cooper *et al.* 1995:129-31). The sampling design for the study is now discussed.

6.3 SAMPLING DESIGN

This section presents, firstly the criteria and procedures for selecting the sample; secondly, the unit of analysis; and thirdly, the number and sizes of samples. This study was confined to Gauteng and it is composed of three samples: the workers (operatives, supervisors and shop stewards); the organisation (as represented by informed persons responsible for personnel records); and the job-seekers (individuals who are actively seeking employment).

6.3.1 Sample Selection Criteria and Procedures

The criteria for selecting the type as well as the size of the samples in the study are discussed in this section. There are two major approaches to sample selection; probability and non-probability sampling. Henry (1990:17) explains these approaches as follows:

"Probability samples are selected in such a way that every member of the population actually has the possibility of being included in the sample. Non-probability samples are selected based on the judgement of the researchers to achieve particular objectives of the research at hand."

Since this research survey consists of three samples with unknown population numbers and specific study objectives, certain aspects of the sample design were based on the non-probability approach, as will be explained below.

Jolliffe (1986) suggests that in situations where there are several stages of sampling in the study and the units chosen at each stage are of different kinds, a combination of sampling methods may be used to obtain multi-stage samples. Thus, in this study multi-stage samples at sector, industry, organisational and worker level were obtained and used in the analysis. First the relevant population was determined, followed by the parameters of interest, sampling frame and then the types of samples.

Relevant population: This consists of all the organisations and economically active population in Gauteng (workers & unemployed) who would like to work less than full-time on a job-share schedule. Since the exact number was not known, an estimate was obtained from the number of those workers who work part-time, less those who would

like to work more hours (CSS 1994:33-34) as shown below:

743 042	Part-time workers (less than 35 hrs/week)
<u>- 198 976</u>	Part-time workers who would like extra hours
544 066	Workers who are satisfied with part-time work in South Africa

Workers in Gauteng constitute 25% of workers in RSA ($2\,479\,832 / 9\,640\,972 \times 100$). Therefore, 25% of 544066 = 136 016 would be the probable number of workers willing to work part-time, which is 5% of the total workers in Gauteng (2 479 832).

5% of the unemployed (job-seekers by the study's definition) who are economically active in Gauteng, is 50 027 (i.e. 5% of 1 000 541).

Therefore, the probable estimate of the economically active population in Gauteng that might be satisfied with an option to work on a part-time schedule may be said to be the total of the workers and job-seekers as follows:

136 016	Workers
<u>50 027</u>	Job-seekers
186 043	Total relevant population

Whilst this population is indicative of people who would want to work part-time, it does not necessarily entail that they would also want to job-share, since the two work schedules are different (refer to the definition in section 1.7). Thus, judgement (Cooper *et al.* 1995) was used to estimate the relevant population (6940 individuals) at 4% for the workers and 3% for the job-seekers, of the respective population figures. Thus the study

population (Jolliffe 1986) constitutes of 5440 (4% of 130 016) workers and 1500 (3% of 50027) job-seekers. This judgement, and hence the sample design, was based on the following assumptions:

1. Since job-sharing involves working less hours than the traditional full-time, as does part-time, potential job-shares would come from the population that prefer to work less hours, that is, the current part-timers.
2. With the job-sharing concept being new in RSA, scepticism is likely to be prevalent, precluding many people from immediately opting for it, especially in view of the many recent changes in RSA.
3. Statistics on quality of life (CSS 1994:120-121) indicate that the majority of the people live in very poor conditions. This is indicative of the possibility that most job-seekers might not immediately want to job-share, after being employed, since they would have to share their income as well.
4. The data collection costs, time-wise as well as the accessibility of the job-seekers, precluded larger samples.
5. Cooper *et al.* (1995) is of the view that if a study is exploratory and precision is not critical, as is the case in this study, the absolute sample size is much more important than its comparison to the population. Thus, in this study precision was not considered as critical, in determining the sample size.

6. Research in Canada (Warne *et al.* 1992) revealed that about 30% of the respondents indicated the desire to work less hours with a pay cut. In South Africa it was anticipated that the rate could be far lower than that, for the reasons mentioned above. However, the results (see chapter 8) reveal that there are slightly over 30% respondents in South Africa who are willing to job-share.

Parameters of interest. The topic of this study was centred on job-sharing and its impact on QWL, productivity and unemployment. It involves workers, organisations and the unemployed seeking employment. Therefore, to obtain representative view points, the parameters of interest for this study were:

- Organisations
- Workers (operators, supervisors & shop stewards)
- Job-seekers

The workers came from the organisations which were sampled. The sampling frame for these parameters of interest, is discussed below.

Sampling frame. The study obtained representative samples so that different types of organisations could be explored, to establish their amenability to job-sharing. Thus the source (as presented below) which provided organisations which fell into the industry category was required. The information pertaining to workers also had to be obtained from the records of the firms. For the job-seekers, the study needed to identify those that are actively seeking employment, so as to get realistic responses as to whether job-sharing would increase employment opportunities. Therefore, the most appropriate and accessible sampling frame for the respective parameters of interest were :

- McGregors on-line information index
- Company personnel records
- Yellow pages (to get a list of employment agents)

From this sampling frame appropriate sample types were drawn, which are discussed next.

The types of samples. To reduce the sampling error, the multi-stage, stratified (Babbie 1992: 233), systematic samples of the employed, job-seekers and organisations, based on sector, industry, organisation and gender were obtained. Preliminary information for sampling purposes was obtained from the Bureau of Market Research at UNISA, and Central Statistics Services (CSS) office.

The systematic sampling method was used, as it is functionally equivalent to simple random sampling with few exceptions and is a more practical method (Babbie 1992:216, 233).

Since the list of unit of analysis creates an implicit stratification (unlike simple random sampling), systematic sampling is more accurate and appropriate for this study (Babbie 1992:216).

The literature (Chapter Two) did reveal that a variety of jobs could be shared almost in any industry which has a proper mechanism. Thus this research survey attempted to get representative samples from all the sectors in Gauteng.

This study was limited to Gauteng, which constitutes approximately 50% of all economic activities in South Africa (Statistics in Brief, CSS 1995). Hence the sample may be said to be representative of the South African economy. The economic activities in South Africa are classified into three sectors: primary, secondary and tertiary (Bureau of Market Research 1995). According to the Standard Industrial Classification (SIC) of the Central Statistical Service (1993), there are nine major industries that are grouped into these sectors, as shown in table 6.1, and the samples at sector, industry and organisational level were classified as such.

TABLE 6.1: CLASSIFICATION OF ECONOMIC ACTIVITIES

PRIMARY	1. Agriculture, forestry, hunting and fishing 2. Gold mining and other mining and quarrying
SECONDARY	3. Manufacturing 4. Electricity, gas and water 5. Construction
TERTIARY	6. Wholesale and retail trade and catering and accommodation service 7. Transport, storage and communication 8. Financing, insurance, real estate and business services 9. Community, social and personal services

Source: Martins, J.H. 1979. *A guide to the Standard Industrial Classification of all Economic Activities as applied in the BM Registers*, Bureau of Market Research, University of South Africa, Research Report No. 74, Pretoria, p.2.

These sectors; primary, secondary and tertiary, constitute 22%, 33%, and 45% of the major industries respectively, as shown in table 6.2. Since stratified systematic samples were obtained for the purpose of this study, the percentages provide a natural stratification. Thus the sample of 20 organisations was stratified, as shown in table 6.2 proportionately.

TABLE 6.2: STRATIFICATION BY SECTOR, INDUSTRY, ORGANISATION AND WORKERS

SECTOR (3)	INDUSTRY (9)	SAMPLE OF ORGANISATIONS		SAMPLE OF EMPLOYEES	
		*N=20	**R=15	*N=560	**R=431
PRIMARY 22%	(1)	2	2	56	42
	(2)	2	2	56	39
SECONDARY 33%	(3)	2	3	56	54
	(4)	3	2	84	83
	(5)	2	-	56	13
TERTIARY 45%	(6)	2	1	56	29
	(7)	2	1	56	41
	(8)	2	1	56	27
	(9)	3	3	84	103
TOTAL	9	20	15	560	431
UNEMPLOYED/ JOB-SEEKERS				*150	**116

*sample size: 560 workers; 150 job-seekers ; 20 organisations

** Response rate: 431 workers (77%) ; 116 job-seekers (77%) ; 15 organisations (75%)

Table 6.2 shows that there are three primary sectors in RSA, constituting 9 industries, from which a sample of 20 organisations was systematically selected. A proportionate sample of employees was selected from these organisations. The table also reports the response rate for the respective samples, as well as their totals which is discussed in the following section. Based on the sample types discussed in this section, three units of analysis were used in the study. These are now presented.

6.3.2 Unit of Analysis

This section presents the units of analysis for this study. The literature (in Chapter 2) on job-sharing in countries where it has been used, indicates that workers at all levels have opted to job-share. One of the concerns of the job-share work schedule in these countries has been the increased cost of supervision and the reactions and attitudes of the unions. Consequently to obtain realistic views and avoid biased opinions on job-sharing in South Africa, three samples were surveyed. These are workers, organisations and job-seekers. Therefore, the units of analysis for the respective samples were as follows:

Workers: To determine the attitudes, the potential for job-sharing and reasons for their support or lack of support for this strategy, operators, supervisors and union representatives (shop stewards) from 20 organisations constituted the unit of analysis. These were systematically selected from the three sectors, constituting nine industries in Gauteng (see table 6.2). All groups of workers were included to avoid biased responses. There was a 77% overall response rate.

Individual Job-Seekers: To establish the attitudes and willingness to share a job with the intent of establishing to what extent job-sharing may be used to increase employment opportunities, in the event that not enough full-time jobs are created for all those seeking employment, individual job-seekers were surveyed. The respondents were located through employment offices as obtained from the Johannesburg and Pretoria yellow pages. This information was used to measure one of the four major variables in the study, i.e. unemployment. These consisted of the unemployed as described in Chapter Five (section 5.3), here-in referred to as job-seekers. That is:

- “● They have not been working, i.e. they have worked for less than five hours during the previous seven days;
- They have made an effort to get a job during the previous month;
- They are in a position to accept a job within one week;
- They are between 16 and 64 years old in the case of men; or between 16 and 59 in the case of women” (Gerber *et al.* 1995:556)

The response rate for the job-seekers was also 77%.

Organisations, through informed managers/officers with employee records constituted another strata, to provide information related to organisations, such as labour costs, absenteeism, labour turnover rates and various requests indicative of the need for time off work. These included personnel or human resources managers. A systematic sample of 20 organisations from major industries was selected, using an up-dated Mcgregors on-line classified index. The response rate for the organisations was 75%. That is, out of 20 organisations only 15 representatives responded, even though there were workers who responded from all the 20 organisations.

The exact sample sizes were determined from the above units of analysis as presented below.

6.3.3 Sample Size

As indicated in the above section, there were three samples in the study which provided a natural stratification. They were workers (employees, supervisors, and shop stewards), organisations (informed persons in charge of personnel records) and job-seekers.

According to Jolliffe (1986:91), factors which are usually taken into consideration when deciding on the size of the sample are:-

- Availability of the resources for the survey;
- Level of accuracy desired; and
- Response rate expected.

The actual population of potential job-sharers in South Africa is not known. Therefore, based on part-time statistics in RSA (CSS 1995), judgement was used to estimate the relevant population at 6940 individuals, with no more than 200 organisations (for reasons see section 6.3.1). The sample size consisted of approximately 10% of these estimates, as the maximum number feasible (Henry 1990). Though it is debatable whether this required minimum sample size (10%) of the total population is accurate (Henry 1990; Cooper *et al.* 1995), it is however, generally acceptable (Babbie 1992). The following constituted the respective sample sizes as was reported in table 6.2 above:

- A stratified systematic sample of 20 organisations based on sector and industry, were surveyed via their managers/officers with personnel statistics.
- A stratified systematic and proportionate sample of 560 individuals based on gender, union leadership and supervisory status were selected from company personnel records (see 6.3.1). This constituted 28 individuals in each organisation as shown in table 6.2.
- A systematic sample of 150 job-seekers were surveyed via employment agents (to reach active job-seekers).

The sampling design presented in this section was conducted within certain constraints, which are discussed in the next section.

6.3.4 Limitations

Within the geographic, time, cost and accessibility constraints, stratification was only done up to the organisation level, to limit the number of strata. Thus for the worker, the stratification was limited to gender, operative, supervisor and shop steward.

The use of telephone directories posed a limitation on those who could be surveyed, in that only those who are listed were included in the sample.

Due to the time and cost constraints, written translations were not done. Respondents were therefore limited to those who at least could read and write in English. The instruments for all the samples were in English. The instruments used in this study are discussed in the next section.

6.4. INSTRUMENTATION AND MATERIALS

This section discusses the instruments adapted; how they relate to this study and the reason for their adaptation; and what items were excluded and which new ones were included.

As indicated in section 6.3 above, this study was composed of three samples. Therefore, the discussion on instrumentation and materials is divided into three sections according to the respective sample as explained below.

6.4.1. The Instruments

Attitude Survey Instruments (Pierce *et al.* 1989; Olmsted *et al.* 1989) were used in this study to obtain attitudinal data from employees, informed members of organisations and

job-seekers. Some items developed by Pierce *et al.* (1989) and Olmsted *et al.* (1989) were adapted (with permission) as will be explained in the sections that follow.

Permission was obtained by the researcher to adapt survey items developed by Pierce *et al.* (1989) and Olmsted *et al.* (1989) (see appendix A). These items were used in pilot studies with three different groups of students and workers (300) of the Graduate School of Business Leadership of the University of South Africa. After the pilot tests, some items were replaced or removed, to obtain data from employees, informed members of organisations and job-seekers. Some items were eliminated and some new ones were developed to suit the South African environment. For the job-seekers, only the attitudinal items were adapted and the rest of the items were developed based on the literature, since previous studies did not include this category but only focused on workers. The unemployed seeking employment were not included in those studies. Thus, to the knowledge of the researcher, it is not known from previous studies whether or not job-seekers would be willing to job-share rather than remain unemployed. Pierce *et al.* (1989) did not include the organisation in their survey. This study has included some items from Pierce *et al.* (1989) and Olmsted *et al.* (1989) in the organisation instrument.

Most of the adapted items used to assess workers' attitudes, consisted of Pierce *et al.* (1989) which, according to their view are suitable for "almost any existing or alternative work schedule" (1989:62) and have been tested for reliability and validity.

Thus, since this study is on job-sharing, an alternative work schedule, Pierce *et al.*'s instrument is appropriate for it. They developed a set of scales during a three-phase research programme which involved six samples and over 700 workers working under a variety of schedules in a utility company and the health department in the United States of America (Dunham and Pierce 1996:171). For their research studies (Dunham and Pierce 1996:175), they conducted component analyses with oblimax rotations and

cronbach coefficient alphas, which “were for the most part at acceptable levels (.70s and .80s). ..Test-retest coefficients were also mostly strong (.60s to .80s) with a few exceptions”. For a more detailed report on construct definition, instrument development and validation of the Pierce and Dunham attitude toward work schedule instrument, refer to *Academy of Management Journal* (Pierce *et al.* 1986: 170-182).

For this research study, as indicated above, several pilot tests, factor component analyses and cronbach alpha tests (reported later) were conducted to re-establish validity and reliability of the instrument in the South African context. The items in section I were adapted and the items in section II with regard to change and section III, which relates to attitudes, were adapted from Pierce *et al.* (1989). However, new items were developed and added in section IV, which relates to the three independent variables, namely QWL, Productivity and Unemployment (see appendix B).

With regard to the job-seeker, only section II, attitudinal items, were adapted. The organisational items included those of Olmsted *et al.* (1989). All the instruments had a number of similar attitudinal items, to facilitate comparisons amongst samples (see appendix B-D). These items are discussed below according to the section in which they appear and the respective samples.

6.4.1.1 Major sections in the instruments

This section provides an explanation of the instruments as they correspond to the three samples. The major content sections in the instruments consisted firstly of the covering letter (see appendix B to D), to explain the purpose of the study and define new terminologies and secondly of the items as they were divided into the sections as discussed below.

Section I: Demographic/Organisational items

The characteristics of various sub-groups were obtained, to facilitate an evaluation of the current and job-share schedules. As Pierce *et al.* (1989:116) points out:

"Subgroups of employees often react differently to one another, to both their existing work schedules and alternative work schedules."

Information on demographic factors, such as gender, age, level of education and number of children were obtained, to facilitate statistical analysis and cross tabulation of data. This applies to all samples. Information on organisational factors were obtained to identify the type, sector, area of work, organisational tenure and position held by the respondents. This section appeared in the instruments pertaining to workers and organisations only, since these were not applicable to the job-seekers, who are not in employment. These are explained further below.

WORKERS. The personnel data section had eight items providing information that would facilitate statistical analysis. As indicated above, these include gender, age, ethnicity, marital status, number of children/dependants, academic qualification and the source of income. These items were included, based on literature, as being the most important in providing information that would help identify the characteristics of potential users of job-sharing.

The organisation data relating to the workers of section I had five items, based on the industry; area of work and position in the organisation; availability of job-sharing position; union membership; and tenure. These items were also developed, based on the literature survey and on the results of the pilot study. Pierce *et al.* (1989:187) had some demographic items which could not be adopted for this study since they related to a

specific organisation and had categories that would not in all cases apply to the South African environment.

ORGANISATIONS: The demographic data section for organisations consisted of six items. These items sought to identify the type of industry the organisation was in, the type of ownership, the size of the organisation by the number of employees, the availability of job-sharing positions, the positions held by the respondents and the tenure. This information facilitated comparisons between industries and organisations, as well as the positions of the respondents, with regard to their attitudes towards job-sharing.

JOB SEEKERS: There were eight items in this section. The first seven were the same as for the worker's instrument, to facilitate comparisons amongst the samples. The eighth item was different, in that the job-seekers were unemployed and thus would not be earning salaried income. Thus, with regard to the job-seekers, the eighth item was based on the period of unemployment. The second section applying to the instruments for the three samples is discussed below.

Section II

This section consisted of different items for each of the three samples. Some items used in the samples were based for the most part on the instruments of Pierce's *et al.* and Olmsted' *et al.*, as explained according to the respective samples below.

WORKERS: Resistance to or support for change. Employees are said to differ significantly in their orientation towards change (Pierce *et al.* 1989:118). This orientation may have an impact on whether job-sharing could work as an alternative work schedule. Thus, items on receptivity to change were included, to determine the receptivity of workers to changes, such as introduction of an alternative work schedule like job-sharing.

Section II of the worker's instrument was based on Pierce *et al.* (1989:188) and had eight receptivity to change items. These items, based on the pilot study, were adopted and contextualised to the South African environment. Thus, the items were rephrased in such a way that the words "more often than not" and "in my opinion" at the beginning of an item, were removed. These were perceived as inappropriate in the South African context. A ninth item was added to ascertain whether respondents felt there were any changes in the organisations or not.

ORGANISATION: This section consisted of seventeen items. The first eight items were based on Olmsted *et al.* (1989:134), entitled "would job-sharing benefit your organisation?" All, except two of these items were retained as they originally were, and these two were rephrased to suit the South African language. In item 11 the word "many" was replaced with "some", since job-sharing is a new concept in RSA and this was seen to be more inclusive. In item 12, the last part of Pierce's item, "or extended coverage by creating a gap", was eliminated. This part was perceived as not clear in the South African context. These items sought to establish whether job-sharing would benefit the individual organisation by addressing scheduling needs. The other nine items on receptivity to change were the same as those in Section II of the workers' instrument, as reported above.

JOB-SEEKERS: Section II of the job-seeker instrument consists of six items measuring suitability; reasons for opting to job-share; preference for the work schedule; and perceived obstacles to job-sharing. These items were developed by the researcher based on the literature reviewed and the pilot studies, which had included some open-ended items eliciting for possible responses that were used later, as close-ended items. These are discussed further in the sections that follow.

Section III: Specific work schedules

This section provides information that would facilitate an evaluation of the existing work schedule and an identification of potential strengths and weaknesses of the job-share work schedule. This makes comparisons of the respondents' reactions, to both the current and job-share work schedule, possible.

Items included in this section reflect the degree to which the existing and job-share work schedule affects the respondents' personal activities, involving family and friends, financial activities, work coordination, transportation, etc.. These attitudinal factors were used to identify preference/proneness to job-sharing, as compared to the current and other alternative work schedules.

Some open-ended items to elaborate and cross-check on the reliability of the responses with regard to the reasons for and against job-sharing, were used in the pilot study. These provided some possible responses which were added accordingly, as closed items with alternative responses. These included questions on the perceived reasons and obstacles to job-sharing. For example, an open-ended question such as, "What might be some of the reasons that would make you to consider opting for job-sharing as an alternative work schedule?" was asked in the pilot study. As alluded to above, this section consists of attitudinal items that relate to the scheduling of work. These are explained below, according to the respective samples.

WORKERS: Section III of the workers' instruments consists of thirty-five items grouped into categories/constructs as follows:

The **first** category measures interference caused by the current and job-share work schedule, which consists of **thirteen** items. These items were adapted from Pierce

et al. (1989:189 & 192-3). These items were repeated in Pierce's instrument, firstly, where it related to the current work schedule (Pierce *et al.* 1989:189) and later to the flexitime schedule (Pierce *et al.* 1989:192-193). There were twenty-one items used in the pilot study for the current schedule, and the same items were repeated for the job-share schedule as they had appeared in Pierce's *et al.* instrument. Based on the comments from the pilot study with regard to being required to respond to the same items twice, this study combined the two, to determine concurrently the interference caused by both work schedules (see attached questionnaire, Section III, question 23-35). In this study these 21 items were combined into 13 items. Items such as go shopping, go to the bank, and go to the post office were combined. The results of the pilot study revealed that in RSA these activities are usually done together on the same trip. On item 28 of Pierce *et al.* (1989:189), church was added. Thus, item 31 of this study read as: "Attend play, concert, cultural and church event". South Africa, being a religious country, this was added as a result of the pilot studies. Seven items were therefore adopted without any changes (23, 25, 26, 28, 29, 32, 34). Four items (24, 27, 31, 33) were a combination of two or three items, to suit the South African situation. Two new items were added; "Go for further training" (item 30) and "participate in non-work activities" (item 35), based on the results of the pilot studies. The respondents felt that these were essential in South Africa.

The **second** category (question 36) was required to establish what schedule the respondent were currently on, to relate it to the previous category, which applied to the current and job-share schedule. This item pertained to this study only.

The **third** category (question 37-50) relates to the respondents' opinions and feelings concerning the current work schedule. These items were adopted from Pierce *et al.* (1989:190-191). All the items (20) were used in the pilot studies.

Only fourteen items were retained as appropriate for the South African respondents. Thus items on client service (43-46) and on knowledge of the schedule for the neighbour and friends (52-53) were left out of this study.

The **fourth** category consisted of one item which was developed by this study, to establish the opinions of the respondents as to which work schedules were perceived as suitable.

This **fifth** category consists of one item (51), which was based on an open-ended question in the pilot study, which was developed to determine what the reasons might be for opting to job-share in RSA. The reasons, which were grouped into five sections, provided for a close-ended question.

The **sixth to ninth** categories consisted of items (54-56) which addressed the respondents' preference for the work schedule and which preference is perceived as more beneficial to the organisation. Items 54 and 55 were adopted from Pierce *et al.* (1989:195). These were reworded to suit the South African language. Instead of flexitime, job-sharing was used, as it is the topic of this study.

The **tenth** and final category of Section III (item 57) was added to this study to determine possible obstacles to job-sharing. This was based on the responses elicited from the pilot studies conducted.

ORGANISATION: Section III was the final section for this instrument, consisting of 10 items. The first five items (24-28) were adapted from Pierce *et al.* (1989:190). Only five out of the twenty close-ended items of Pierce's instruments were adapted. This was because only these items were appropriate for the organisation. Pierce's instruments were addressing individual employees. They did not address the organisation. These five

questions for this study were included to solicit the views and opinions of the organisations (employer) with regard to whether or not they felt the current work schedule facilitated employee productivity and provided good client access to the services of the organisation.

Item 29, sought to establish which one of the work schedules was perceived as suitable by the organisation.

Items 30 and 31 sought to determine which one of the work schedules the organisation perceived as beneficial to the organisation and most preferable.

Items 32 and 33 sought to solicit the perceived obstacles and the possible reasons for the job-sharing work option, respectively, from the organisation's perspective.

JOB SEEKER: Section III of this instrument was the final one and consisted of 13 items (15-27) measuring the interference caused by the full-time (current) and job-share work schedules, with the opportunities to do other things. This section is the same as section III, items 23-35 for the workers instrument (see section III of the workers first category above).

Section IV: General worker reactions

This section appeared in the workers' instrument only, in order to determine affective reactions of the employees towards QWL, productivity and employment opportunities. It consisted of items that would measure the three independent variables: QWL, Productivity and Unemployment. Information on general reactions of employees towards nature of work, compensation and leadership, with regard to job satisfaction and behavioural intentions for tardiness, absenteeism and turnover, were obtained. These

reactions could also measure organisational commitment, job involvement, motivation and stress. These items appeared in the appropriate categories according to the type of variable, as indicated in the section that follows. Pierce *et al.* (1989:196-7) had nineteen job satisfaction items, all of which were adapted for use in this study. Based on the literature review (chapters 2-5) and the results of the pilot studies, this section added 15 items. Section IV of the workers' instrument contains 34 items, measuring QWL, productivity and employment opportunities. The items which were added are 72-76 and 81-89. Items used in the study as they correspond to Pierce's items, and the constructs being measured, are listed below:

Pierce	This study	Construct
Q105-106	58-59 -	Satisfaction with physical working conditions
107-108	60-61 -	Satisfaction with co-workers
109-110	62-63 -	Satisfaction with work itself
111-112	64-65 -	Satisfaction with career future
113-114	66-67 -	Satisfaction with company policies and practices
115-116	68-69 -	Satisfaction with pay
117-118	70-71 -	Satisfaction with supervision
Added	72-76 -	Autonomy, recognition, flexibility
119-120	77-78 -	Satisfaction with the amount of work
121-122	79-80 -	Absenteeism intentions
Added	81-83 -	-
	84	Tardiness
	85-87 -	Continuity and skill variety
	88-89 -	Lay-offs - turnover/expectation
123	90 -	Intention for turnover

6.4.2 Component Analysis

The above constructs are indicative of what was originally being measured. However, after the principal component analysis was conducted for this study, eleven major constructs could be detected. Table 6.3 gives the component analysis results.

TABLE 6.3: PRINCIPAL COMPONENT ANALYSIS: ROTATED FACTOR PATTERN

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	FACTOR6	FACTOR7	FACTOR8	FACTOR9	FACTOR10	FACTOR11
V98	0.71679	0.21815	-0.07802	0.17767	0.05262	0.24516	0.11621	0.03771	0.00888	0.09152	0.08537
V97	0.65838	0.12044	0.25856	0.03538	0.01338	-0.00319	-0.21915	-0.07458	0.07014	0.17748	-0.05904
V99	0.64268	0.36449	-0.03508	0.28213	0.03881	0.15821	0.17039	0.04848	0.01052	-0.05230	0.09239
V101	0.64065	0.09144	0.11367	0.19071	0.09748	0.19173	-0.03885	0.20277	0.03458	-0.16902	0.19618
V96	0.48443	0.06230	0.18701	0.03311	0.11825	-0.06826	0.28820	0.32361	0.00254	0.04502	-0.14717
V105	0.10134	0.86847	0.08849	0.02236	0.02143	-0.00387	0.03609	0.04976	-0.01502	-0.07311	0.03771
V104	0.17329	0.73719	0.09470	0.24359	0.11186	0.13065	0.01829	0.14826	0.01078	0.03993	-0.00932
V108	0.23202	0.72148	0.06593	0.04341	-0.03238	0.12910	0.04710	-0.00329	0.03118	-0.03755	0.09735
V110	0.04920	0.04956	0.73797	0.01468	0.04813	0.10513	0.14390	0.10220	0.00216	0.03984	0.14402
V109	0.04065	0.07744	0.73779	0.02727	0.05257	0.21208	0.18761	0.05349	-0.03570	-0.11545	0.06052
V106	0.32871	0.20742	0.54839	0.12197	0.01927	-0.05465	-0.02020	0.30989	0.09722	0.16135	-0.23945
V102	0.23959	0.03865	0.38142	0.25342	0.25989	0.11017	-0.17924	0.26372	-0.30491	-0.09620	-0.16763
V116	0.04323	0.16524	0.34449	0.15915	0.34272	0.29629	0.33331	-0.09617	-0.06277	-0.03698	-0.16006
V93	0.15568	-0.00812	-0.08064	0.78466	0.01213	0.04396	0.13482	-0.05726	0.06480	0.07133	0.03001
V92	0.08423	0.15545	0.14934	0.75248	-0.00089	0.04254	0.03003	0.00343	0.11115	-0.08217	-0.02899
V95	0.17583	0.11474	-0.05874	0.52961	0.11130	0.17757	-0.12315	0.13397	-0.11773	0.18078	0.30076
V103	0.31730	0.23476	0.26349	0.43541	0.11553	0.09558	-0.20792	0.07961	-0.03069	0.10674	-0.09019
V113	0.03880	0.04076	0.05663	0.09639	0.80783	-0.01473	0.04168	0.04964	-0.08238	-0.02551	0.12399
V114	0.11553	-0.03861	0.14184	0.06468	0.77995	0.00352	0.03206	-0.02404	0.08495	-0.04288	0.13179
V112	0.01195	0.09003	-0.07967	-0.10363	0.63268	0.28735	-0.01145	0.23661	0.02004	0.23903	-0.09134
V90	0.15106	0.06240	0.20433	-0.00551	0.06964	0.77513	0.02926	0.05316	0.10324	0.03765	0.02908
V91	0.13283	0.18621	0.09768	0.31357	0.01703	0.67162	-0.00153	0.00354	0.07804	0.02383	0.14188
V119	0.02961	-0.03671	0.11590	0.01439	-0.07268	-0.05644	0.75618	-0.03875	-0.03695	-0.12679	0.13716
V117	0.07670	0.21676	0.28351	0.03388	0.26631	0.16455	0.57195	0.00723	0.14701	0.31921	-0.08107
V118	0.19584	-0.02325	0.35348	-0.11480	0.21148	0.40399	0.42819	-0.09760	-0.07464	0.14742	-0.09599
V100	0.10741	0.05836	0.12593	-0.03876	0.00802	-0.00739	-0.03304	0.75093	0.06682	-0.00569	0.12905
V94	0.11710	0.04873	0.06197	0.35967	0.21500	0.36517	-0.02022	0.48265	-0.13001	0.00810	-0.13262
V122	0.29658	0.25227	0.01936	0.21224	0.07902	0.35837	0.32006	0.38507	-0.15182	-0.13106	-0.12221
V107	0.04811	-0.12662	-0.31453	0.11216	-0.24457	0.04662	-0.06196	-0.38578	-0.05256	-0.02166	-0.38309
V121	0.13097	-0.02587	-0.02914	0.08443	0.00646	0.08419	-0.05132	-0.01645	0.84639	-0.07635	-0.00255
V120	-0.14712	0.15152	0.05321	0.06167	0.03337	0.07966	0.49867	0.21506	0.51643	0.11999	-0.03247
V111	0.05866	-0.09591	-0.01109	0.08204	0.02498	0.04215	0.00075	-0.00741	-0.04048	0.88026	0.09691
V115	0.08183	0.07297	0.03841	0.07329	0.10864	0.05869	0.04019	0.03436	-0.00445	0.06789	0.73801

Rotation Method: Varimax : Variance explained by each factor

FACTOR1 FACTOR2 FACTOR3 FACTOR4 FACTOR5 FACTOR6 FACTOR7 FACTOR8 FACTOR9 FACTOR10 FACTOR11
 2.698872 2.420512 2.322709 2.317605 2.171490 1.974494 1.902738 1.610009 1.238243 1.207790 1.173941
 Final Communality Estimates: Total = 21.038403

As revealed from the component analysis, with rotated factor pattern results given in table 6.3. above, items were grouped into eleven constructs listed below.

FACTOR & ITEMS	CONSTRUCTS
1. V96 - 99, 101	Satisfaction with organisation
2. V104 - 105, 108	Autonomy and flexibility
3. V102,106,109-110,116	Worker energy
4. V92-93, 95, 103	Satisfaction with co-workers, work & supervision
5. V112 - 114	Absenteeism
6. V90 - 91	Physical working conditions
7. V117 - 119	Continuity
8. V94,100,107,122	Satisfaction with work and pay
9. V120 - 121	Lay-offs
10. V111	Absenteeism intentions
11. V115	Attendance

As can be seen from the list above, factor analysis results presented in table 6.3 produced different constructs from those of Pierce *et al.* The constructs are grouped according to whether the items addressed satisfaction or dissatisfaction. These groupings would seem to be similar to Herzberg's motivation-hygiene theory (Robbins 1998) which advocates that factors are grouped according to whether they contribute to satisfaction or dissatisfaction. The aspects or dimensions included in each construct/factor are listed below.

Factor 1: Career future, company policies and practices, and pay.

Factor 2: Autonomy and flexibility.

Factor 3: Worker energy affected by supervision, recognition, amount of work and tardiness.

Factor 4: Co-workers, work itself, supervision .

Factor 5: Absenteeism.

Factor 6: Physical working conditions.

Factor 7: Continuity problems due to lay-offs, skill variety and availability.

Factor 8: Work itself, pay, need for extra time and intentions for labour turnover

Factor 9: Lay-offs

Factor 10: Absenteeism intentions.

Factor 11: Attendance as it relates to work design.

In order to explore the extent to which the workers' perceived quality of work life, productivity and employment opportunities have effects on willingness to jobshare, constructs in section IV of the workers instrument were grouped into three. This grouping was based on the definitions of QWL, Productivity and Unemployment discussed in chapters 4 and 5 respectively.

6.4.3 Cronbach Coefficient Alpha

To establish whether the grouped items above do measure their respective constructs, each Cronbach Alpha coefficient was determined. The grouped items and the corresponding alpha coefficients are presented in table 6.4 below.

TABLE 6.4: CRONBACH COEFFICIENT ALPHA

Constructs	Cronbach Alpha
QWL:	0.85
Satisfaction with organisation	0.74
Autonomy and flexibility	0.76
Satisfaction with co-workers, work & supervision	0.66
Physical working conditions	0.66
Satisfaction with pay and work	0.51
PRODUCTIVITY	0.75
Amount of work /Worker energy	0.68
Absenteeism	0.67
Continuity	0.61
Tardiness/ Absenteeism intentions	-
Attendance	-
UNEMPLOYMENT	-
Lay-offs	0.36

Table 6.4 above shows, by the results of the Cronbach Coefficient Alpha, that the items do measure QWL(0.85) and Productivity(0.75) constructs, in that the coefficients are above the acceptable level (Hair, Anderson, Tatham & Black 1992). Absenteeism and attendance were single items and thus did not have individual coefficient alpha values. The validity and reliability tests results are discussed in the next section.

6.4.4 Validity and Reliability

To establish **content validity** of the instrument, working university students and staff in supervisory and non-supervisory positions were given the research instrument to judge how well it stood (Emory & Cooper 1995) in the South African context. The respondents were asked to make comments as to whether they felt the item was essential and appropriate.

Principal component analysis with a rotated factor pattern was conducted to establish **construct validity**, to identify the underlying constructs being measured and to determine how well the test represented them (Emory *et al.* 1995:151-2).

Cronbach's alpha was used to re-establish the **reliability** of the constructs. Emory and Cooper (1995) are of the view that "Cronbach's Alpha has the most utility for multi-item scales at the interval level of measurement". Thus, it can be said to be appropriate as a reliability test for this study which consists multi-item scales. Table 6.5 reports the results of Cronbach alpha conducted on all grouped items of the workers instrument.

TABLE 6.5: RELIABILITY TEST OF GROUPED ITEMS

Variable Label	Cronbach Alpha	
	workers	Job-seekers
Receptivity to change	0.76	
Interf. with fam. + friends-current	0.90	0.67
Interf. with fam. + friends-jobshare	0.92	0.66
Training, services + consumable-current	0.79	0.50
Training, services + consumable-jobshare	0.83	0.72
General effect	0.85	
Work Coord	0.76	
Effects on social and family	0.66	
Transportation + personal security	0.53	
Satisfaction with organisation	0.74	
Autonomy and flexibility	0.76	
Satisfaction with co-workers, work & supervision	0.66	
Physical working conditions	0.50	
Dissatisfaction with work and pay	0.50	
Satisfaction and amount of work	0.68	
Absenteeism	0.67	
Continuity	0.61	
Absenteeism intentions	-	
Attendance	-	
QWL	0.85	
Productivity	0.75	

The results in table 6.5 above indicate that the constructs are reliable measures. Most of the values are within the acceptable range, with physical working conditions and dissatisfaction with work and pay ranking lowest with the alpha of 0.50. To improve on content validity, pilot studies were conducted with the students and staff of a University. Resulting from the pilot study, some items in the questionnaire were excluded, some re-phrased and new ones were developed to contextualise it to the South African environment as has already been discussed above.

6.5 DATA COLLECTION PROCEDURES

This section gives a report of the procedures followed in administering the questionnaires used in this study.

6.5.1 Questionnaire Administrative Procedures

Exploratory, descriptive and explanatory self-report survey questionnaires were delivered to individual employees, job-seekers and informed persons in organisations, to obtain quantitative data on the attitudes, current job satisfaction factors, labour costs, productivity factors and proneness of individuals and organisations to job-sharing as appropriate. Even though this is a cross-cultural study, (Hofstede 1980; Harari & Beaty 1990) no translations were done. To obtain a high response rate, questionnaires were dropped off where an informed person was in charge of personnel records and picked up within 10 days. Twenty organisations participated in the study to obtain data for employees, but only fifteen representatives of these organisations responded to provide data for the organisations.

6.6 CONCLUSION

This chapter presented the method, sampling design, instrumentation and data collection procedures. The next chapter discusses statistical analyses used in analysing the data and presents descriptive statistics for all three samples as well as an analysis of variance to determine if there were any significant differences among the subgroups in their responses to major items.

CHAPTER 7

DATA ANALYSIS

7.1 INTRODUCTION

The previous chapter presented the methodology used in this study and the results of the factor analysis and the cronbach coefficient alpha. This chapter provides a description of the analysis used to address the research questions. It highlights methods used for analysing and treating data and presents the descriptive statistics and analysis of variance for demographic factors on grouped items.

7.2 RATIONALE FOR THE STATISTICAL ANALYSIS

Data was collected by means of a questionnaire containing 90 items in the case of employees, 37 items in the case of organisations (informed persons thereof) and 26 items in the case of job-seekers. The majority of the questionnaire items took the Likert-form, based on a 5-point scale from "very easy" to "very difficult" and from "strongly agree" to "strongly disagree". Other questions were asked for factual, demographic information. The response rate was 77% for the workers; 75% for organisations; and 77% for the jobseekers. Alreck and Settle (1995:267) assert that,

“As with any statistics tool, there are two types of things that dictate what statistical tool should be used or would work best: the nature of the data - the “material” to which the tool is applied, and the nature of the report - the “product” that is to be created”.

With regard to the nature of the data, the items in this study for the three instruments included those of nominal, ordinal, interval and ratio scale and data type, all of which have been put into categories. Based on these types of scales and data, the first part of this

chapter describes two categories of statistical tools used in this study to analyse survey data (Alreck *et al.* 1995:267): “those used to describe individual survey items, and those used to measure associations or relationships between two variables”. Univariate statistics such as frequency distributions are used in this study to describe each variable, one at a time. Bivariate statistical tools are also used to show the relationship between two variables, to address research questions. Multivariate statistics which are extensions of univariate and bivariate analyses (Hair *et al.* 1992) have also been used to show relationships between many variables in the instruments and amongst the samples.

Appropriate statistical techniques by measurement level and testing situations, and a discussion of how survey items were combined into scales on independent and dependent dimensions (Cooper & Emory 1995; Creswell 1994), will be discussed below. The univariate statistics describing each variable separately are reported in the next section.

7.3 UNIVARIATE STATISTICS: FREQUENCIES AND MEANS

The information used in this analysis was derived from questionnaire data. To get the feel for the data and to decide what further analyses needed to be conducted (Levin 1987, Freund & Simon 1992), descriptive analysis of all independent and dependent variables were conducted and are reported on later in this chapter. These indicate the frequencies, means and standard deviations for these variables in the survey. This frequency and percentages of respondents were reported to provide a complete picture of the distributions of data for each demographic variable (Alreck & Settle 1995). The mean, which indicates the most typical response (Alreck & Settle 1995), was calculated for grouped items. This facilitated comparisons among the variables and between the samples on different dimensions and similar items. Analysis of variance between the means was also conducted. This is discussed later in the chapter. The statistical tools to measure the relationship between two or more survey variables are now reported, beginning with factor analysis.

7.4 BIVARIATE & MULTIVARIATE STATISTICS: MEASURES OF ASSOCIATION.

This section presents statistical tools that were used to measure the relationship amongst variables in the study. To identify the dimensions (constructs) measured by the items, factor analysis was conducted, and is reported below.

7.4.1 Factor Analysis

According to Hair *et al.* (1992:10),

“Factor analysis, including variations such as component analysis and common factor analysis, is a statistical approach that can be used to analyze interrelationships among a large number of variables and to explain these variables in terms of their common underlying dimensions (factors)”.

To search for and define the fundamental constructs which underlie the original variables (Pierce *et al.* 1989) principal component analysis (Hair *et al.* 1992:10) was conducted. Cronbach coefficient alpha analysis was also conducted to establish the reliability of the constructs resulting from the factor analysis. The results of these analyses were presented and discussed in the previous chapter.

To identify the appropriate statistical techniques to use, to measure relationships between variables in the study, Alreck *et al.*'s. (1995) model, as shown in figure 7.1, was used as a guideline. The study identified data types and scales, the causality implied between the variables, and an appropriate statistical tool was chosen. The appropriate tools used in this study, based on figure 7.1 are analysis of variance, regression analysis, discriminant analysis and cross-tabulation.

		Independent Variable	
		Nominal or Ordinal (Discrete Categories)	Interval or Ratio Data (Continuous, Numeric)
Dependent Variable	Nominal or Ordinal (Discrete Categories)	Cross-Tabulation Chi-Square*	Discriminant Analysis F-Ratio
	Interval or Ratio Data (Continuous, Numerical)	Analysis of Variance <i>F-Ratio</i> ----- Paired t-Test** <i>Value of t</i>	Regression Analysis <i>F-Ratio</i> ----- Correlation Analysis* <i>Probability of r</i>

* Either variable may be regarded as the dependent or independent variable.

** The *independent* variable defines the pairs. Both are *continuous, dependent*.

Figure 7.1 : Statistical Measures of Association

Source: Alreck & Settle (1995 : 284)

Chi-squared automatic interaction detector (CHAID) which is not included in figure 7.1, was also used and will be discussed later in this chapter.

In the strict sense of the word no variable in this study is interval or ratio. Likert-scale variables were considered as continuous, as is often done in the behavioural sciences.

Because one cannot measure, for example, exact values of attitudes and opinions, these are categorised into scales, but used for the purpose of analysis as continuous scales. The techniques as presented in figure 7.1, including CHAID, are now discussed.

7.4.2 ANOVA (Analysis of Variance)

In order to locate important independent variables in the study and to determine how they interact and affect the response, the analysis of variance method (ANOVA) was used (Levin 1987, Mendenhall and Sincich 1996). In each case where the independent variable was categorical and the dependent variable was continuous, ANOVA was used as the most appropriate tool to determine whether samples came from populations with equal means and to assess the statistical significance of differences between group means (Hair *et al.* 1992, Alreck *et al.* 1995). Where the difference between only two mean values was to be assessed, instead of the F test, the t-test, which is a special case of ANOVA for only two distributions (Alreck *et al.* 1995), was used.

7.4.3 Regression Analysis

The multiple stepwise regression was used to determine which one of the variables in the study explains the most variation in the dependant variable. This method is the most appropriate in helping to determine which one of the remaining independent variables will explain the largest percentage of the variation yet unexplained (Mason & Lind 1990). Amongst the major advantages of the stepwise method, according to Mason and Lirid (1990: 583), are:

- only significant regression coefficients are included in the equation;
- the steps involved in building the equation are clearly seen; and
- the step-by-step changes in the standard error of estimate and the coefficient of determination are shown.

This study consists of many variables, some of which are qualitative (categorical) in nature. The dependant variable is likely to be influenced not only by the variables that can be readily quantified on some well-defined scale, but also by variables that are essentially qualitative in nature, like gender and colour. Since such qualitative variables usually indicate the presence or absence of “quality” or an attribute, such as male and female, to quantify these attributes, dummy variables or categorical variables were created to run the regression model. As stated by Gujarati (1995: 499),

“Qualitative variables such as sex and race do influence the dependent variable and clearly should be included among the explanatory variables”.

It is said that the introduction of dummy or qualitative variables makes the linear regression model an extremely flexible tool that is capable of handling many interesting problems encountered in the empirical study (Gujarati 1995: 499). Thus to address the explanatory aspect of the study, dummy variables were included in the model.

One of the dependent variables, personal preference of the work schedule, is a nominal variable, thus could not be handled by regression analysis. Discriminant analysis, discussed below, was used as it is better suited for nominal variables (Klecka 1990).

7.4.4 Discriminant Analysis

From figure 7.1 it is evident that when the independent variable is continuous and the dependent variable is categorical/nominal, the most appropriate tool to test the significance of relationships between variables would be discriminant analysis (Alreck *et al.* 1995). In this study all analyses requiring to determine the relationship between the preference of the work schedule (a single nominal/categorical variable) as a dependent variable and attitudes and opinions of respondents toward work schedules (Likert scale variables treated as continuous) as independent variables, used the discriminant analysis.

Upon testing the assumptions for the regression and discriminant analysis, it was found that some of the assumptions were not exactly met. Usually the large sample size such as that for the workers, would reduce the error in the results due to violations of the assumptions. Since the data was categorical, spearman correlation was used to determine linearity between the dependent and independent variables. The results revealed low linear tendencies. The results also showed that the variables were not normally distributed, since they could only assume 5 point scale values and are thus not continuous in the true sense of the word.

The results of these analyses reported very low R-squared values, indicating that the percentage variability in the dependent variables is explained only minimally by the predictor variables. Thus, as a corrective measure , to confirm the results, CHAID (Hair *et al.* 1992) reported next was used.

7.4.5 CHAID

Simultaneously with regression and discriminant analyses, CHAID was used to analyse the data, since it has no assumptions, except that the sample size be large enough, as it was in the case of employees. Therefore, CHAID was only used for the employee data. In most cases, however, the results were more or less the same, thus only the results for regression and discriminant analysis are reported to avoid repetition.

7.4.6 Cross-Tabulations

Cross-tabulation is said to be the most common and popular method used to measure association between survey variables, because it is effective and easy to understand and interpret, and it is flexible and robust (Alreck *et al.* 1995). In this study, cross-tabulation was used to address questions with two categorical variables. While cross-tabulation is

said to lack the power and sensitivity of other measures of association between variables, it makes up for it by placing very few demands on the type of data it can legitimately analyse (Alreck *et al.* 1995). The three requirements for using cross-tabulations were met. These, according to Alreck *et al.* (1995:286), are that:

“(1) The data can be nominal, ordinal, interval, or ratio, but they must be in *categories*. (2) There should be a *limited number of categories* for each variable. (3) The total *n-size* or *number of cases* must be large enough to provide a sufficient minimum cell frequency.”

The descriptive statistical results are now presented, followed by means of grouped items, and analysis of variance of the grouped items, by the demographic factors.

7.5: DESCRIPTIVE STATISTICS

This section presents descriptive statistics in two sections. The first section reports the frequencies of all the three samples. The second section reports the means and standard deviations of the grouped items for the workers and the job-seekers. The sample size for the organisation was too small (15 respondents) for further statistical analysis, thus, in all questions relating to the organisation, only frequencies and means will be reported. Thus, where the question applies to all samples, the results of the workers are presented first, followed by that of job-seekers, and lastly by that of the organisation.

7.5.1 Description of Respondents (Frequencies).

The results giving the description of respondents (employees, job-seekers and organisation) are presented in table 7.1. Due to the size of the table this will be presented in three sections as 7.1a, 7.1b, and 7.1c. The description of respondents (employees and job-seekers) according to gender, ethnicity, age, marital status, number of children, number of dependants and level of education is given in table 7.1a.

For the employees, there was a total of 431 respondents, which was distributed almost equally between male and female. The number of responses for the job-seekers was 115 (sample size=150), with 36% males and 63% females. The majority of the respondents (72% workers and 85% job-seekers) were between 21 and 40 years old.

TABLE 7.1a: DESCRIPTION OF RESPONDENTS: WORKERS AND JOB-SEEKERS

Gender %	Worker	Job-seeker
Male	50.2	36.5
Female	49.8	63.5
	N=431	N=150

Ethnicity %	Worker	Job-seeker
Asian	7.5	-
Black	32.9	78.9
Coloured	3.7	-
White	55.1	21.1
Other	0.7	-

Age %	Worker	Job-seeker
<21	2.3	8.8
21-30	35.4	66.7
31-40	36.8	18.4
41-50	18.3	4.4
51-64	6.8	1.8
65 or >	0.5	-

Marital % status	Worker	Job-seeker
Single	28.3	65.2
Married	63.0	30.4
Divorced	6.8	3.5
Separated	1.6	-
Widow/er	0.2	0.9

Dependants %	Worker	Job-seeker
0	36.9	35.5
1	13.8	22.4
2	14.5	26.2
3	15.2	8.4
4	12.4	6.5
5	7.1	0.9

Children %	Worker	Job-seeker
0	35.4	36.0
1	18.7	28.8
2	27.2	22.5
3	13.1	9.9
4	5.6	2.7

Education %	Worker	Job-seeker
prim school	3.0	12.2
some high	12.4	26.1
matric	40.0	52.2
ter/ dipl	15.2	7.8
bachelor /hons	23.6	0.9
masters	3.7	-
other	2.1	0.9

In terms of ethnicity, 55% of the employee respondents were white and 33% were black, 79% of job-seeker respondents were black while 21% were white.

The respondents by marital status, as shown in table 7.1a, reveal that the majority of the workers (63%) are married, 28% are single and the rest are either divorced, separated or widowed. For the job-seekers, 65% are single, 30% are married and the rest are either separated or widowed. The majority of the respondents had at least one child, though approximately one third did not have any children. The majority of the respondents had some high school education. The descriptive statistics for source of income and industry for the worker respondents are reported in figure 7.1b below.

TABLE 7.1b: DESCRIPTION OF RESPONDENTS: WORKERS AGAINST INCOME AND INDUSTRY.

Source of Income	Worker %	Industry	Worker %
own salary only	52.8	agric	9.7
own + spouse	42.5	mine	9.0
own + spouse/fam	2.1	manufacturing	12.5
own + fam	2.1	elec/gas	19.3
other	0.5	construction	3.0
		wholesale	6.7
		transport	9.5
		finance	6.3
		comm/edu	23.9

Most of the workers either earned their own salary (52.8%) or had their own salary as well as the spouse's salary (42.5%). The distribution of questionnaires was proportionate to the industry size, however, in terms of the response rate, the results show community, education, health and social services ranking highest (24%), followed by electricity, gas and water (19%), then manufacturing (12.5%). The remaining descriptive statistics for the workers and the job-seekers are reported in figure 7.1c below.

As revealed in 7.1c, regarding the area of work, the majority of the respondents were in administration (38%), followed by other areas (25%), and ranking third is clerical or secretarial.

The majority of the respondents were general workers (45%), followed by supervisors (28%) and managers (14.7%). Respondents of most employees (66.8%) and organisations (86.7%) reported having no job-sharing positions (see table 7.1c and 7.1d).

TABLE 7.1c: DESCRIPTION OF RESPONDENTS: WORKERS AND JOB-SEEKERS ctd

Area of work	Worker %	Union membership	Worker %
education	5.1	yes	42.2
admin	38.1	no	57.8
social	1.7		
clerical	15.4	Union representative	Worker %
library	2.2	yes	5.4
banking	6.3	no	94.6
manuf	6.7		
other	24.6	Organisation tenure	Worker %
		<1 year	11.4
Level in organisation	Worker %	1-3 years	23.5
man (top)	3.4	4-8 years	30.1
man	14.7	9-15 years	22.6
supervision	28.0	16-25 years	10.7
operations	45.1	>26 years	1.6
other	8.9		
		Period of unemployment	Job-seeker %
Job-sharing positions	Worker %	0-6 month(s)	20.7
none	66.8	6-12 months	8.6
<5	15.2	1-<2 years	41.4
6-10	5.5	2-<4 years	21.6
>10	3.3	4 + years	7.8
don't know	9.2		
Unionised organisation	Worker %		
yes	82.2		
no	13.6		
don't know	4.2		

Most of the surveyed organizations are unionized (82%). Only 42% are union members, of which 5.4% are union representatives. Only 11.4% of the respondents have worked for less than a year.

The majority of the employees have worked for the organization for at least a year. For the job-seekers, 20.7% have been unemployed for less than 6 months, 50% have been unemployed for almost 6 months to 2 years. 21% have been unemployed for two to four years. Only 7.8% have been unemployed for more than 4 years.

This section presents the descriptive data for the organisation. Table 7.1d below reports these descriptive statistics. Table 7.1d reveals that of the respondents from organisation, those that came from agriculture, mining and electricity/gas industries each constituted 13.3%. Manufacturing and community/education each constituted 20% of the respondents.

TABLE 7.1d: DESCRIPTION OF RESPONDENTS: ORGANISATION

Industry	%	Job-sharing positions	%
agric	13.3	none	86.7
mine	13.3	6-10	6.7
manufacturing	20.0	>10	6.7
elec/gas	13.3	Number of employees	%
wholesale	6.7	101-500	33.3
transport	6.7	501-1000	6.7
finance	6.7	1001-5000	26.7
comm/edu	20.0	5001-10000	13.3
Type of org.	%	10000+	20.0
public	26.7		
priv/profit	60.0		
public/edu	13.3		

TABLE 7.1d-ctd

Level in org.	%
tot manager	33.3
middle man	60.0
supervisor	6.7
Tenure	%
1-3 years	20.0
4-8 years	33.3
9-15 years	6.7
16-25 years	26.7
>26 years	13.3

The remaining industries also had evenly distributed respondents of 6.7% each. In terms of the type of organization according to ownership, 60% of respondents were from private/profit organizations, 26.7% were from public-government ones, and 13.3% were from public-sector education organizations.

Regarding the size the of organization according to the number of employees, 4% had between 101–1000 employees, 26.7% had 1001 – 5000 employees, and 33.3% had at least 5001 to more than 10,000 employees. 33.3% of the respondents held top management positions, 60% held middle management positions, and 6.7% were in supervisory positions.

Of the respondents, 20% had worked for at least 1-3 years for the organization, 33.3% had worked for 4-8 years and the rest (37.7%) had worked for at least 9 years for the organizations. The next section presents means of grouped items.

7.5.2 Means and Standard Deviation of Grouped Responses According to the Workers and Job-seekers.

This section presents the results of the means of grouped items according to the workers and job-seekers and the corresponding standard deviations as shown in table 7.2. and 7.3.

Table 7.2 reports the results for the workers. To determine the degree of receptivity to change, 8 items were used using Likert's 5 point scale, where 1 represents strongly disagree and 5 represents strongly agree (see Appendix B). The mean of receptivity to change is 3.2 (standard deviation 0.6). The higher the score the more receptive to change the respondent would be. Thus the mean indicates that the respondents are neither receptive nor unreceptive to change.

TABLE 7.2: MEANS AND STANDARD DEVIATION OF GROUPED ITEMS: WORKERS

Variable Label	N=431	Mean	Std Dev
Receptivity to change	428	3.17	0.63
Interf. with fam.+ friends-current	416	3.00	0.94
Training, services + consumable-current	414	2.94	0.84
Interf. with fam.+ friends-job-share	310	2.49	0.89
Training, services+consumable-jobshare	305	2.58	0.84
General effect	429	3.55	0.76
Work Coord	427	3.69	1.00
Effects on social and family	425	3.36	0.84
Transportation + personal security	424	3.59	0.96
Satisfaction with organisation	421	3.33	0.74
Autonomy and flexibility	420	3.08	0.92
Satisfaction with co-workers, work and su	421	3.62	0.72
Physical working cond.	420	3.72	0.95
Dissatisfaction with work and pay	424	3.19	0.77
QWL	422	3.44	0.61
Worker energy	423	3.29	0.73
Absenteeism	423	3.89	0.92
Continuity	418	3.49	0.88
Absenteeism intentions	420	3.87	1.14
Attendance	415	3.54	1.10
PROD	423	3.54	0.54
UNEMP/Lay-offs	415	3.17	0.93

Interference caused by work schedules was measured by items 23 to 35, subdivided into two groups. The responses based on Likert's 5 point scale, ranged from very easy (1) to very difficult (5). The higher the score the more a schedule is perceived as interfering with the specified activities. The first group, consisting of 7 items which measured interference with activities with family and friends, yielded a mean of 2.9 and standard deviation of 0.9 for the full-time work schedule, and a mean of 2.5 and standard deviation of 0.9 for the job-share work schedule.

The second group of questions (30-35), consisting of 6 items, measured interference with access to training, services, events and consumables. This group yielded a mean of 2.9 and standard deviation of 0.8 for the current work schedule, and a mean of 2.6 and standard deviation of 0.8 for the job-share work schedule. Thus it would seem from the results that the current schedule is perceived as interfering with the other activities comparatively more than the job-share schedule.

To determine the affect of workers towards the current (full-time) work schedule, 14 items divided into four sections were used. The respondents were asked to express their opinions and feelings, concerning the current work schedule, on a scale of 1 (strongly disagree) to 5 (strongly agree). A higher score indicates a more positive attitude toward the current schedule. The first section, consisting of 7 items, tested for the general effect towards the current schedule and yielded a mean of 3.6 and a standard deviation of 0.8.

The second group of items (44 – 45) tested for work coordination effect and yielded a mean of 3.7 and standard deviation of 1. The third group of items, measuring effects on social and family life, consisted of three questions and yielded a mean of 3.4 and standard deviation of 0.8. The last part of the section had two items, measuring the effects on transportation and personal security. This section had a mean of 3.6 and standard deviation of 1. The mean results indicate that the respondents are relatively (though not highly) positive toward the current schedule.

Section IV of the workers instrument consisted of 33 job satisfaction items categorized into 11 groups by the factor analysis (see Chapter 6), which were further grouped into 3 categories. Table 7.2 reports the means and standard deviation of these grouped items. The questions asked how the respondents felt about a variety of work-related factors. A 5-point scale ranging from strongly disagree (1) to strongly agree (5) was used. The higher the score the more satisfied the respondents would be with the factor.

To check on the accuracy of responses some items were reversed. The results report satisfaction with organisation; autonomy and flexibility; satisfaction with co-workers, work and supervision; physical working conditions; satisfaction with pay and work; amount of work; absenteeism; continuity; tardiness; and attendance as having a mean of approximately 4 and standard deviation of more or less 1.

The remaining grouped items have means around the average, which is 3 and standard deviation of 1 or approximately 1. The higher the score the more favourable the response. When these items were categorized into three groups i.e. quality of work life; productivity and unemployment; the means were 3.4, 3.5, and 3.1 respectively with the standard deviations of 0.6, 0.5, and 0.9 respectively. The means for the grouped items for the job-seeker instrument were also calculated. These means and their corresponding standard deviations are presented in table 7.3 below.

TABLE 7.3: MEANS AND STANDARD DEVIATIONS OF GROUPED ITEMS: JOB-SEEKERS

Variable	Label	N=150	Mean	Std Dev
Interf. with fam.+ friends-current		110	2.38	0.611
Training, services + consumable-current		112	2.35	0.61
Interf. with fam. + friends-job-share		113	2.52	0.66
Training, services + consumable-job-share		111	2.59	0.79

The mean results from table 7.3 cluster around 2. These indicate that the job-seekers feel that neither one of the work schedules (current and job-sharing) would interfere with non-work activities reported in this table.

The next section presents the analysis of variances for the demographic variables against the grouped responses.

7.6 ANALYSIS OF VARIANCES FOR DEMOGRAPHIC VARIABLES AGAINST GROUPED RESPONSES OF EMPLOYEES.

This section presents the results of the analysis of variances for selected demographic variables reported in section 7.5.1 according to the grouped items presented in section 7.5.2. To further investigate specific group mean differences, Duncan's multiple range test (Hair *et al.* 1992) was used. Where the differences are significant enough, this test reveals the specific areas of differences, as will be reported (see **Appendix E** for the detailed statistics of these differences).

Table 7.4 shows F-values and the critical p-values at 95% confidence level (0.05) of the analysis of variance conducted. The results that reveal significant differences between the means are highlighted in bold. The results according to demographic factor are reported and discussed below.

Age

The result, from table 7.4 reveal that there are significant differences in the ages of the respondents, in terms of their general affect towards the current schedule; autonomy and flexibility; physical working conditions; and satisfaction with pay and work. The Duncan's multiple range test (Appendix E2) revealed specific differences in only two of these factors. It showed that the respondents who are over 51 are more positively disposed toward the current work schedule than those aged between 21-30. Those aged 51 and above were significantly more satisfied with pay and work than those aged below 21.

TABLE 7.4: ANALYSIS OF VARIANCE FOR DEMOGRAPHIC VARIABLES AGAINST GROUP RESPONSES (WORKERS)

Label	Age	Ethnicity	Marital	Depen- dants	Source of income	Industry	Area of Work	Position held
	F (p)	F (p)	F (p)	F (p)	F (p)	F (p)	F (p)	F (p)
Receptivi ty to change	1.50 (.20)	2.10 (.10)	.97 (.38)	1.51 (.21)	.01 (.99)	4.69 (.00)	1.36 (.22)	3.85 (.00)
Interfer. fam.+ friends - current	1.27 (.28)	1.57 (.20)	2.70 (.07)	.76 (.51)	1.74 (.17)	2.56 (.00)	1.18 (.31)	1.48 (.21)
Interfer. Fam. + friends - job-share	.16 (.95)	4.95 (.00)	7.12 (.00)	3.30 (.02)	3.54 (.03)	1.45 (.17)	.83 (.56)	.80 (.52)
training, sce + consum- able - current	.76 (.55)	.67 (.57)	5.63 (.00)	2.85 (.04)	6.99 (.00)	2.56 (.01)	1.15 (.33)	.72 (.58)
training, sce + consum- able -job- share	.86 (.49)	1.61 (.19)	6.22 (.00)	3.38 (.02)	4.37 (.01)	1.79 (.08)	1.43 (.20)	1.74 (.14)
General effect	5.52 (.00)	2.97 (.03)	.79 (.45)	1.17 (.32)	.87 (.42)	1.49 (.16)	1.08 (.38)	3.96 (.00)
Work coord.	.85 (.49)	3.43 (.02)	.44 (.64)	1.70 (.17)	.33 (.72)	1.42 (.18)	2.02 (.05)	1.84 (.12)
Effects social & family	.74 (.57)	.71 (.54)	2.84 (.06)	1.31 (.27)	.46 (.63)	2.61 (.01)	1.45 (.18)	3.09 (.01)
transp. + pers. security	.27 (.89)	8.95 (.00)	3.75 (.02)	5.85 (.00)	3.12 (.04)	2.31 (.02)	2.89 (.00)	3.89 (.00)

TABLE 7.4: ctd

Label	Age F (p)	Ethnicity F (p)	Marital F (p)	Dependents F (p)	Source of income F (p)	Industry F (p)	Area of Work F (p)	Position held F (p)
Satisfactn with orgn	1.40 (.23)	5.56 (.00)	.33 (.72)	.97 (.40)	1.05 (.34)	2.56 (.01)	1.13 (.34)	5.67 (.00)
Autonom & flexibil	3.79 (.00)	2.80 (.10)	4.61 (.01)	.47 (.70)	.07 (.93)	2.56 (.02)	1.27 (.26)	.79 (.53)
Satisfactn with co-workers, work & supervi.	.43 (.79)	2.48 (.04)	.31 (.73)	.31 (.81)	.53 (.59)	.87 (.54)	3.54 (.00)	3.17 (.01)
Physical working condition	2.82 (.02)	3.17 (.02)	1.31 (.27)	1.85 (.14)	.49 (.61)	1.34 (.22)	1.14 (.33)	2.43 (.04)
Sat with pay + work	3.49 (.00)	10.24 (.00)	2.32 (.10)	2.29 (.08)	.50 (.60)	4.70 (.00)	2.19 (.03)	8.96 (.00)
QWL	3.32 (.01)	5.65 (.00)	1.52 (.22)	.76 (.52)	.85 (.43)	3.49 (.00)	2.06 (.40)	6.74 (.00)
Amount of work	.37 (.01)	1.48 (.22)	.71 (.49)	.61 (.61)	.17 (.84)	1.86 (.06)	.88 (.52)	2.70 (.03)
Absente e-ism	1.67 (.21)	20.35 (.00)	.78 (.46)	9.94 (.00)	7.92 (.00)	4.87 (.00)	4.27 (.00)	7.07 (.00)
Continuity	.29 (.88)	1.97 (.12)	2.51 (.08)	2.57 (.05)	1.41 (.24)	2.81 (.02)	.23 (.97)	1.47 (.20)
Tardiness	.33 (.85)	2.61 (.05)	.67 (.51)	1.09 (.35)	.09 (.91)	1.80 (.07)	1.73 (.01)	3.02 (.01)
Attendance	1.15 (.33)	1.57 (.20)	.78 (.46)	1.01 (.39)	1.34 (.26)	.91 (.50)	.65 (.71)	.61 (.60)
PRODY	.98 (.41)	4.89 (.00)	1.28 (.28)	6.04 (.00)	3.54 (.02)	2.91 (.00)	1.85 (.07)	4.75 (.01)
Unempl/Lay-offs	1.85 (.12)	1.31 (.27)	1.78 (.17)	1.16 (.32)	.12 (.89)	5.07 (.00)	1.51 (.16)	2.79 (.02)

Ethnicity

With regard to ethnicity, the F-test analysis of variance results showed significant differences in the ethnicity of respondents regarding 10 variables. Where the **Duncan multiple range test** revealed those specific differences, they are reported (Appendix E3).

- With regard to interference of the job-share schedule with family and friends, the Duncan's test reveal that the Asian feels significantly more than the coloureds, blacks and whites that it would be easier under the job-share schedule to carry out activities with family and friends.
- The Asian are less affective than Coloureds and Whites regarding the current work schedule
- Blacks feel more than the Whites that the current work schedule poses problems with regard to transportation and personal security to and from work.
- Coloureds are more satisfied with the organisation , followed by the Whites and Blacks, and the least satisfied are the Asians.
- With regard to satisfaction with co-workers, work and supervision, Coloureds and whites are more satisfied than Asians and Blacks.
- The whites are significantly more satisfied with pay and work than the Asians and Blacks.
- The Coloureds and Whites are more significantly satisfied with QWL than the Blacks and the Asians.
- With regard to absenteeism, Blacks are more likely to be absent on the current schedule due to family and transportation problems than other ethnic groups.
- With regard to productivity, Coloureds followed by the Whites are likely to be more productive than the Blacks and the Asians.

Marital Status

The F-test results in table 8.4 indicate significant differences with regard to interference with activities of family and friends by the job-share schedule; interference with training, services and consumables by both the current and job-share schedule; transport and security; and autonomy and flexibility.

In most cases the Duncan multiple range test (Appendix E4) indicates that there are no significant differences between means of the single and married respondents with regard to the grouped items, but that there are differences between these two groups and the others (divorced, separated and widow/er). The divorced, separated and widow/er, more than do both married and single respondents, feel that the work schedule interferes with activities of family and friends; training, services and consumables; coordinating social and family activities; and transportation and security to and from work. The single respondents are significantly different from the other groups in that they, more than others, feel that the organisation does not give them autonomy and flexibility in work scheduling and that lay-offs, lack of skill variety and availability inhibits continuity in the organisations.

Number of Dependents

With regard to numbers of dependents, the F-test shows significant results in the following variables:- interference with family and friends of the job-share schedule; interference with training, services and consumables of the current and job-share schedule; difficulties in transport and personal security; absenteeism; continuity; and productivity.

In most cases the Duncan multiple range tests (Appendix E5) indicate that there are no significant differences between means of the respondents with dependants with regard to

the grouped items, but there are differences between these groups and those that have no dependants. Those with no dependants, more than others, feel that the work schedule does not interfere with training, services, and consumables; activities to do with family and friends; work co-ordination; and transportation and personal security. Those that either have one or no dependants are less likely to be absent from work than those with two or more dependants. They also are likely to be more productive than others with more dependants.

Source of income

The F-test results indicate significant differences regarding interference with activities of family and friends by the job-share schedule; interference with training, services and consumables by both the current and job-share schedule; transport and security; absenteeism; and productivity.

In all cases the Duncan multiple range test (Appendix E6) indicates that there are no significant differences between means of those respondents whose source of income is either their own salary, or their own plus the spouse's and family's, with regard to the grouped items. There are however, differences between these groups and those in the "other" sources of income category in three instances. These, more than do the other respondents, feel that the current work schedule does not interfere with training, services and consumables; but that the job-share work schedule would; and that it would interfere with activities of family and friends. These are also more likely to be absent from work due to family and transportation problems and more likely to be less productive.

Industry to which the employee's organisation belongs

The F-test results indicate significant differences with regard to receptivity to change; interference with activities of family and friends and with training, services, and

consumables by the current schedule; its effects on social and family life activities; transport and personal security; satisfaction with the organisation; autonomy and flexibility; satisfaction with pay and work; QWL; absenteeism; continuity; productivity; and unemployment.

The **Duncan multiple range test** (Appendix E7) indicates that there are significant differences between means of the grouped items as reported below:

- Those who come from the transport industry are less receptive to change than those from the other industries.
- Those from the transport and wholesale industry feel more than do those from the other industries, that the current work schedule does interfere with activities with family and friends.
- Those from the community/education/health/social services and mining industries, more than those from other industries, feel that the current schedule does not interfere with training, services and consumables.
- Those from the transport industry significantly differ from others in that they, more than others, feel that the current schedule does not interfere with social and family activities.
- Those from the construction and electricity/water/gas industries significantly differ from those in other industries, in that they, more than the others, feel that the current schedule does not pose transportation and personal security problems.
- Those in mining, transport and finance industry are significantly more dissatisfied with the organisation than those from other industries.

- Those in construction, electricity/gas, community/education/health industries are significantly more satisfied with the autonomy and flexibility the organisation gives them than those from other industries.
- Those in electricity/gas, mining, agriculture and construction industries are significantly more satisfied with the pay and work than those from other industries.
- Those from electricity/gas, construction and agricultural industries are significantly more satisfied with QWL than those from other industries.
- Those from wholesale and manufacturing industries are significantly more likely to be absent from work due to family and transportation problems than those from other industries.
- Those from construction, agricultural and finance industries are significantly likely to be more productive than those from other industries.
- Those from the transport industry experience more continuity problems due to lay-offs, lack of skill availability and variety than those from other industries.
- Those from the construction industry have a more negative attitude towards employment prospects than those from other industries; whilst those from the mining industry have a more positive attitude toward employment prospects.

Area of work

The F-test results indicate significant differences with regard to work coordination; transport and personal security; satisfaction with the organisation; satisfaction with pay and work; absenteeism; and tardiness.

The **Duncan multiple range test** (Appendix E8) indicates that there are significant differences between means of those respondents on the grouped items as reported below:

- Those from the social work, and counselling and manufacturing area of work significantly differ from those in other areas, in that they, more than the others, feel that the current schedule does pose transportation and personal security problems.
- Those from the clerical/secretarial, education and banking areas are significantly less satisfied with their organisation than those from other areas.
- Those in the area of counselling/social work are significantly more satisfied with co-workers, work and supervision than those from other areas; and those from clerical/secretarial, banking and manufacturing area of work are significantly less satisfied with co-workers, work and supervision than those from other areas.
- Those in the area of counselling/social work and administration are significantly more satisfied with pay and work than those from other areas; and those from the banking area of work are significantly less satisfied with pay and work than those from other areas.
- Those in the area of counselling/social work and administration are significantly more satisfied with QWL than those from other areas; and those from banking, manufacturing and clerical/secretarial area of work are significantly less satisfied with QWL than those from other areas.
- Those in the area of counselling/social work and administration are significantly more likely to be absent from work than those from other areas.

Position in the organisation

The F-test results indicate significant differences with regard to receptivity to change; general effect; effects on social and family activities; transport and personal security; satisfaction with the organisation; satisfaction with co-workers, work and supervision; physical working conditions; satisfaction with pay and work; QWL; worker energy; absenteeism; and tardiness; productivity; and unemployment.

The **Duncan multiple range test** (Appendix E9) indicates that there are significant differences between means of those respondents on the grouped items as reported below:

- Those in top management positions are significantly more receptive to change than those in other positions.
- Those in top management positions are significantly more favourably disposed (general affect) to the current schedule than those in other positions.
- Those in top management positions feel significantly more than those in other positions that the current schedule does not have adverse effects on social and family relations.
- Those in top management and supervisory positions, more than others, do not feel that the current schedule poses problems with regard to transport to and from work and personal security.
- Those in top management position are significantly less likely to be late for work (tardy); more satisfied with co-workers, work and supervision; more satisfied with the physical conditions, pay and work; and QWL under the current schedule than those in other positions.

- Those in top management positions feel significantly more than those in other positions that under the current schedule the amount of work is satisfactory; they are less likely to be absent from work; they are productive; and they are positive about employment prospects.

Table 7.5 reports the analysis of variance (T-values) for the nominal variables, gender, union membership and representation.

Gender

The T-test results (for Duncan means, see Appendix E1) indicate significant differences with regard to interference of the current work schedule with family and friends, and training, services and consumables; and lay-offs/unemployment. The females more than the males feel that the current schedule interferes with family and friends, and training, services and consumables. The females are more negative than males about employment prospects.

Union membership

The T-test results (for Duncan means, see Appendix E10) indicate significant differences with regard to receptivity to change; transport and personal security; satisfaction with pay and work; and amount of work. The union members are less receptive to change than the non-union members; they also feel that the current schedule poses transportation and personal security problems; they are more dissatisfied with pay and work; and the amount of work than the non-union members.

TABLE 7.5: ANALYSIS OF VARIANCE (T-TEST) FOR DEMOGRAPHIC VARIABLES AGAINST GROUP RESPONSES (EMPLOYEES)

Label	Gender T (p)	Union member T (p)	Union Repre. T (p)
Recepti- vity to change	-.31 (.76)	2.22 (.02)	-.40 (.68)
Interfer. fam. + friends - current	-2.45 (.01)	.45 (.65)	.10 (.91)
Interfer. Fam. + friends - job-share	-.40 (.69)	-.12 (.90)	1.24 (.21)
training, sce + consum- able- current	-2.84 (.00)	.78 (.42)	1.52 (.12)
training, sce + consum- able- job- share	-1.64 (.10)	.67 (.49)	1.24 (.21)
General effect	1.11 (.26)	-1.53 (.12)	-1.17 (.28)
Work coord.	.22 (.82)	-1.30 (.19)	-1.73 (.08)
Effects social & family	.75 (.45)	-.30 (.75)	-1.84 (.06)
Autonom & flexibil	.65 (.51)	.95 (.34)	.03 (.97)

Label	Gender T (p)	Union member T (p)	Union Repre. T (p)
Satisfactn with co- workers, work & supervi.	-.20 (.84)	-1.29 (.19)	-.61 (.57)
Physical working condition	.64 (.51)	-1.17 (.24)	-.55 (.57)
Dissat With work + pay	.87 (.38)	-2.16 (.03)	-.03 (.95)
QWL	1.06 (.28)	-1.13 (.25)	.23 (.81)
Worker energy	1.26 (.20)	-2.46 (.01)	-2.34 (.01)
Absentee- ism	-.00 (.99)	-1.18 (.23)	-1.94 (.05)
Continui- ty	.47 (.63)	-1.10 (.27)	-2.57 (.01)
Absente. Intention	.00 (.99)	-1.29 (.76)	.24 (.80)
Atten- dance	.68 (.49)	1.06 (.28)	-.69 (.48)
PRODY	1.05 (.29)	-.82 (.48)	-2.27 (.61)
Unempl/ Lay-offs	3.44 (.00)	.69 (.48)	1.08 (.28)

Union representation

The T-test results (for Duncan means, see Appendix E11) indicate significant differences with regard to amount of work; absenteeism and continuity. The union representatives are more dissatisfied with the amount of work than the non-union representatives; they also are more prone to absenteeism; and feel that there are continuity problems under the current schedule due to lay-offs and lack of skill variety and availability. They are also less likely to be productive.

The analysis of variance results for the job-seekers for demographic factors and the grouped items, are presented in table 7.6 and reported below.

Gender

The T-test results indicate significant differences with regard to interference of the current work schedule with family and friends, and training, services and consumables. The females more than the males feel that the current schedule interferes with family and friends, and training, services and consumables.

Ages , marital status, and number of dependants

No group had means significantly different with regard to the grouped items.

Ethnicity

The T-test results indicate significant differences with regard to interference of the current work schedule with training, services and consumables. The whites more than the blacks feel that the current schedule interferes with access to training, services and consumables.

TABLE 7.6: ANALYSIS OF VARIANCE FOR DEMOGRAPHIC VARIABLES GROUP RESPONSES (JOB-SEEKER)

Label	Gender T (p)	Age F (p)	Ethnicity T (p)	Marital status T (p)	Dependts F (p)	Period unempld F (p)
Interfer. fam. + friends - current	-2.81 (.00)	.17 (.84)	-1.46 (.15)	-.09 (.28)	.92 (.43)	4.02 (.00)
Interfer. Fam. + friends - job-share	-1.87 (.06)	.06 (.94)	.22 (.82)	-.18 (.86)	.18 (.91)	.90 (.46)
training, sce + consum- able - current	-3.30 (.00)	.27 (.76)	-2.1 (.04)	-1.89 (.06)	.67 (.57)	1.94 (.11)
training, sce + consum- able -job- share	-.74 (.46)	.16 (.86)	.40 (.69)	.40 (.69)	.04 (.99)	.80 (.53)

Period of unemployment

The F-test results indicate significant differences with regard to interference with activities of family and friends by the job-share schedule. The Duncan multiple range test indicates that those who have been unemployed for less than 6 months and at least for four years feel more than others that the current work schedule would interfere with the activities with family and friends.

7.7 SUMMARY AND DISCUSSION OF THE RESULTS

The results above reveal that some of the subgroups are less dissatisfied with the current work scheduling practices and work schedules than others. To this degree, one would

conclude that the respondents in this category would more likely to be willing to job-share than those that are satisfied with the current work schedule. These, based on the results above would include the younger; asians and blacks; divorced, separated, and widow/er; single; those that have dependants; from social work/ counselling, clerical/secretarial, education and banking areas; those at the operative, supervisory and middle-management level; female workers and job-seekers; the union members and representatives; and those that have been unemployed for less than six months or for at least four years. In most of these cases the characteristics of those prone to job-sharing appear to be the same as those revealed in the literature in Chapter Two. These differences will be discussed further in subsequent chapters, as they relate to specific research questions.

7.8 CONCLUSION

This chapter presented the rationale for the statistical analysis; the statistical tools used in the study; the descriptive statistics; and the analysis of variance for the demographic factors in relation to the grouped means. The next chapter presents the results for Research Question Number Two. The first research question was addressed through the literature reviewed in chapters two to five.

CHAPTER 8

RESULTS FOR RESEARCH QUESTION TWO

8.1 INTRODUCTION

The previous chapter presented the statistical techniques used in the study; the descriptive statistics; grouped means; and analysis of variance for the demographic variables on grouped means. This chapter presents and interprets the results for Research Question Two.

8.2 RESULTS FOR RESEARCH QUESTION TWO

Research Question Two sought to determine whether employees, employers and job-seekers would be willing to job-share. To address this question two objectives were set. The **first objective** sought to determine whether job-sharing is perceived as a suitable and preferred work schedule. The **second objective** sought to explore the differences amongst subgroups in their willingness to job-share as measured by whether they perceived it as a suitable and preferred alternative work schedule. The results for objective one will be presented first, in the following section.

8.2.1 Results for Research Question Two, Objective Number 1:

“To determine through the survey of workers, organisations and job-seekers whether job-sharing is perceived as a suitable and a preferred work schedule.”

This section presents the results for the first objective of the second research question as stated above. The descriptive statistics (frequencies and means) for all three samples are reported in three tables; table 8.1a; 8.1b; and 8.1c. To facilitate comparison of the results reported in these tables, a fourth table (8.1d), gives a comparative summary of the results. Table 8.1a, which reports the descriptive statistics for perceived suitability of the job-share, is presented first.

TABLE 8.1a: Suitability of the job-share schedule

Suitability of job-sharing	Employees %	Job-seekers %	Organisation %
Very suitable	14	36	–
Suitable	22	32	33
Neither	16	18	27
Unsuitable	18	8	33
Completely unsuitable	30	5	7

Table 8.1a tabulates the frequencies for the employees (workers), and job-seekers and organisations with regard to their responses on a scale of 1 to 5 (1 = very suitable and 5 = completely unsuitable) as to whether they perceive the job-sharing schedule to be suitable to themselves. These frequencies above reveal that 36% of the workers see it as suitable (very suitable + suitable). 68% of the job-seekers feel it would be suitable (very suitable + suitable). For the respondents from the organisation, 33% said it would be suitable. Table 8.1b, which reports the results for the preference of the work schedule for the three samples, is presented next.

TABLE 8.1b: Preference of the schedule.

Preference of work schedule	Employees %	Job-seekers %	Organisation %	
			beneficial	preference
Current/Full-time schedule	67	85	50	54
Job-share schedule	23	15	21	15
Other	10	—	29	31

Table 8.1b reports the frequencies of the responses with regard to which schedule the respondents preferred personally. 23% Of the employees would prefer the current schedule and 10% would prefer some other alternative to the current work schedule. 15% of the job-seekers would prefer it as an option. For the respondents from the organisation 15% perceive it as a preferable schedule, whilst 31% would prefer some other alternative. 21% of the respondents from the organisation perceive that job-sharing would be beneficial to the organisation, whilst 29% felt that some other alternative would be more beneficial than the current schedule. Table 8.1c below reports the frequencies for the job-seekers with regard to what they would opt for if they were given no option but to job-share.

TABLE 8.1c: Suitability of the job-share schedule (job-seeker given job-share option).

Job-seeker given no option, but to share %	
Suits me best	22.3
Because unemployed	40.2
Accept temporarily	31.3
Not at all	6.3

The results in table 8.1c above, indicates that upon being asked whether they would accept a job offer if given no option but to share, 22% of the job-seekers said they would accept, it because that is what would suit them best. 40% said they would accept because they are currently unemployed. 31% said they would accept it temporarily until they found a full-time job. Only 6% said they would not accept it at all. Table 8.1d below summarises the results on perceived suitability and preference of the job-share schedule for all three samples.

TABLE 8.1d: Suitability and preference of the job-share schedule (all samples).

SAMPLE	SUITABILITY OF JOB-SHARE (%)		PREFERENCE OF JOB-SHARE (%)	SUITABILITY WITHOUT OPTION (%)	
	SUITABLE	UNSUITABLE		PERM	TEMP
EMPLOYEE	36	48	23		
ORGANISAN.	33	40	15		
JOB-SEEKER	68	13	15	62	31

Table 8.1d above reports the frequencies of those that either felt that job-sharing is suitable or unsuitable; those that preferred the job-share schedule and those job-seekers that would opt for job-sharing if that was the only offer they were given. Those that perceived the job-share schedule as neither suitable or unsuitable are not included in table 8.1d. Those that either preferred the current work schedule or some other alternative are also not reported in this table. For the job-seekers, only those who either said they would accept job-sharing as a permanent or temporary option are included in the table. Those that would not accept it at all are excluded from the table.

Thus, while a relatively larger number of the respondents perceived job-sharing as suitable, a comparatively smaller percentage would personally prefer to job-share. However for the job-seekers, if offered a job-sharing position, the majority (62%) would accept it permanently, either because it suits them best or because they are unemployed.

It would seem from the results of the workers and the organisations that those who ranked job-sharing as suitable (table 8.1a) did not like the current (full-time) work schedule. These, in terms of the preference of the work schedule, either preferred the job-sharing work schedule or some other alternative. In this regard the percentage of the respondents who ranked job-sharing as a suitable alternative work schedule (36% for employees, and 33% for organisations), and the total of those who preferred job-sharing or some other alternative (workers: $23 + 10 = 33\%$, & organisation: $15 + 31 = 36\%$) appeared to correspond. Thus it would appear from these frequencies that if the only alternative work arrangement to the current work schedule was job-sharing, approximately 36% of the employees and the organisations would opt for it. The next section presents the results for the second objective of the Research Question Two.

8.2.2 Results For Question Two, Objective Number 2:

“To explore through the survey of workers, organisations and job-seekers whether there are differences among subgroups in the willingness to job-share.”

The previous section presented the frequencies for the dependent variables i.e. suitability of, preference for job-sharing (willingness to job-share). This section presents the results of the second objective stated above. Analysis of variance was conducted to determine whether there are differences among the subgroups in their perception of whether or not

job-sharing would be suitable for them, and whether they would prefer it to other work schedules. The data obtained for the organisations was too small (only 15 out of 20 organisations responded) for further statistical analysis. Thus this section presents the results for the workers and job-seekers.

To determine whether there are any amongst the subgroups, in their perceptions of whether job-sharing is suitable and statistically significant differences or a preferable alternative work schedule, the F-test was used on all variables except those categorised as nominal, in which case the T-test was used (see section 7.2 & 7.4.2). The nominal variables in which the T-test was used, are gender and union representation for the workers, and marital status for the job-seekers. Table 8.2 summarizes the statistical results of the analysis of variance for the employees on selected demographic variables.

TABLE 8.2 PERCEIVED SUITABILITY OF JOB-SHARING AGAINST DEMOGRAPHIC VARIABLES

VARIABLE	EMPLOYEES	
	F/T (RATIO)	F/T (PROB)
GENDER	1,14	0,26
AGE	2,23	0,06
MARITAL STATUS	0,15	0,86
NUMBER OF DEPENDANTS	2,22	0,05
SOURCE OF INCOME	1,17	0,31
TYPE OF INDUSTRY	3,62	0,00
AREA OF WORK	3,84	0,00
POSITION IN ORGANISATION	7,70	0,00
JOB-SHARING POSITIONS	14,49	0,00
UNION REPRESENTATION	-1,06	0,30

The results in table 8.2 reports whether there are significant differences between the means of these groups with regard to their perception of the suitability of the work schedule. The analysis of variance results in table 8.2 highlights (in bold) the F-values that give significant statistical results. These results for the employees show that the number of dependents, the type of industry, the area of work, position in the organization, and the number of job-sharing positions in organisations have significant effect on whether job-sharing is perceived as suitable or not. In terms of the number of dependants, the p-value was slightly over 0.05 the level of significance (0.0518), thus no further analysis was done to determine the specific differences within the group.

To facilitate interpretation of these significant differences between the means, further analysis was conducted using a modified LSD Bonferroni test (Mendenhall & Sincich 1996:668). This test was conducted to determine which one of the groups in each category of the demographic factors (see table 8.2) accounted for the significant effects of the perceived suitability of the job-share work schedule at the 0.05 level of significance. The Bonferroni's procedure is said to be applicable in either equal or unequal sample size cases, thus appropriate for this study. Mendenhall *et al.* (1996:668) states that the

“Bonferroni procedure covers all possible comparisons of treatments, including pairwise comparisons, general contrasts or combinations of pairwise and comparisons and complex contrasts”.

The Bonferroni test at the 0.05 level of significance was conducted. Only the results that revealed significant differences will be discussed . Table 8.2a suggests that the type of industry affects the perceived suitability of job-sharing.

TABLE 8.2a: SUITABILITY OF JOB-SHARING BY INDUSTRY

(Multiple Range Tests: Modified LSD (Bonferroni) test with significance level .05)

Mean	Industry		Variable label
2.7083	Grp 3		Manufacturing
2.8889	Grp 6		Wholesale etc.
2.9200	Grp 8		Finance etc.
3.1429	Grp 9		Community etc.
3.3243	Grp 7		Transport etc.
3.3250	Grp 1		Agriculture etc.
3.3846	Grp 5		Construction
3.6842	Grp 4	*	Electricity
4.0000	Grp 2	*	Mining

(*) Indicates significant differences which are shown in the lower triangle

3 6 8 9 7 1 5 4 2 (i.e. Industry)

Table 8.2a (as shown by the asterisks) reveals that employees from the **manufacturing industry** (group 3, mean = 2.7) rated job-sharing as being significantly more suitable for their jobs than did employees in either electricity, gas and water (group 4, mean = 3.7), or mining (group 2, mean=4).

Table 8.2b reports the Bonferroni results for the area of work as it relates to perceived suitability of job-sharing.

The results in the table (8.2b) indicate that the area of work has an effect on perceived suitability of the job-sharing work schedule. Employees in **clerical and secretarial** positions rated job-sharing as being significantly more suitable (group 4, mean = 2.6) than did employees holding **administrative** positions (group 2, mean = 3.4), or other unspecified areas (group 9, mean = 3.6).

TABLE 8.2b: SUITABILITY OF JOB-SHARING AGAINST AREA OF WORK (V10)

(Multiple Range Tests: Modified LSD (Bonferroni) test with significance level .05)

(*) Indicates significant differences which are shown in the lower triangle					
Mean	Area of work	Group			Variable table
		4	5	8 7 2 1 9 3 (Area of work)	
2.6102	Grp 4				Clerical/secretarial
2.6667	Grp 5				Library
2.8077	Grp 8				Manufacturing
3.0833	Grp 7				Banking
3.3826	Grp 2	*			Administration
3.4762	Grp 1				Education
3.6344	Grp 9	*			Other areas
4.0000	Grp 3				Counselling

Position in terms of the level in the organisation also has an effect on the perception of suitability of job-sharing, as shown in table 8.2c.

TABLE 8.2C: SUITABILITY OF JOB-SHARING AGAINST POSITION IN THE ORGANISATION

(RV11)

(Multiple Range Tests: Modified LSD (Bonferroni) test with significance level .05)

(*) Indicates significant differences which are shown in the lower triangle					
Mean	Position held	Group			Variable table
		4	5	3 2 1 (Position held)	
2.9661	Grp 4				Operations/general worker
3.2258	Grp 5				Others
3.4248	Grp 3				Supervision
3.9259	Grp 2	*			Management
4.5000	Grp 1	*			Top management

Table 8.2c indicates that those employees at the operations level (general workers) rated job-sharing as most suitable at their level (group 4, mean = 2.9), than did top management (group 1, mean = 4.5), or middle management (group 2, mean = 3.9).

Whether job-sharing was perceived as suitable also depended on whether the organisation had job-sharing positions or not. The specific differences in this regard are reported in table 8.2d.

TABLE 8.2d: SUITABILITY OF JOB-SHARING AGAINST JOB-SHARING POSITIONS IN ORGANISATION (V12)
(Multiple Range Tests: with significance level .05)

(*) Indicates significant differences which are shown in the lower triangle			
		Group	
		2	4 3 5 1
Mean	Job-sharing positions	Variable table	
2.2881	Grp 2		Less than 5
2.4545	Grp 4		More than 10
2.5500	Grp 3		Between 6 & 10
3.2105	Grp 5	*	Don't know
3.6189	Grp 1	* * *	None

As indicated in table 8.2d, there is a significant difference between those that reported having no job-sharing positions and those that did. The employees that reported having less than 5 job-sharing positions rated job-sharing as more suitable (group 2, mean 2.2), than those that did not know whether they had job-sharing positions in the organisation or not (group 5, mean = 3.2), and those that had none (group 1, mean = 3.6). Those that reported having more than 10 job sharing positions perceived job-sharing as more suitable (group 4, mean = 2.4), than those that did not have job-sharing positions.

Those that reported having between 6 and 10 job-sharing positions perceived job-sharing as more suitable (group 3, mean = 2.5), than did those that reported not having job-sharing positions.

Thus it would appear that **awareness of the job-share work schedule** may have an effect on whether job-sharing was perceived as suitable or not in that those who that were aware

of, having some job-sharing positions, rated it as more suitable than those who were not aware of it.

The results for the **job-seekers** indicate that only the **period of unemployment** has a significant effect on the perceived suitability of job-sharing, as can be seen from table 8.3.

TABLE 8.3 PERCEIVED SUITABILITY OF JOB-SHARING AGAINST DEMOGRAPHIC VARIABLES

VARIABLE	JOB-SEEKER	
	F/T (RATIO)	F/T (PROB)
GENDER	0.95	0.35
AGE	0.11	0.95
MARITAL STATUS	0.31	0.75
NUMBER OF DEPENDENTS	2.06	0.13
SOURCE OF INCOME	-	-
TYPE OF INDUSTRY	-	-
AREA OF WORK	-	-
POSITION IN ORGANISATION	-	-
JOB-SHARING POSITIONS	-	-
UNION REPRESENTATION	-	-
PERIOD UNEMPLOYED	2.55	0,04

The Bonferroni multiple range test reports the specific differences in table 8.3a below with regard to the period of unemployment, as it affects perceived suitability of job-sharing.

TABLE 8.3a: Suitability of job-sharing against period unemployed: Job-seekers
 (Multiple Range Tests: LSD test with significance level .05)

(*) Indicates significant differences which are shown in the lower triangle		
GROUP		
Mean	Period unemployed	Variable table
1.6250	Grp 5	4 YEARS AND MORE
2.0833	Grp 3	1 YEAR TO LESS THAN 2 YEARS
2.0870	Grp 1	0 TO LESS THAN 6 MONTHS
2.0870	Grp 4	2 YEARS TO LESS THAN 4 YEARS
3.2222	Grp 2	6 MONTHS TO LESS THAN A YEAR
		* * * *

Those that have been **unemployed for 4 years or more** (mean = 1.6), perceive job-sharing as more suitable than those that have been unemployed for 6 months to less than a year. Also those that have been unemployed for less than 6 months, 1 to 2 years, and 2 to 4 years (means = 2.1), all perceive job-sharing as more suitable than do those who have been unemployed for 6 months to less than a year.

It would appear from these results that those who have been unemployed for a long period would not mind at all to have some job-sharing option, probably in a form of "half a loaf of bread is better than none".

The group that perceived job-sharing as least suitable are those who have been unemployed for 6 months to less than a year. This is probably because they have gone over the anxiety of just entering the unemployment pool (0 - 6 months) and hope to get a full-time job soon, whereas those who have just entered the unemployment pool might still be anxious and finding it difficult to cope with its effects, and might thus perceive job-sharing as suitable, just like those who have been unemployed for longer periods, having attempted to find employment to no avail.

The second research objective also sought to establish whether there are differences among the subgroups in their personal preference of the work schedule. The cross-tabulation, chisquare test of independence (Cooper *et al.* 1995) was used to determine whether preference of work schedule is influenced by the demographic variables. Contingency tables were constructed for statistical testing, to determine whether the classification variables are independent or not. Percentages were used, since they simplify all numbers to a range of 0 to 100, and translate the data into a standard form for relative comparison (Cooper *et al.* 1995 ; 412-413). Contingency tables are appropriate for the preference of the work schedule in that they consist of multinominal count data classified on two scales or dimensions (McClave and Benson 1994: 980).

The statistical results for the preference of the work schedule for the workers against demographic variables are presented below. Table 8.4 reports the statistical results for the chi-square test of independence for the employees.

These results in table 8.4 indicate that there are no significant differences amongst subgroups to the preferences of the work schedule with regard to gender, age, marital status, number of dependents, source of income and union representation at the 0.05 level of significance. These will not be discussed further.

There are, however, significant differences among subgroups to preference of the work schedule regarding the type of industry, area of work, position in the organisation and number of job sharing-positions in the organisation. These will be discussed further below.

TABLE 8.4: PREFERENCE OF WORK SCHEDULE AGAINST DEMOGRAPHIC FACTORS (CROSS-TABS)

VARIABLE	EMPLOYEES/WORKERS	
	Chisq. Value	Chisq. SIG.
GENDER	0,31	0,85
AGE	7,27	0,51
MARITAL STATUS	1,81	0,77
NUMBER OF DEPENDANTS	12,84	0,23
SOURCE OF INCOME	4,76	0,31
TYPE OF INDUSTRY	52,60	0,00
AREA OF WORK	31,16	0,00
POSITION IN ORGANISATION	18,46	0,02
JOB-SHARING POSITIONS	32,61	0,00
UNION REPRESENTATION	0,24	0,89

The chi-square test of independence (table 8.4) indicate that there is dependency between the type of industry, area of work, position in the organisation, number of job-sharing positions in the organisation, and personal preference of the work schedule. These are discussed next.

The numbers and percentages of the respondents from each industry who preferred the job-share schedule are reported in table 8.5 below:

TABLE 8.5: PREFERENCE OF THE JOB-SHARE WORK SCHEDULE AGAINST TYPE OF INDUSTRY (CROSS-TABS)

Type of industry	Total # against industry	Total # who pref. job-sharing	Job-share (Row) percentage	% in industry preferring job-share
1. Agriculture etc.	42	4	4.2	9.5
2. Gold mining etc.	37	2	2.1	5.4
3. Manufacturing	53	19	20.0	35.8
4. Electricity, gas, water	80	12	12.6	15.0
5. Construction	13	-	-	0.0
6. Wholesale & retail, etc.	26	10	10.5	38.5
7. Transport, comm. etc.	41	14	14.7	31.1
8. Finance, insurance, etc.	25	5	5.3	20.0
9. Community, ed., etc.	102	29	30.5	28.4
TOTAL	419	95	100	

Whether the employee prefers a specific work schedule or not depends on the type of industry he/she is in. Of all the respondents (419), 22.7% (95/419) preferred the job-share work schedule. The results in table 8.5 indicate that of all those who preferred the job-share schedule, **community**, followed by the **manufacturing** and the **transport** industry had the highest percentages. Within each type of industry the **wholesale**, followed by the **manufacturing**, **transport & communication**, **community** and **finance** divisions had the highest percentages (at least 20 %) of the respondents who preferred the job-share schedule. The **electricity**, **agriculture** and **mining** industries had the least respondents who preferred job-share, whilst **construction** had none.

The chi-square test of independence for the area of work and preference of work schedule indicate significant results at 0.05 level. Table 8.6 reports these results.

TABLE 8.6: PREFERENCE OF THE JOB-SHARE WORK SCHEDULE AGAINST AREA OF WORK (CROSS-TABS)

Area of work	Total # of respondents against area	Total # preferring job-share in area	Job-share (Row) Percentage	Percentage in area preferring job-share
Education	20	4	4.3	20.0
Administration	155	28	30.4	18.1
Counselling, Social Work	7	2	2.2	28.6
Clerical, Secretarial	60	21	22.8	35.0
Library	9	5	5.4	55.6
Medical	-	-	-	-
Banking	25	4	7.3	16.0
Manufacturing	28	12	13.0	42.9
Other	99	16	17.4	16.2
TOTAL	403	92	100	

The results in table 8.6 reveal that the preference of the work schedule and the area of work are not independent of each other but related, otherwise it would be expected that the job-share row percentages for each area would be similar or close. The row percentages vary from 2.2 to 30.4%, indicating that there is a greater degree of dependency. Out of 403 respondents approximately 23% (ie.92/403) preferred the job-share work schedule.

The area that had the highest percentage of all those who preferred the job-share schedule is **Administration** (30.4%) followed by **clerical, secretarial** (22.8%) and other unspecified areas (17.4%). The least was in the area of counselling, social work (2.2%) and education (4.3%). Within each type of area, the respondents that had the highest percentage opting for the job-share schedule are **library** (55.6%); followed by

manufacturing (42.9%); clerical secretarial (35%); counselling social work (28.68); and education (20.0%). The area that had the least respondents preferring job-sharing were in banking (16%) and others (16.2%).

As reported in table 8.7, the personal preference of the work schedule is also related to the position or level of the respondent, in the organisation.

TABLE 8.7: PREFERENCE OF THE JOB-SHARE WORK SCHEDULE AGAINST POSITION HELD (CROSS-TABS)

Position/level in organisation	Total # of respondents against position	Total # preferring job-share in position	Job-share (Row) percentage	Percentage in position preferring job-share
Top management	14	-	-	-
Middle mgt.	61	9	10	14.8
Supervisory	114	20	22.2	17.5
Operations	182	49	54.4	26.9
Other	34	12	13.3	35.3
TOTAL	405	90	100	

The preference of the work schedule is influenced by the position in the organisation. 405 Respondents, approximately 22.%(90/405) prefer to job-share. The general workers constitute of 54.4 % of this total, followed by supervisors (22.2%), others (13.3%) and finally the middle managers (10.0%).

The cross-tabulation results reported in table 8.7 indicate that of 14 top managers, none preferred the job-share schedule; of 61 middle managers, 14.8% preferred job-sharing; of 114 supervisors 17.5% preferred job-sharing; of 182 operatives, 26.9% preferred job-sharing, and of 34 respondents in other positions, 35.3% preferred job-sharing. The

results indicate that job-sharing is comparatively preferred more by operatives (general workers), and supervisors. Of all those respondents who preferred job-sharing, 54.4% were operatives and 22.2% were supervisors.

The availability of job-sharing positions in organisations also has an influence on the preference of the work schedule. Table 8.8 reports on these results.

TABLE 8.8: PREFERENCE OF THE JOB-SHARE WORK SCHEDULE AGAINST NUMBER OF JOB-SHARING POSITION IN THE ORGANISATION (CROSS-TABS)

Number of Job-sharing positions in organisation	Total # of respondents against # of job-share positions	Total # preferring job-share in each category	Job-share (column) percentage	Percentage in each category preferring job-share
None	276	42	45.7	15.2
Less than 5	63	25	27.2	39.7
Between 6 and 10	22	11	12.0	50.0
More than 10	12	5	5.4	41.7
Don't know	38	9	9.8	23.7
TOTAL	411	92	100	

From table 8.8, it can be seen that of 411 respondents 22.4% (92/411) preferred the job-share schedule. Of this total, 45.7% did not have any job-share positions, 27.2% had less than 5, 12% had between 6 and 10, 5.4% had more than 10 positions and 9.8% did not know if they had any job-sharing positions.

The respondents against the availability of job-sharing positions with regard to preference of the job-sharing schedule indicate that of 276 respondents who had none, 15.2% preferred job-sharing; of 63 respondents who had less than 5, 39.7% preferred job-

sharing; of 22 respondents who had between 6 and 10, 50% preferred job-sharing, and out of 12 respondents who had more than 10 job-sharing positions, 41.7% preferred job-sharing, and of 38 who didn't know, 23.7% preferred job-sharing.

From these results, it would appear that those who have job-share positions in the organisations are more amenable to job-sharing than those that do not have any. It can be concluded that awareness of the job-share schedule would influence preference to it. It can safely be concluded that once job-sharing is experienced, most employees would like it.

The job-seekers results as shown in table 8.9, indicate that none of the subgroup significantly differ with regard to the preference of the work schedule at the .05 level of significance.

TABLE 8.9 PREFERENCE OF THE JOB-SHARE WORK SCHEDULE AGAINST DEMOGRAPHIC VARIABLES (CROSS-TABS)

VARIABLE	JOB-SEEKER	
	Chisq Value	Chisq. SIG.
GENDER	0,40	0,53
AGE	5,29	0,15
MARITAL STATUS	3,09	0,08
NUMBER OF DEPENDENTS	2,67	0,45
PERIOD UNEMPLOYED	4,88	0,30

The chi-square results in table 8.9, as alluded to above, reveal that there are no significant differences in the preference of the work schedule with regard to gender, age, marital status, number of dependants, and period of unemployment at the 0.05 level of significance. Thus no further statistical analysis was conducted.

The study also conducted analysis of variance to test for the significance of the differences among the three sample means on similar items. The T-test which assess the statistical significance of the differences between the independent samples (Hair *et al.* 1992:162) was conducted to compare the samples of the workers and the organisation, and job-seekers. The next section presents these results on suitability of the work schedules as perceived by the three samples

8.3 COMPARISON BETWEEN THE SAMPLES ON SUITABILITY OF WORK SCHEDULE

Analysis of variance was conducted to determine whether there were any significant differences between the means of the worker, organisation and job-seeker in the perceived suitability of alternative work schedules. Table 8.10 presents the results.

TABLE 8.10: COMPARISON BETWEEN THE SAMPLES ON SUITABILITY OF WORK SCHEDULE

Variable	MEAN			F- Value	F -Prob
	Worker	Organisation	Job-seeker		
Job-sharing	3.28	3.13	2.47	29.94	0.00
Flexitime (z14)	2.10	2.42	1.90	2.41	0.11
Part-time	3.55	2.78	2.78	16.90	0.00
Compressed work-week	3.21	4.00	2.48	17.85	0.00
Full-time	2.04	2.40	1.64	7.15	0.00
Work-sharing	3.22	3.00	2.46	15.19	0.00
Flexi place	2.88	3.42	2.40	7.14	0.00

The results reveal that there are significant differences amongst the samples at the 0.05 level of significance, on all the variables except flexi-time. On the scale of 1 = very suitable and 5 = completely unsuitable, the means of all the three samples do indicate that the respondents felt that flexi-time is suitable.

On job-sharing, the job-seekers (mean = 2.14) rate it as more suitable than do the workers (mean = 3.28) and organisation (mean = 3.13) who appear not to be very sure whether it would be suitable or not. The job-seekers mean score on all other alternatives, including the full-time schedule, indicates that they feel all alternatives would be suitable. The workers mean score indicates that they feel flexi-time, full-time and to a lesser degree Flexi-place would be suitable. However, they are not sure about the suitability or unsuitability of job-sharing, regular part-time and work-sharing.

The results reveal that with regard to part-time, the mean of the workers differs significantly from that of the job-seekers and the organisation, who feel more strongly that part-time is suitable. With regard to compressed work week, all the groups differ. On work-sharing and Flexi-place, the job-seekers mean score differs significantly from the other two groups. The job-seekers feel that work-sharing and Flexi-place would be suitable more than do the workers and organisations.

The organisations appear to feel that flexitime, regular part-time and full-time are relatively more suitable than the other alternative, with regard to which they are unsure as to how suitable they would be for the organisation. They appear to feel strongly that compressed work week, (mean = 4.00) would not be suitable.

In conclusion, besides the job-seekers who feel that all work schedules would be suitable, the affective reactions of the workers and organisation vary on perceived suitability of alternative work schedule, except to a lesser degree, with regard to job-sharing, flexitime, full-time, work sharing and Flexi place.

From the results above it would appear that the job-seekers are more receptive to alternative work schedules, probably because they are at a point where any alternative is better than being unemployed, whereas the workers and organisation might be somewhat more cautious of trying something new, due to unanticipated consequences of organisational changes which might be perceived as having an adverse effect on their employment status, or "well-being" of the organisation. The next section presents the comparative results amongst the samples on the personal preference of the work schedule.

8.4 COMPARISON OF THE SAMPLES WITH REGARD TO PREFERENCE OF WORK SCHEDULE

The chi-square test is used to examine the differences (Levin 1987) amongst the workers, organisations and job-seekers in their preference for the work schedule. The contingency table 8.11, below shows the chi-square statistic value of 25.84 with a probability of 0.000 which is significant at the 0.05 level.

The results in table 8.11 reveal that there is a very significant relationship between the sample type and the personal preference of the work schedule. Of 13 organisations, 7 (53.85%) preferred the current work schedule, 2 (15.38%) preferred the job-share schedule, and 4 (30.77%) preferred some other alternative. Of 110 job-seekers, 94 (85.45%) preferred the current work schedule, 16 (14.55%) preferred job-sharing, and none preferred some other alternative. For the worker sample, of 419 respondents 280 (66.83%) preferred the current work schedule, 95 (22.67%) preferred job-sharing and 44 (10.50%) preferred some other alternative. Of 542 respondents 113 (20.85%) preferred

job-sharing. Of all those that preferred job-sharing (113 i.e. 20.85%), approximately 2% were organisations, 14% were job-seekers, and 4% were workers.

TABLE 8.11: PERSONAL PREFERENCE OF WORK-SCHEDULE - SAMPLE COMPARISONS

GROUP	220			
Percent				
Row Pct				
Col Pct	Current	Job-share	other	Total
Organisations	7	2	4	13
	1.29	0.37	0.74	2.40
	53.85	15.38	30.77	
	1.84	1.77	8.33	
Job-seekers	94	16	0	110
	17.34	2.95	0.00	20.30
	85.45	14.55	0.00	
	24.67	14.16	0.00	
Workers	280	95	44	419
	51.66	17.53	8.12	77.31
	66.83	22.67	10.50	
	73.49	84.07	91.67	
Total	381	113	48	542
	70.30	20.85	8.86	100.00
Frequency Missing = 20				
Statistic	DF	Value	Prob	
Chi-Square	4	25.836	0.000	
Likelihood Ratio Chi-Square	4	32.796	0.000	
Effective Sample Size = 542				
Frequency Missing = 20				

The results indicate that the sample that had the largest number of respondents preferring job-sharing, is the worker group (22.67%), followed by the organisations (15.38%) and lastly the job-seekers (14.55%). However, of all those preferring job-sharing the largest percentage was the job-seekers.

Job-sharing would be preferred by the workers most probably because it is a voluntary work alternative usually initiated by the workers to meet their specific needs. The job-seekers would prefer it to the degree that it would provide employment opportunities. The organisations would prefer it to the extent that it would improve worker productivity. Overall, a greater percentage perceive it as suitable among all the samples.

It is possible that familiarity with the current work schedules, causes both the workers and organisation to rate it as more preferable than any other alternative, including job-sharing.

8.5 SUMMARY OF THE RESULTS ON RESEARCH QUESTION TWO

In addressing the first objective, the descriptive statistics given above reveal that approximately one third of the employees perceive job-sharing to be suitable for the South African environment, even though only about a quarter would prefer to job-share personally.

Two thirds of the job-seekers perceive job-sharing as suitable, whilst only a quarter would prefer it. However, when asked what they would do if they were offered a job to share with someone else as well as the salaries and the benefits of the job, two thirds said they would accept it permanently. Only approximately one third said they would accept it temporarily.

One third of the organisation respondents perceive job-sharing as suitable for the South African environment whilst only 15% would prefer it personally and a third would prefer some other alternative to the current work schedule. A quarter of the respondents felt that job-sharing would be beneficial for their organisations.

The statistical results for the workers indicate that there are no significant differences amongst subgroups to the suitability and preference of the work schedule with regard to gender, age, marital status, number of dependants, source of income and union representation at the 0.05 level of significance. However, there are significant differences among subgroups to suitability and preference of the work schedule with regard to type of industry, area of work, position in the organisation and number of job-sharing positions in the organisation.

The Bonferroni test results indicated that employees from the manufacturing industry perceived job-sharing as a more suitable and preferred option to those from other industries. These statistical results also indicated the following trends: that those in the clerical and secretarial areas, at the operations level, who reported having job-sharing positions, perceived job-sharing as more suitable and preferable than other groups.

The results for the job-seekers indicated that groups differed in their perception of suitability of the job-share schedule based on the period of unemployment. Those who have just entered the unemployment pool (0 to 6 months) and those who have been unemployed for one year and longer perceived job-sharing as being more suitable than those who have been unemployed for six months to less than a year.

On comparing the sample means, the results reveal that job-seekers are more receptive to job-sharing and other alternative work schedules than workers and organisations.

8.6 CONCLUSIONS ON RESEARCH QUESTION TWO

It may be concluded from the results above that there is a willingness to job-share to the degree that it is perceived as suitable by approximately one third of the respondents, and preferred by approximately a quarter of the respondents in the case of the employees and organisations and two thirds in the case of job-seekers. With regard to the employees, whether they are willing to job-share or not, depends on the type of industry they are in; the area of work they are in; the position or level at which they are in the organisation; and whether or not they are aware of the schedule as reflected by the number of job-sharing positions available in their organisation.

In the case of the job seekers, as to whether they would perceive job-sharing as a suitable alternative work schedule to them or not depends on the period one has been unemployed. The job-seekers comparatively perceive job-sharing as more suitable and preferable than do workers and organisations.

This chapter presented the results of the second research question on whether there is willingness to job-share in RSA as measured by perceived suitability and personal preference of the job-share schedule. From the results presented above it can be concluded that there is some willingness to job-share in RSA, and more so amongst those operatives in clerical and secretarial position, who are aware of the job-sharing option and belong to the manufacturing industry, and among the job-seekers who have either just lost their jobs or have been unemployed for at least a year.

The next chapter presents the results for Research Question Three which seeks to determine whether the work environment in RSA as perceived by the respondents is conducive to job-sharing.

CHAPTER 9

RESULTS FOR RESEARCH QUESTION THREE

9.1 INTRODUCTION

The previous chapter presented and discussed the results for Research Question Two, which indicated that there is a willingness to job-share especially amongst employees from the manufacturing industry, in the secretarial and clerical areas at operations and supervisory levels, more so amongst those that are aware of the job-sharing work schedule. This chapter presents the results for Research Question Three.

9.2 RESULTS FOR RESEARCH QUESTION THREE.

The third research question was:

“Based on the opinions of employees, organizations and job-seekers, with regard to current work scheduling practices, is the work environment in South African organisations conducive to job-sharing; to what degree are employees and employers (organisations) receptive to change; and how is the degree of receptivity to change related to the willingness to job-share?”.

This research question had four objectives. The results will be presented according to the research objective, from which the conclusion will be drawn with regard to the research question.

9.2.1 Results for Objective Number One

The first objective to this question was:

“to explore the affective reactions of the workers and organizations towards the current work schedule and to determine the impact on willingness to job-share”.

The workers (employees) results will be presented first, followed by the organisation.

9.2.1.1 The workers results for objective one

For the employees' instrument, this section consisted of 14 items (see appendix B, questions 37 to 50) grouped into four constructs (also reported in table 7.2) as follows:-

General affect towards current schedule (V53 - V59) : 7 items (mean = 3,55).

Work coordination (V60 - V61): 2 items (mean = 3,69).

Effects on social and family (V62 - V64): 3 items (mean = 3,36).

Transportation and personal security (V65 - V66): 2 items (mean = 3,59).

The questions asked the respondents to indicate the degree to which they disagreed or agreed with the statements, on a scale of 1 to 5, with strongly disagree = 1 and strongly agree = 5.

The means and standard deviation of these grouped items were reported in table 7.2. The mean scores range from 3,36 for effects on social and family life to 3,69 for work coordination. A score of 5 would indicate highly affective towards the current work schedule. Thus the mean scores group around the neither agree nor disagree (3,0) towards

agree (4,0). Based on the mean scores, it can be concluded that the workers are neither satisfied nor dissatisfied with the current work schedule, but leaning somewhat toward being satisfied.

A stepwise regression was conducted to explore the relationship between the affective reactions of workers toward the current work schedule and the perceived suitability of the job-share schedule. The stepwise method was used because it is more suited to determining which variables, with regard to current work scheduling practices, would contribute most in predicting whether job-sharing is perceived as a suitable work schedule in South African organisations or not (Hair *et al.* 1992). Table 9.1 reports the results.

TABLE 9.1: EFFECT OF CURRENT SCHEDULE AGAINST SUITABILITY OF JOB-SHARING

Summary of Stepwise procedure FOR dependent variable: suitability of job-sharing (V67)						
STEP	Variable entered/ removed	Number in	Partial R**2	Model R**2	F- Value	F-Prob
1	General affect	1	0,0389	0,0389	16,09	0,00
2	Transport & personal security	2	0,116	0,0505	4,82	0,03

The variables entered in step 1 and 2 are general affect toward the current schedule and transportation and personal security, respectively. General affect toward the current work schedule explains 3,9% of the model and transportation and personal security under the current work schedule adds 1,2%, which is the next highest increment to R-square, raising it up to 5,1%. Even though these only explain 5% of the variation in suitability of the job-sharing work schedule, they are the two most significant explanatory variables with regard to the workers' attitudes toward the current work schedule. Thus whether

respondents perceive job-sharing as a suitable alternative work schedule or not, depends on how they feel about the current work schedule and whether it poses transportation and personal security problems or not.

Analysis of variance results reported in Chapter 7 (table 7.4) revealed that the older employees are more satisfied with regard to the general affect relating to their work environment than younger ones as well as the whites and coloureds and those in management positions than those in other categories. These were also reported as not having transport problems to and from work.

The analysis of the respondents' preference of the work schedule against their affectivity toward the current work schedule, was done through discriminant analysis. The discriminant analysis was used instead of multiple regression because the dependent variable, preference of the work schedule (V80) is categorical or nominal, whilst the independent variables are metric or continuous (Hair, Anderson, Tatham & Black 1992). Stepwise discriminant analysis was used where there were more than one independent variables to discover and select the most useful discriminating variables. The results for the discriminant analysis are presented in table 9.2.

The summary table of the discriminant analysis results presented in table 9.2 indicate that all four the variables (constructs) entered the analysis and are significant discriminators based on their Wilk's Lambda and minimum D^2 values, which are a multivariate measure of group differences over several variables (Klecka 1980). The analysis reveals that transportation and personal security (V65-66) entered first, followed by general affect toward the current schedule (V53-59), work coordination (V60-1) and lastly, effects on social and family life (V62-64).

**TABLE 9.2: REACTION TO CURRENT SCHEDULE AGAINST PREFERENCE TO
JOB-SHARING**

Summary Table						
Action	Vars	Wilks'	Minimum			
Step Entered	in	Lambda	Sig.	D Squared	Sig.	Between Groups
1 Transport	1	.90245	.0000	.15293	.0186	Current & other
2 General affect	2	.78622	.0000	.25313	.0274	Current & other
3 Work co-ordination	3	.75520	.0000	.84784	.0000	Current & other
4 Social & family	4	.73878	.0000	.85066	.0001	Current & other

Canonical Discriminant Functions										
Fcn	Eigen- value	% of Var	Cum %	Canonical: Corre.	After :	Fcn	Wilks' Lambda	Chi- square	df	Signi- ficance
					:	0	.7388	123,3730	8	.0000
1*	.2773	82,29	82,29	.4660	:	1	.9437	23,6215	3	.0000
2*	.0597	17,71	100,00	.2373	:					

* Marks the 2 canonical discriminant functions remaining in the analysis.

Structure matrix: Pooled within groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function).

	Func 1	Func 2
General affect	.87963*	-.23221
Social & family	.77115*	.13470
Transport	.59516*	.40636
Work co-ordination	.52366	.68301*

* denotes largest absolute correlation between each variable and any discriminant function.

Canonical discriminant functions evaluated at group means (group centroids)

Group	Func 1	Func 2
CURRENT (1)	.36221	-.00338
Job-share (2)	-.77245	-.28389
OTHER (3)	-.73248	.63755

Classification results:
Percent of "grouped" cases correctly classified: 73,30%. Proportional chance criterion: 49,2%

The canonical discriminant functions reveal that only two functions entered the analysis. Of the two functions, function 1 has an eigenvalue of ,28 and function 2 has an eigenvalue of ,06. The function with the largest eigenvalue is the most powerful discriminant (Hair *et al.* 1992). The 82,29% for function 1, as compared to the 17,71% for function 2, does reveal that function 1 is stronger than the second function. Thus function 1 is more meaningful and, as can be seen from the canonical correlation, it has

more utility in explaining group differences (Klecka 1980). That is, 82,29% of the variance in the dependent variable (preference of the work schedule) can be accounted for (explained) by this model, which includes four independent variables.

The canonical correlation, a measure of association which summarizes the degree of relatedness between the three groups and the discriminant function, is also reported. A value of zero would denote no relationship at all, while a large value (always positive) represents increasing degrees of association, with 1,0 being the maximum (Hair *et al.* 1992). The Wilk's Lambda and the Chisquare test indicate that the variables and the function entered are significant at the 0,05 level of significance.

The structure matrix shows pooled within-groups correlations between discriminating functions, with variables ordered by size of correlation within the function. A structure coefficient tells us how closely related a variable and a function are. The structure matrix reports the independent variables, ordered from the one with the highest contribution to predicting the dependent variable (preference of the work schedule). Since stepwise procedures are used, only variables that are significant discriminators enter the function (Hair *et al.*, 1992). As shown in table 9.2 above, all the coefficients on function 1, except work coordination (v60-61), are marked with an asterisk indicating that they explain more of the variation in the dependent variable. However, it may be concluded that all the variables (constructs) would influence the work schedule which one prefers personally. The second function does not have significant coefficients, except for work coordination (v60-61), which has the largest absolute correlation with it.

The group centroids on function 1 differentiates between group 1 (current schedule), versus group 2 (job-share schedule) and group 3 (other alternative work schedules). This

implies that group 1 significantly differs from both group 2 and 3. That is, this function makes a distinction between those that would prefer the current schedule and those that would prefer job-sharing or some other alternative work arrangements. The hit ratio or percent of “grouped” cases correctly classified is 73,30% as opposed to 49,20% by chance, indicating a high predictive power of the function.

It is evident from the results above that with respect to the affective reactions of workers to the current work schedule, the independent variables which make the greatest contribution in discriminating between those that prefer the current work schedule, job-sharing or some other work schedule are:

- general affect toward the current work schedule
- effects of the work schedule on social and family life
- transportation and personal security under the current schedule and
- work coordination, respectively.

Thus it may be concluded that whether respondents (workers) personally prefer to job-share or not, depends on how satisfied they are with the current work schedule generally and with regard to its effect on their social and family life; transport to and from work and personal security; and how easy or difficult coordinating the work with that of others is. The results for the organisation are presented in the next section.

9.2.1.2 The organisations' results for objective one

The results for the organization, on affectivity toward current work schedule, are presented in table 9.3 below.

TABLE 9.3: AFFECTIVITY OF ORGANISATIONS TOWARD THE CURRENT SCHEDULE

	Disagree	Neutral	Agree	Mean
Employees are very productive under current schedule (V24)	40%	13,3%	46,7%	3,07
The current work schedule encourages employees to do their best (V25)	20%	46,7%	33,3%	3,13
Most employees are satisfied with the current work schedule (V26)	20%	33,3%	46,7%	3,27
The current schedule provides good client access to the services of the organization (V27)	13,4%	40%	46,7%	3,33
The current method of scheduling causes problems in coordinating work amongst co-workers (V28)	33,3%	46,7%	20%	2,87
AVERAGE TOTALS	25,3%	36 %	38,7%	3,13

In the organisation instrument (appendix C), V24 – 28, items measure the affectivity to current work schedule. The statements required a ranking response on a scale of 1 – 5 with 1 = strongly disagree and 5 = strongly agree. The results presented in table 9.3 above have been regrouped into three categories, A = agree + strongly agree, N = neither/nor and D = disagree + strongly disagree. Since these items measure one construct, general affect, the average frequencies and mean scores are used for final analysis and interpretation.

The frequencies indicate that most respondents representing the organisations like the current work schedule but not to a very large degree. The average percentage above shows that 39% of the respondents felt that under the current work schedule employees are very productive; are encouraged to do their best; are satisfied; and that the current work schedule provides good client services and that there are no work coordination

problems. However 25% disagreed on these aspects and may be said to be less affective toward the current work schedule. The mean results (3,13) indicate that the organisations are neutral with regard to their affectivity toward the current work schedule.

Since the sample size was too small for statistical analysis, with regard to suitability and preference of the job-share work schedule for the organisation, no regression or discriminant analysis could be conducted. Only frequencies and means could be reported (See chapter 8 table 8.1a & b). 33% of the respondents perceived job-sharing as suitable, as opposed to 40% who felt it was unsuitable for their organization. 50% felt the current schedule was more beneficial to their organization than the job-share schedule (21%) or some other alternative would be. With regard to personal preference, 54% preferred the current work schedule, whilst 15% preferred the job-share schedule and 31% some other alternatives

The results of both the workers and the organisation, reported above, reveal that their affective reactions indicate that most respondents are neutral with regard to the current full time work schedule, leaning toward liking it. The workers' feelings toward the current schedule to some extent, do influence their perceptions with regard to the suitability of the job-sharing work schedule and the personal preference of a work schedule. Thus it may be concluded that the affective reactions of employees toward the current work schedule do have some impact on the willingness to job-share. The results for the second objective are presented next.

9.2.2 Results for Objective Number Two

Results for Research Question Three, objective number 2, are reported below. The objective was:

“To explore the perceived interferences of the work schedules with non-work activities by the employees and job-seekers, and to determine the relationship to their willingness to job-share”. The results for the workers are presented first.

9.2.2.1 The workers results for objective two.

Table 9.4. presents the grouped mean results for the workers pertaining to the perceived interference with opportunities to do other things, caused by the schedule.

TABLE 9.4: INTERFERENCE CAUSED BY SCHEDULE (GROUPED MEANS)

<i>Variable</i>	<i>Number of respondents (workers)</i>	<i>Mean</i>	<i>Std Dev.</i>		
<i>Interf: fam./friends - Current</i>	416	2,93	0,94		
<i>Interf: fam./friends - job-share</i>	310	2,49	0,89		
<i>Interf.: training/ SVCS - Current</i>	414	2,94	0,84		
<i>Interf.: training/ SVCS - Job-share</i>	305	2,58	0,84		
Variable	Mean	Std Dev.	T- Value	T - Prob @ 0,05	
Interf: fam./friends	0,43	1,11	6,85	0,00	
Interf.: training/ SVCS	0,33	1,00	5,72	0,00	

Respondents were asked on a scale of 1 (very easy) to 5 (very difficult) to indicate how difficult an activity is (would be) under the current and job-share work schedules.

The grouped means for the employees in table 9.4 reveal that they all cluster around the neither/nor point on the scale. This indicates that respondents do not feel that either one of the schedules would interfere to a large extent with non-work activities such as with family and friends and access to training, services and consumables. The means for the current work schedule is higher than those of the job-share schedule. This indicates that it would be relatively easier to engage in non-work activities under the job-share schedule than under the full-time option. This is further confirmed by the t-test at 0,05 level of significance, which reveals that there is a statistically significant difference between the current work schedule and the job-share schedule with regard to the grouped means of the interference caused by the schedule. The job-share schedule would interfere less with activities of family and friends and access to training, services, events and consumables.

To determine the relationship between the interference caused by the schedule and perceived suitability of the job-share schedule, the stepwise regression analysis was conducted and the results are reported in table 9.5.

TABLE 9.5: INTERFERENCE CAUSED BY THE CURRENT WORK SCHEDULE

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V67)						
STEP	Variable entered/ removed	Number in	Partial R**2	Model R**2	F- Value	F-Prob
1	Training, services & consumables - current	1	0,0059	0,0059	2,28	0,13

The results given in table 9.5 indicate that one (interference with training, services & consumables) of the two variables entered the analysis and remained in the equation with

regard to interference caused by the current work schedule (V26-32, V33-38), as it relates to suitability of job-sharing (V67). Interference with activities with family and friends of the current work schedule, as the other independent variable, did not enter the analysis. The variable (construct) explained 0,59% of the variation in perceived suitability of the job-share work schedule and was significance at 0,15 level of significant, not at 0,05. Thus it can be said that it is not a very strong explanatory variable.

Under the job-share work schedule neither one of the variables met the 0,15 significance level for entry into the analysis. In other words, under the job-share work schedule neither interference with the activities with family and friends, nor interference with training, services and consumables were perceived as significant predictors of perceived suitability of the job-sharing work schedule. This might be because under the job-share work schedule these activities would not be difficult to do given the extra time available.

The **stepwise discriminant analysis** results on preference of the work schedule (V80) against interference of the current work schedule (V26-32, V33-38), are reported in table 9.6.

Table 9.6 provides the overall stepwise discriminant analysis results after all significant discriminators have been included in the estimation of the discriminant function. The summary table indicates that both (two) variables (V26-32, V33-38) entered the analysis and are significant discriminators based on their Wilk's Lambda values.

The canonical discriminant functions indicate that two functions were derived. These functions are statistically significant as measured by the Chisquare statistic. Function 1 accounts for 89,60% of the variance, thus it is the most relevant. The hit ratio (grouped

cases correctly classified) of 69,23% as compared to the chance ratio of 48,80% indicates the function is a valid predictor of the model.

TABLE 9.6: INTERFERENCE CAUSED BY THE CURRENT WORK SCHEDULE

Summary Table									
Step Entered	Action	Vars in	Wilks' Lambda	Sig.	Minimum D Squared	Sig.	Between Groups		
1	Training, Services, etc.	1	.94882	.0000	.05624	.2006	Current & other		
2	Family & friends	2	.90198	.0000	.20857	.1275	Current & other		
Canonical Discriminant Functions									
Fcn	Eigenvalue	Pct of Variance	Cum Pct	Canonical Corr	After Fcn	Wilks' Lambda	Chi-square	df	Sig
					: 0	.9019828	41,2123	4	.0000
1*	.0964	89,60	89,60	.2965:	1	.9889294	4,4474	1	.0350
2*	.0112	10,40	100,00	.1052:					
* Marks the 2 canonical discriminant functions remaining in the analysis.									
Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)									
		Func 1	Func 2						
Family & friends		.99810*	.06155						
Training, Services, etc		.70830*	.70591						
* denotes largest absolute correlation between each variable and any discriminant function.									
Canonical discriminant functions evaluated at group means (group centroids)									
Group	Func 1	Func 2							
Current	-.21442	-.00349							
Job-share	.42677	.13859							
Other	.48164	-.25242							
Classification results -									
Percent of "grouped" cases correctly classified: 69,23%. Proportional chance ratio: 48,80%									

The structure matrix indicates that each one of the two variables has a large explanatory power of the differences in the preference of the work schedule. From the group centroids, there appear to be differences in the preferred work schedule, based on the

interference caused by the work schedule. The primary source of difference for function 1 is between those that prefer the current work schedule, versus those that prefer job-sharing and other alternative work schedules.

Thus it can be concluded that with regard to the interference with opportunities to undertake common activities under the current work schedule, the main predictors of the preference of the work schedule are:-

- Interference with activities with family and friends and
- Interference with access to training, services, events and consumables.

That is, whether workers prefer one schedule over another would depend on the perceived interferences which the current work schedule has with opportunities to undertake non-work activities, as stated above.

With regard to **interference caused by the job-share schedule** (V39 -45, V46 - 51) and the suitability of the work schedule (V67), step wise regression results indicated that no variable met the 0,15 significant level for entry into the model. Thus, under the job-share work schedule none of the variables included in the analysis would influence the perception of workers with regard to whether job-sharing is suitable or not.

9.2.2.2 The job-seekers results for objective two.

This section presents the results for the job-seekers on perceived interference of the work schedule with opportunities to do other things and it's relationship to perceived suitability and preference of the work schedule. The dependent variable is measured on three

dimensions, perceived suitability of job-sharing (V9), personal preference of the work schedule (V21) and the choice, given a job-sharing position (V30).

The grouped means for the interference with family and friends, as well as with access to training, services and consumables for the respective work schedules (current and job-sharing) are presented in table 9.7.

TABLE 9.7: INTERFERENCE CAUSED BY SCHEDULE (GROUPED MEANS)

Variable	Number of respondents	Mean	Std Dev.	
Interf: fam./friends -Current	112	2,33	0,60	
Interf: fam./friends -job-share	114	2,51	0,74	
Interf.: training/ SVCS - Current	114	2,44	0,65	
Interf.: training/ SVCS - Job-share	109	2,74	0,85	
Variable	Mean	Std Dev.	T- Value	T - Prob @ 0,05
Interf: fam./friends	-0,09	0,64	-0,5	0,14
Interf.: training/ SVCS	0,17	0,38	4,9	0,00

The means results, in table 9.7 above, indicate a general rating of easy to neutral, with regard to the difficulty encountered in participating in other non-work activities under the current (full-time) and job-share work schedule. These results also indicate that the job-seekers feel that it would be easy to be involved in other activities under either of the work schedules, but relatively easier under the current work schedule. This is probably

because they would not have enough money to engage in other activities though they may have the time under the job-share schedule. The t-test shows statistically significant results at the 0,05 level of significance for interference with access to training, services, events and consumables. That is, there is a difference between the two schedules with regard to whether they are perceived as interfering with non-work activities. The mean results indicate that the job-seekers feel that the job-share schedule would interfere with access to training, services, events and consumables relatively more than the current schedule.

Stepwise regression was conducted to expose predictor variables; The current and job-share interference with activities with family and friends (V31-37, V44-50) and interference with access to training, services, events and consumables (V38 - 43, V51 - 56) with regard to suitability of the job-sharing work schedule (V9), but no variable was significant to enter the analysis.

Discriminant stepwise mahalanobis distance analysis (Hair *et al.* 1992) was conducted to explore these predictor variables, under both the full-time and job-share work schedules, for the preference of work schedule (V21), no variable qualified for the analysis in both cases, so no further analysis was conducted.

Discriminant analysis was also conducted on groups defined by choice of option if offered a job-sharing position (V30), against the activities that might be interfered with under the full-time and job-share work schedule. For the current, full-time work schedule (V31-37, V38 – 43) no variable qualified on stepwise variable selection and thus no analysis could be done. Analysis could only be done for the job-share schedule (V44-50, V51-56). These results are presented in table 9.8.

TABLE 9.8: PREFERENCE OF WORK SCHEDULE BY INTERFERENCE CAUSED BY JOB-SHARING

DISCRIMINANT /GROUPS=v30(1 4) /VARIABLES=v44-50, V51-56

Summary Table

Action	Vars	Wilks'	Minimum				
Step Entered	Removed	in	Lambda	Sig.	D Squared	Sig.	Between Groups
1	Training/ services etc.	1	.93317	.0691	.01273	.6317	2 3

Canonical Discriminant Functions

Fcn	Eigenvalue	Pct of Variance	Cum Pct	Canonical Corr	After Fcn	Wilks' Lambda	Chi-square	df	Sig
1*	.07161	100,00	100,00	.2585	0	.933174	7.089	3	.0691

* Marks the 1 canonical discriminant functions remaining in the analysis.

Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)

	Func 1
Training, services etc.	1.00000
Family & friends	.69565

Canonical discriminant functions evaluated at group means (group centroids)

Group	Func 1
1	-.44654
2	.16127
3	.04845
4	.40569

Classification results: Percent of "grouped" cases correctly classified: 41,12%.
Proportional chance ratio: 28,7%

The summary table indicates that for the job-share work schedule (V44 – 50, V51 - 56), by the choice of job-seekers offered a job-sharing position (V30), one variable entered the model as the most significant discriminator based on its Wilk's Lambda and minimum D² value. However this variable is not significant at the 0,05 level of significance. That

is, perceived interference with access to training, services, events and consumables (V51- 56) would, to a limited extent, influence the job-seeker's choice if given a job-sharing position. The structure matrix indicates that this, being the only variable, explains 100% of the function. The group centroids do not make a distinction between those that would accept a job-sharing option because they are unemployed (group 2) and those that would accept it temporarily, until they get a full-time job (group 3). However, there are differences between these two groups and versus those who would opt for job-sharing because it suits them best (group 1), versus those that would not accept job-sharing at all (group 4). The hit ratio is 41,12% and the chance ratio is 28,7% indicating a relatively low classification accuracy.

In summary it can be said from the mean results of objective 2 above, that the work schedules do not interfere with opportunities to do other things for both the workers and the job-seekers. However there are significant differences between the schedules, in that the current work schedule is seen by workers to be interfering relatively more with non-work activities than the job-share and vice versa for the job-seekers.

In terms of the impact the interference of a schedule has on perceived suitability and preference of a schedule, the current schedule's interference with training, services, events and consumables does influence the perceived suitability of job-sharing but not significantly. However, **the current schedule's interference with training, services, events and consumables and with activities involving family and friends does significantly influence the workers' personal preference of the work schedule.** For the job-seekers, the job-share schedule's perceived interference with training, services, events and consumables does influence the choice they would make, if they were given an option to job-share only, but not significantly.

The study also conducted an analysis of variance to test for the significance of the differences amongst the sample means on similar items. The T-test which assesses the statistical significance of the difference between the independent samples (Hair *et al.* 1992:162) was conducted to compare the samples of the workers and the job-seekers. The next section presents results for these items.

9.2.2.3 Comparison of job-seekers vs workers for objective two

The T- test was used to analyse the differences between the perceptions of workers and job-seekers toward the current (full-time) schedule and job-sharing, with regard to whether or not these schedules would interfere with other non-work activities. The T-test results are presented in table 9.9

TABLE 9.9: INTERFERENCE CAUSED BY SCHEDULE : JOB-SEEKER vs WORKER

VARIABLE	WORKER	JOB-SEEKER	T-Value	T-Prob
Interference with activities with family and friends - current	Mean 2,9	Mean 2,4	7,38	0,00
Interference with activities with family and friends - job-share	2,5	2,5	0,28	0,78
Interference with access to training, services, events and consumables - current	2,9	2,4	-6,70	0,00
Interference with access to training, services, events and consumables - job-share	2,6	2,6	-0,10	0,92

The results in table 9.9 above indicate that there are significant differences between the perceptions of workers and job-seekers with regard to the interference of the current work schedule with activities with family and friends and access to training, services events and consumables.

The means, with 1 = very easy and 5 = very difficult, indicate that the job-seekers on all items felt that it would be relatively easy to engage in non-work activities whilst working on a full-time schedule. The workers on the other hand felt it would be relatively difficult to be involved in non-work activities whilst working on the current schedule.

With regard to the job-share schedule, the table reveals that the differences were not significant. The means indicate that both groups feel that these activities would be relatively easy to do under the job-share schedule.

In conclusion, with regard to the perceived interferences caused by the work schedule, workers appear to feel that the current work schedule does interfere with the non-work activities, which would be easier to do under the job-share schedule. The job-seekers appear to feel that the full-time schedule would make it easier for them to participate in non work activities. This is probably because it would provide them with funds to do so, more than would the job-share schedule, which entails sharing the salary. The next section presents the results for the third objective.

9.2.3 Results for Objective Number Three

The third objective of the third question was:

“To explore whether the current work-scheduling practices, as perceived by the employer are conducive to job-sharing”.

The purpose of this section was to explore in view of staffing and scheduling needs of the organisation, whether adopting job-sharing would be advantageous. A series of issues that are said to be of primary concern to organisations that use job-sharing, were raised

(Olmsted *et al.* 1989). The more the “yes” answers on these items, the greater the chances that job-sharing would benefit the organisation (See appendix C, question 7 - 14).

Since the sample for the organisations was too small (20), only the means and frequencies of the respondents are reported in table 9.10.

TABLE 9.10: CONDUCTIVENESS OF JOB-SHARING TO ORGANISATIONS

	YES		NO	
	Frequency	Percent	Frequency	Percent
V7	3	20	11	73,3
V8	2	13,3	13	86,7
V9	3	20	12	80
V10	6	40	9	60
V11	6	40	9	60
V12	8	53,3	7	46,7
V13	11	73,3	3	20
V14	4	26,7	10	66,7
Total	43		74	
Mean	5,4 (37%)		9,25 (63%)	

The results in table 9.10 above indicate that almost 37% of the respondents answered yes, which means the current work environments in these organisations are conducive to job-sharing, but not in 63% of the respondents. This is slightly over one third of the respondents. Thus, whether the organisations may like the job-sharing option or not, the internal environment in terms of the scheduling needs do reveal that at least a third of these organisations would find job-sharing an appropriate alternative solution.

9.2.4 Results for Objective Number Four

This section presents the results for the fourth objective to Research Question Three which was:

“To explore the receptivity to change of employees and organisations and to determine its impact on willingness to job-share”.

Since the receptivity to change is one of the aspects in the work environment that would have an influence on the adaptability of a new alternatives, like job-sharing, to the current work schedules, this study saw it as appropriate to determine whether the respondents are receptive to change and whether receptivity to change would influence the willingness to job-share. The results of this objective are presented below, starting with those for the workers.

9.2.4.1 The workers results for objective four

The overall mean score on eight items of receptivity to change for workers was 3,2 on a scale of 1 (strongly disagree) to 5 (strongly agree). The higher the score, the more receptive to change the respondents would be. This mean score of 3,2 (see table 7.2) reveals that respondents are neither receptive nor unreceptive to change. The statistically significant results relating to the dependant variables V67 and V80 are reported and discussed below.

A simple linear regression analysis was conducted to determine the relationship between receptivity to change (V17 – V24) and suitability of job-sharing as perceived by workers (V67). The results are presented in table 9.11.

TABLE 9.11: WORKERS' RECEPTIVITY TO CHANGE AGAINST SUITABILITY OF JOB-SHARING

Analysis of Variance					
	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	1	2,10160	2,10160	1,006	0,3166
Error	397	829,75304	2,09006		
C Total	398	831,85464			
R-Square	0,0025				

Table 9.11 presents the coefficient of determination (r^2) of 0,0025. That is, the ratio of explained variation in the dependent variable, suitability of job-sharing, to the total variation in suitability of job-sharing. The r^2 of 0,0025, is an apparent indication that the model has explained only 0,25% of the total variation in the perceived suitability of the job-sharing schedule.

The analysis of variance gives the f-statistic to determine the overall significance of the regression equation. The f-test results indicate that the model is not significant at the 0,05 level of significance. Thus the tested model may be said not to be a reasonable approximation of the true model (Brown 1991). **There is thus no significant linear relationship between receptivity to change and perceived suitability of job-sharing.**

Discriminant analysis was conducted to determine the relationship between receptivity to change (V17 –V24) and the preference of the work schedule (V80). The results are presented in table 9.12.

TABLE 9.12: RECEPTIVITY TO CHANGE AGAINST PREFERENCE OF WORK SCHEDULE

Summary Table							
Action	Vars	Wilks'	Minimum				
Step Entered	Removed	in	Lambda	Sig.	D Squared	Sig.	Between Groups
1	Receptivity to change	1	.97713	.0084	.01557	.4950	Current & other
Canonical Discriminant Functions							
Eigen-	% of	Cumu	Canonical	:	After	Wilks'	
Fun	value	Var	%	Correlation	: Function	Lambda	Chi-square
				:	0	.9771347	9.55299
1*	.02340	100,00	100,00	.1512126	:		2
							.0084
* Marks the 1 canonical discriminant functions remaining in the analysis.							
Structure matrix:							
Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)							
			Func 1				
Receptivity to change			1,00000				
Canonical discriminant functions evaluated at group means (group centroids)							
Group			Func 1				
1			.10476				
2			-.25083				
3			-.12606				
Classification results -							
Percent of "grouped" cases correctly classified: 67,07%. Proportional Chance							
ration: 48,2%							

The summary table in table 9.12 above, indicates that receptivity to change entered the model as a significant discriminator, based on its Wilk's Lambda value. That is, receptivity to change (V17- 24) would influence the worker's personal preference of the work schedule.

The structure matrix indicates that receptivity to change, being the only variable, explains 100% of the function.

The group centroids evaluated at group means indicate that function 1 discriminates better between group 1 (current schedule) versus group 2 (job-sharing) and group 3 (other

alternatives). These group centroids reveal that there are significant differences between those that prefer the current work schedule versus those that prefer the job-sharing and/or some other alternative. Receptivity to change would influence the schedule one prefers. Thus whether an employee prefers to job-share or not would depend on how receptive he or she is to change. The hit ratio is 67,07% whilst the chance ratio is 48,2%, indicating a relatively high accuracy.

9.2.4.2 The organisations results for objective four

The results for the organisations in respect to receptivity to change are now presented. Due to the sample size of the organisations, analysis could not be conducted, thus only frequencies, percentages and means are reported. The results in table 9.13 reveal that the organisations are neither very receptive nor unreceptive to change, where, D = strongly disagree + disagree; N = neutral; A = strongly agree + agree.

TABLE 9.13: RECEPTIVITY TO CHANGE AGAINST ORGANISATION

VARIABLE	FREQUENCY			PERCENT			MEAN
	D	N	A	D	N	A	
V15	3	6	5	20	40	33	3,21
V16	8	4	3	53	27	20	2,57
V17	11	4	-	73	27	-	2,07
V18	6	1	8	40	7	53	3,07
V19	12	2	1	80	13	7	2,07
V20	10	4	1	47	20	33	2,93
V21	1	6	8	7	40	53	3,47
V22	1	2	12	7	13	80	3,67
TOTAL	6	4	5				2,88
	(40%)	(27%)	(33%)				

Even though the items above measure one construct receptivity to change, the results will be presented item by item first, to get the feel of the responses, since the sample size does not allow for further statistical analysis. However, the final conclusion will be based on the mean results.

On item V15 (organisational changes benefit the majority of the employees), 20% disagreed, 40% were neutral and 33% agreed, with a mean score of 3,21. On item V16 (organisational changes benefit only the organisation), 53% disagreed, 27% were neutral, whilst 20% agreed. On item V17 (organisational changes take advantage of the employees), 73% disagreed, 27% were neutral and none of the respondents agreed. On item V18 (organisational changes are introduced before the details of the changes have been worked out), 40% disagreed, 7% were neutral and 53% agreed. On item V19 (changes introduced in this organisation are not good ideas), 80% disagreed, 13% were neutral and 7% agreed.

On item V20 (I am concerned that most employees may adapt poorly to the organisational changes to be introduced in the next few years), 47% disagreed, 20% were neutral and 33% agreed. On item V21 (I like the changes that occur at this organisation), 7% disagreed, 40% were neutral and 53% agreed. On item V22 (the changes in this organisation make it interesting to work here), 7% disagreed, 13% were neutral and 80% agreed.

The result above appears to be reflective of the perception of respondents as decision makers being supportive of the organisational changes. However the majority appear to feel that changes are introduced too early.

The study also conducted analysis of variance to test for the significance of the differences amongst the sample means on similar items. The T-test which assesses the statistical significance of the difference between the independent samples (Hair *et al.* 1992:162) was conducted to compare the samples of the workers and the organisations on receptivity to change. The results are presented in the next section.

9.2.4.3 Comparison of workers and organisations for objective four

The study sought to determine whether there are significant differences between the workers and organisations to receptivity to change. This section presents results for these items for the workers and organisation. Table 9.14 reports the means and the T- values at ,05 level of significance.

TABLE 9.14: RECEPTIVITY TO CHANGE: ORGANISATION vs WORKER

VARIABLE	N	Mean	T value	T PROB
ORGANISATION	15	34	164	10
WORKER	428	31		

The results indicate that there is no significant difference between the workers and the organisation with regard to receptivity to change. It would follow, based on means, that the organisations are slightly more receptive to change than the workers, though both are somewhat neutral.

Thus, with regard to receptivity to change, the overall results indicate that **the respondents are neither receptive nor unreceptive to change**. However receptivity to change does have an impact on the personal preference of the workers for a specific schedule. Those that prefer the current schedule do significantly differ from those that either prefer the job-sharing or some other alternative, as revealed in table 9.12. There is however, no significant difference between the workers and the organisations with regard to receptivity to change.

9.3 SUMMARY AND DISCUSSION OF THE RESULTS FOR RESEARCH QUESTION NUMBER THREE

In summary, on the first objective, the results for workers and organisations on their affective reactions toward the current work schedule reveal that they are somewhat neutral. However, these neutral feelings for the workers toward the current schedule have, to some degree, an impact on the willingness to job-share. Their feelings, in general, toward the current schedule and specifically with regard to transportation and personal security problems under the current schedule, influence their perception of whether job-sharing would be suitable or not. With regard to the workers' personal preference of the work schedule, the results indicate that all the variables (constructs) included in the study on this dimension were important predictors (see appendix B V53-59, 60-61, 62-64, 65-66). Discriminant analysis entered all variables as having significant explanatory power for the personal preference of work schedule.

It would appear that when the respondents, in general, are asked whether the job-share schedule would be suitable or not, they consider factors that do not necessarily directly affect their personal lives. In this regard the factors seen to have an impact on their

decision is the general affect toward the work schedule and the transportation aspects to and from work. However upon being asked what schedule they would prefer personally, the factors which influence their decision or choice appear to go further, to include their non-work activities which affect their lives. In this respect, work coordination problems under the current work schedule, with supervisors and co-workers (which could indirectly affect coordination of activities with family members) and effects on social and family life, were only significantly important in determining the personal preference of the work schedule. The dimensions included in this construct were whether or not respondents felt that the current method of scheduling had unfavourable influence on their family and social life and whether or not it made it easy or difficult to co-ordinate their schedule with the schedules of other family members.

It may be said from the results of objective 2 above, that the work schedules are generally not perceived as interfering with opportunities to do other things. The workers do however feel that the job-share schedule would interfere less with non-work activities, while the job-seekers feel the opposite. This is most probably because the workers being in employment realise that there are some non-work activities that they have not been able to accomplish due to their current full-time work schedule. However, the opposite is true of the job-seekers who have had more than enough time for the non-work activities, but too little finances to spend on them.

The results reveal that there are no significant relationships between the interference of the schedules and the perceived suitability of the work schedules. However, interference caused by the current work schedule with access to training, services, events and consumables; and with activities with family and friends, does influence the personal preference of the work schedule. The results for the job-seekers, if they were to be

offered a job-share option, indicate that their decision would be influenced by whether they felt the job-share schedule would interfere with access to training, services, events and consumables. There is no significant difference between those that would either accept job-sharing because they are unemployed or accept it temporarily. Both these groups differ significantly from those that would accept job-sharing because that is what suits them best and those that would not accept it at all. This may be understandable. Since these respondents are not employed, they may be attributing their unemployment to a lack of training. Therefore, if they feel that a schedule might interfere with access to such an activity, it may influence their decision, but not necessarily against job-sharing if that is the only option they are given.

The results of objective three indicate that the environment is conducive to the job-sharing option, with regard to the staffing and scheduling needs, in approximately one third of the organisations.

The results for the fourth objective reveal that **the respondents are neither receptive nor unreceptive to change**, even though receptivity to change does have an impact on the workers' personal preference of the work schedule. This may be attributed to the many changes that have occurred in the organisations with the new political dispensation, making people "luke warm" towards the changes. However, those that appear to like the current organisational changes appear to also like the current work schedule and those that do not like the changes which have taken place in their organisations, appear to prefer the job-share schedule. Receptivity to change however, does have an impact on the personal preference of the workers for a specific schedule. Those that prefer the current schedule, do differ significantly from those that either prefer the job-sharing or some other alternative. There is however, no significant difference between the workers and the organisations with respect to receptivity to change.

9.4 CONCLUSION

It may be concluded from the results presented and analysed above, that based on the opinions of the employees, organisations and job-seekers, with regard to current scheduling practices in RSA, the environment is conducive to job-sharing, to the degree that the respondents are not highly affective towards the current schedule; the job-share schedule would interfere less with the non-work activities for workers; the current work scheduling practices pose problems for one third of the organisations in the sample; and that the respondents are neutral in their receptivity to change.

It can also be concluded that there is some potential in RSA for an alternative work schedule such as job-sharing, to the degree that perceived suitability and preference of the work schedule are influenced by affectivity toward the current schedule; by perceived interferences with the work schedule; and by receptivity to change.

This chapter has presented and discussed the results for Research Question Three, pertaining to whether or not the work environment in RSA is conducive to job-sharing and has come to a conclusion that, to some extent, it is. The next chapter presents the results for Research Question Four, which seeks to determine the antecedents to job-sharing and their impact on the willingness to job-share.

CHAPTER 10

RESULTS FOR RESEARCH QUESTION FOUR

10.1 INTRODUCTION

The previous chapter presented and discussed the results for Research Question Three, which indicated that, to some extent, the work environment in RSA is conducive to job-sharing.

This chapter presents the results for Research Question Four namely:

“Based on the perception of workers, organisations and job-seekers what are the antecedents and impediments to job-sharing and how do these impact on the willingness to job-share in RSA?”.

This question has one objective: “to explore the perceived antecedents and obstacles to job-sharing and their impact on the willingness to job-share”. The results of this objective are presented below. The descriptive statistics and statistical results for the possible reasons for opting to job-share are presented first for workers, job-seekers and organisations, respectively. This is followed by the results for possible obstacles. The chapter concludes with a summary and discussion of the results and comparisons of sample means with regard to similar items of Research Question Four.

10.2 REASONS FOR OPTING TO JOB-SHARE

Based on the literature reviewed in Chapters 2 to 5 and on the results of the pilot studies, a list of possible reasons for opting to job-share was delineated. Respondents were asked

to indicate the degree to which they felt a factor was important as a reason that would cause them to opt for job-sharing. The results on possible perceived reasons for job-sharing by the respondents are presented below, first for workers, then job-seekers and finally for the organisations.

10.2.1 Results for Workers

Table 10.1 presents the **descriptive statistics**; number of respondents, their respective means and frequencies of possible perceived reasons for opting to job-share by employees (workers), on a scale of 1 = very important, and 5 = completely unimportant.

TABLE 10.1: POSSIBLE PERCEIVED REASONS FOR OPTING TO JOB-SHARE (WORKERS)

Variable label	Number of respondents V67 = 402	Mean V67=3,29	Important. %	Neutral. %	Unimportant %
Attend to personal activities: V74	419	2,24	67	10	15
Attend to family responsib: V75	417	2,15	70	10	14
Allow to work when more alert: V76	410	2,54	54	14	22
Go for further studies: V77	416	2,08	70	7	11
Participate in professional activities: V78	419	2,32	58	8	12

The table reports the three grouped responses for the workers. The important category includes the very important (1) and important (2) responses. The unimportant category include the not important (4) and completely unimportant (5) responses. V67 is the dependent variable (suitability of the job-share schedule).

The means and frequencies presented in table 10.1 above, do indicate that all the reasons are rated to be important for opting for a job-share schedule. The highest in ranking (70%) are attending to family responsibilities and going for further studies and the least (54%) is allowing a person time to work when they are more alert. The mean results confirm these results in that they are all below three, which indicates that all the reasons are considered as important determinants of the respondents decision with regard to job-sharing. The next section presents the statistical results to determine which one of these reasons would significantly influence the perceived suitability of the job-sharing work schedule.

A multiple stepwise regression with suitability of job-sharing (V67) as a dependent variable and the possible reasons for opting to job-share (V74 -V78) as independent variables was done to determine the statistical significance of the results in an attempt to establish which of the reasons might explain the most variation in the dependant variable. Table 10.2 gives the summary results of the stepwise procedure at 0,05 level of significance.

TABLE 10.2: REASON FOR OPTING TO JOB-SHARE AGAINST SUITABILITY OF JOB-SHARING

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V67)						
STEP	Variable entered	Number in	Partial R**2	Model R**2	F- Value	F- Prob
1	Participate in professional activities	1	0,1254	0,1254	54,89	0,00
2	Attend to family responsibilities	2	0,0240	0,1494	10,79	0,00
3	Allow time to go for studies	3	0,0050	0,1544	02,26	0,13

For the workers, three variables were selected as accounting for the most variation in the dependant variable, suitability of job-sharing. The first reason to be entered was, “give me time to participate in professional activities”, which accounted for 12,5% of the variation. The second reason selected was, “allow me time to attend to family responsibilities”, which added 2%, thus 14,9% of the variance being explained by the two reasons. The third reason entered into the analysis was, “allow me to go for further studies”, which only added 0,05%, basically leaving the explanatory value at 15%. Thus for the workers the reasons that are statistically **significant** in predicting alternative work schedule are **allowing employees to attend to family responsibilities and participate in professional activities**. The next section presents statistical results for the workers on reasons as they relate to personal preference of the work schedule.

The research question defined the group categories as dependent upon the discriminating variables, thus the analysis done is analogous to the multiple regression technique, with regard to suitability of job-sharing above. The primary difference is that in this discriminant analysis, the dependent variable is measured at the nominal level (Klecka, 1980).

Stepwise discriminant analysis was conducted to determine:-

- Whether statistically significant differences exist between average score profiles of the preferred work schedules and possible reasons for opting to job-share; and
- Which amongst the reasons (independent variables) would account the most for differences in the average profile of the workers, for the preference of a specific work schedule.

The results of stepwise discriminant analysis to determine which reasons would influence the workers' preference of a work schedule are presented in table 10.3.

TABLE 10.3: REASONS FOR OPTING TO JOB-SHARE AGAINST PREFERENCE FOR SCHEDULE (WORKERS)

Summary Table							
Step	Action Entered	Removed	Vars in	Wilks' Lambda	Sig.	D Squared	Sig. Between Groups
1	V78		1	.94209	.0000	.06155	.1355 Current & other
2	V76		2	.92855	.0000	.17641	.0840 Job-share & other
3	V75		3	.91635	.0000	.19390	.1427 Job-share & other
4		V76	2	.92265	.0000	.12674	.1682 Job-share & other
5	V74		3	.90129	.0000	.17320	.1825 Job-share & other
6		V75	2	.90309	.0000	.14872	.1237 Job-share & other

Canonical Discriminant Functions									
Fcn	Eigen-value	% of Var	Cum %	Canonical: Corre.	After Fcn	Wilks' Lambda	Chi-square	df	Significance
					0	.9031	40.3161	8	.0000
1*	.0979	91.95	91.95	.4660	1	.9915	3.3766	3	.0661
2*	.0086	8.05	100.00	.2373					

* Marks the 2 canonical discriminant functions remaining in the analysis.

Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)

	Func 1	Func 2
Time to attend personal activ. (V74)	.89281*	-.45043
Time to participate in prof. activ. (V78)	.76956*	.63858
Time to attend to family activ. (V75)	.68150*	-.21362
Allow me to go for studies (V77)	.61842*	.35165
Time to work when more alert (V76)	.51055*	-.05516

* denotes largest absolute correlation between each variable and any discriminant function.

Canonical discriminant functions evaluated at group means (**group centroids**)

Group	Func 1	Func 2
CURRENT (1)	.21296	-.00969
JOB-SHARE (2)	-.50361	-.09113
OTHER (3)	-.32580	.25107

Classification results:
Percent of "grouped" cases correctly classified: 67,49%. Proportional chance criterion: 60%

The summary of the discriminant analysis results presented in table 10.3 indicate that three variables entered the analysis in the first three steps and also at step 5. Only two variables remained in the analysis as significant discriminators based on their Wilk's Lambda values at step 4 and 6. The table reveals that at the end of step six only time to participate in professional activities (V78) and time to attend to personal activities (V74) remained in the analysis.

Only two canonical discriminant functions are statistically and substantively significant. Of the two functions, function 1 has an eigenvalue of approximately 0,10 and function 2 has an eigenvalue of 0,01. The function with the highest eigenvalue is the most powerful discriminator. The 91,95% for function 1, as compared to the 8,05% for function 2 does confirm that function 1 is stronger when compared to the second function. The canonical correlation is a measure of association which summarizes the degree of relatedness between the three groups and the discriminant function. A value of zero would denote no relationship at all, while a large value (always positive) represents increasing degrees of association, with 1,0 being the maximum (Hair *et al.* 1992).

Wilks's Lambda was used as the statistic to measure discrimination. As a multivariate statistic, it is used as a measure of group differences over the five variables, that is, possible reasons for opting for a specific schedule. Values of Lambda which are near zero denote high discrimination (Klecka 1980). The results from table 10.3 reveal that Wilk's Lambda equals ,99 in function 1. It can thus be concluded that the remaining discriminant functions are unimportant.

The table also gives the Chi-square results. The group differences are significant before the derivation of any discriminant functions ($k = 0$). The significance level of ,000 tells us that we would therefore get a chi-square this size when there actually were no differences between the centroids. Thus we may assume that the results did come from a population which did have differences between the groups (Klecka 1980). The Wilk's Lambda and the Chisquare test indicate that the variables and the first function entered are significant at the 0,06 level of significance.

The structure matrix shows pooled within-groups correlations between discriminating functions, with variables ordered by size of correlation within the function, where time for personal activities ranks highest (.89) and to work when more alert lowest (.51). A structure coefficient tells us how closely a variable and a function are related. The first

function carries coefficients for all the five variables, which are relatively large, with V74 and V78 being the largest. This means that function 1 carries nearly the same information as each one of these variables. The structure matrix reports the independent variables, ordered from the one with the highest contribution to the dependent variable. The rule of thumb is that for the coefficient to be significant it should at least be 0,30 (Hair *et al.* , 1992). All the coefficients are above this figure. Thus it may be concluded that all the reasons would influence the personal preference of a work schedule, as also confirmed by the asterisk.

Canonical discriminant functions evaluated at group means (group centroids), reveal that the primary source of differences for function 1 is between group 1 (current schedule) versus group 2 & 3 (job-sharing and/or other alternatives). This is confirmed further by the minimum D-square values between group differences shown in the last part of the summary table. Thus the reasons given would be predictive of whether one would opt for the job-share or other alternative, and current work schedule.

The classification matrix to test how well the discrimination functions classify the data, shows the percentage of the “grouped” cases correctly classified as approximately 68%, also known as the “hit ratio” (Hair *et al.* , 1992). This is higher than the 60% chance hit ratio, which would result if values were classified into groups by chance. This indicates a very low classification accuracy.

This detailed explanation above will apply in all other cases where stepwise discriminant analysis is used in this study. Thus, results will be reported without a further detailed explanation of the meaning of the discriminant analysis terms. The next section reports the results pertaining to reasons for job-sharing for job-seekers.

10.2.2 Results for Job-seekers

The results with regard to possible perceived reasons for job-sharing by the job-seekers are presented below. Table 10.4 presents the number of respondents, their respective means and frequencies of possible perceived reasons for opting to job-share, on a scale of 1 = very important, and 5 = completely unimportant.

TABLE 10.4: POSSIBLE PERCEIVED REASONS FOR OPTING TO JOB-SHARE (JOB-SEEKERS)

Variable label	Number of respondents V9 = 111	Mean V9 = 2,14	Important %	Neutral %	Unimportant %
Attend to personal activities: V16	107	2,22	68	9	12
Attend to family responsib: V17	106	2,33	58	12	13
Allow to work when more alert: V18	105	3,34	36	25	53
Go for further studies: V19	106	1,82	78	12	16
Participate in professional activities: V20	105	2,70	46	24	29

The table reports the three grouped responses for the job-seekers. The important category includes the very important (1) and important (2) responses. The unimportant category includes the not important (4) and completely unimportant (5) responses. V9 is the dependent variable (suitability of the job-share schedule) for job-seekers.

The means in table 10.4 do indicate that for job-seekers all the reasons are rated to be important. The highest ranking was going for further studies (78%), attending to personal activities (68%) was second highest and third was attending to family responsibilities (58%). The results reveal that “allow me to work when more alert” ranked lowest (36%) and had a mean score of 3,3.

A **multiple stepwise regression** with suitability of job-sharing (V9) for job-seekers as a dependent variable and the possible reasons for opting to job-share (V16 - 20) as independent variables was done to determine the statistical significance of the results, in an attempt to establish which of the reasons might explain the most variation in the dependant variable. Table 10.5 reports the results of the stepwise procedure at 0,05 level of significance.

TABLE 10.5: REASONS FOR OPTING TO JOB-SHARE AGAINST SUITABILITY (JOB-SEEKER)

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V9)						
STEP	Variable entered/ removed	Number in	Partial R**2	Model R**2	F- Value	F- Prob
1	Attend to family responsibilities (V17)	1	0,1045	0,1045	11,43	0,00
2	Work when more alert (V18)	2	0,0230	0,1275	2,56	0,11

From the table above, of the two variables that entered the analysis, it is evident that only one variable “**allow me time to attend to family responsibilities**”, was found to be a significant predictor of suitability of job-sharing as an alternative work schedule by the job-seekers. This variable explained 10,45% of the variation in the dependent variable, suitability of the job-share schedule.

Table 10.6 below reports the **results for the job-seekers’ preference for the work schedule (V21)** as they relate to the reasons. The table of the discriminant analysis results presented in table 10.6 indicate that only one variable (V17), “**allow me time to attend to family responsibilities**”, entered the analysis in the first step. This variable only remained in the analysis as a significant discriminator, based on its Wilk’s Lambda and D squared values.

TABLE 10.6: REASONS FOR OPTING TO JOB-SHARE AGAINST PREFERENCE (JOB-SEEKER)

Summary Table							
Step	Action	Vars Entered	Vars Removed	Wilks' Lambda	Sig.	Minimum D Squared	Sig. Between Groups
1	V17	1		.95701	.0449	.32783	.0449 Current & job-share

Canonical Discriminant Functions									
Fcn	Eigen- value	% of Var	Cum %	Canonical: Corre.	After Wilks' Lambda	Chi-square	df	Significance	
1*	.0449	100.00	100.00	.2073	: 0	.9570	4.0207	8	.0449

* Marks the canonical discriminant functions remaining in the analysis.

Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)

	Func 1
Time to attend family resp. (V17)	1.00000
Time to attend personal activities (V16)	.41273
Allow me to go for studies (V19)	.28706
Time to participate in professional activities (V20)	.24298
Work when more awake (V18)	.00863

*denotes largest absolute correlation between each variable and any discriminant function.

Canonical discriminant functions evaluated at group means (**group centroids**)

Group	Func 1
CURRENT (1)	.09137
JOB-SHARE (2)	-.48120

Classification results:
Percent of "grouped" cases correctly classified: 85%. Proportional chance criterion: 66%

Since only one canonical discriminant function is statistically and substantively significant, it explains 100% of the variation in the analysis. The structure matrix shows that V17, "allow me time to attend to family responsibilities" (1,00) is the only significant predictor of the preference of the work schedule. V16 "allow me to attend to personal activities" (0,41) could be acceptable at the 0,30 cut-off point.

The group centroids indicate that the function discriminates well between group 1 (full-time) versus group 2 (job-share) work schedules. The classification matrix reports that 85% of "grouped" cases were correctly classified, as opposed to the chance percentage of 66%, which is indicative of high accuracy.

The results for the work schedule that would be perceived as most suitable should a job be offered to job-seekers with an option to job-share only (V30) are presented in table 10.7.

TABLE 10.7: REASONS FOR OPTING TO JOB-SHARE AGAINST A JOB-SHARE OPTION ONLY (JOB-SEEKER)

Summary Table								
Step	Action Entered	Removed	Vars in	Wilks' Lambda	Sig.	D Squared	Minimum Sig.	Between Groups
1	V18		1	.92774	.0715	.00100	.9095	suit best & temporarily
2	V16		2	.81812	.0048	.07766	.7981	cos'unempl & not accept
3		V18	1	.86636	.0038	.00030	.9486	suit best & 'cos unempl

Canonical Discriminant Functions								
Fcn	Eigen- value	% of Var	Cum %	Canonical: After Corre.	Wilks' Lambda	Chi-square	Significance	
1*	.15426	100.00	100.00	.36557	: 0	.8663589	13.4131	3 .0038

* Marks the 2 canonical discriminant functions remaining in the analysis.

Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)

	Func 1
Time to attend personal activities (V16)	1.0000
Time to attend family resp. (V17)	.39121
Time to participate in professional activities (V20)	.24980
Work when more awake (V18)	-.18872
Allow me to go for studies (V19)	.18341

* denotes largest absolute correlation between each variable and any discriminant function.

Canonical discriminant functions evaluated at group means (group centroids)

Group	Func 1
Accept, suits best (1)	-.27146
Accept 'cos unemployed (2)	-.25428
Accept temporarily (3)	.57448
Not accept at all (4)	-.22606

Classification results:
Percent of "grouped" cases correctly classified: 46%. proportional chance criterion: 28%

The summary of the discriminant analysis results presented in table 10.7 reveals that two variables entered the analysis in the first two steps, but that one was removed at step 3.

Only one variable (V16), **“allow me time to attend to personal activities”**, remained in the analysis as a significant discriminator at step 3 based on its Wilk’s Lambda and D squared values. The results reveal that time to attend to personal activities was the most important explanatory variable of the choice made by the job-seekers if given the option to share the job only.

The group centroids results indicate that function 1 discriminates well between group 3 (those that would accept the job temporarily until they get a full-time job), versus all the other groups. The classification results of “grouped” cases correctly classified is 46% as opposed to 28% if classification had been based on chance.

It is evident from the results of the job-seekers that only one reason, **“allow me time to attend to family responsibilities”** is a significant predictor of the perceived suitability of job-sharing and preference of the work schedule. With regard to a job-share offer, the major predictor is, **“allow me time to attend to personal activities”**.

10.2.3 Results for Organisations

Table 10.8 presents the means and frequencies for the perceived reasons for introducing job-sharing at organizations.

Table 10.8 reports the results grouped into three: those that disagreed (strongly disagree + disagree) that the factor would be a reason for introducing job-sharing; those that were neutral; and those that agreed (agree + strongly agree). These responses are also reported with their respective means, where 1 was strongly disagree and 5 was strongly agree that the given reason would cause the organization to introduce the job-share schedule.

TABLE 10.8: PERCEIVED REASONS FOR INTRODUCING JOB-SHARING AT ORGANISATIONS

VARIABLE	N	Mean	Agree %	Neutral %	Dis agree %
Increase productivity (V51)	15	2,8	33	27	40
Alternative to lay-off (V52)	15	3,4	67	6	27
Better quality of life (V53)	15	3,0	40	20	40
Reduced absenteeism (V54)	15	2,7	27	27	46
Reduced turnover (V55)	15	2,5	20	27	53
Increase worker energy(V56)	15	2,7	27	26	47
Job continuity (V57)	15	3,1	40	33	27
Phasing into retirement (V58)	14	2,9	43	21	36
Flexibility in work (V59) scheduling	15	3,1	47	26	27
To retain valued (V60) employees	14	3,2	50	29	21
To enable employees continue with studies (V61)	14	3,4	64	14	22

As may be seen from these results, the reason that ranks highest is “alternative to lay-offs” (67%, mean = 3,4) ; followed by “enabling employees to go for further studies” (64%, mean = 3,36). The reason that ranked lowest is “reduced turnover” (20%, mean = 2,5). The next section summarises and discusses the results pertaining to possible reasons that would cause the respondents to opt to job-share.

10.3 SUMMARY AND DISCUSSION OF THE RESULTS: REASONS

The results above with regard to the reasons which might cause respondents to perceive job-sharing as suitable, are summarised below according to type of sample, followed by a comparison of sample means on similar items.

10.3.1 Workers

The frequencies indicate that all the reasons are perceived as important, for workers in opting for a job-share schedule. The reasons which have statistically significant influence on the workers' perception of how suitable job-sharing would be are:

- Allow me time to attend to family responsibilities (V75)
- Give time to participate in professional activities (V78)

All the reasons were entered on the structure matrix as important predictors of the personal preference of the work schedule. However, only two remained in the analysis as statistically significant. These were;

- Time to attend to personal activities (V74)
- Give time to participate in professional activities (V78)

From these results it would appear that while all the reasons are seen to be important in influencing the workers' perceptions of whether job-sharing is suitable in South Africa or not and whether they would personally prefer it or not, the major significant reason in both cases is to give them time to participate in professional activities. When considering, in general, whether job-sharing would be suitable or not, family responsibilities appear to play a role as well. However, when they consider whether they would personally prefer to job-share, they appear to consider other personal needs than just family. Personal activities then, also influence their preference of the work schedule.

10.3.2 Job-seekers

For the job-seekers, the frequencies and means indicate that the most important reasons are:-

- Allow me time to go for further studies (78%);
- Allow me time to attend to personal activities (68%); and
- Allow me time to attend to family responsibilities (58%);

With regard to suitability of job-sharing and preference of the work schedule, only “allow me time to attend to family responsibilities”, was statistically significant in both cases. In the case of the choice to be made if given a job-sharing offer, “allow me time to attend to personal activities”, was the only reason that remained in the analysis as statistically significant.

The frequencies appear to indicate logically, that those who are unemployed would attribute their status quo to lack of skills and knowledge and thus would want to go for further studies so that once they get a job they would be able to keep it. They would also want that job to allow them time to attend to both family and personal activities. However whether they would perceive job-sharing as a suitable and preferable option depends on whether it would be give them enough time to attend to family responsibilities or not. Considering that most of the respondents (job-seekers) were black (79%) as reported in Chapter 7 (see table 7.1a), this would make sense, in line with the collectivist culture attributes of Africans (Hofstede 1991, Blunt *et al.* 1992). The Africans are known to have close family ties that extend beyond the nuclear family, to extended relatives. They would need time to attend to family activities such as funerals, traditional ceremonies, and weddings. The job-seekers’ decision, if they were to be offered a job-share option would also be influenced by their need for time to attend to personal activities.

10.3.3 Organisations

The results for the organisations indicate that the most important reasons that would cause them to opt for job-sharing include:

- An alternative to lay-offs (67%)
- To enable employees to continue with studies (64%)
- To retain valued employees (50%), and
- To allow flexibility in work scheduling (47%)

These results may be said to reflect the reality in terms of some of the concerns facing South African organisations today. Lay-offs and the adverse effects that they have on the organisation's well-being are amongst the major problems that need to be addressed. Thus, if indeed job-sharing can avert lay-offs, it would be a remedy welcomed by most organisations, as confirmed by the results above. South Africa also is known to have a shortage of skilled manpower (Gerber *et al.* 1998). This may explain the need for employers wanting an alternative work schedule, which would allow employees to go for further studies without any disruptions to the work flow. With the "exodus" of skilled employees from organisations, it is no wonder that employers might seek and opt for job-sharing to retain valued employees. Flexibility in the work place is also, to some degree, one reason organisations might opt for a job-sharing work schedule.

10.3.4 Comparison Between Samples: Reasons

The study also conducted an analysis of variance to test for the significance of the differences amongst the sample means on similar items. This section presents results for these items pertaining to reasons for opting to job-share. The T-test which assesses the statistical significance of the difference between the independent samples (Hair *et al.*

1992:162) was conducted to compare the samples of the workers and job-seekers. These results are presented below.

Respondents were asked to rank, on a scale of 1 (very important) to 5 (completely unimportant) reasons which they would consider important in opting for job-sharing.

Analysis of variance was done to determine any significant differences between the means of workers and the job-seekers, with regard to reasons perceived as important in opting for job-sharing. The results in table 10.9 indicate that there were significant differences with regard to three reasons.

TABLE 10.9: REASONS FOR OPTING TO JOB-SHARE: JOB-SEEKER vs WORKER

VARIABLE	JOB-SEEKER	WORKER	T	PROB
Allow me time to attend to personal activities	2,21	2,24	-0,24	0,50
Allow me time to attend to family responsibilities	2,33	2,14	1,52	0,12
Enable me to work when I am more alert	3,34	2,54	5,91	0,00
Allow me to go to for studies	1,82	2,08	-2,11	0,03
Give me time to participate in professional activities	2,69	2,31	3,22	0,00

The means indicate that the items which were not reporting significant differences; “allow me time to attend to personal activities” and “allow me time to attend to family responsibilities”, were rated as important reasons for opting for job-sharing by both the workers and job-seekers.

On “enable me to work when I am more alert”, the workers perceived it as a relatively important reason (mean 2,54) more than did the job-seekers (mean 3,34) who felt it was neither important nor unimportant. This could be because the workers have “fresh” experiences of how difficult it is to work when one is not alert, whilst job-seekers are unsure, having no job at all.

“Allow me to go to for studies”, reports significant differences between the means. The job-seekers rate this factor as of greater importance (mean 1,82) than do workers (mean = 2,08), but to a lesser degree. This could be attributed to the fact that the job-seekers are attributing their unemployed status to lack of education and skills and thus would consider job-sharing to enable them to go for further studies.

South Africa in general lacks skilled labour, and therefore most workers who wish to be competitive in the job market would like to improve or better their knowledge, skills and competencies (Gerber *et al.* 1998). Thus they might opt for job-sharing to enable them go for further studies.

The results on “give me time to participate in professional activities” are also significant. The workers (mean = 2,31) rate this reason as relatively more important than do the job-seekers (mean = 2,69). This could be attributed to the fact that workers would like to gain more experience through professional activities than would the job-seekers who, due to their “unemployed” status, may not be members of any professional bodies.

In conclusion, the results reveal that both workers and job-seekers rate the reasons given as relatively important, but do differ in the degree of how important these reasons are to each group, depending on whether they are employed or not.

While the reasons presented above might lead workers, job-seekers and organisations to opt for job-sharing as an alternative work schedule, there are obstacles that might impede its introduction. These obstacles are discussed below.

10.4 PERCEIVED OBSTACLES TO JOB-SHARING

The study also explored the possible obstacles to job-sharing as perceived by workers, organisations and job-seekers. Based on literature and the results of the pilot studies, a list of possible obstacles to introducing job-sharing was delineated. A question was posed to the respondents as to what degree they agreed that the listed factors would be obstacles to introducing job-sharing. The results for the workers are presented first.

10.4.1 Results for Workers

The descriptive results for the workers presented in table 10.10 are, grouped into three categories: disagree (strongly disagree + agree); neutral; and agree (agree + strongly agree).

TABLE 10.10: OBSTACLES TO JOB-SHARING AS PERCEIVED BY WORKERS (FREQUENCIES)

	Disagree	Neutral	Agree
Resistance to change (V83)	18%	22%	60%
Cost of supervision (V84)	18%	37%	45%
Union contracts (V85)	20%	33%	47%
Lack of awareness of the work schedule (V86)	16%	34%	50%
Matching partners (V87)	15%	29%	56%
Problems of accountability (V88)	13%	52%	35%

The responses above indicate that all the variables are perceived as important obstacles to introducing job-sharing in South Africa, with problems of accountability ranking lowest at 35%. The most important obstacles appear to be resistance to change, matching partners and lack of awareness of the job-sharing work schedule, respectively. Union contracts, cost of supervision and problems of accountability appear to be less important. The statistical results of these obstacles as they relate to perceived suitability of job-sharing are reported next.

Multiple step-wise regression was conducted to explore the relationship between the perceived obstacles and suitability of job-sharing by workers. The results are reported in table 10.11.

TABLE 10.11: OBSTACLES TO INTRODUCING JOB-SHARING AGAINST SUITABILITY (WORKERS).

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V67)						
STEP	Variable entered/ removed	Number in	Partial R**2	Model R**2	F- Value	F- Prob
1	Problems of accountability if responsibility is divided	1	0,1455	0,1455	13,45	0,00
2	Cost of supervision	2	0,0598	0,2053	5,86	0,02
3	Lack of awareness of schedule	3	0,0338	0,2391	3,42	0,07
4	Resistance to change	4	0,0244	0,2634	2,52	0,12

In the step-wise regression, the variables that entered the equation in step 1 were: problems of accountability if the responsibility is divided (V88), which explains 15% of the variation. On step 2, cost of supervision (V84) was entered, raising the explanatory power of the variation to approximately 21%. Lack of awareness of schedule and resistance to change did enter the analysis but were not significant at the 0,05 level of significance.

The study also explored whether there was any significant relationship between the perceived obstacles and preference of the work schedule, using stepwise discriminant analysis. The results presented in table 10.12 indicate that two functions entered the analysis.

**TABLE 10.12: OBSTACLES TO INTRODUCING JOB-SHARING AGAINST PREFERENCE
(WORKERS).**

Summary Table									
Step	Action Entered	Removed	Vars in	Wilks' Lambda	Sig.	Minimum D Squared	Sig.	Between Groups	
1	V88		1	.86237	.0027	.27314	.0450	Current job-share	
2	V89		2	.81219	.0024	.33862	.0854	Current job-share	
3	V85		3	.76335	.0016	.67725	.0234	Current job-share	

Canonical Discriminant Functions									
Fcn	Eigen value	% of Variance	Cumu Percent	Canonical Correl	: After Fcn	Wilks' Lambda	Chi-square	df	Sign.
1*	.18501	63.69	63.69	.3951310	: 0	.7633458	21.33349	6	.0016
2*	.10549	36.31	100.00	.3089080	: 1	.9045758	7.92284	2	.0190

* Marks the 2 canonical discriminant functions remaining in the analysis.

Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)

	Func 1	Func 2
Problems accountability (V88)	.92809*	.04672
Other (V89)	.67224*	-.58133
Matching partners (V87)	.53324*	-.17013
Resistance to change (V83)	.31270*	.06906
Cost of supervision (V84)	.25079*	.10656
Union contracts (V85)	.35885	.50021*
Lack of awareness of option (V86)	.04683	.05198*

* denotes largest absolute correlation between each variable and any discriminant function.

Canonical discriminant functions evaluated at group means (group centroids)

Group	Func 1	Func 2
Current (1)	.01838	.26525
Job-share (2)	-.51311	-.36305
Other (3)	.86566	-.41752

Classification results -Percent of "grouped" cases correctly classified: 60,92%. the chance ratio is 38%.

The summary of the discriminant analysis results presented in table 10.12 reveal that three variables entered and remained in the analysis as significant discriminators, based on their Wilk's Lambda values. The analysis reveals that problems of accountability if the responsibility is divided (V88), some other reasons (V89) and union contracts (V85) are the most important explanatory variables of the personal preference of the work schedule by workers.

Function 1 explains approximately 64% of the variation in the dependent variable, thus it is the most useful. The structure matrix reveals that all variables on function 1, if left in the analysis, are important determinants of the personal preference of the schedule by the workers, except union contracts (V85) and lack of awareness of option (V86).

The group centroids results indicate that function 1 discriminates well between group 1 (those that would prefer the current work schedule), versus group 2 (those that would prefer job-sharing) versus group 3 (those that would prefer some other alternatives). The classification results of “grouped” cases correctly classified is 61%, as opposed to 38% if classification was based on chance. The results for the job-seekers, pertaining to obstacles to introducing job-sharing in South Africa, are presented next.

10.4.2 Results for Job-seekers

The same question posed to the workers was posed to the **job-seekers** as to what they perceived to be the obstacles to introducing job-sharing. Table 10.13 reports the job-seekers' responses.

On all the factors except problems of accountability and lack of awareness of the work schedule, most of the respondents either disagreed (or they were neutral) that these would be obstacles to introducing job-sharing. This could be because they were not employed, thus might not be aware of such obstacles, or it might be that they felt that there were no obstacles important enough to prevent them from being offered a job, even if it was to be shared.

TABLE 10.13: OBSTACLES TO INTRODUCING JOB-SHARING (JOB-SEEKERS).

	Disagree	Neutral	Agree
Resistance to change	56%	32%	12%
Cost of supervision	43%	35%	22%
Union contracts	47%	36%	17%
Lack of awareness of the work schedule	38%	31%	31%
Matching of partners	49%	29%	22%
Problems of accountability	24%	44%	32%

To explore the statistical significance of these results with regard to suitability and preference of the work schedule, statistical tests were conducted for the job-seeker sample. Table 10.14 reports the results for the stepwise regression.

TABLE 10.14: OBSTACLES TO INTRODUCING JOB-SHARING AGAINST SUITABILITY (JOB-SEEKERS).

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V9)						
STEP	Variable entered/removed	Number in	Partial R**2	Model R**2	F-Value	F-Prob
1	Union contracts	1	0,0655	0,0655	6,58	0,01
2	Cost of supervision	2	0,0344	0,0998	3,55	0,06

With regard to suitability of job-sharing, stepwise regression analysis results reveal that two variables entered the analysis, of which only union contracts (V25) was significant at the 0,05 level, explaining approximately 7% of the variation in the analysis as presented in table 10.14.

With regard to personal preference of the work schedule, as reported in table 10.15, the stepwise discriminant analysis with one function entered the analysis.

The summary of the discriminant analysis results presented in table 10.15 reveals that only one variable entered and remained in the analysis as a significant discriminator based on its Wilk's Lambda and D squared values. The analysis reveals that lack of awareness of option/work schedule (V26) was the most important explanatory variable of the personal preference of the work schedule by the job-seekers.

TABLE 10.15: OBSTACLES TO INTRODUCING JOB-SHARING AGAINST PREFERENCE (JOB-SEEKERS)

Summary Table								
Action Step Entered	Vars in	Wilks' Lambda	Sig.	Minimum D Squared	Sig.	Between Groups		
1 Lack of awareness (v26)	1	.92646	.0086	.54526	.0086	Current Job-share		
Canonical Discriminant Functions								
Eigen Fcn value	% of Variance	Cumu Percent	Canonical: Correl	After : Fcn	Wilks' Lambda	Chi-square	df	Sign
1*	.07938	100.00	100.00	.2711817	: 0	9264605	6.91274	1 .0086
* Marks the 1 canonical discriminant functions remaining in the analysis.								
Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)								
				Func 1				
Lack of awareness (V26)				1.00000				
Matching of partners (V27)				.27743				
Resistance to change (V23)				.23414				
Problems of accountability (V28)				.18343				
Cost of supervision (V24)				.11403				
Union contracts (V25)				.09039				
Canonical discriminant functions evaluated at group means (group centroids)								
Group				Func 1				
Current (1)				.12704				
Job-share (2)				-.61138				
Percent of "grouped" cases correctly classified: 83,51%. The chance ratio: 65%								

The group centroids results indicate that function 1 discriminates well between group 1 (those that would prefer a full-time job), versus group 2 (those that would prefer job-sharing). The classification results of "grouped" cases correctly classified is approximately 83%, as opposed to 65% if classification had been based on chance.

The relationship between the acceptance of the job-share work schedule by job-seekers given no option but to job-share was also explored. The stepwise discriminant analysis was abandoned since no variable qualified for the analysis .

10.4.3 Results for Organisations

A question was posed to the organisations as to what extent the respondents agreed or disagreed that any of the listed factors would be obstacles to introducing the job-sharing work schedule in their organisations. The responses, which are grouped into three categories (Disagree, Neutral and Agree), are reported in table 10.6.

TABLE 10.16: OBSTACLES TO INTRODUCING JOB-SHARING (ORGANISATIONS).

	DISAGREE	NEUTRAL	AGREE
Resistance to change	20%	7%	73%
Cost of supervision	27%	40%	23%
Union contracts	40%	7%	53%
Lack of awareness of the work schedule	33%	13%	53%
Matching of partners	20%	40%	40%
Problems of accountability	13%	7%	80%
Administration Costs	33%	7%	60%
Training costs	27%	7%	66%
Insurance costs	20%	40%	40%
Fringe benefits	20%	33%	47%
Medical aid	20%	13%	66%
Recruitment	33%	7%	60%

All the factors in table 10.16 were ranked as important possible obstacles. The problem of accountability, resistance to change, training costs medical aid and recruitment have at least 60% of responses agreeing that these would be obstacles to introducing job-

sharing. Union contracts and lack of awareness have 53% agreeing. Fringe benefits, insurance costs and matching partners account for 47%, 40% and 40% of those that agreed, respectively. The obstacle that had the least responses agreeing that it would be important, was cost of supervision (23%).

The next section summarises and discusses the results pertaining to obstacles to job-sharing and reports the results of the analysis of variance of the sample means on these similar items.

10.5 SUMMARY AND DISCUSSION OF THE RESULTS: OBSTACLES

The results above, with regard to the obstacles that might hinder potential users of job-sharing from making use thereof, are summarised and discussed below, according to the type of sample.

10.5.1 Workers

The frequencies indicate that all the obstacles are important possible hindrances for workers to opting for a job-share schedule, with resistance to change (60%), matching partners (60%) lack of awareness of the job-sharing work schedule (50%) and union contracts (47%) being the most important. The obstacles which were statistically significant in influencing whether job-sharing would be perceived as suitable or not are:-

- cost of supervision, and
- problems of accountability if responsibility is divided.

The obstacles which were statistically significant in influencing the personal preference for a schedule are:-

- problems of accountability if the responsibility is divided,
- matching partners,
- cost of supervision,
- resistance to change, and
- lack of awareness of the work option.

The results above reveal a very interesting pattern. What the workers rated as important did not significantly influence their perceptions of whether job-sharing would be suitable or not. It may probably be interpreted that those who felt that the cost of supervision and problems of accountability if responsibility is divided, would be obstacles to introducing job-sharing, also felt that it would be unsuitable. Thus, most probably, all the other factors, though perceived as obstacles, may not necessarily cause the workers to perceive job-sharing as unsuitable, but those factors might be regarded as challenges to be addressed, prior to introducing job-sharing.

With regard to the personal preference of a work schedule, as it is influenced by the perceived obstacles, more factors were taken into consideration. Again the first consideration appeared to be problems of accountability if the responsibility is divided. The workers would need to know who would be responsible for what. This is one of the concerns that most organisations (and the job-share partners) introducing job-sharing appear to encounter and need to address clearly, before effecting a job-share arrangement (Olmsted *et al.* 1989). Olmsted *et al.* (1989) would also agree on the importance of appropriately matching partners if the job-share arrangement is to work. It would appear from the literature (Chapter 2), with regard to those who share jobs, that this seems to be less of a problem especially where the job-share arrangement is initiated by the partners themselves.

10.5.2 Job-seekers

For the job-seekers the frequencies and means indicate that they disagree that any of the obstacles would be important enough to prevent introducing the job-share work schedule. Only two obstacles may be said to be relatively important. These are:-

- problems of accountability if the responsibility is divided (32%), and
- lack of awareness of the work option (31%).

With regard to suitability of job-sharing, only union contracts was a significant factor that would, in their perception, influence the introduction of job-sharing.

The statistically significant obstacles that would affect their personal preference of the work schedule are:-

- lack of awareness of the work option,
- cost of supervision,
- union contracts, and
- matching partners.

On being given only the job-share option, the reasons which are important predictors of their decision whether to job-share or not, by the job-seekers, are:-

- union contracts, and
- cost of supervision.

Generally, the job-seekers appear to feel that there is no obstacle too big to prevent the introduction of the job-share schedule. This is probably because they are unemployed and

anything in the form of work that would provide some income, should be explored and cannot be perceived as “impossible”. However the statistical results reveal a somewhat different picture.

Again, where it comes to personal preference of the work schedule, more factors appear to play a role on the decision that would be taken. Only union contracts appear to play a role in their perception of the suitability of the job-sharing schedule. But when considering which one of the work schedules they personally would prefer, they start to consider other factors as well, such as awareness of the schedule and matching partners. If they were offered a job-share work option, they feel that what they do would depend on union contracts and cost of supervision.

10.5.3 Organisation

All the factors in table 10.16, except cost of supervision (23%), were ranked as relatively important possible obstacles to introducing job-sharing. Those that were perceived as most important are:-

- problems of accountability,
- resistance to change,
- training costs and/or medical aid,
- administrative costs and/or recruitment, and
- union contracts and/or lack of awareness.

From these results it may be seen that there would be a need for thorough planning before job-sharing is introduced, if it is to be accepted by the organisations. It is also interesting to note that while the workers and job-seekers perceived cost of supervision as a possible obstacle, it is not perceived by the organisations as an obstacle to introducing the job-

sharing work schedule. One would have expected this to be the other way round. This study also conducted analysis of variance to determine any differences on sample means on similar items, which is reported in the next section.

10.5.4 Comparison between Samples: Obstacles

Analysis of variance was conducted to determine any significant differences in the perceived obstacles to introducing job-sharing as seen by the workers, organisations and job-seekers.

The respondents were asked to indicate the extent to which they agreed or disagreed that any one of the listed factors would be an obstacle to introducing job-sharing. The scale ranged from 1 = strongly disagree, to 5 = strongly agree. Table 10.17 reports the result at the 0,05 level of significance.

TABLE 10.17: COMPARISON BETWEEN THE SAMPLES WITH REGARD TO OBSTACLES TO JOB-SHARING

VARIABLE	MEAN			F- value	F- Prob
	Worker	Organisation	Job-seeker		
Resistance to change (z22)	3,53	3,60	2,47	41,56	0,00
Cost of supervision	3,34	3,13	2,70	16,70	0,00
Union contracts	3,34	3,26	2,55	22,15	0,00
Lack of awareness of option/work schedule	3,39	3,06	2,86	11,72	0,00
Matching partners	3,59	3,13	2,73	27,51	0,00
Problems of accountability if responsibility is divided	3,87	3,93	3,12	20,84	0,00

The T-test results reveal that the means of the job-seekers were significantly different on all items to those of the workers and organisations.

The job-seekers are more inclined to think that the factors listed would not be obstacles to introducing job-sharing. The workers and organisations are not sure whether most of the factors would be obstacles. Both these groups though, lean toward agreeing that **resistance to change, problems of accountability, and matching of partners for the workers would be obstacles to introducing job-sharing.**

These results indicate that the job-seekers are more receptive to the job-sharing option. This could be because they are not employed and job-sharing is seen as an opportunity for employment. The workers and the organisations are unsure in most cases, probably because they would be willing to try options which might be better than just the current work schedule.

10.6 CONCLUSION

The means and frequencies do indicate that for both the employees and job-seekers, the major three antecedents to job-sharing are:-

- attending to personal activities,
- attending to family responsibilities, and
- going for further studies.

While both the remaining reasons (“allow me to work when more alert” and “give me time to participate in professional activities”) are relatively important antecedents for the workers in introducing job-sharing, the former reason was not important to the job-seekers.

The only **significant antecedents** to job-sharing in the case of **workers** are:

- participate in professional activities,
- attending to family responsibilities, and
- and attending to personal activities.

For the **job-seekers**, the **significant antecedents** to job-sharing are the same as the workers above, except for the first one, "participate in professional activities".

For the **organisation**, respondents agreed that the most important **antecedents to job-sharing** include an alternative to lay-offs, to enable employees to continue with studies, to retain valued employees and to allow flexibility in work scheduling.

With regard to the **obstacles**, the frequencies and means indicate that whilst the **workers** perceived all the factors as potential obstacles to introducing job-sharing, the **job-seekers** did not.

The statistically **significant obstacles** to job-sharing that would influence the **workers'** perception of the suitability and preference of a work schedule, are problems of accountability if responsibility is divided, cost of supervision and union contracts.

The statistically **significant obstacles** to job-sharing that would influence the **job-seekers'** perceptions of suitability of job-sharing and preference of the option are union contracts and lack of awareness of the option.

With regard to the organisations all the obstacles (see table 10.16) to introducing job-sharing were rated as relatively important, with problems of accountability and resistance to change, respectively, ranking highest.

Thus from the results above it may be concluded that there are certain factors perceived by the workers, job-seekers and organisations as antecedents and impediments to introducing job-sharing in South Africa. There are some commonalities and also some differences. As to which one of these has an influence on the perceived suitability of job-sharing and personal preference of a work schedule, varies with the type of sample. Thus cognisance of these differences is important in introducing job-sharing in South African organisations. One would have to use appropriate strategies where differences in perceptions are apparent.

This chapter presented the results for Research Question Four. It presented the perceived antecedents and obstacles to job-sharing by the three groups of the respondents and made conclusions based on these perceptions. The next chapter presents the results for the Research Question Five, which aims at exploring the relationship between the willingness to job-share and workers' perceived QWL, productivity and employment opportunities.

CHAPTER 11

RESULTS FOR RESEARCH QUESTION FIVE

11.1 INTRODUCTION

The previous chapter presented the results for Research Question Four. The results revealed that there are certain reasons and obstacles to introducing job-sharing in South Africa, some of which would influence the willingness to job-share. This chapter presents the results for Research Question Five, which only pertains to workers, namely:

“To what extent would willingness to job-share be influenced by the workers perceived QWL, productivity and employment opportunities (unemployment)?”

The only objective of this research question was “to explore the extent to which the workers perceived QWL, productivity and employment opportunities have an effect on their willingness to job-share”.

The chapter first presents the results relating to QWL, followed by productivity, employment opportunities (unemployment) and lay-offs. This chapter will end with a summary and discussion of the results and conclusion on Research Question Five.

Statistical tests were conducted using stepwise regression and discriminant analysis to determine any statistically significant relationships between QWL, productivity and unemployment variables and perceived suitability of job-sharing and personal preference of the work schedule. These results are presented below.

11.2 RESULTS ON QWL

To measure QWL, 17 items which were grouped into five constructs through factor analysis, were used. Respondents were asked how they felt about a variety of work-related factors on a scale of 1 (strongly disagree) to 5 (strongly agree) (See appendix B, section IV). The higher the score the more satisfied the respondents would be with the item. The grouped QWL items used in this analysis, are listed below with their respective means.

- Satisfaction with the organisation (V96 - 99, 101). Mean = 3,3
- Autonomy and flexibility (V104 - 105, 108). Mean = 3,1
- Satisfaction with co-workers, work and supervision (V92 - 93, 95, 103). Mean = 3,6
- Physical working conditions (V90-91). Mean = 3,7
- Satisfaction with pay and work (V94, 100, 107, 122). Mean = 3,2

The mean results indicate that the respondents were neutral on most QWL aspects except for satisfaction with co-workers, work and supervision (Mean = 3,6) and physical working conditions (mean = 3,7) which reveal a relatively more satisfactory stance. The overall QWL mean is 3,4 (see table 7.2). The next section presents the results with regard to the relationship between these QWL variables and perceived suitability of job-sharing and personal preference of the work schedule (ie willingness to job-share).

11.2.1 QWL against Suitability of job-sharing

The stepwise multiple regression analysis was conducted to determine the relationship between QWL and perceived suitability of the job-sharing schedule. First analysis was

done for the overall QWL (mean = 3,4) variable to determine if it has any significant relationship with perceived suitability of job-sharing. Table 11.1 reports the results.

TABLE 11.1: QUALITY OF WORK LIFE AGAINST SUITABILITY OF JOB-SHARING

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V67)						
STEP	Variable entered	Number in	Partial R**2	Model R**2	F- Value	F- Prob
1	Quality of Work Life (QWL)	1	0,0610	0,0610	25,74	0,00

QWL entered the model as a significant explanatory variable of the variation in the perceived suitability of the job-sharing work schedule at the 0,05 level of significance. The R-square value indicates that it explains 6% of the variation in the dependent variable, suitability of the job-sharing work schedule. The study went further to determine which ones of the QWL variables might explain the most of the variation in the perceived suitability of job-sharing through stepwise regression analysis. The results of this analysis are reported in table 11.2.

**TABLE 11.2: QUALITY OF WORK LIFE VARIABLES AGAINST SUITABILITY OF
JOB-SHARING**

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V67)						
STEP	Variable entered	Number in	Partial R**2	Model R**2	F- Value	F- Prob
1	Satisfaction with pay and work	1	0,0915	0,0915	39,37	0,00
2	Physical working conditions	2	0,0085	0,1000	3,67	0,05

The summary of the stepwise procedure in table 11.2 above reveals that the variables which entered on step 1 and 2 are satisfaction with pay and work and physical working conditions, respectively. Satisfaction with pay and work explains 9% of the model and physical working conditions adds 1%, which is the next highest increment to R-square, raising it up to 10%. Even though these only explain 10% of the variation in suitability of the job-sharing work schedule, they are the two most significant explanatory variables with regard to the workers' attitudes toward the job-sharing schedule.

Thus, whether respondents perceive job-sharing as a suitable alternative work schedule or not, depends on how satisfied they are with the quality of work life, especially as it pertains to pay and work and physical working conditions. The next section presents results on how QWL relates to the workers' personal preference for the work schedule.

11.2.2 QWL against Preference for Work Schedule

Discriminant analysis was also conducted to determine the relationship between QWL and personal preference of the work schedule (V 80). The stepwise discriminant analysis results for QWL as a variable, are presented in Table 11.3.

TABLE 11.3 : QUALITY OF WORK LIFE AGAINST PREFERENCE FOR WORK SCHEDULE

Stepwise Selection (Discriminant Analysis) : Summary									
step	Variable Entered	Number In	Partial R**2	F Stat.	Prob > F	Wilks' Lambda	Prob < Lambda	Canon. Corre.	Prob > ASCC
1	QWL	1	0.1061	24.502	0.0001	0.8939	0.0001	0.0530	0.0001

The stepwise selection summary results of the discriminant analysis in table 11.3 reveal that QWL is a significant explanatory variable of the personal preference for the work schedule for the workers at the 0,05 level of significance. It explains approximately 11% of the variation in personal preference for the work schedule. The study also went further to determine which ones of the QWL variables might explain the most of the variation in the personal preference for the work schedule through stepwise discriminant analysis. The results of this analysis are reported in table 11.4.

TABLE 11.4 : QUALITY OF WORK LIFE AGAINST PREFERENCE FOR WORK SCHEDULE

Summary Table								
Step	Action Entered	Removed	Vars in	Wilks' Lambda	Sig.	Minimum D Squared	Sig.	Between Groups
1	Satis.: pay & work		1	.90525	.0000	.11527	.0371	Current & other
2	Autonomy & flexibi.		2	.84325	.0000	.39207	.0033	Job-share & other
3	Physical work.Cond.		3	.82362	.0000	.59440	.0006	Job-share & other

Canonical Discriminant Functions									
Fcn	Eigen value	% of Var	Cum %	Canonical Corre	: After Fcn	Wilks' Lambda	Chi-square	df	Signi-cance
					: 0	.8236	79.1689	6	.0000
1*	.16719	80,60	80,60	.3785	: 1	.9613	16.0929	2	.0003
2*	.04023	19,40	100,00	.1967	:				

* Marks the 2 canonical discriminant functions remaining in the analysis.

Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)

	Func 1	Func 2
Satisfaction with pay and work	.77096*	.36288
Autonomy & flexibility	.75889*	-.63846
Physical working conditions	.59808*	.44449
Satisfaction with the organisation	.54676*	-.02845
Sats. With co-workers, work & supervision	.42825*	..01798

* denotes largest absolute correlation between each variable and any discriminant function.

Canonical discriminant functions evaluated at group means (group centroids)

Group	Func 1	Func 2
Current schedule	.28117	-.02098
Job-share "	-.65136	-.19694
Other	-.42298	.53943

Classification results Percent of "grouped" cases correctly classified: 67,72%.
Proportional chance ratio is 49%.

The summary table of the discriminant analysis results presented in table 11.4 reveal that three variables entered and remained in the model as significant discriminators, based on their Wilk's Lambda and D squared values. The model reveals that satisfaction with pay and work, autonomy and flexibility and physical working conditions are the most significant explanatory variables of the workers' personal preference for the work schedule.

The canonical discriminant functions reveal that function 1 explains approximately 81% of the variation in the dependent variable, thus it is the most useful. The structure matrix reveals that all variables on function 1, if left in the model, are important determinants of the personal preference of the schedule by the workers.

The group centroids results indicate that function 1 discriminates well between group 1 (those that would prefer the current work schedule) versus group 2 (those that would prefer job-sharing) and group 3 (those that would prefer some other alternatives). The classification results of "grouped" cases correctly classified is approximately 68%, as opposed to 49% if classification had been based on chance. The results pertaining to productivity variables, as they relate to perceived suitability of job-sharing and preference of the work schedule, are presented next.

11.3 RESULTS ON PRODUCTIVITY

To measure productivity 13 variables which were grouped into five constructs through factor analysis (see chapter 6) are listed below, with their respective means.

- Amount of work (V102, 106, 109 -110, 116). Mean = 3,3.
- Absenteeism (V112 - 114). Mean = 3,9.
- Continuity (V117 - 119). Mean = 3,5.
- Tardiness (V111). Mean = 3,9.
- Attendance (V115). Mean = 3,5.

The overall mean for productivity variables is 3,5 (see table 7.2). Thus, based on the mean results, it would appear that the workers are relatively satisfied with these aspects of their work, more so with regard to absenteeism and to tardiness. It would appear that family and transportation problems do not, to some degree, cause workers to be absent from work nor do they intend coming late for work. The statistical results of these variables, as they relate to perceived suitability of job-sharing and personal preference of the work schedule, are presented next.

11.3.1 Productivity against Suitability of Job-sharing

To establish the relationship between suitability of the job-sharing schedule (V67) and productivity, step-wise regression was conducted. First analysis was done for the overall productivity (mean = 3,5) variable to determine if it has any significant relationship with perceived suitability of job-sharing. Table 11.5 reports the results.

TABLE 11.5: PRODUCTIVITY AGAINST SUITABILITY OF JOB-SHARING

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V67)						
STEP	Variable entered	Number in	Partial R**2	Model R**2	F- Value	F- Prob
1	Productivity	1	0,0376	0,0376	15,44	0,00

Productivity entered the model as a significant explanatory variable of the variation in the perceived suitability of the job-sharing work schedule at the 0,05 level of significance. The R-square value indicates that it explains approximately 4% of the variation in the dependent variable, suitability of the job-sharing work schedule. The study went further to determine which ones of the productivity variables (constructs) might explain the most of the variation in the perceived suitability of job-sharing, through stepwise regression analysis. The results of this analysis are reported in table 11.6.

TABLE 11.6 : PRODUCTIVITY AGAINST SUITABILITY OF WORK SCHEDULE

Summary of stepwise procedure for dependent variable: suitability of job-sharing (V67)						
STEP	Variable entered	Number in	Partial R**2	Model R**2	F-Value	F-Prob
1	Absenteeism	1	0,0394	0,0394	15,85	0,00
2	Amount of work	2	0,0154	0,0548	6,26	0,01

The summary of stepwise procedure indicates that absenteeism and amount of work are the two variables which remained in the model. Both of these were significant and together explained approximately 6% of the variation in perceived suitability of job-sharing. Thus it may be concluded that productivity does have an impact on whether workers perceive job-sharing as suitable, or not more so with regard to absenteeism and amount of work to be done. The next section presents the results on this variable, with regard to preference for the work schedule.

11.3.2 Productivity against Preference for Work Schedule

To establish the relationship between productivity variables and preference for the work schedules (V80) discriminant analysis was conducted. The stepwise discriminant analysis results for productivity as a variable, are presented in Table 11.7.

TABLE 11.7 : PRODUCTIVITY AGAINST PREFERENCE FOR WORK SCHEDULE

Stepwise Selection (Discriminant Analysis): Summary									
Step	Variable Entered	Number In	Partial R**2	F Stat	Prob > F	Wilks' Lambda	Prob < Lambda	Canon. Corre.	Prob > ASCC
1	PROD	1	0,0868	19,620	0,0001	0,9132	0,0001	0,0434	0,0001

The stepwise selection summary results of the discriminant analysis in table 11.7 reveal that productivity is a significant explanatory variable of the personal preference for the work schedule for the workers, at the 0,05 level of significance. It explains approximately 9% of the variation in personal preference for the work schedule. The study also went further, to determine which ones of the productivity variables might explain the most of the variation in the personal preference for the work schedule through stepwise discriminant analysis. The results of this analysis are reported in table 11.8.

The summary table of the discriminant analysis results presented in table 11.8 reveal that all five variables entered and remained in the analysis as significant discriminators, based on their Wilk's Lambda values. The analysis reveals that amount of work, attendance, tardiness, absenteeism and continuity are the most significant explanatory variables of the workers' personal preference for the work schedule.

TABLE 11.8 : PRODUCTIVITY AGAINST PREFERENCE FOR WORK SCHEDULE

Summary Table						
Action	Vars	Wilks'	Minimum			
Step Entered	in	Lambda	Sig.	D Squared	Sig.	Between Groups
1 Amount of work	1	.93883	.0000	.07678	.0918	Current & other
2 Attendance	2	.92137	.0000	.12460	.1674	Job-share & other
3 Tardiness	3	.91037	.0000	.27752	.0480	Job-share & other
4 Absenteeism	4	.89549	.0000	.31517	.0215	Current & other
5 Continuity	5	.87505	.0000	.37016	.0625	Job-share & other

Canonical Discriminant Functions									
Edge	%of	Cum	Canonical: After Wilks'	Chi-		Signi-			
Fun	value	Var	Corr :	Fcn	Lambda	square	df	fiancé	
				: 0	.8750	53.52	10	.0000	
1*	.11775	84,01	84,01	.3245704	: 1	.9781	8.88	4	.0640
2*	.02241	15,99	100,00	.1480350	:				

* Marks the 2 canonical discriminant functions remaining in the analysis.

Structure matrix: Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)

	Func 1	Func 2
Amount of work	.73454*	.26918
Continuity	.70426*	-.16187
Absenteeism	.57156*	.43856
Attendance	.41621*	-.32624
Tardiness	.00829	.69616*

* denotes largest absolute correlation between each variable and any discriminant function.

Canonical discriminant functions evaluated at group means (group centroids)

Group	Func 1	Func 2
Current (1)	.23080	-.02141
Job-share (2)	-.57202	-.13456
Other (3)	-.30539	.41231

Classification results -Percent of "grouped" cases correctly classified: 68,97%.
Proportional chance ratio: 50%

The canonical discriminant functions reveal that function 1 explains approximately 84% of the variation in the dependent variable, thus it is the most useful. The structure matrix reveals that all variables except tardiness on function 1, if left in the model, are important determinants of the personal preference of the schedule by the workers.

The group centroids results in table 11.8 indicate that function 1 discriminates well between group 1 (those that would prefer the current work schedule), versus group 2 (those that would prefer job-sharing) and group 3 (those that would prefer some other alternatives). The classification results of “grouped” cases correctly classified is approximately 69%, as opposed to 50% if classification had been based on chance. The results pertaining to employment opportunities variables as they relate to perceived suitability of job-sharing and preference of the work schedule, are presented next.

11.4 RESULTS ON UNEMPLOYMENT

Unemployment (employment opportunities) was measured through two dimensions. One dimension was whether the respondents have experienced and are expecting lay-offs. This was measured through two variables resulting from the factor analysis (V120 - V121). The other dimension related to a question (see appendix B: Q53, V79) that was directly posed to the respondents, as to what they would opt for if their organisations had no choice but to retrench some workers. The results on the first dimension will be presented first.

The two variables (V120 - 121) were grouped together as one construct namely lay-offs, with a mean of 3,2. This mean indicates that respondents were neutral in their feelings with regard to employment opportunities, not being so sure of what might happen. In the next section the results of this variable, as it relates to perceived suitability of job-sharing and personal preference for the work schedule, are presented.

11.4.1 Unemployment against Suitability of Job-sharing

To establish the relationship between suitability of job-sharing schedule (V67) and unemployment (V120-V121) stepwise regression was conducted. Stepwise regression results are reported in table 11.9

TABLE 11.9 : UNEMPLOYMENT AGAINST SUITABILITY OF JOB-SHARING

Summary of regression procedure for dependent variable: suitability of job-sharing (V67)						
Source	DF	Sum of squares	mean square	R-square 0,0000	F- Value	F-Prob
Model	1	0,04	0,04		0,02	0,89
Error	390	813,22	2,08			
C total	391	813,26				

Since unemployment was measured through one variable only, normal regression analysis was conducted. The results above indicate an R-square value of zero, implying that this variable does not explain any variation in the perceived suitability of job-sharing by workers.

11.4.2 Unemployment against Preference for the Work Schedule

To establish the relationship between unemployment variables and preference for the work schedules (V 80) discriminant analysis was conducted. Results of the discriminant analysis are reported in Table 11.10.

TABLE 11.10 : UNEMPLOYMENT AGAINST PREFERENCE FOR WORK SCHEDULE

Summary Table								
Step	Action Entered	Removed	Vars in	Wilks' Lambda	Sig.	Minimum D Squared	Sig.	Between Groups
1	V120_121		1	.98648	.0631	.00467	.7147	2 3
Canonical Discriminant Functions								
Fcn	Eigenvalue	% of Var	Cum %	Canonical Corr	: After Fcn	Wilks' Lambda	Chi-square	df
1*	.01371	100,00	100,00	.1163	: 0	.9865	5.5268	2
* Marks the 1 canonical discriminant functions remaining in the analysis.								
Structure matrix:Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)								
				Func 1				
Unemployment (V120_121)				1.00000				
Canonical discriminant functions evaluated at group means (group centroids)								
Group		Func 1						
1		.07955						
2		-.14517						
3		-.21354						
Classification results -Percent of "grouped" cases correctly classified: 67,73%								
Proportional chance ratio:50%								

The summary table of the discriminant analysis results presented in table 11.10 reveal that this one variable entered and remained in the analysis as a relatively significant discriminator, based on its Wilk's Lambda value. The analysis reveals that lay-offs is a significant explanatory variable of the workers' personal preference for the work schedule. Lay-offs being the only variable thus explains 100% of the variation in the personal preference for the work schedule.

The group centroids results indicate that function 1 discriminates well between group 1 (those that would prefer the current work schedule) versus group 2 (those that would prefer job-sharing) and group 3 (those that would prefer some other alternatives). The classification results of "grouped" cases correctly classified is approximately 68%, as

opposed to 50% if classification had been based on chance. The results pertaining to whether job-sharing would be perceived as an alternative to lay-offs and how this variable relates to perceived suitability of job-sharing and preference for the work schedule, are presented next.

11.4.3 Lay-offs against Suitability of the Job-sharing Work Schedule

A question was also posed to the respondents as to what they would opt for if their organisation was experiencing problems and had no choice but to lay some employees off). The frequencies are shown below.

- 34% said they would share work with a proportional cut in salary, instead of laying some people off, until the organisation's circumstances improves.
- 38% said they would share jobs, because that is the option that would be most suitable to them.
- 20% said they would opt for lay-off to be effected.
- 8% would opt for some other alternative.

The results above indicate that lay-offs would be averted, either by opting for job-sharing (38%); work sharing (34%); or by opting for some other alternatives (8%). Only 20% of the respondents would opt for lay-offs to be effected. More than a third of the respondents would opt for job-sharing. These results were tabulated against perceived suitability of job-sharing, to determine the relationship between the two. Table 11.11 below reports the results.

TABLE 11.11: LAY-OFFS (V79) AGAINST SUITABILITY OF JOB-SHARING (V67)

V79 by V67				
Frequency				
Percent				
Row Pct	Very sui	Unsuit		
Col Pct	+ Suitab.	Neither Nor	+ comp unsuit.	Total
1	43	26	62	131
	11,23	6,79	16,19	34,20
	32,82	19,85	47,33	
	31,39	41,94	33,70	
2	77	24	40	141
	20,10	6,27	10,44	36,81
	54,61	17,02	28,37	
	56,20	38,71	21,74	
3	13	10	56	79
	3,39	2,61	14,62	20,63
	16,45	12,66	70,89	
	9,49	16,13	30,43	
4	4	2	26	32
	1,04	0,52	6,79	8,36
	12,50	6,25	81,25	
	2,92	3,23	14,13	
Total	137	62	184	383
	35,77	16,19	48,04	100,00

Frequency Missing = 48

STATISTICS FOR TABLE OF V79 BY V67

Statistic	DF	Value	Prob
Likelihood Ratio Chi-Square	12	68,570	0,001
Mantel-Haenszel Chi-Square	1	18,755	0,001

The cross tabulation results in table 11.11 above, reveal that there is a significant relationship between lay-offs and perceived suitability of the work schedule. 56% of all those that felt that job-sharing is suitable (very suitable + suitable) said they would like to share jobs instead of laying some people off, because that would suit them best. Only 22% of those who felt that job-sharing was unsuitable, said they would opt for it instead of lay-offs.

11.4.4 Lay-offs against Preference for the Work Schedule

The responses to what the employees would opt for in the event of lay-offs, were also tabulated against their personal preference for the work schedule. The results given in table 11.12 also reveal a significant relationship by their chi-square values at the 0,5 level of significance.

TABLE 11.12: LAY-OFFS (V79) AGAINST PREFERENCE FOR WORK SCHEDULE (V80)

V79	V80			
Frequency				
Percent				
Row Pct				
Col Pct	Current	Job-share	Other	Total
Share work with	93	30	13	136
proportional	23,02	7,43	3,22	33,66
cut in salary till	68,38	22,06	9,56	
orgn improves	34,83	31,91	30,23	
	92	54	9	155
Share jobs	22,77	13,37	2,23	38,37
'cos most	59,35	34,84	5,81	
suitable	34,46	57,45	20,93	
	58	9	12	79
Effect lay-offs	14,36	2,23	2,97	19,55
	73,42	11,39	15,19	
	21,72	9,57	27,91	
	24	1	9	34
Other	5,94	0,25	2,23	8,42
	70,59	2,94	26,47	
	8,99	1,06	20,93	
Total	267	94	43	404
	66,09	23,27	10,64	100,00
Frequency Missing = 27				
STATISTICS FOR TABLE OF V79 BY V80				
Statistic	DF	Value	Prob	
Chi-Square	6	34,842	0,001	
Likelihood Ratio Chi-Square	6	36,570	0,001	

The results in table 11.12 reveal that 57% of all those who personally prefer job-sharing also said that they would prefer to job-share than to have some employees laid off. 34% of all those who would personally prefer the current work schedule also said that they would prefer job-sharing as an alternative to lay-offs. Approximately 20%, of all the respondents, would rather that the lay-offs be effected than have some other alternative. The majority of the respondents (38%) would prefer job-sharing as an alternative to lay-offs and others would prefer to share work (34%) with a proportional cut in salary, instead of laying some people off until the organisational circumstances improved.

Thus, it may be concluded, based on the results reported in table 11.12, that lay-offs have an impact on the workers' perception of the suitability of job-sharing and personal preference of the work schedule.

11.5 SUMMARY AND DISCUSSION OF THE RESULTS ON RESEARCH QUESTION FIVE

The results do indicate that while QWL as a variable does significantly influence workers' perceived suitability of job-sharing, there are at least two of its five variables (constructs) that are more important. These are **satisfaction with pay and work** and **physical working conditions**. In addition to these, **autonomy and flexibility** would also influence the workers personal preference for the work schedule. The structure matrix does confirm that on function 1, if all the variables were left in the analysis, they would all significantly contribute in explaining the variation in the perceptions of workers, with regard to which one of the schedule they would prefer.

With regard to productivity, it also significantly influences the workers' perception of whether job-sharing is suitable or not, more so with regard to absenteeism and the amount of work. In addition to these, attendance, tardiness and continuity would influence the workers' personal preference for the work schedule. The structure matrix does confirm that if all the variables were left in the analysis, except tardiness, they all would significantly contribute in explaining the variation in the perceptions of workers, with regard to which one of the schedules is preferred on function 1.

On unemployment, as a variable relating to effected and anticipated lay-offs, the results reveal that it has no influence on perceived suitability of job-sharing, but it does have an impact on the personal preference of the work schedule. With regard to the choice of respondents, if their organisations had no choice but to effect lay-offs, the results indicate that their choice does influence their perceptions of suitability of job-sharing and preference of the work schedule. The workers would rather job-share or opt for some other alternatives, than opt for lay-offs.

11.6 CONCLUSION

Thus it may be concluded that QWL, productivity and unemployment would influence whether or not job-sharing would be perceived as suitable in the South African labour market and whether or not it would be preferred as an alternative work schedule. Thus, based on these results, it would be appropriate to conclude that job-sharing would, to some extent, address problems relating to QWL, labour productivity and unemployment (to the degree that it would be used as an alternative to lay-offs).

This chapter has presented the results for the final research question in this study. Based on the results presented in this chapter and in previous chapters, it may be concluded that there is a potential for job-sharing in South Africa and it may be used as an alternative solution to address problems relating to QWL, productivity and unemployment. However, it is important to ensure that possible impediments or obstacles are adequately addressed prior to its introduction. The next chapter will draw major conclusions on this study and proposes models that would aid potential job-sharing users, that is organisations, workers and job-seekers, in making the appropriate decisions pertaining to its introduction and implementation.

CHAPTER 12

RESEARCH FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

12.1 INTRODUCTION

The previous chapters presented the research problem and questions; the literature; conceptual framework; methodology; and the results of the survey. This chapter presents the major research findings, based on the literature and the results of the survey, and recommendations, conclusions and suggestions for further research. First, the major research findings will be summarised pertaining to each research question. Then, models on the willingness to job-share, followed by a general job-sharing model, will be proposed and recommended. The chapter concludes with overall conclusions and suggestions for further research.

12.2 RESEARCH FINDINGS

This section presents the major research findings based on literature and the survey results as they correspond to the research questions presented in Chapter One (section 1.6).

12.1.1 Research Question One

Based on the literature (see chapters 2-5) it may be concluded, with regard to Research Question One that, **Job-sharing**, a voluntary work alternative where two or

more people share one job with the benefits prorated, **can and has mostly been used successfully as an alternative work schedule in the industrialised west.**

The literature revealed that, **job-sharing can and has been used as an alternative work schedule** for those that desire to work less hours, for many and diverse reasons including balancing between work and family life and other non-work activities, as well as to phase out of employment, to provide more employment opportunities and to improve QWL and worker productivity. The literature also reveals that with proper planning and implementation, job-sharing may apply to a variety of positions, industries and workers even though it appears to be more common among working mothers with small and school going children.

12.2.2 Research Question Two

Based on the results of Research Question Two (Chapter 8), **employees, employers and jobseekers in RSA are willing to job-share** and that there are differences among some subgroups with regard to willingness to job-share. That is,

1. Job-sharing is perceived as suitable by approximately one third of the respondents, and preferred by approximately a quarter of the respondents in the case of the employees and organisations, and by two thirds in the case of job seekers.
2. There are significant differences among the respondents with regard to the willingness to job-share, pertaining to the number of dependants; type of industry; area of work; position held in the organisation, awareness of the job-sharing positions and period of unemployment.

12.2.3 Research Question Three

Based on research question three (Chapter 9), **the work environment in South African organisations is conducive to job-sharing to the degree that:**

1. The respondents are not highly affective towards the current schedule, thus indicative of the likelihood of the desire to try some other alternative.
2. The job-share schedule would interfere less with the non-work activities, more so for female and younger employees.
3. The current work scheduling practices pose problems for one third of the organisations in the sample.
4. The respondents are neutral in their receptivity to change, indicative of a higher probability that a alternative schedule might not meet with high resistance.

Based on the above results it may be concluded that there is some potential in RSA for an alternative work schedule such as job-sharing, to the degree that willingness to job-share is influenced by affectivity towards the current schedule; perceived interferences with the work schedule; and receptivity to change.

12.2.4 Research Question Four

Based on the results of Research Question Four (Chapter 10) it may be concluded that **there are antecedents and impediments to introducing job-sharing, some of which are specific to workers, organisations and job-seekers in South Africa.**

It is important when introducing job-sharing in the South African organisations, to be aware of these commonalities and differences among the different groups (samples) so that where differences in perceptions are apparent, appropriate strategies may be used.

12.2.5 Research Question Five

Based on the results of Research Question Five (Chapter 11) , it may be concluded that **willingness to job-share in RSA is influenced by QWL, productivity and employment opportunities (unemployment)**, and that job-sharing may be used as an alternative to lay-offs.

Thus it would also be appropriate, based on these results, to conclude that job-sharing would, to some extent, address problems relating to QWL, labour productivity and unemployment (to the degree that it would be used as an alternative to lay-offs and increase employment opportunities).

Based on these results, this study proposes three models. The first model suggests that there are two dimensions to willingness to job-share in South Africa, which is perceived suitability and personal preference for the work schedule. The second model proposes that there are specific motivators, which in combination with other factors, influence the willingness to job-share for each sample (employees, organisations and job-seekers). The third model proposes overall job-sharing motivators and possible outcomes. These models are presented and explained below.

12.3 RECOMMENDATIONS

Based on the research findings presented above, this section proposes and recommends three models that pertain to job-sharing, its consequences and possible outcomes. The model for the dimensions of the willingness to job-share is presented and explained first.

12.3.1 Dimensions of Willingness to Job-share

As alluded to in section 8.2 above, willingness to job-share in this study has been measured on two dimensions; namely perceived suitability of job-sharing and personal preference for the work schedule. This study recommends a model which potential job-sharers may apply in organisations when attempting to determine the willingness to job-share amongst their employees. This model is presented in figure 12.1 and explained below.

It is suggested from figure 12.1, that employers should establish whether the majority of the workers or employees would support job-sharing, and who, among these, would personally prefer it. These two dimensions are not mutually exclusive, in that those that personally prefer job-sharing are likely to have perceived it as a suitable alternative. Although there appears to be a correlation between these two factors, causality is not evident.

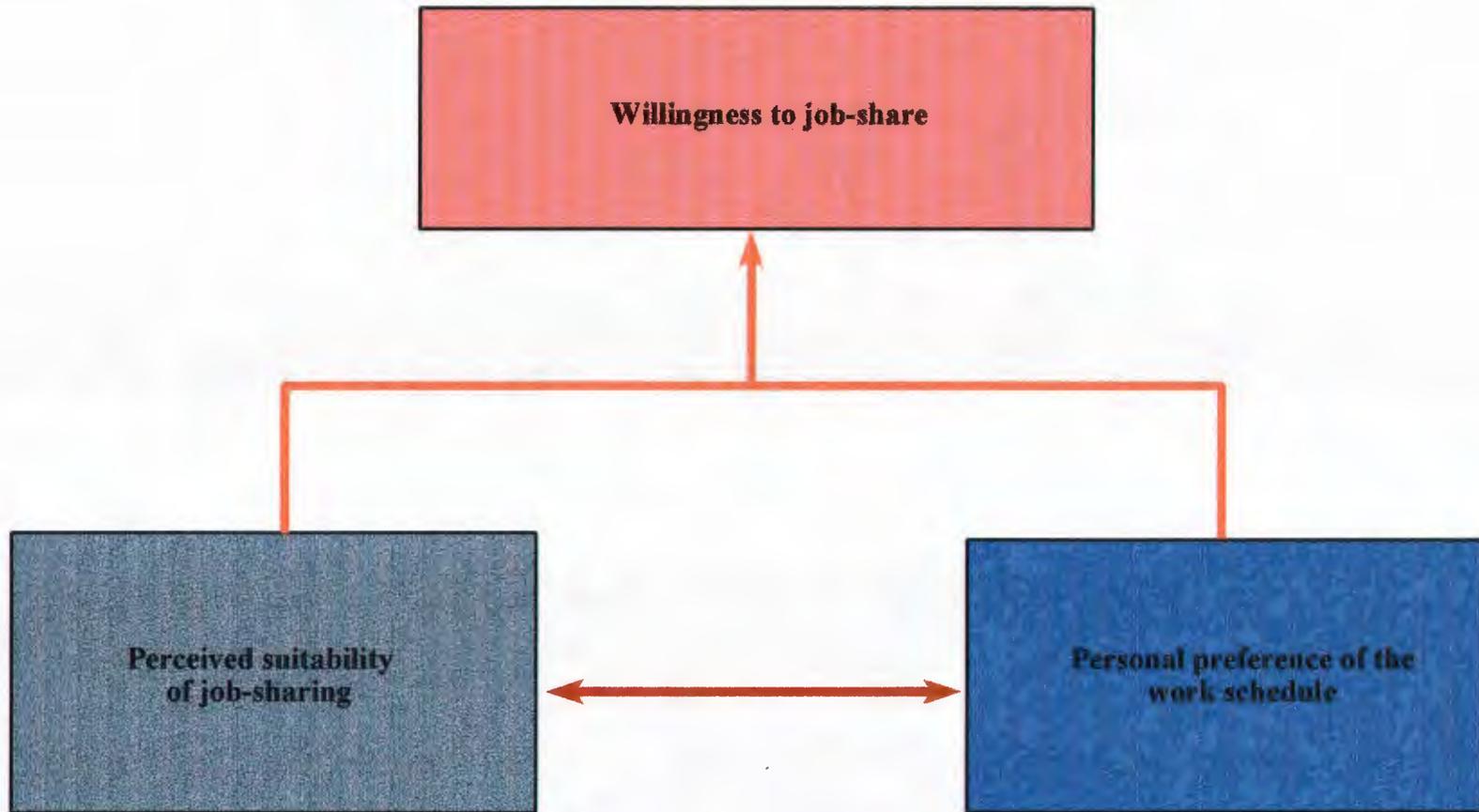


FIGURE 12.1: DIMENSIONS OF WILLINGNESS TO JOB-SHARE

Thus, while some will personally wish want to job-share, others would only support job-sharing as an alternative work schedule because they perceive it as suitable. Thus, it is expected that both dimensions would impact on the general willingness to allow job-sharing to be implemented in South African organisations.

Both the perceived suitability of job-sharing and personal preference for the work schedule are influenced by a variety of factors (motivators). These primary motivators to the willingness to job-share are presented in the next section which presents and discusses the second model.

12.3.2 Motivators of the Willingness to Job-share

Based on the results from this study it may be proposed that some factors exist which may be said to be primary motivators and others as mediating variables, to the willingness to job-share in RSA. Figure 12.2 presents the motivators of the willingness to job-share. These include demographics, perceived reasons (to balance work and non-work life), QWL, productivity and employment opportunities.

These motivators of the willingness to job-share are subject to other mediating variables as shown at the mutation stage. These mediating variables include work scheduling practices, receptivity to change, obstacles to job-sharing and perceived interference to engage in other non work activities by the schedule.

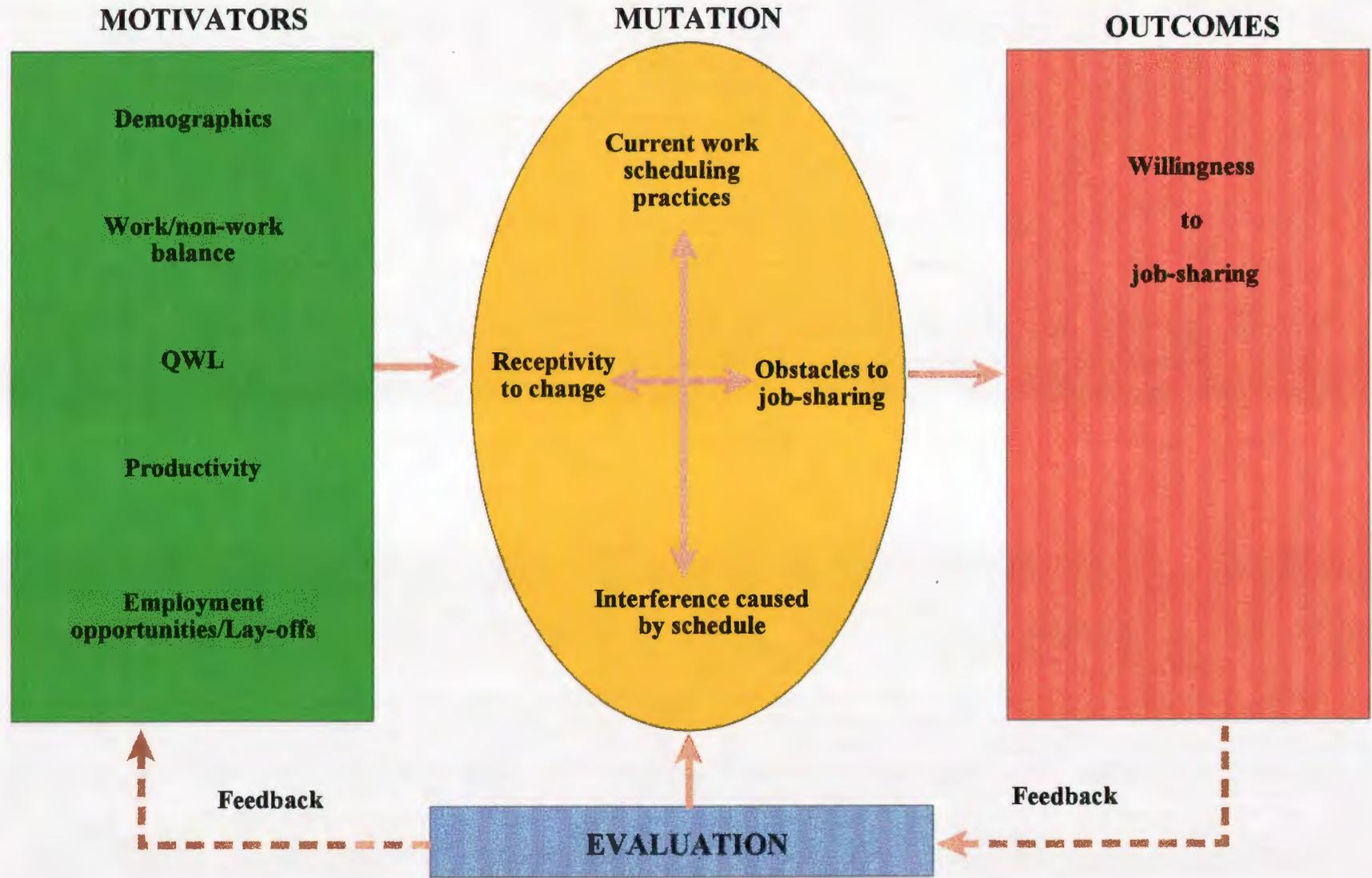


FIGURE 12.2: MOTIVATORS OF WILLINGNESS TO JOB-SHARING

It is recommended that potential users of the job-sharing work schedule should take cognisance of the fact that whether one actually opts personally to job-share or just to support a job-sharing arrangement will also be influenced by whether or not the current work scheduling practices are conducive to job-sharing; the degree to which a schedule is seen to be interfering with activities to do other things; and the perceived obstacles, as well as the degree of receptivity to change.

One of the mediating factors to willingness to job-share is the current scheduling practices. Therefore, the following will all influence workers' willingness to job-share:

Whether or not under the **current work schedule**:

- * the organisation experiences work scheduling problems (see appendix C, v7 - V14);
- * the workers are satisfied with regard to its effect on their social and family life, transport to and from work and personal security; and
- * coordinating work with that of others is easy or difficult.

The degree to which the schedule is perceived as **interfering with opportunities to do other things** such as the **current schedule's interference with training, services, events and consumables and with activities involving family and friends**, does significantly influence the workers' personal preference for the work schedule.

With regard to receptivity to change, the overall results indicate that the respondents are neither receptive nor unreceptive to change. However **receptivity to change does have an impact on the personal preference** of the workers for a specific schedule. Those that

prefer the current schedule do significantly differ from those that either prefer the job-sharing or some other alternative.

There are factors that are perceived as significant **obstacles** to introducing job-sharing, as revealed by the results of this study, which the potential users of job-sharing need to address, prior to implementing it. These include,

- problems of accountability if responsibility is divided,
- cost of supervision, and
- union contracts.

It may be concluded, based on the model presented in figure 12.2, that motivators of the willingness to job-share include the demographic profiles, QWL, productivity, employment opportunities in view of lay-offs and the need to balance work and non-work life as indicated by the reasons perceived as important in opting for the job-share schedule.

In view of the current work scheduling practices; perceived interference caused by the work schedule to do other things; receptivity and obstacles to change, at the mutation stage, these motivators will influence whether workers in RSA would be willing to job-share or not. That is, at the mutation stage these factors in combination will affect whether one opts personally to job-share or just to support a job-sharing arrangement. The next section presents the overall job-sharing model.

12.3.3 Motivators and Outcomes of Job-sharing

Based on the literature and the results of the study, an overarching model for job-sharing both as an outcome and an antecedent, is proposed. Figure 12.3 presents this model.

Figure 12.3 presents motivators, and mediating variables which combine at the mutation stage to result in the implementation of job-sharing and which is expected to yield certain outcomes.

The **motivators** with regard to job-sharing include job-satisfaction factors; activities which demand time off work to balance work and non-work life; organisational factors; and other external environmental factors which include economic, social and governmental forces. The job-satisfaction factors include those presented and discussed in Chapter Eleven and are explained above, pertaining to the model as presented in figure 12.2.

The results also revealed some reasons as perceived important motivators pertaining to the willingness to job-share. These reasons reflect activities that require a balance between work and non-work life. These include further studies (education and training); attending to family responsibilities and personal activities; and participating in professional activities.

The results also revealed some factors which pertain to organisations which would motivate the need for job-sharing. These include receptivity to change, availability of skilled employees, flexibility in the work place to meet diverse needs of the workforce, and union contracts and retrenchments.

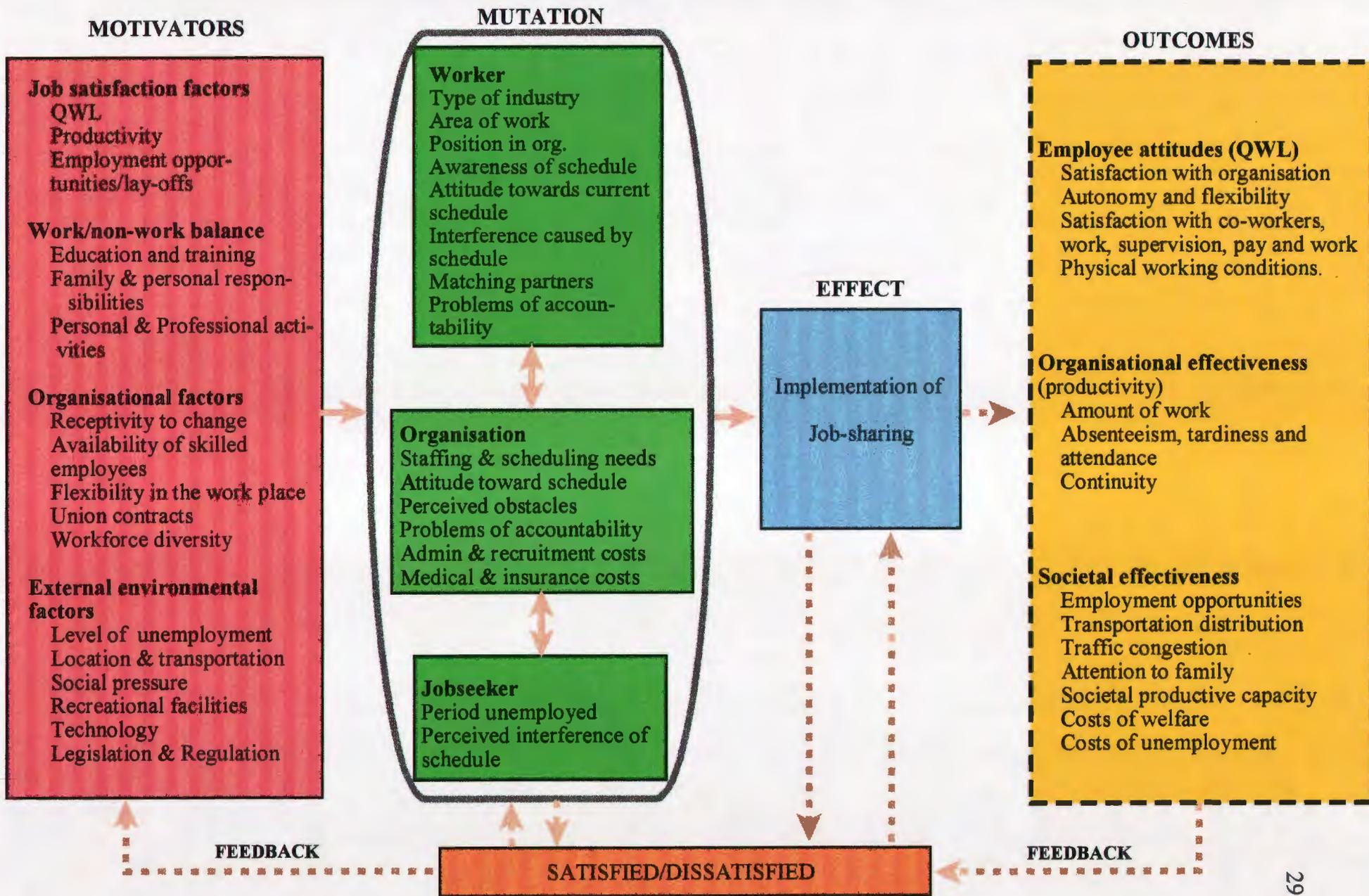


FIGURE 12.3: MOTIVATORS AND OUTCOMES OF JOB-SHARING

Based on literature and the research results, other external environmental factors may also motivate the need for job-sharing. Factors such as the level of unemployment, location and transportation facilities, social pressure, availability of recreational facilities, technology and government legislation and regulation may all motivate the need for employees, employers and job-seekers to opt for job-sharing as an alternative work schedule which would meet the need to work less than full-time. All these factors would combine to feed into a variety of forces pertaining to the workers, organisations and the job-seekers at the mutation stage.

The research results reveal certain factors which relate to the workers, organisations and job-seekers, which would combine at the **mutation** stage and lead to the implementation of job-sharing. Some of these factors are unique and others are common to each of these groups. The results revealed that some of the most significant mediating factors that would influence the workers' willingness to job-share are the type of industry they are in; the area of work; the position held in the organisation; the awareness of the job-share schedule; the attitude toward the current work schedule and the perceived interference caused by the schedule with opportunities to do other things; matching partners; and the problem of accountability if responsibility is divided.

For the organisations, the factors which would influence their decision to implement job-sharing include staffing and scheduling needs; the attitude toward the schedule; problems of accountability if responsibility is divided amongst employees; administration and recruitment costs; and medical and insurance costs.

The results indicate that the major mediating factors for the job-seekers in opting for the job-sharing schedule is the period of unemployment and the perceived interference of schedule with opportunities to do other things.

The literature indicates that with proper job analysis and planning involving all the incumbents, a job-sharing option may be effected. At the **implementation** stage care must be taken to ensure that the environment is supportive of the job-sharing arrangement if it is to succeed. If job-sharing is successfully implemented it would be expected to produce desirable outcomes.

The outcomes of job-sharing would include employee attitudes reflecting satisfaction with the QWL; organisational effectiveness which would reflect higher productivity; and an overall societal effectiveness that entails a better quality of life.

Since this model entails an open system as conceptualised in Chapter Three, the **feed-back** into different stages is inevitable. If the implementation of job-sharing is taken as the outcome, then feedback into the mutation and motivator stage would start from there, otherwise it would start from the anticipated outcomes of job-sharing. Depending on the stage at which there is dissatisfaction, an evaluation of the factors may be conducted to determine what needs to be done to facilitate a successful implementation of job-sharing that would lead to desirable results. For example, it may be possible that the implementation was not properly planned, thus it would have to be re-evaluated at that stage, through the feed-back mechanism, to determine what has to be done to correct the situation. The same could be true of the mutation and motivator stages.

In view of the above results and analysis, taking the systems perspective, the following statements represent the underlying logic or **propositions** in this study, with regard to the South African environment :

If the motivating forces interact to cause changes in the job-satisfaction factors, work/non-work balance, organisational factors and external environmental factors, then the status quo of the organisation, the individual employee and the job-seeker would be revisited. In South Africa, for example, there is scarcity of skilled manpower (Gerber *et al.* 1998). Hence if there are skilled employees who would opt either to job-share or not work at all, it would be to the organisation's advantage to allow them to job-share. In other cases it might be that the job requires a variety of skills which are not possessed by one employee, and therefore, may only be effectively done if shared.

Also, in view of the high unemployment and retrenchments and its many adverse effects (Singh 1998; Gerber *et al.* 1998), it would be beneficial to the organisations, as well as to society at large, rather to opt for job-sharing than to effect lay-offs which would increase the unemployment pool (see figure 5.1). It would also be beneficial where some employees would rather work on a job-share schedule, to recruit the job-seekers on a job-share option thereby increasing employment opportunities and averting the adverse effects of unemployment.

If there are more married couples with dual incomes; more people with enough income who might wish to work less than full-time; people wanting to spend more time on non-work activities; people who would like to "learn" as they "earn"; and people who live far from their working place, then absenteeism, turnover and

tardiness would rise and productivity, QWL and employment levels would be adversely affected. This would cause a desire both for the organisation and the individual employee to opt for an alternative work schedule, job-sharing, that would help solve this instability that is caused by working full-time.

If job-sharing is implemented at the mutation stage, then there may be desired outcomes for the organisation, the individual and society at large, in the form of employee behaviour and attitudes, organisational effectiveness and a better and healthier society.

If the desired outcomes are not the same as the actual outcomes, as detected through the evaluations in the feedback system, then appropriate adjustments (eg. a different job-share option) needs to be made to the motivators (inputs) or to the transformation processes (mutation), in an attempt to produce the desired results.

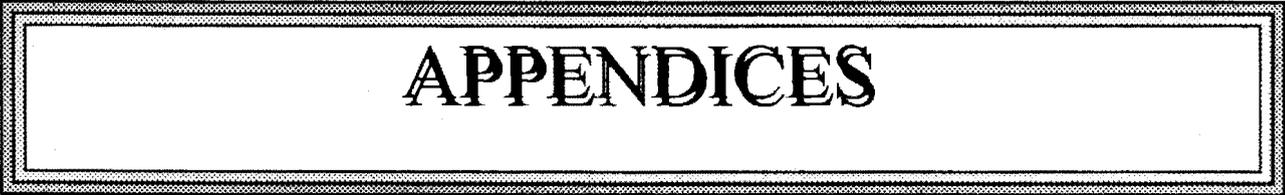
12.4 CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This sections draws the overall conclusions of this study and suggests areas for further research pertaining to job-sharing.

There is a potential for job-sharing in the South African labour market and it is feasible. **Over 1/3 of the workers and organisations, and 2/3 of the job-seekers in RSA are willing to job-share (albeit conditionally).** However, each organisation would need to conduct an audit of the organisational needs and work practices to establish the specific jobs, areas, attitudes and behaviours supportive of the job-share schedule, for effective implementation. Further research is also needed to explore factors which would

distinguish amongst those who only perceive job-sharing as suitable and those that would personally prefer it.

Job-sharing may be an alternative solution to poor QWL, low productivity, massive retrenchment problems and high unemployment in South Africa, in that these factors significantly impact on the willingness to job-share. Further research is needed to determine the specific levels of dissatisfaction at which the employees and organisations would opt to implement job-sharing. Finally, further research is needed to establish (or test) the specific outcomes of job-sharing in RSA once it has been implemented.



APPENDICES

APPENDIX A

Permission to use items and Letter of introduction



1996-04-10

FAX (021) 6864590

Ms Aletha McLachlan
Prentice Hall South Africa
PO Box 12122
CAPE TOWN
8010

Dear Ms McLachlan

RE: REQUEST TO ADAPT THE QUESTIONNAIRE

Thank you for your fax of April 2nd, 1996.

As indicated in my letter of March 11, 1996, I am currently studying for a doctorate degree on jobsharing in the South African Labour Market. I would like to adapt some of the questions from Pierce et.al. (1989), Alternative work Schedules, ISBN 0-205-11163-7 : \$24.00, Appendix C, pages 187-197.

This is for study purposes. The questionnaire will be sent to approximately 520 individuals from 20 organisations. The information will be included in my dissertation (thesis) for the purpose of obtaining a doctorate and appended thereto. Should I write an article on the dissertation for publication, I will then append the questionnaire. I hope to send out the questionnaire during the month of April 1996.

Thank you for your prompt response.

Best regards

HELLICY NGAMBI

B.McLACHLAN

11/4/96
Aletha phoned and ok'd
the adoption of the
Instrument.

Leadership in Practice

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University of South Africa
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email: groble1@alpha.unisa.ac.za

300

PRENTICE HALL SOUTH AFRICA

P.O. Box 12122, Cape Town, South Africa, 8010

TEL: (021) 680 6356

FAX: (021) 680 45 80

Date	7 April 1996
To	Helicy Ngambi Unisa Grad.School of Business Leadership
From	Aletha McLachlan
Page	01 of 2

With reference to the attached letter received from you today.

In order to comply with your request I need more information i.e. Author/Title ISBN of book referred to in your letter, as well as page numbers which you wish to adapt. Please advise number of copies you will require.

Regards

Aletha





1996-04-01

FAX (212) 903 8083

Ms Theresa New
AMA Publications
Rights & Permissions
American Management Association
135 West 50th Street
NEW YORK NY 10020

Dear Ms New

RE: PERMISSION TO ADAPT THE JOB-SHARING QUESTIONNAIRE

Thank you for your fax of March 26th, 1996.

As indicated in my letter of March 11, 1996, I am currently studying for a doctorate degree on Job-sharing in the South African Labour Market. I would like to include in one of my questionnaires the job-sharing questionnaire from Olmsted & Smith (1989) on page 134.

This is for study purposes. The questionnaire will be sent to approximately 600 individuals from 20 organisations. The information will be included in my thesis (dissertation) for the purpose of obtaining a doctorate and appended thereto. I also hope to write articles for publication upon successfully completing my thesis. I hope to send out the questionnaire during the month of April 1996.

Thank you for your prompt response.

Best regards

A handwritten signature in black ink, appearing to read 'Hellycy Ngambi'.

HELLICY NGAMBI

Leadership in practice

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website: www.sblunisa.ac.za



April 4, 1996

Mr. Hellicy Ngambi
UNISA Graduate School of Business Leadership
First Street Extension Midrand 1685
PO Box 392
Pretoria 0001, South Africa

Dear Mr. Ngambi:

Thank you for your recent request. We are pleased to grant permission to reprint (in hard copy form, English language only) material cited from page 170 from *CREATING A FLEXIBLE WORKPLACE*, Second Edition, by B. Olmsted and S. Smith. Permission is to include the material, for one time only use, in one of your questionnaires that you will send to about 30 organizations as part of the research for your doctoral dissertation.

The fee for this use is \$22 (1 page @ \$22 per page). An invoice will follow under separate cover. Please include a copy of the invoice with your payment. We ask that you furnish us a copy of the research questionnaire and that you cite on the bottom of the appropriate page the following acknowledgment:

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Sincerely,

Theresa New

Theresa New
Rights/Permissions Manager
AMA Publications

FX: 212-903-8083
PH: 212-903-8283



OCTOBER 1996

TO WHOM IT MAY CONCERN

RE : DOCTORAL RESEARCH FOR MS H C NGAMBI

Ms H C Ngambi is currently a doctoral student of UNISA's Graduate School of Business Leadership (SBL) where she is also employed as a senior lecturer.

As part of her studies, she is conducting a research survey on "**Jobsharing in the South African Labour Market**". The SBL requests your kind cooperation in answering the questionnaire. As this survey is only for Ms Ngambi's study purposes, it will be treated with the utmost confidentiality.

Yours faithfully

PROF G P J PELSER
DBL PROGRAMME DIRECTOR

Leadership in Practice

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APPENDIX B

Cover letter and Workers' Questionnaire



Dear respondent

RE: RESEARCH STUDY ON JOBSHARING IN THE SOUTH AFRICAN LABOUR MARKET

I am a doctoral student at UNISA, Graduate school of Business Leadership. The completion of my studies is dependant on your kindness to complete this questionnaire. Please be as frank as possible. The information that you give me will be strictly confidential. This information will only be used for research study purposes.

Once you have completed the questionnaire, please put in the provided envelop. It will be collected within ten days.

To help you in answering the questions the following definitions are provided.

Job sharing: Shall refer to a voluntary arrangement between two or more people to share one permanent full-time job with responsibility, authority, and benefits prorated. It is not the same as shift working or traditional part-time employment.

Work sharing: Is usually a temporary strategy, employed during an economic slump, as an alternative to lay-offs, so that instead of some employees being laid off, all keep their jobs but work less hours with less pay.

Flexitime: Is an alternative work schedule where instead of the traditional 08:00 to 17:00 hours working schedule, employees may start earlier and leave earlier and vice versa, as long as the minimum required number of working hours per day (usually 8 hours) is met, with the limitation of the core hours (e.g., 10:00 - 15:00 hours) when everyone is expected to be at work.

Compressed work week: Refers to an arrangement where employees work four days in a week, but ten hours instead of the traditional eight hours in a day, for five days.

Alternative work schedule: Refers to all possible alternative working arrangements to the traditional permanent full-time, 08:00 - 17:00 hours, five days, 4- hours work-week, Job sharing, Work sharing, Flexitime and Compressed Work Week are such examples.

Flexiplace: Refers to an arrangement where employees are allowed to work at home or else where without necessarily being in the workplace (office), but with proper coordinating mechanism.

Please feel free to contact me should you have any questions pertaining to this research survey. This questionnaire will take approximately 25 minutes to complete.

YOUR PARTICIPATION IN THIS RESEARCH STUDY IS HIGHLY APPRECIATED. Thank you.

Yours sincerely,

Hellicy Ngambi
(011) 652-0251 (W)
(012) 661-6154 (H)
(082) 652-6267 (C)

This is a research study being conducted by a researcher from the University of South Africa, School of Business Leadership. Please be as frank as possible. Everything that you tell the researcher will be strictly confidential. This information will only be used for research purposes. Your participation is highly appreciated.

For the purpose of this study, the following definitions apply.

Job sharing: Shall refer to a voluntary arrangement between two or more people to share one permanent full-time job with responsibility, authority, and benefits prorated. It is not the same as shift working or traditional part-time employment.

Work sharing: Is usually a temporary strategy, employed during an economic slump, as an alternative to lay-offs, so that instead of some employees being laid off, all keep their jobs but work less hours with less pay.

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Flexiplace: Refers to an arrangement where employees are allowed to work at home or else where without necessarily being in the workplace (office), but with proper coordinating mechanism.

SECTION I

DEMOGRAPHIC DATA

A. PERSONAL DATA (Please indicate your answer with an "X" in the appropriate box)

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1. **Gender:**

Male	1
Female	2

Nr 1-3

X1 1 4

V1 5

2. **Your age range in years is:**

Below 21	21 - 30	31 - 40	41 - 50	51 - 64	65 or over
1	2	3	4	5	6

V2 6

3. **Your ethnic background is:**

Asian	Black	Coloured	White	Other:
1	2	3	4	5

V3 7

4. **Your marital status is:**

Single	Married	Divorced	Separated	Widow(er)
1	2	3	4	5

V4 8

5. **How many children do you have living with you?**

0	1	2	3	4+
---	---	---	---	----

V5 9

6. **For how many dependants (besides yourself) are you the sole supporter?**

0	1	2	3	4	5+
---	---	---	---	---	----

V6 10

7. **Your highest academic qualification earned is:**

Completed Primary School	1
Completed some years of High School	2
Matric/"O" Levels	3
Tertiary Diploma	4
Bachelors (and/or honours)	5
Masters	6
Doctorate	7
Other (specify):	8

V7 11

8. Which one of the following best describes your source of income?

Own salary only	1
Own and spouse's salary	2
Own, spouse and family	3
Own and family	4
Specify other sources:	5

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V8 12

B. THE ORGANISATION (Please mark "X" the number of your choice in the appropriate box)

9. In what industry is your organisation?

Agriculture, forestry, hunting and fishing	1
Gold mining and other mining and quarrying	2
Manufacturing	3
Electricity, gas and water	4
Construction	5
Wholesale and retail trade and catering and accommodation service	6
Transport, storage and communication	7
Financing, insurance, real estate and business services	8
Community, education, health and social services	9

V9 13

10. a. What is your area of work?

Education	1
Administration	2
Counselling, Social work	3
Clerical, Secretarial	4
Library	5
Medical	6
Banking	7
Manufacturing	8
Others (specify):	9

V10 14

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b. **Classify your position in the Organisation?**

Management (Top)	1
Management	2
Supervision	3
Operations (general worker)	4
Other (specify):	5

V11 1511. **Do you have job sharing positions in your organisation or department?**

None	1
Less than 5	2
Between 6 and 10	3
More than 10	4
Don't know	5

V12 1612. **Are there unions in your organisation?**

Yes	1
No	2
Don't know	3

V13 17a. **Are you a union member?**

Yes	1
No	2

V14 18b. **Are you a union representative?**

Yes	1
No	2

V15 19

13. How long have you worked for this organisation?

Less than 1 year	1
1 - 3 years	2
4 - 8 years	3
9 - 15 years	4
16 - 25 years	5
Over 26 years	6

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V16 20

SECTION II

Please indicate your level of agreement on the following statements by marking "X" in the appropriate box in relation to the organisation you work for.

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree Nor Disagree;
4 = Agree; 5 = Strongly Agree

14.	Organisational changes benefit the majority of employees.	1	2	3	4	5
15.	Organisational changes benefit the organisation	1	2	3	4	5
16.	Organisational changes take advantage of employees.	1	2	3	4	5
17.	Organisational changes are introduced before the details of the changes have been well worked out.	1	2	3	4	5
18.	Changes introduced in this organisation are not good ideas.	1	2	3	4	5
19.	I find it easy to adapt to organisational changes	1	2	3	4	5
20.	I like the changes that occur at this organisation	1	2	3	4	5
21.	The changes in this organisation make it interesting to work here.	1	2	3	4	5
22.	There have been changes in this organisation in the past 12 months.	1	2	3	4	5

V17 21

V18 22

V19 23

V20 24

V21 25

V22 26

V23 27

V24 28

V25 29

Sometimes a work schedule can interfere with opportunities to do other things. The following questions ask how easy or difficult it is or would be for you to do some common activities under your *current* (for example, 07:30 to 16:30) work schedule and **under the job-sharing work schedule.**

Basically **Job-sharing** refers to an arrangement whereby two or more employees hold a position together, whether as a team responsible for the whole job or separately for each half. They divide the hours, pay, responsibilities, and possibly the benefits of the full-time job proportionately. This is a voluntary arrangement chosen by the worker, as opposed to being imposed on the employee by any other person.

For each statement, indicate your choice with an "X" in the appropriate boxes for **both the CURRENT AND Job-sharing** work schedules.

1= Very easy; 2= Easy; 3= Neither easy nor difficult;
4= Difficult; 5= Very difficult;

	Current Work Schedule					Job Sharing				
	1	2	3	4	5	1	2	3	4	5
23. Spend time with your children										
24. Maintain personal family relations and take family on recreation outings										
25. Spend time with your spouse										
26. Spend time with friends										
27. Assist children with their education and attend school activities										
28. Participate in sports with others										
29. Participate in nonwork organisations										
30. Go for further training										
31. Attend play, concert, cultural, church event										
32. Watch favourite TV programmes										
33. Go shopping, to the bank and post office										
34. Use public transportation										
35. Participate in non work activities										

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V26	<input type="checkbox"/>	30	V39	<input type="checkbox"/>	43
V27	<input type="checkbox"/>	31	V40	<input type="checkbox"/>	44
V28	<input type="checkbox"/>	32	V41	<input type="checkbox"/>	45
V29	<input type="checkbox"/>	33	V42	<input type="checkbox"/>	46
V30	<input type="checkbox"/>	34	V43	<input type="checkbox"/>	47
V31	<input type="checkbox"/>	35	V44	<input type="checkbox"/>	48
V32	<input type="checkbox"/>	36	V45	<input type="checkbox"/>	49
V33	<input type="checkbox"/>	37	V46	<input type="checkbox"/>	50
V34	<input type="checkbox"/>	38	V47	<input type="checkbox"/>	51
V35	<input type="checkbox"/>	39	V48	<input type="checkbox"/>	52
V36	<input type="checkbox"/>	40	V49	<input type="checkbox"/>	53
V37	<input type="checkbox"/>	41	V50	<input type="checkbox"/>	54
V38	<input type="checkbox"/>	42	V51	<input type="checkbox"/>	55

36. What is your current method of work?

Job-sharing	1
Full-time	2
Flexitime	3
Work sharing	4
Regular part-time employment	5
Flexiplace	6
Compressed work-week	7
Other (specify):	8

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V52 56

The questions in this section ask about your opinions and feelings concerning your current work schedule. For each statement, mark "X" in the box to indicate the degree to which you agree or disagree with the statement.

1= Strongly Disagree; 2= Disagree; 3= Neither Agree Nor Disagree; 4= Agree; 5= Strongly Agree

37.	I am very productive under the current method of scheduling.	1	2	3	4	5
38.	The current schedule has a favourable influence on my overall attitude toward my job	1	2	3	4	5
39.	My current work schedule encourages me to do my best.	1	2	3	4	5
40.	Taking everthing into consideration, I am satisfied with my life in general while working my current work schedule	1	2	3	4	5
41.	I am dissatisfied with my current work schedule	1	2	3	4	5
42.	I personally like the current method of scheduling work.	1	2	3	4	5
43.	The current schedule has an unfavourable influence on my physical health.	1	2	3	4	5
44.	The current method of scheduling causes problems in coordinating work with my supervisor	1	2	3	4	5
45.	The current method of scheduling causes problems coordinating work with my co-workers	1	2	3	4	5

V53 57
 V54 58
 V55 59
 V56 60
 V57 61
 V58 62
 V59 63
 V60 64
 V61 65

1= Strongly Disagree; 2= Disagree; 3= Neither Agree Nor Disagree;
4= Agree; 5= Strongly Agree

46.	The current work schedule has an unfavourable influence on my family life.	1	2	3	4	5
47.	The current method of scheduling makes it easy for me to co-ordinate my schedule with the schedules of other family members.	1	2	3	4	5
48.	The current work schedule has an unfavourable influence on my social life.	1	2	3	4	5
49.	Working or leaving the work place presents a personal security problem for me under my current work schedule.	1	2	3	4	5
50.	Under my current schedule, transportation to and from work is difficult.	1	2	3	4	5

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V62	<input type="text"/>	66
V63	<input type="text"/>	67
V64	<input type="text"/>	68
V65	<input type="text"/>	69
V66	<input type="text"/>	70

51. Please indicate with an "X" on a scale of 1 to 5 for each of the following work schedules (options) whether you feel it would suit you or not. Where:

1= very suitable; 2= suitable; 3= neither suitable nor unsuitable;
4= unsuitable 5= completely unsuitable

A.	Job-sharing	1	2	3	4	5
B.	Flexitime	1	2	3	4	5
C.	Regular part-time employment	1	2	3	4	5
D.	Compressed work-week	1	2	3	4	5
E.	Full-time	1	2	3	4	5
F.	Work sharing	1	2	3	4	5
G.	Flexiplace	1	2	3	4	5

V67	<input type="text"/>	71
V68	<input type="text"/>	72
V69	<input type="text"/>	73
V70	<input type="text"/>	74
V71	<input type="text"/>	75
V72	<input type="text"/>	76
V73	<input type="text"/>	77

52. Which of the following reasons would you consider to be important in opting for Job-sharing an alternative work schedule. Indicate the importance of each of the following statements to you by marking "X" in the appropriate box.

1= Very important; 2= Important; 3= Neither important nor unimportant; 4= Not important; 5= Completely unimportant;

A.	Allow me time to attend to personal activities	1	2	3	4	5
B.	Allow me time to attend to family responsibilities	1	2	3	4	5
C.	Enable me to work when I am more alert	1	2	3	4	5

V74	<input type="text"/>	78
V75	<input type="text"/>	79
V76	<input type="text"/>	80

1= Very important; 2= Important; 3= Neither important nor unimportant; 4= Not important; 5= Completely unimportant;

D.	Allow me to go for studies	1	2	3	4	5
E.	Give me time to participate in professional activities	1	2	3	4	5

53. If your organisation was experiencing problems with no choice but to lay some employees off, which one of the following alternatives would you opt for if given a choice?

Share the work with a proportional cut in salary, instead of laying some people off until the organisation circumstance improves	1
Share jobs, because that is an option that would be suitable for me	2
Effect the lay-offs	3
Other (state):	4

54. What is your personal preference-(mark your choice with an "X" in the appropriate box.)

The current work schedule	1
The jobshare work schedule	2
Other (state):	3

55. Which work schedule in your opinion, would be more beneficial to your organisation in trying to accomplish its work (mark with an "X" the number of your choice in the box.)

The current work schedule	1
The jobshare work schedule	2
Other (state):	3

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Nr 1-3

X2 4

V77 5

V78 6

V79 7

V80 8

V81 9

56. Which one of the following alternative work options would suit you best? Indicate your option by marking "X" in the box.

One week on/one week off	1
Half-day on/half-day off	2
Shared job with half-day overlap on Wednesday	3
Shared job with half-day overlap on Friday	4
Other (specify):	5

57. To what extent do you agree or disagree that any of the following factors would be obstacles to introducing the job-sharing work schedule? Indicate your answer with an "X" in the appropriate box for each factor;

1= Strongly Disagree; 2= Disagree; 3= Neither Agree nor Disagree; 4=Agree; 5= Strongly Agree

A.	Resistance to change	1	2	3	4	5
B.	Costs of supervision	1	2	3	4	5
C.	Union contracts	1	2	3	4	5
D.	Lack of awareness of option/work schedule	1	2	3	4	5
E.	Matching of partners	1	2	3	4	5
F.	Problems of accountability if responsibility is divided	1	2	3	4	5
G.	Other (state):	1	2	3	4	5

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V82 10

V83 11

V84 12

V85 13

V86 14

V87 15

V88 16

V89 17

SECTION IV

The following questions ask how you currently feel about a variety of work-related factors. For each question, indicate the degree to which you agree or disagree with the statement by marking with an X in the appropriate box.

1= Strongly Disagree; 2= Disagree; 3= Neither Agree Nor Disagree;
4= Agree; 5= Strongly Agree

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58	My physical working conditions make it difficult for me to do my job.	1	2	3	4	5
59	I am satisfied with my physical working conditions.	1	2	3	4	5
60	The example my fellow employees set encourages me to work hard.	1	2	3	4	5
61	I like the employees that I work with.	1	2	3	4	5
62	Work like mine tends to discourage me from doing my best.	1	2	3	4	5
63	I like the kind of work I do.	1	2	3	4	5
64	I am worried about my future in this organisation.	1	2	3	4	5
65	Hard work seems fairly worthwhile to me with regard to my future in this organisation.	1	2	3	4	5
66	This is a good organisation to work for.	1	2	3	4	5
67	Working in this organisation encourages me to do my best.	1	2	3	4	5
68	Very few of my needs are satisfied by the pay and benefits I receive.	1	2	3	4	5
69	The way pay and benefits are handled in this organisation makes it worthwhile for me to work hard.	1	2	3	4	5
70	The supervision I receive is the kind that tends to discourage me from giving extra effort.	1	2	3	4	5
71	I am satisfied with the supervision I receive.	1	2	3	4	5
72	The organisation gives me freedom to decide (choose) how I should do my job	1	2	3	4	5
73	The organisation gives me freedom to choose the work schedule which suits me best	1	2	3	4	5
74	I don't feel that the contribution that I make in this organisation is recognised.	1	2	3	4	5
75	I do need time off in addition to my leave days to attend to family matters.	1	2	3	4	5
76	The flexibility in work scheduling in this organisation makes it easy for me to do my job.	1	2	3	4	5
77	The amount of work I'm expected to do makes it difficult for me to do my job well.	1	2	3	4	5
78	I am dissatisfied with the amount of work I am expected to do.	1	2	3	4	5
79	During the next three months, I plan to arrive at work on time whenever it is possible to do so.	1	2	3	4	5
80	During the next three months, I expect to miss at least one day of work on a day when it would be possible for me to come to work.	1	2	3	4	5

V90	<input type="checkbox"/>	18
V91	<input type="checkbox"/>	19
V92	<input type="checkbox"/>	20
V93	<input type="checkbox"/>	21
V94	<input type="checkbox"/>	22
V95	<input type="checkbox"/>	23
V96	<input type="checkbox"/>	24
V97	<input type="checkbox"/>	25
V98	<input type="checkbox"/>	26
V99	<input type="checkbox"/>	27
V100	<input type="checkbox"/>	28
V101	<input type="checkbox"/>	29
V102	<input type="checkbox"/>	30
V103	<input type="checkbox"/>	31
V104	<input type="checkbox"/>	32
V105	<input type="checkbox"/>	33
V106	<input type="checkbox"/>	34
V107	<input type="checkbox"/>	35
V108	<input type="checkbox"/>	36
V109	<input type="checkbox"/>	37
V110	<input type="checkbox"/>	38
V111	<input type="checkbox"/>	39
V112	<input type="checkbox"/>	40

1= Strongly Disagree; 2= Disagree; 3= Neither Agree Nor Disagree;
4= Agree; 5= Strongly Agree

81.	Due to some family problems it has been difficult for me to always be at work on time.	1	2	3	4	5
82.	It is difficult for me to be at work on time due to transportation problems.	1	2	3	4	5
83.	The way my job is designed makes it possible for me to always be at work during the working hours	1	2	3	4	5
84.	In the last three months I have made mistakes on the job because its tiresome	1	2	3	4	5
85.	Due to lay-offs that have taken place in this organisation, it has been difficult to carry out some tasks	1	2	3	4	5
86.	My job has been difficult to do because it needs the skills of more than one person	1	2	3	4	5
87.	Some posts cannot be filled in this organisation due to unavailability of people with the needed skills	1	2	3	4	5
88.	During the last two years we have had lay-offs in this organisation	1	2	3	4	5
89.	I anticipate that there will be no lay-offs in the next year.	1	2	3	4	5
90.	I am so dissatisfied with the conditions in this organisation, I will probably quit my job sometime during the next two years.	1	2	3	4	5

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V113	<input type="text"/>	41
V114	<input type="text"/>	42
V115	<input type="text"/>	43
V116	<input type="text"/>	44
V117	<input type="text"/>	45
V118	<input type="text"/>	46
V119	<input type="text"/>	47
V120	<input type="text"/>	48
V121	<input type="text"/>	49
V122	<input type="text"/>	50

APPENDIX C

Cover letter and organisations' Questionnaire



UNISA GRADUATE SCHOOL
OF BUSINESS LEADERSHIP

Dear respondent

RE: RESEARCH STUDY ON JOBSHARING IN THE SOUTH AFRICAN LABOUR MARKET

I am a doctoral student at UNISA, Graduate school of Business Leadership. The completion of my studies is dependant on your kindness to complete this questionnaire. Please be as frank as possible. The information that you give me will be strictly confidential. This information will only be used for research study purposes.

Once you have completed the questionnaire, please put in the provided envelop. It will be collected within ten days.

To help you in answering the questions the following definitions are provided.

Job sharing: Shall refer to a voluntary arrangement between two or more people to share one permanent full-time job with responsibility, authority, and benefits prorated. It is not the same as shift working or traditional part-time employment.

Work sharing: Is usually a temporary strategy, employed during an economic slump, as an alternative to lay-offs, so that instead of some employees being laid off, all keep their jobs but work less hours with less pay.

Flexitime: Is an alternative work schedule where instead of the traditional 08:00 to 17:00 hours working schedule, employees may start earlier and leave earlier and vice versa, as long as the minimum required number of working hours per day (usually 8 hours) is met, with the limitation of the core hours (e.g., 10:00 - 15:00 hours) when everyone is expected to be at work.

Compressed work week: Refers to an arrangement where employees work four days in a week, but ten hours instead of the traditional eight hours in a day, for five days.

Alternative work schedule: Refers to all possible alternative working arrangements to the traditional permanent full-time, 08:00 - 17:00 hours, five days, 4- hours work-week, Job sharing, Work sharing, Flexitime and Compressed Work Week are such examples.

Flexiplace: Refers to an arrangement where employees are allowed to work at home or else where without necessarily being in the workplace (office), but with proper coordinating mechanism.

Please feel free to contact me should you have any questions pertaining to this research survey.

YOUR PARTICIPATION IN THIS RESEARCH STUDY IS HIGHLY APPRECIATED. Thank you.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Helicy Ngambi'.

Helicy Ngambi

(011) 652-0251 (W)

(012) 661-6154 (H)

(082) 652-6267 (C)

Leadership in Practice

Graduate School of Business Leadership
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Tel +27 11 652-0000 Fax +27 11 652-0299
email: groblel@alpha.unisa.ac.za

INTRODUCTION

This is a research study being conducted by a researcher from the University of South Africa, School of Business Leadership. Please be as frank as possible. Everything that you tell the researcher will be strictly confidential. This information will only be used for research purposes. Your participation is highly appreciated.

For the purpose of this study, the following definitions apply.

Job-sharing: Shall refer to a voluntary arrangement between two or more people to share one permanent full-time job with responsibility, authority, and benefits prorated. It is not the same as shift working or traditional part-time employment.

Work-sharing: Is usually a temporary strategy, employed during an economic slump, as an alternative to lay-offs, so that instead of some employees being laid off, all keep their jobs but work less hours with less pay.

Flexi-time: Is an alternative work schedule where instead of the traditional 08:00 to 17:00 hours working schedule, employees may start earlier and leave earlier and vice versa, as long as the minimum required number of working hours per day (usually 8 hours) is met, with the limitation of the core hours (e.g., 10:00 - 15:00 hours) when everyone is expected to be at work.

Compressed work week: Refers to an arrangement where employees work four days in a week, but ten hours instead of the traditional eight hours in a day, for five days.

Alternative work schedule: Refers to all possible alternative working arrangements to the traditional permanent full-time, 08:00 - 17:00 hours, five days, 4- hours work-week, Job sharing, Work sharing, Flexi-time and Compressed Work Week are such examples.

Flexi-place: Refers to an arrangement where employees are allowed to work at home or else where without necessarily being in the workplace (office), but with proper coordinating mechanism.

SECTION I

DEMOGRAPHIC DATA

Please indicate your answer by marking "X" in the appropriate box

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1. **In what industry is your organisation?**

Agriculture, forestry, hunting and fishing	1
Gold mining and other mining and quarrying	2
Manufacturing	3
Electricity, gas and water	4
Construction	5
Wholesale and retail trade and catering and accommodation service	6
Transport, storage and communication	7
Financing, insurance, real estate and business services	8
Community, education, health and social services	9

Nr 1-3

V1 4

2. **Is your organisation:**

Private non-profit	public - government	Private - profit	Public - education	Other (specify)
1	2	3	4	5

V2 5

3. **Approximately how many employees are in your organisation?**

1 - 25	26 - 100	101 - 500	501 - 1000	1,001 - 5000	5,001 - 10,000	10,000+
1	2	3	4	5	6	7

V3 6

4. **Do you have job-sharing positions in your organisation?**

None	Less than 5	Between 6 and 10	More than 10
1	2	3	4

V4 7

5. **What is your position?**

Top Manager	Middle Manager	Supervisor
1	2	3

V5 8

6. **How long have you worked for this organisation?**

Less than 1 year	1 - 3 years	4 - 8 years	9 - 15 years	16 - 25 years	Over 26 years
1	2	3	4	5	6

V6 9

SECTION II

(Please mark with an "X" the number of your choice in the appropriate box) **FOR OFFICIAL USE ONLY**

Indicate: 1 = Yes; 2 = No;

7.	Have you had to turn down employee requests for a reduced schedule because the jobs in question could not be done on a part-time basis?	1	2
8.	Have some of the employees whose request for a reduced schedule was turned down, left your organisation as a result?	1	2
9.	Are some departments or job classifications experiencing above-average turnover or absenteeism?	1	2
10.	Have you had to overstaff in some areas or use an excessive number of temporary employees to compensate for turnover or absenteeism?	1	2
11.	Do some of your employees who have been on parental leave decide against returning to full-time work?	1	2
12.	If your organisation's schedules must conform to work demand, could work flow be improved by having a team of job-shares overlap during a peak period or extended coverage by creating a gap?	1	2
13.	Is upward mobility difficult in some departments or job classifications?	1	2
14.	Would some of your organisation's senior employees prefer a part-time option?	1	2

V7	<input type="checkbox"/>	10
V8	<input type="checkbox"/>	11
V9	<input type="checkbox"/>	12
V10	<input type="checkbox"/>	13
V11	<input type="checkbox"/>	14
V12	<input type="checkbox"/>	15
V13	<input type="checkbox"/>	16
V14	<input type="checkbox"/>	17

Indicate the degree to which you agree or disagree with the following statements by marking with an "X" in the appropriate box.

1 = Strongly Disagree; 2= Disagree; 3 = Neither Agree nor Disagree; 4= Agree; 5 = Strongly Agree

15.	Organisational changes benefit the majority of employees.	1	2	3	4	5
16.	Organisational changes benefit the organisation.	1	2	3	4	5
17.	Organisational changes take advantage of employees.	1	2	3	4	5
18.	Organisational changes are introduced before the details of the changes have been well worked out.	1	2	3	4	5
19.	Changes introduced in this organisation are not good ideas.	1	2	3	4	5
20.	I am concerned that most employees may adapt poorly to the organisational changes to be introduced in the next few years.	1	2	3	4	5
21.	I like the changes that occur at this organisation.	1	2	3	4	5
22.	The changes in this organisation make it interesting to work here.	1	2	3	4	5
23.	There have been changes in this organisation in the past 12 months.	1	2	3	4	5

V15	<input type="checkbox"/>	18
V16	<input type="checkbox"/>	19
V17	<input type="checkbox"/>	20
V18	<input type="checkbox"/>	21
V19	<input type="checkbox"/>	22
V20	<input type="checkbox"/>	23
V21	<input type="checkbox"/>	24
V22	<input type="checkbox"/>	25
V23	<input type="checkbox"/>	26

SECTION III

The questions in this section ask about your opinions and feelings concerning the current work schedule in your organisation. For each statement, mark with an "X" in the appropriate box to indicate the degree to which you agree or disagree with the statement.

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

24.	Employees are very productive under the current work schedule	1	2	3	4	5
25.	The current work schedule encourage employees to do their best	1	2	3	4	5
26.	Most employees are satisfied with the current work schedule	1	2	3	4	5
27.	The current schedule provides good client access to the services of the organisation	1	2	3	4	5
28.	The current method of scheduling causes problems in co-ordinating work amongst co-workers.	1	2	3	4	5

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V24	<input type="checkbox"/>	27
V25	<input type="checkbox"/>	28
V26	<input type="checkbox"/>	29
V27	<input type="checkbox"/>	30
V28	<input type="checkbox"/>	31

29. Please indicate with an "X" in the appropriate box on a scale of 1 to 5 whether you feel, the following work schedules would suit your organisation or not.
 1= Very suitable; 2= Suitable; 3= Neither suitable nor unsuitable
 4= Unsuitable; 5= Completely unsuitable

A.	Job-sharing	1	2	3	4	5
B.	Flexitime	1	2	3	4	5
C.	Regular part-time employment	1	2	3	4	5
D.	Compressed work-week	1	2	3	4	5
E.	Full-time	1	2	3	4	5
F.	Work sharing	1	2	3	4	5
G.	Flexiplace	1	2	3	4	5

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V29 32
 V30 33
 V31 34
 V32 35
 V33 36
 V34 37
 V35 38

30. Which work schedule in your opinion, would be more beneficial to your organisation in trying to accomplish its work (mark with an "X" the number of your choice in the box.)

The current work schedule	1
The jobshare work schedule	2
Other (state):	3

V36 39

31. What is your personal preference-(mark your choice with an "X" in the appropriate box.)

The current work schedule	1
The jobshare work schedule	2
Other (state):	3

V37 40

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32. To what extent do you agree or disagree that any of the following factors would be **obstacles** to introducing the job-sharing work schedule in your organisation? Indicate your answer with an "X" in the appropriate box for each factor;

1= Strongly Disagree; 2= Disagree; 3= Neither Agree nor Disagree; 4=Agree; 5= Strongly Agree

A.	Resistance to change	1	2	3	4	5
B.	Costs of supervision	1	2	3	4	5
C.	Union contracts	1	2	3	4	5
D.	Lack of awareness of option/work schedule	1	2	3	4	5
E.	Matching of partners	1	2	3	4	5
F.	Problems of accountability if responsibility is divided	1	2	3	4	5
G.	Administration costs (co-ordination and record keeping)	1	2	3	4	5
H.	Training costs	1	2	3	4	5
I.	Insurance costs	1	2	3	4	5
J.	Fringe benefits	1	2	3	4	5
K.	Medical Aid	1	2	3	4	5
L.	Recruitment	1	2	3	4	5
M.	Other (state):	1	2	3	4	5

V38	<input type="checkbox"/>	41
V39	<input type="checkbox"/>	42
V40	<input type="checkbox"/>	43
V41	<input type="checkbox"/>	44
V42	<input type="checkbox"/>	45
V43	<input type="checkbox"/>	46
V44	<input type="checkbox"/>	47
V45	<input type="checkbox"/>	48
V46	<input type="checkbox"/>	49
V47	<input type="checkbox"/>	50
V48	<input type="checkbox"/>	51
V49	<input type="checkbox"/>	52
V50	<input type="checkbox"/>	53

33. To what extent do you agree or disagree that any of the following factors would be reasons for introducing the job-sharing work schedule in your organisation? Indicate your answer with an "X" in the appropriate box for each factor;

1= Strongly Disagree; 2= Disagree; 3= Neither Agree nor Disagree; 4=Agree; 5= Strongly Agree

A.	Increase productivity	1	2	3	4	5
B.	Alternative to lay-offs	1	2	3	4	5
C.	Better quality of work life	1	2	3	4	5
D.	Reduce absenteeism	1	2	3	4	5
E.	Reduce turnover	1	2	3	4	5
F.	Increase worker energy	1	2	3	4	5
G.	Job continuity	1	2	3	4	5
H.	As a way of phasing employees into retirement	1	2	3	4	5
I.	To provide greater flexibility in work scheduling	1	2	3	4	5
J.	To retain valued employees	1	2	3	4	5
K.	To enable employees to continue with their education	1	2	3	4	5
L.	Other (state);	1	2	3	4	5

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V51		54
V52		55
V53		56
V54		57
V55		58
V56		59
V57		60
V58		61
V59		62
V60		63
V61		64
V62		65

APPENDIX D

Cover letter and Job-seekers' Questionnaire



Dear respondent

RE: RESEARCH STUDY ON JOBSHARING IN THE SOUTH AFRICAN LABOUR MARKET

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Compressed work week: Refers to an arrangement where employees work four days in a week, but ten hours instead of the traditional eight hours in a day, for five days.

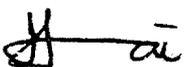
Alternative work schedule: Refers to all possible alternative working arrangements to the traditional permanent full-time, 08:00 - 17:00 hours, five days, 4- hours work-week, Job sharing, Work sharing, Flexitime and Compressed Work Week are such examples.

Flexiplace: Refers to an arrangement where employees are allowed to work at home or else where without necessarily being in the workplace (office), but with proper coordinating mechanism.

Please feel free to contact me should you have any questions pertaining to this research survey.

YOUR PARTICIPATION IN THIS RESEARCH STUDY IS HIGHLY APPRECIATED. Thank you.

Yours sincerely,


Hellicy Ngambi

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Leadership in Practice

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INTRODUCTION

This is a research study being conducted by a researcher from the University of South Africa, School of Business Leadership. Please be as frank as possible. Everything that you tell the researcher will be strictly confidential. This information will only be used for research purposes. Your participation is highly appreciated.

For the purpose of this study, the following definitions apply.

Job-sharing: Shall refer to a voluntary arrangement between two or more people to share one permanent full-time job with responsibility, authority, and benefits prorated. It is not the same as shift working or traditional part-time employment.

Work-sharing: Is usually a temporary strategy, employed during an economic slump, as an alternative to lay-offs, so that instead of some employees being laid off, all keep their jobs but work less hours with less pay.

Flexi-time: Is an alternative work schedule where instead of the traditional 08:00 to 17:00 hours working schedule, employees may start earlier and leave earlier and vice versa, as long as the minimum required number of working hours per day (usually 8 hours) is met, with the limitation of the core hours (e.g., 10:00 - 15:00 hours) when everyone is expected to be at work.

Compressed work week: Refers to an arrangement where employees work four days in a week, but ten hours instead of the traditional eight hours in a day, for five days.

Alternative work schedule: Refers to all possible alternative working arrangements to the traditional permanent full-time, 08:00 - 17:00 hours, five days, 4- hours work-week, Job sharing, Work sharing, Flexi-time and Compressed Work Week are such examples.

Flexi-place: Refers to an arrangement where employees are allowed to work at home or else where without necessarily being in the workplace (office), but with proper coordinating mechanism.

DEMOGRAPHIC DATA

A. PERSONAL DATA (Please indicate your answer with an "X" in the appropriate box)

1. Gender:

Male	1
Female	2

2. Your age range in years is:

Below 21	21 - 30	31 - 40	41 - 50	51 - 64	65 or over
1	2	3	4	5	6

3. Your ethnic background is:

Asian	Black	Coloured	White	Other (specify):
1	2	3	4	5

4. Your marital status is:

Single	Married	Divorced	Separated	Widow(er)
1	2	3	4	5

5. How many children do you have living with you?

0	1	2	3	4+
---	---	---	---	----

6. For how many dependants (besides yourself) are you the sole supporter?

0	1	2	3	4	5+
---	---	---	---	---	----

7. Your highest academic qualification earned is:

Completed Primary School	1
Completed some years of High School	2
Matric/"O" Levels	3
Tertiary Diploma	4
Bachelors and/or Honours	5
Masters	6
Doctorate	7
Other (specify):	8

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Nr 1-3V1 4V2 5V3 6V4 7V5 8V6 9V7 10

8. For how long have you been unemployed (looking for a job)?

0 to less than 6 months	1
6 months to less than 1 year	2
1 year to less than 2 years	3
2 years to less than 4 years	4
4 years to more than 4 years	5

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SECTION II

9. Please indicate with an "X" on a scale of 1 to 5 for each of the following work schedules (options) whether you feel it would suit you or not. Where
 1= Very suitable; 2= suitable; 3= Neither suitable nor unsuitable;
 4= Unsuitable; 5= Completely unsuitable.

A. Job-sharing	1	2	3	4	5
B. Flexitime	1	2	3	4	5
C. Regular part-time employment	1	2	3	4	5
D. Compressed work-week	1	2	3	4	5
E. Full-time	1	2	3	4	5
F. Work sharing	1	2	3	4	5
G. Flexiplace	1	2	3	4	5

V9 12

V10 13

V11 14

V12 15

V13 16

V14 17

V15 18

10. Which of the following reasons would you consider to be important in opting for Job-sharing as alternative work schedule. Indicate the importance of each of the following statements to you by marking "X" in the appropriate box.
 1= Very important; 2= important; 3= Neither important nor unimportant; 4= Unimportant; 5= Completely unimportant.

A. Allow me time to attend to personal activities	1	2	3	4	5
B. Allow me time to attend to family responsibilities	1	2	3	4	5
C. Enable me to work when I am more alert	1	2	3	4	5
D. Allow me to go for studies	1	2	3	4	5
E. Give me time to participate in professional activities	1	2	3	4	5

V16 19

V17 20

V18 21

V19 22

V20 23

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11. What would your personal preference be (mark your choice with an "X" in the appropriate box.)

The full-time work schedule	1
The jobshare work schedule	2
Other (specify):	3

V21 24

12. Which one of the following alternative work options would suit you best? Indicate your option by marking "X" in the box.

Traditional full-time Schedule	1
One week on/one week off	2
Half-day on/half-day off	3
Shared job with half-day overlap on Wednesday	4
Shared job with half-day overlap on Friday	5
Other (specify):	6

V22 25

13. To what extent do you agree or disagree that any of the following factors would be **obstacles** to introducing the job-sharing work schedule? Indicate your answer with an "X" in the appropriate box for each factor;

1= Strongly Disagree; 2= Disagree; 3= Neither Agree nor Disagree; 4=Agree; 5= Strongly Agree

A.	Resistance to change	1	2	3	4	5
B.	Costs of supervision	1	2	3	4	5
C.	Union contracts	1	2	3	4	5
D.	Lack of awareness of option/work schedule	1	2	3	4	5
E.	Matching of partners	1	2	3	4	5
F.	Problems of accountability if responsibility is divided	1	2	3	4	5
G.	Other (state):	1	2	3	4	5

V23 26
 V24 27
 V25 28
 V26 29
 V27 30
 V28 31
 V29 32

14. If you were offered a job which you had to share with someone else, as well as the salary and benefits of the job, what would you do? Indicate your choice by marking "X" in the box

I would accept it because that would suit me best	1
I would accept it because I am currently unemployed	2
I would accept it temporarily until I get a full-time job	3
I would not accept it at all	4

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SECTION III

(Please write the number of your choice in the appropriate box)

Sometimes a work schedule can interfere with opportunities to do other things. The following questions ask how easy or difficult it would be for you to do some common activities under the *full-time* (for example, 07:30 to 16:30) work schedule and **under the job-sharing work schedule.**

Basically **Job-sharing** refers to an arrangement whereby two or more employees hold a position together, whether as a team responsible for the whole job or separately for each half. They divide the pay, hours, responsibilities, and possibly the benefits of the full-time job proportionately. This is a voluntary arrangement chosen by the worker, as opposed to being imposed on the employee by the employer.

For each statement, indicate your choice with an "X" in the appropriate boxes for **both the full-time and job-sharing** work schedules.

1= Very easy; 2= Easy; 3= Neither easy nor difficult;
4= Difficult; 5= Very difficult; 6= Not applicable.

	Full-time Work Schedule					Job Sharing				
	1	2	3	4	5	1	2	3	4	5
15. Spend time with your children										
16. Maintain personal family relations and take family on recreation outings										
17. Spend time with your spouse										
18. Spend time with friends										
19. Assist children with their education and attend school activities										
20. Participate in sports with others										
21. Participate in non-work organisations										
22. Go for further training										
23. Attend play, concert, cultural, church event										

V31	<input type="checkbox"/>	34	V44	<input type="checkbox"/>	47
V32	<input type="checkbox"/>	35	V45	<input type="checkbox"/>	48
V33	<input type="checkbox"/>	36	V46	<input type="checkbox"/>	49
V34	<input type="checkbox"/>	37	V47	<input type="checkbox"/>	50
V35	<input type="checkbox"/>	38	V48	<input type="checkbox"/>	51
V36	<input type="checkbox"/>	39	V49	<input type="checkbox"/>	52
V37	<input type="checkbox"/>	40	V50	<input type="checkbox"/>	53
V38	<input type="checkbox"/>	41	V51	<input type="checkbox"/>	54
V39	<input type="checkbox"/>	42	V52	<input type="checkbox"/>	55

1= Very easy; 2= Easy; 3= Neither easy nor difficult;
 4= Difficult; 5= Very difficult; 6= Not applicable.

24.	Watch favourite TV programmes	1	2	3	4	5	1	2	3	4	5
25.	Go shopping, to the bank and post office	1	2	3	4	5	1	2	3	4	5
26.	Use public transportation	1	2	3	4	5	1	2	3	4	5
27.	Participate in non-work activities	1	2	3	4	5	1	2	3	4	5

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V40	<input type="text"/>	43	V53	<input type="text"/>	56
V41	<input type="text"/>	44	V54	<input type="text"/>	57
V42	<input type="text"/>	45	V55	<input type="text"/>	58
V43	<input type="text"/>	46	V56	<input type="text"/>	59

APPENDIX E

Duncan Means Among Subgroups of workers

ON GROUPED ITEMS

TABLE E1 :RECEPTIVITY TO CHANGE & JOBSATISFACTION AGAINST GENDER

VARIABLE LABEL	MALE	FEMALE	VALUE	SIG(P)
Receptivity to change	3.16	3.18	-0.31	0.76
Interf.: fam./friends-current	2.81	3.03	-2.45	0.01
Interf.: fam./friends-jobshare	2.46	2.50	-0.40	0.68
Interf.: Traing/svcs,etc-current	2.81	3.05	-2.84	0.00
Interf.: Traing/svcs,etc-jobshare	2.50	2.66	-1.63	0.10
General effect	3.59	3.51	1.11	0.26
Work Coord	3.72	3.70	0.22	0.82
Effects on social and family	3.39	3.33	0.75	0.45
Transportn+personal security	3.60	3.59	0.17	0.86
Satisfaction with organisation	3.37	3.30	0.91	0.36
Autonomy & Flexibility	3.11	3.05	0.66	0.51
Satisfaction with co-workers Work & superv.	3.61	3.63	-0.20	0.84
Physical working conditions	3.76	3.70	0.65	0.52
Satisfaction with Pay & work	3.23	3.16	0.88	0.38
QWL	3.42	3.36	1.06	0.29
Amount of work/worker energy	3.34	3.25	1.26	0.21
Absenteeism	3.90	3.90	-0.00	0.99
Recognition				
Continuity	3.51	3.47	0.47	0.64
Tardiness	3.91	3.85	0.57	0.57
Attendance	3.58	3.51	0.68	0.49
Productivity	3.57	3.52	1.05	0.29
Unemployment / Lay-offs	3.33	3.01	3.44	0.00

TABLE E2: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST AGE

VARIABLE	C21	21-30	31-40	41-50	51+	Value	SIG(P)
Receptivity to change	3.30	3.18	3.08	3.27	3.20	1.50	0.20
Interf.: fam./friends-current	2.90	2.95	3.02	2.74	2.82	1.27	0.28
Interf.: fam./friends-jobshare	2.59	2.43	2.51	2.46	2.52	0.16	0.95
Interf.: Traing/svcs,etc-current	2.85	2.87	3.02	2.87	2.92	0.76	0.55
Interf.: Traing/svcs,etc-jobshare	2.87	2.48	2.61	2.52	2.73	0.86	0.48
General effect	3.52	3.33	3.66	3.62	3.84	5.32	0.00
Work Coord	3.60	3.69	3.17	3.62	4.00	0.85	0.49
Effects on social and family	3.33	3.27	3.39	3.38	3.51	0.74	0.56
Transportn+personal security	3.50	3.63	3.61	3.54	3.48	0.27	0.89
Satisfaction with organisation	3.20	3.25	3.32	3.46	3.48	1.40	0.23
Autonomy & Flexibility	2.89	2.89	3.12	3.36	3.20	3.79	0.00
Satisfaction with co-workers Work & superv.	3.64	3.58	3.63	3.59	3.76	0.43	0.79
Physical working conditions	4.00	3.54	3.87	3.81	3.60	2.82	0.02
Satisfaction with Pay & work	2.90	3.08	3.15	3.40	3.44	3.49	0.01
QWL	3.33	3.27	3.40	3.54	3.50	3.32	0.01
Amount of work/worker energy	3.31	3.29	3.28	3.35	3.16	0.37	0.83
Absenteeism	3.30	3.98	3.83	3.92	3.92	1.46	0.21
Recognition							
Continuity	3.48	3.53	3.45	3.45	3.58	0.29	0.89
Tardiness	3.56	3.84	3.89	3.92	4.00	0.33	0.86
Attendance	3.11	3.61	3.44	3.68	3.50	1.15	0.33
Productivity	3.32	3.58	3.50	3.59	3.57	0.98	0.42
Unemployment / Lay-offs	2.50	3.09	3.20	3.32	3.17	1.85	0.19

TABLE E3: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST ETHNICITY

Variable Label	ASIAN	BLACK	COLOURED	WHITE	VALUE	SIG(P)
Receptivity to change	3.12	3.16	3.55	3.15	2.10	0.10
Interf.: fam./friends-current	2.60	2.96	2.77	2.96	1.57	0.19
Interf.: fam./friends-jobshare	2.00	2.69	2.77	2.42	4.95	0.00
Interf.: Traing/svcs,etc-current	3.03	2.87	2.76	2.95	0.67	0.57
Interf.: Traing/svcs,etc-jobshare	2.37	2.72	2.61	2.52	1.61	0.18
General effect	3.26	3.48	3.67	3.62	2.97	0.03
Work Coord	3.48	3.51	3.62	3.83	3.43	0.01
Effects on social and family	3.20	3.32	3.54	3.38	0.71	0.54
Transportn+personal security	3.45	3.29	3.43	3.80	8.95	0.00
Satisfaction with organisation	2.97	3.24	3.74	3.40	5.56	0.00
Autonomy & Flexibility	3.19	2.94	3.36	3.15	2.08	0.10
Satisfaction with co-workers Work & superv.	3.42	3.54	3.95	3.67	2.78	0.04
Physical working conditions	3.94	3.52	3.77	3.81	3.17	0.02
Satisfaction with Pay & work	2.80	2.98	3.13	3.56	10.24	0.00
QWL	3.26	3.25	3.56	3.48	5.62	0.00
Amount of work/worker energy	3.22	3.20	3.50	3.33	1.48	0.22
Absenteeism	3.96	3.42	3.82	4.15	20.35	0.00
Recognition						
Continuity	3.43	3.45	4.00	3.47	1.97	0.12
Tardiness	3.90	3.70	3.53	4.00	2.61	0.05
Attendance	3.39	3.48	4.06	3.56	1.57	0.20
Productivity	3.44	3.42	3.73	3.62	4.89	0.00
Unemployment / Lay-offs	2.97	3.27	3.30	3.13	1.31	0.27

TABLE E4: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST MARITAL STATUS

VARIABLE LABEL	SINGLE	MARRIED	OTHER	VALUE	SIG(P)
Receptivity to change	3.24	3.14	3.17	0.97	0.38
Interf.: fam./friends-current	2.84	2.91	3.25	2.70	0.06
Interf.:fam./friends-jobshare	2.43	2.42	3.10	7.12	0.00
Interf.:Traing/svcs,etc-current	2.77	2.94	3.30	5.63	0.00
Interf.:Traing/svcs,etc-jobshare	2.44	2.55	3.09	6.22	0.00
General effect	3.51	3.58	3.44	0.79	0.45
Work Coord	3.77	3.68	3.64	0.44	0.64
Effects on social and family	3.37	3.39	3.04	2.84	0.05
Transportn+personal security	3.61	3.64	3.18	3.75	0.02
Satisfaction with organisation	3.30	3.34	3.41	0.33	0.72
Autonomy & Flexibility	2.89	3.13	3.36	4.60	0.01
Satisfaction with co-workers Work & superv.	3.64	3.62	3.53	0.31	0.73
Physical working conditions	3.61	3.78	3.78	1.31	0.27
Satisfaction with Pay & work	3.12	3.25	3.01	2.32	0.10
QWL	3.31	3.42	3.42	1.52	0.22
Amount of work/worker energy	3.29	3.31	3.136	0.71	0.49
Absenteeism	3.86	3.93	3.75	0.78	0.46
Recognition					
Continuity	3.63	3.45	3.30	2.51	0.08
Tardiness	3.92	3.84	4.06	0.67	0.51
Attendance	3.53	3.56	3.46	0.13	0.88
Productivity	3.60	3.53	3.45	1.28	0.28
Unemployment / Lay-offs	3.04	3.21	3.31	1.78	0.17

TABLE E5: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST NUMBER OF DEPENDANTS

VARIABLE LABEL	0	1	2	3	VALUE	SIG(P)
Receptivity to change	3.24	3.15	3.17	3.08	1.51	0.21
Interf.: fam./friends-current	2.83	3.02	3.00	2.93	0.76	0.51
Interf.: fam./friends-jobshare	2.28	2.61	2.48	2.64	3.30	2.02
Interf.: Traing/svcs,etc-current	2.80	3.04	3.14	2.95	2.85	0.03
Interf.: Traing/svcs,etc-jobshare	2.38	2.60	2.74	2.69	3.38	0.01
General effect	3.59	3.51	3.39	3.58	1.17	0.32
Work Coord	3.79	3.66	3.46	3.73	1.70	0.16
Effects on social and family	3.44	3.28	3.21	3.33	1.31	0.27
Transportn+personal security	3.85	3.51	3.45	3.43	5.85	0.00
Satisfaction with organisation	3.40	3.26	3.32	3.27	0.97	0.41
Autonomy & Flexibility	3.05	3.01	3.17	3.12	0.47	0.70
Satisfaction with co-workers Work & superv.	3.66	3.58	3.58	3.60	0.31	0.82
Physical working conditions	3.78	3.87	3.76	3.58	1.85	0.14
Satisfaction with Pay & work	3.32	3.09	3.12	3.13	2.29	0.08
QWL	3.44	3.36	3.39	3.34	0.76	0.52
Amount of work/worker energy	3.33	3.32	3.26	3.23	0.61	0.61
Absenteeism	4.15	3.97	3.79	3.59	9.94	0.00
Recognition						
Continuity	3.63	3.51	3.36	3.34	2.57	0.05
Tardiness	3.93	4.02	3.68	3.83	1.09	0.35
Attendance	3.65	3.55	3.43	3.45	1.01	0.39
Productivity	3.66	3.61	3.41	3.44	6.04	0.00
Unemployment / Lay-offs	3.06	3.18	3.26	3.24	1.16	0.32

TABLE E6: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST SOURCE OF INCOME

VARIABLE LABEL	OWN SALARY ONLY	OWN AND SPOUSE	OTHER	VALUE	SIG(P)
Receptivity to change	3.17	3.17	3.19	0.01	0.99
Interf.: fam./friends-current	2.89	3.00	2.62	1.76	0.17
Interf.:fam./friends-jobshare	2.48	2.40	3.04	3.54	0.03
Interf.:Traing/svcs,etc-current	3.85	3.08	2.46	6.99	0.00
Interf.:Traing/svcs,etc-jobshare	2.56	2.51	3.19	4.37	0.01
General effect	3.55	3.58	3.35	0.87	0.41
Work Coord	3.72	3.68	3.55	0.33	0.72
Effects on social and family	3.36	3.38	3.20	0.46	0.63
Transport+ personal security	3.49	3.72	3.47	3.12	0.04
Satisfaction with organisation	3.34	3.30	3.56	1.05	0.35
Autonomy & Flexibility	3.10	3.07	3.04	0.07	0.93
Satisfaction with co-workers Work & superv.	3.62	3.59	3.76	0.53	0.59
Physical working conditions	3.69	3.75	3.89	0.49	0.61
Satisfaction with Pay & work	3.15	3.23	3.23	0.50	0.61
QWL	3.38	3.38	3.55	0.85	0.43
Amount of work/worker energy	3.28	3.30	3.37	0.17	0.85
Absenteeism	3.85	4.03	3.21	7.92	0.00
Recognition					
Continuity	3.51	3.50	3.15	1.41	0.25
Tardiness	3.89	3.85	3.79	0.09	0.91
Attendance	3.60	3.53	3.17	1.34	0.26
Productivity	3.56	3.55	3.24	3.54	0.03
Unemployment / Lay-offs	3.15	3.20	3.17	0.12	0.89

TABLE E7: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST INDUSTRY

VARIABLE LABEL	1	2	3	4	5	6	7	8	9	Value	SIG(P)
Receptivity to change	3.21	3.21	3.11	3.25	3.19	3.35	2.62	3.22	3.24	4.69	0.00
Interf.: fam./friends-current	2.95	2.71	2.83	3.03	2.83	3.25	3.38	2.97	2.69	2.86	0.00
Interf.: fam./friends-jobshare	2.55	2.48	2.41	2.44	2.15	3.03	2.54	2.23	2.44	1.45	0.17
Interf.: Traing/svcs,etc-current	3.03	2.73	2.89	2.99	2.86	3.06	3.31	3.13	2.71	2.56	0.00
Interf.: Traing/svcs,etc-jobshare	2.06	2.47	2.55	2.45	2.27	3.41	2.69	2.45	2.57	1.79	0.07
General effect	3.59	3.43	3.67	3.71	3.63	3.35	3.37	3.40	3.54	1.49	0.15
Work Coord	3.85	4.04	3.60	3.77	3.96	3.51	3.58	3.46	3.59	1.42	0.18
Effects on social and family	3.53	3.25	3.42	3.29	3.51	3.13	2.97	3.25	3.55	2.61	0.00
Transportn+personal security	3.69	3.58	3.49	3.75	4.19	3.16	3.36	3.35	3.63	2.31	0.02
Satisfaction with organisation	3.41	3.11	3.31	3.62	3.28	3.25	3.15	3.21	3.30	2.56	0.01
Autonomy & Flexibility	3.02	2.90	3.03	3.25	3.46	2.86	2.90	2.69	3.24	2.23	0.02
Satisfaction with co-workers Work & superv.	3.71	3.72	3.65	3.67	3.42	3.54	3.52	3.37	3.64	0.87	0.54
Physical working conditions	3.79	3.74	3.64	3.99	3.88	3.52	3.61	3.60	3.62	1.34	0.22
Satisfaction with Pay & work	3.29	3.35	3.09	3.53	3.27	2.94	2.98	2.74	3.12	4.70	0.00
QWL	3.44	3.36	3.34	3.63	3.46	3.19	3.23	3.12	3.39	3.49	0.00
Amount of work/worker energy	3.26	3.23	3.22	3.50	3.68	3.26	3.11	3.32	3.22	1.86	0.07
Absenteeism	4.04	4.17	3.43	3.89	4.10	3.31	3.81	4.23	4.04	4.87	0.00
Recognition											
Continuity	3.65	3.50	3.67	3.58	3.82	3.49	3.08	3.52	3.37	2.18	0.03
Tardiness	3.81	4.15	3.87	3.97	4.46	3.54	3.66	4.21	3.73	1.80	0.08
Attendance	3.83	3.56	3.59	3.47	3.62	3.12	3.59	3.48	3.54	0.91	0.51
Productivity	3.71	3.57	3.53	3.56	3.93	3.30	3.36	3.61	3.53	2.91	0.00
Unemployment / Lay-offs	3.13	3.60	3.50	3.32	2.27	3.19	3.05	2.94	2.94	5.07	0.00

TABLE E8: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST AREA OF WORK

VARIABLE LABEL	Educ.	Adm.	Social	Clerica	Library	Bankin	Manuf.	Other	Value	SIG(P)
Receptivity to change	3.05	3.28	3.09	3.08	3.21	3.19	2.99	3.12	1.36	0.22
Interf.: fam./friends-current	2.66	2.89	2.65	3.04	2.46	3.01	2.83	3.07	1.18	0.31
Interf.: fam./friends-jobshare	2.01	2.54	2.20	2.41	2.56	2.56	2.57	2.54	0.83	0.57
Interf.: Traing/svcs,etc-current	2.67	2.94	2.80	2.99	2.40	3.11	2.88	3.01	1.15	0.33
Interf.: Traing/svcs,etc-jobshare	2.15	2.67	2.22	2.43	2.65	2.75	2.87	2.53	1.43	0.19
General effect	3.62	3.64	3.65	3.37	3.62	3.41	3.60	3.51	1.08	0.38
Work Coord	3.93	3.77	3.21	3.35	3.72	3.44	3.61	3.81	2.02	0.05
Effects on social and family	3.44	3.45	2.95	3.15	3.70	3.28	3.36	3.30	1.45	0.18
Transportn+personal security	4.02	3.72	2.71	3.39	3.67	3.38	3.28	3.57	2.89	0.01
Satisfaction with organisation	3.22	3.36	3.83	3.19	3.53	3.26	3.46	3.31	1.13	0.34
Autonomy & Flexibility	3.42	3.12	3.24	3.04	3.33	2.71	2.92	3.08	1.27	0.26
Satisfaction with co-workers Work & superv.	3.73	3.73	4.11	3.27	3.64	3.43	3.51	3.64	3.54	0.00
Physical working conditions	3.95	3.76	3.93	3.65	3.94	3.58	3.32	3.71	1.14	0.34
Satisfaction with Pay & work	3.19	3.28	3.29	3.05	3.19	2.71	3.08	3.25	2.19	0.03
QWL	3.50	3.45	3.68	3.26	3.53	3.13	3.26	3.40	2.06	0.05
Amount of work/worker energy	3.30	3.35	3.17	3.23	3.42	3.30	3.01	3.27	0.88	0.52
Absenteeism	4.11	4.10	3.05	3.55	3.89	4.14	3.61	3.81	4.27	0.00
Recognition										
Continuity	3.33	3.48	3.33	3.51	3.48	3.44	3.36	3.52	0.23	0.98
Tardiness	4.10	3.96	3.57	3.52	3.67	4.25	3.71	3.92	1.73	0.10
Attendance	3.52	3.57	4.14	3.34	3.56	3.56	3.48	3.61	0.65	0.71
Productivity	3.55	3.63	3.39	3.37	3.57	3.58	3.40	3.55	1.85	0.08
Unemployment / Lay-offs	2.86	3.18	3.07	3.01	3.39	2.94	3.50	3.26	1.51	0.16

TABLE E9: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST POSITION

Variable Label	Man(top)	Man.	Super- vision	Opera- tions	Other	Value	SIG(P)
Receptivity to change	3.62	3.11	3.28	3.08	3.22	3.85	0.00
Interf.: fam./friends-current	2.71	3.03	2.80	3.02	3.06	1.46	0.22
Interf.: fam./friends-jobshare	2.30	2.41	2.44	2.53	2.71	0.80	0.53
Interf.: Traing/svcs,etc-current	2.75	3.02	2.90	2.96	3.12	0.72	0.58
Interf.: Traing/svcs,etc-jobshare	2.52	2.43	2.50	2.65	2.89	1.74	0.14
General effect	4.16	3.53	3.68	3.48	3.39	3.96	0.00
Work Coord	4.00	3.70	3.84	3.65	3.39	1.84	0.12
Effects on social and family	4.03	3.21	3.41	3.34	3.18	3.09	0.16
Transportn+personal security	4.15	3.55	3.81	3.49	3.33	3.89	0.00
Satisfaction with organisation	3.98	3.21	3.50	3.21	3.28	5.67	0.00
Autonomy & Flexibility	3.38	3.12	3.12	2.99	3.07	0.79	0.53
Satisfaction with co-workers Work & superv.	4.12	3.61	3.72	3.51	3.66	3.17	0.01
Physical working conditions	4.42	3.81	3.77	3.64	3.63	2.43	0.05
Satisfaction with Pay & work	3.94	3.36	3.36	2.99	3.04	8.96	0.00
QWL	3.97	3.42	3.49	3.27	3.17	6.47	0.00
Amount of work/worker energy	3.85	3.25	3.37	3.24	3.20	2.70	0.03
Absenteeism	4.59	4.08	4.12	3.73	3.61	7.07	0.00
Recognition							
Continuity	3.97	3.40	3.53	3.45	3.61	1.47	0.21
Tardiness	4.77	4.00	3.88	3.78	4.11	3.02	0.02
Attendance	3.83	3.46	3.49	3.63	3.45	0.68	0.61
Productivity	4.09	3.54	3.61	3.51	3.42	4.75	0.00
Unemployment / Lay-offs	3.96	3.10	3.20	3.15	2.98	2.79	0.03

TABLE E10: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST UNION MEMBERSHIP

VARIABLE	YES	NO	VALUE	SIG(P)
Receptivity to change	3.08	3.23	-2.22	0.03
Interf.: fam./friends-current	2.95	2.91	0.45	0.65
Interf.:fam./friends-jobshare	2.47	2.97	0.79	0.90
Interf.:Traing/svcs,etc-current	2.97	2.90	0.79	0.42
Interf.:Traing/svcs,etc-jobshare	2.61	2.55	0.65	0.49
General effect	3.48	3.60	-1.54	0.12
Work Coord	3.62	3.75	-1.30	0.19
Effects on social and family	3.34	3.36	-0.30	0.75
Transportn+ personal security	3.47	3.67	-2.10	0.03
Satisfaction with organisation	3.31	3.35	-0.59	0.56
Autonomy & Flexibility	3.13	3.04	0.95	0.34
Satisfaction with co-workers Work & superv.	3.57	3.66	-1.30	0.20
Physical working conditions	3.66	3.77	-1.17	0.24
Satisfaction with Pay & work	3.09	3.26	-2.16	0.03
QWL	3.35	3.42	-1.14	0.26
Amount of work/worker energy	3.19	3.36	-2.46	0.01
Absenteeism	3.83	3.94	-1.18	0.24
Recognition				
Continuity	3.44	3.53	-1.08	0.28
Tardiness	3.86	3.89	-0.30	0.77
Attendance	3.61	3.50	1.60	0.29
Productivity	3.52	3.57	-0.83	0.41
Unemployment / Lay-offs	3.21	3.14	0.69	0.49

TABLE E11: RECEPTIVITY TO CHANGE & JOB SATISFACTION AGAINST UNION REPRESENTATION

VARIABLE LABEL	YES	NO	VALUE	SIG(P)
Receptivity to change	3.12	3.17	-0.40	0.67
Interf.: fam./friends-current	2.94	2.92	0.10	0.91
Interf.:fam./friends-jobshare	2.75	2.47	1.24	0.213
Interf.:Traing/svcs,etc-current	3.19	2.92	1.52	0.12
Interf.:Traing/svcs,etc-jobshare	2.88	2.56	1.47	0.14
General effect	3.39	3.56	-1.06	0.82
Work Coord	3.34	3.71	-1.73	0.08
Effects on social and family	3.04	3.37	-1.84	0.06
Transportn+personal security	3.52	3.59	-0.34	0.72
Satisfaction with organisation	3.37	3.33	0.26	0.80
Autonomy & Flexibility	3.09	3.08	0.04	0.97
Satisfaction with co-workers Work & superv.	3.54	3.62	-0.84	0.41
Physical working conditions	3.62	3.74	-0.56	0.58
Satisfaction with Pay & work	3.18	3.19	-0.04	0.97
QWL	3.42	3.39	0.23	0.82
Amount of work/worker energy	2.95	3.31	-2.34	0.02
Absenteeism	3.53	3.91	-1.95	0.05
Recognition				
Continuity	3.04	3.52	-2.57	0.01
Tardiness	3.82	3.88	-0.24	0.81
Attendance	3.39	3.55	-0.69	0.49
Productivity	3.27	3.56	-2.58	0.01
Unemployment / Lay-offs	3.37	3.15	1.08	0.28

REFERENCES

- Aliquo, L. 1994. South African Managers Support 'Africanisation'. *SBL Forum*, 5(3): 5.
- Alreck, P.L. & Settle, R.B. 1995. *The Survey Research Handbook*. Boston: Irwin.
- Anyansi-Anchibong, C.B. 1988. *Strategy and Structure of Enterprise in a Developing Country*. Brookfield: Albury.
- Applegath, J. 1982. *Working Free*. New York: Amacom.
- Armstrong, M. 1991. *A Handbook of Personnel Management Practice*. London: Kogan Page.
- Ault, R. 1983. The Best Times and the Worst Times: Defining QWL. In *Quality of Work Life: Perspectives for Business and the Public Sector*. Massachusetts: Addison-Wesley.
- Babbie, E. 1992. *The Practice of Social Research*. California: Wadsworth.
- Balogun, M.J. 1989. The Role of Management Training Institutes in Developing Capacity for Economic Recovery and Long-term Growth in Africa. In M.J. Balogun & G. Matahaha (eds), *Restructuring in African Public Administration*. West Hartford: Kumarian Press.
- Beardwell, I. & Holden, L. 1994. *Human Resource Management*. Leicester: Pitman.
- Bennet, J. 1998. Women still tripped up by workplace obstacles. *Business Times: Appointments*, 13 December, np.
- Bernstein, P. 1988. The Ultimate in Flexitime From Sweden, By Way of Volvo. *Personnel*, June: 70-74.
- Best, F. 1981. *Work Sharing: Issues, Policy Options and Prospects*. Michigan: W.E. Upjohn Institute.
- Best, F. 1985. *Reduced Work Weeks to Prevent Layoffs*. Philadelphia: Temple University.
- Bethlehem, L. 1991. Workers struggle against retrenchments. *Economic Focus*, South African Labour Bulletin June: 15 (8); 38-41.
- Blank, R. & Slipp, S. 1994. *Voices of diversity: real people talk about problems and solutions in a workplace where everyone is not liked*. New York: Amacom.

- Bluestone, I. 1977. Implementing quality-of-life programs. *Management review*: July 43-46.
- Blunt, P. 1983. *Organizational Theory and Behaviour: An African Perspective*. London: Longman.
- Blunt, P. & Jones, M. 1992. *Managing Organisations in Africa*. New York: Water de Gruyter.
- Blyton, P. 1985. *Changes in Working Time*. London: Groom Helm.
- Boonzaier, B. & Boonzaier, M. 1994. The job diagnostic survey: a functional tool for South African managers. *South African Journal of Business Management*, 25(3), September: 101-109.
- Botha, A. 1990. Employee Flexibility - an HR and IR Perspective. *IPM Journal*, 9(3), October: 27-32.
- Brightman, H. & Schneider, H. 1992. *Statistics for Business Problem Solving*. Cincinnati: South-Western.
- Brown, W.S. 1991. *Introducing Econometrics*. St. Paul: West.
- Busenbark, G., Smith, D., Mardy, M. & Nelson, R. 1996. Stretching out the clock. *Financial Executive*, 12 (1), Jan/Feb: 17 - 23.
- Butler, J. 1995. Autocrats Accelerate Absenteeism. *Productivity SA*, 21(2), March/April: 8-10.
- Cargill, J. 1994. Hope or a hand-out: Question of which will be the outcome in the latest job - creation drive. *Finance Week*, February 24, March 2: 15-16.
- Chadha, B. 1995. Disequilibrium In the Labour Market in South Africa. *IMF staff papers*, September: 642 - 669.
- Challenger, J.E. 1992. Wanted: two-for-one workers. *Across the Board*. 29, September: 51 - 52
- Central Statistical Services (CSS). SIC: Standard Industrial Classification. Ref all economic activities 5th ed. 1993.
- Central Statistical Services (CSS) 1993. SIC Pretoria, SA: Central Statistical Services
- Central Statistics Services: October Household Survey - 1994. RSA 1995 Statistical release P0317, 30th March.

- Central Statistical Services (CSS) 1995. RSA Statistics in brief Pretoria: CSS*
- Central Statistical Services (CSS) 1996. RSA Statistics in brief Pretoria: CSS*
- Cherns, A.B. & Davis, L.E. 1975. Assessment of the state of the art. In L.E. Davis & A. B. Cherns (eds.), *The Quality of Working Life (Vol. 1)*. New York: Macmillan.
- Cherrington, D.J. 1991. *The Management of Human Resources*. Boston: Allyn and Bacon.
- Cherrington, D.J. 1994. *Organizational Behaviour: The Management of Individual and Organisational Performance*. Boston: Allyn and Bacon.
- Cherrington, D. 1995. *The Management of Human Resources*. New Jersey: Prentice Hall.
- Christie, P., Lessem, R. & Mbigi, L. 1993. *African Management: Philosophies, Concepts and Applications*. Randburg: Knowledge Resources.
- Clutterbuck, D. 1992. After flexible hours, now it's flexiyears. *International Management*, March: 31-33.
- Cohen, A.R. & Gadon, H. 1978. *Alternative Work Schedules: Integrating Individual and Organisational Needs*. London: Addison-Wesley.
- Cole, G.A. 1990. *Management: Theory and Practice*. London: DP.
- Cooper, R.D. & Emory, W.C. 1995. *Business Research Methods*. Chicago: Irwin.
- Coping with Corporate Re-organisation: Job sharing - A Serious Alternative or A Forlorn Hope?. 1998. *Beaumont Express*, Vol 3(21): 379-383.
- Coster, E 1992. The Quality of Working Life: A new perspective. *Human Resource Management*, 7 (10): 68 - 70
- Cowle, J. 1984. Throes of the Three-Day Week. *Dun's Business Month*, April: 93-94.
- Creswell, J.W. 1994. *Research Design: Qualitative & Quantitative Approaches*. London: Sage.
- Curson, C. 1986. *Flexible Patterns of Work*. London: Institute of Personnel Management.
- Dana, D. 1995. *Managing Differences*. Rivonia: William Waterman.
- Dancaster, L. 1993. Accommodating Women in the Workplace (Part 2): Atypical Employment for Working Mothers. *South African Journal of Labour Relations*, 17(2): 3-15.

- Daniel, W.W. & Terrell, J.C. 1993. *Business Statistics*. Dallas: Houghton Mifflin.
- Dooley, D. 1990. *Social Research Methods*. New Jersey: Prentice Hall.
- Dornbusch, R. & Fischer, S. 1981. *Macro-economics*. New York: McGraw-Hill.
- Dougherty, C. 1992. *Introduction to Econometrics*. New York: Oxford University Press.
- Dunham, R.B. & Pierce, J.L. 1983. The Design and Evaluation of Alternative Work Schedules. *Personnel Administrator*, April: 67-72.
- Dunham, R.B. & Pierce, J.L. 1986. Attitude Toward Work Schedules: Construct Definitions, Instrument Development, and Validation. *Academy of Management*, 20 (1): 170 - 182
- Du Plooy, E. & Jackson, D. 1995. Productivity Measurement. *Productivity SA*, 21(2), March: 14-17.
- Du Toit, J. & Falkena, H.B. 1994. *The structure of the South African Economy*. Halfway House: Southern Books.
- Edwards, 1986. Job-sharing on Experience in Managing Change. *Women in Management Review*. 2 (2): 96 - 99
- Fletcher, J.L. 1998. Heading towards optimal performance. *Human Resources Magazine*, March: 47-50.
- Fletcher, L. 1995. *Categorical Data Analysis*. Centre for Statistics. Pretoria: HSRC
- Flexible working time arrangements at Opel. 1989. *EIRR*. 187, August: 12-14.
- Fredriksson, I. 1988. Job Sharing in Sweden: Some Examples. *Economic and Industrial Democracy*, 9: 397-404.
- Freud, J.E. & Simon, G.A. 1992. *Modern Elementary Statistics*. New Jersey: Prentice-Hall.
- Fromont, M. 1994. Employment: One Controllable Factor. *Word of Work*, (7): 14-15.
- Froyen, R.T. 1993. *Macro-economics: Theories and Policies*. New York: MacMillan.
- Gay, L.R. & Diehl, P.L. 1992. *Research Methods for Business and Management*. New York: MacMillan.
- Gerber, P.D., Nel, P.S. & Van Dyk, P.S. 1995. *Human Resources Management*. Halfway House: Southern Books.

- Gerber, P.D., Nel, P.S. & Van Dyk, P.S. 1998. *Human Resources Management*. Johannesburg: International Thomson Publishing.
- Glaser, E.M. 1976. State-of-the art Questions about Quality of Worklife. *Personnel*, May-June: 39-47.
- Gluckman, S. 1992. When Giants Learn to Crawl. *Productivity SA*, 18(4) September/October: 51-53.
- Gomez-Mejia, L.R., Balkin, D.B. & Cardy, R. 1995. *Managing Human Resources*. London: Prentice Hall.
- Goodson, R. 1994. The Long Road to Equality in Southern Africa. *Word of Work*, (7): 28-29.
- Gool, S. 1996. Absenteeism Nightmare. *Productivity SA*, 22(1), Jan/Feb: 15-18.
- Gordon, J.R. 1993. *A Diagnostic Approach to Organisational Behaviour*. Boston: Allyn and Bacon.
- Government launches part-time work initiative. 1994. *European Industrial Relations Review*, (247), August: 21-22.
- Government "Work-sharing plan". 1992. *European Industrial Relations Review*, (226), November: 23-25.
- Gray, J.L. & Starke, F.A. 1984. *Organisational Behaviour: Concepts and applications*. Columbus: Bell & Howell.
- Greenberg, J. & Baron, R. A. 1995. *Behavior in Organizations*. New Jersey: Simon & Schuster.
- Guidance note: Job-sharing 1991. *Industrial Relations Legal Information Bulletin* (489), 7 June: 2 - 7.
- Gujarati, D. 1995. *Basic Economics*. New York: McGraw-Hill.
- Hair, J.F., Anderson, R.E., Tatham, R.L. & Black W.C. 1992. *Multivariate Data Analysis with Readings*. New York: MacMillan.
- Hammond, V. 1985. *Current Research in Management*. London: Frances Pinter.
- Harari, O. & Beaty, D.T. 1990. On the Folly Of Relying Solely On A Questionnaire Methodology In Cross-Cultural Research. *Journal of Managerial Issues*, II (3) Fall/Winter: 267-281.

- Harriman, A. 1982. *The Work/Leisure Trade Off*. New York: Praeger.
- Henderson, G. 1994. *Cultural Diversity in the Workplace*. USA: Praeger.
- Heneman III, H.G., Schwab, D.P., Fossum, J.A. & Dyer, L.D. 1989. *Personnel/Human Resource Management*. Boston: Irwin.
- Henry, G.T. 1990. *Practical Sampling*. California: Sage.
- Hillard, V.G. 1990. Improving the Quality of Work Life. *Boardroom*, 1, April: 4-5.
- Hillard, V., 1996. Productivity - who must solve the problem? *HRM*, 12(4), May: 16-18.
- Hinrichs, K., Roche, W., & Siomon, C. 1991. *Working Time in Transition*. Philadelphia: Temple University Press.
- Hofstede, G. 1980. *Culture's Consequences: International Differences in Work-Related Values*. London: Sage.
- Hofstede, G. 1991. *Cultures and Organisations: Software of the mind*. London: McGraw-Hill.
- How "natural" is Unemployment? 1995. *The Economist*, 337, December 16: 98
- Howell, D.C. 1989. *Fundamental Statistics for Behaviour Sciences*. Belmont: Duxbury.
- Job Sharing, 1987. *EOR*, 16, Nov/December: 12-16.
- Ivancevich, J.M., & Matterson, M.T. 1996. *Organizational Behavior and Management*. Chicago: Irwin.
- Joffe, A. 1995. "Seeing Things Differently." *Productivity SA*, 21(3), May/June: 11-15.
- Johansen, R. & Swigart, R. 1995. *Upsizing the Individual in the Downsized Organization*. Bergvlei, South Africa: Random House.
- Jolliffe. 1986. *Survey Design and Analysis*. West Sussex: Ellis Horwood.
- Kanter, R.M. 1991. Transcending Business Boundaries: 12 000 World Managers View Change. *Harvard Business Review*, 69(3): 151 - 164.
- Kast, F.E. & Rosenzweig, J.E. 1985. *Organization and Management*. Johannesburg: McGraw-Hill.
- Katz, D. & Kahn, R.L. 1966. *The Social Psychology of Organizations*. New York: John Wiley & Sons.

- Kemp, N. 1992. Productivity through improved employee performance. *FWP Journal*, 32(5), May: 21-22.
- Kiggundu, M.N. 1989. *Managing Organisations in Developing Countries*. Connecticut: Kumarian Press.
- Kiggundu, M.N. 1988. "Africa". In R. Nath (ed.), *Comparative Management: A Regional View*. Massachusetts: Ballinger.
- Klecka, W.R. 1980. *Discriminant Analysis*. London: Sage.
- Kolb, D.A., Rubin, I. M., & Osland J. S. 1995. *Organizational Behavior: An Experiential Approach*. New Jersey: Prentice Hall.
- Kolodny, Hans Van Beinum. 1983. *The Quality of Working Life and the 1980's*. New York: Praeger.
- Leap, T.L. & Crino, M.D. 1993. *Personnel/Human Resources Management*. New York: MacMillan.
- Lee, P. 1984. Job Sharing - A Concept Whose Time Has Come. *Office Administration and Automation*, April: 28-30.
- Leighton, P. 1986. Job-sharing: Opportunities or Headaches? *Employee Relations* 8 (2): 27 - 31.
- Leighton, P. 1988. Job Sharing. *Industrial Society Magazine*, December: 21-23.
- Levin, R. I. 1987. *Statistics for Management*. New Jersey: Printice Hall.
- Lewis, H. 1990. *Part-time Work: Trends and Issues*. Canberr: Australian Government.
- Lewis, P.V. 1883. *Managing Human Relations*. Massachusetts: Kent.
- Liebenberg, K. 1992. Where Has All the Output Gone? *Productivity SA*, 18(3), July/August: 7-9.
- Loots, E. 1997. Poverty and unemployment. *Aambeeld*, 25(2), November: 28 - 31.
- Lloyd, C. 1996. The Flip Side: Suicidal cost cutting. *Productivity SA*, 22(2), March/April: 17-19.
- Lundall, P. 1990. *Shorter Working Hours: Possibilities for South Africa*. Cape Town: SALDRU.
- Lunt, P. 1994. Want to Share a Job? Some People Do. *ABA Banking Journal*, 86(3), March: 88.

- Lussier, R.N. 1990. Should Your Organisation Use Job Sharing? *Supervision*: 9-11.
- Luthans, F. 1995. *Organizational Behavior*. New York: McGraw-Hill.
- McCabe, C. 1996. The Downside of Downsizing: Survive to Thrive. *Productivity SA*, 22(2), March/April: 20-22.
- MaCoy, R., & Morand, M.J. 1984. *Short-Time Compensation: A Formula for Work Sharing*. New York: Pergamon Press.
- Maduna, P. 1994. Affirmative Action Must be Enforced. *SBL Forum*, 5(3): 3.
- Manly, B.F.J., 1986. *Multivariate Statistical Methods a Primer*. New York: Chapman & Hall.
- Manning, T. 1996. Managing Minds. *Productivity SA*, 22(4), July/August: 7-10.
- Marley, V. 1990. Job-Sharing: Compatibility, Commitment, communication and Consistency. *Library Association Record*, March: 197-199.
- Marshall, A. 1922. *Money, Credit and Commerce*. London: Macmillan.
- Martins, J.H. A guide to the Standard Industrial Classification of all Economic Activities as applied in the BM Registers, *Bureau of Market Research*, University of South Africa, Research Report, 74, Pretoria: 2.
- Mason, R. D. & Lind D. A. 1990. *Statistical Techniques in Business and Economics*. Boston: Irwin
- Mbigi, L. & Maree, J. 1994. The Spirit of African Transformation. *People Dynamics*, 12 (11): 21-22, 27-31.
- Mbigi, L. & Maree, J. 1995. *UBUNTU: The Spirit of African Transformation Management*. Randburg: Knowledge Resources.
- McCarthy, M.E., & Rosenberg, G.S. 1981. *Work Sharing: Case Studies*. Michigan: The W.E. Upjohn Institute for Employment Research.
- McClave, J.T., & Benson, P.G. 1994. *Statistics for Business and Economics*. New York: Dellen.
- McDonald, M. 1996. Productivity: The Lifeblood of Prosperity. *Productivity SA*, 22(4), July/August: 12,13.
- McGregor, A. 1996. *GILTS: Performance Analysis and How They Work*. Cape Town: Digitracs.

- McGregor, A. 1996. *Mcgregors Online*. Capetown: Digitracs.
- Meier, G.S. 1978. *Job Sharing: A New Pattern for Quality of Work and Life*. Michigan: The W.E. Upjohn Institute for Employment Research.
- Meltz, N.M., Reid F., & Swartz, G.S. 1981. *Sharing the Work: An Analysis of the Issues in Worksharing and Jobsharing*. Toronto: University of Toronto Press.
- Mendenhall, W. & Sincich, T. 1996. *A Second Course in Statistics Regression Analysis*. New Jersey: Prentice-Hall.
- Meyer, S. 1996. Rigid Labour Market or Reasonable Working Conditions? *Productivity SA*, 22(2), July/August: 13-16.
- Misselhorn, H.J. 1986. Managing in a Changing World. *The Condenser*: 32-37.
- Mondy, R.W., Sharplin, A., & Premeaux, S.R. 1981. *MANAGEMENT: Concepts, Practices and Skills*. Massachusetts: Allyn and Bacon.
- Morgan, P. 1995. Teams Build Corporate Communities. *Productivity SA*, Sept /October: 19 - 21.
- Morgan, P. 1998. Common Misconceptions: What productivity is not. *Productivity, SA*, 24(1), January: 4-5, 14-17.
- Mullins, J.L. 1993. *Management and Organisational Behaviour*. London: Pitman.
- Nath, Raghu. 1988. *Comparative management: a regional view*. Massachusetts: Ballinger.
- Ndala, R. 1996. Uncovering the WANTA factor. *Productivity SA*, 22(1), January/February: 27-29.
- Nollen, S.D. 1982. *New Work Schedules in Practice*. New York: Van Nostrand Reinhold.
- Nollen, S.D. 1989. The Work-family Dilemma: How HR Managers Can Help. *Personnel*, May: 25 - 30.
- O'Hara, B. 1988. *Put Work in Its Place*. Victoria: Work Well Publications.
- Olmsted, B. and Smith, S. 1989. *Creating a Flexible Workplace: How to Select and Manage Alternative Work Options*. New York: Amacom.
- Owen, J.D. 1989. *Reduced Working Hours: Cure for Unemployment or Economic Burden?* Baltimore: The Johns Hopkins University Press.
- Owen, J.D. 1979. *Working Hours*. Massachusetts: Lexington.

- Pagano, M. & Gauvreau, K. 1991. *Principles of Biostatistics*. California: Duxbury Press.
- Parkin, M., and King, D. (1992). *Economics*. Massachusetts: Addison-Wesley.
- Parsons, J. 1992. The 21st Century Bushmen. *Productivity SA*, 18(2), May/June: 7-8.
- Perry, M. 1993. 10 points to take South African Business into the next Upswing. *Productivity SA*, 19(1), January/February: 14-15.
- Peters, T. & Austin, N. 1994. *A Passion for Excellence*. London: HarperCollins.
- Pickard, J. 1992. The Pros and Cons of Annual Hour Programs. *Personnel*, April: 92-97
- Pierce, J.L., Newstrom, J.W., Dunham, R.B., & Barber, A.E. 1989. *Alternative Work Schedules*. Boston: Allyn and Bacon.
- Pons, A. 1993. Participation and Productivity. *People Dynamics*, 11(10):12-16.
- Polsky, W.L., & Foxman, L.D. 1987. Can Job Sharing Work for You? *Personnel*, 66(9), Sept: 30-33.
- Primos, L. 1994. Searching for Gold: The Challenges of Affirmative Action Recruitment. *People Dynamics*, 12 (11): 32-35.
- Prokopenko, J. 1995. Productivity: an ILO Perspective. *Human Resource Management*, 10(10): 26-28.
- Ralston, D.A. 1990. How Flexitime Eases Work/Family Tensions. *Personnel*, August: 45-48.
- Reichard C. S., & Rallis S.F. 1994. *The Qualitative-Quantitative Debate: New Perspectives*. San Francisco: Jossey-Bass
- Reinmuth, M. 1979. *Statistics for Management and Economics*. Massachusetts: Duxbury Press.
- Robbins, S.P. 1993. *Organisational Behaviour*. London: Prentice Hall.
- Rodgers, G. 1994. Poverty: Old Problem, New Strategies. *World of Work*, 7: 16-18.
- Ronen, S. 1984. *Alternative Work Schedules: Selecting, Implementing and Evaluating*. Illinois: Irwin.
- Rossouw, D. 1991. Meaning, Morality and Management. *HRM*, August: 11-13.

- Schuitema, E. 1995. Willingness to work a key challenge in business. *Human Resource Management*, 11(3), April: 19-20.
- Shani, A.B., & Lau, J.B. 1996. *Behaviour in Organisations: An Experimental Approach* Chicago: Irwin.
- Shareef, R. 1990. Training: QWL Programs facilitate Change. *Personnel*, September: 58-61.
- Sharing the Burden, 1993. *The Economist*, 3290, Nov. 13: 18.
- Sheley, E. 1996. Job sharing offers unique challenges. *Human Resources Magazine*, 41(1), January: 46 - 49.
- Shellenbarger, S. 1993. Lessons from the workplace: How corporate policies and attitudes lag behind Workers' Changing Needs. *Human Resource Management* 31 (3), Fall: 157-169.
- Sibson, R.E. 1994. 13 points on Productivity Management. *HRFOCUS*, 71(4), April: 21.
- Sims, D. & Gabriel, Y. 1996. Managing Learning Reviews. Vol 27, no. 1, 143 - 144.
- Singh, A. 1998. Productivity: The Unions Speak. *Productivity SA*. 24 (2): 4 - 6.
- Singh, R. 1998. Redefining Psychological Contracts with the U.S Work Force: A Critical Task for Human Resource Management Planners in the 1990's. *Human Resource Management*. 37 (1), spring: 61 - 69.
- Skrovan, D.J. 1983. *Quality of Work Life*. London: Addison-Wesley.
- Solomon, C.M. 1994. Job sharing: One Job, Double Headache? *Personnel*, 73(9), September: 88-96.
- Spoelstra, H.I.J. 1986. Japanese Management Methods in South Africa. *Productivity SA*, 12(3), June: 24-26.
- Stanlake, G.F. 1983. *Introductory Economics*. London: Longman.
- Steel, N. 1984. World Business. *The Economist*. February: 61-62.
- Stein, B.A. 1983. *Quality of Work Life in Action: Managing for Effectiveness*. New York: American Management Associations.
- Stennett, R. 1993. Job-sharing in the Librarianship. *Library Management*, 14(6): 13-20.
- Strauss, G., Sayles, L.R. 1980. *Personnel: The Human Problems of Management*. New Jersey: Prentice Hall.

- Sugeno, K. 1990. Flexibility in Working Time in Japan (I). *Japan Labor Bulletin*. June: 5-8.
- Sugeno, K. 1990. Flexibility in Working time in Japan (II). *Japan Labor Bulletin*. July: 5-8.
- Sullivan, S. & Lussier, R. 1995. Flexible work arrangements as a management tool. (Part 1). *Supervision*, 56(8), August: 14-17.
- Taylor, T. (1988). "Quality of Work Life". *Productivity S. A.*, 14(6), December: 4-6.
- Touby, L. (1993). "The Business of America is Jobs." *Journal of Business Strategy*, 14(6), 20-31.
- Survey on Recruitment and Retention of Women. 1990. *Human Resources Europe*, (4), August/September.
- Van Zyl, S.J.J; Steenkamp, H.A and Bühner, E. 1992. A Guide to BMR Resiters. Pretoria: *Bureau of Market Research*, University of South Africa.
- Von Holdt, K. 1995. The Labour Market Commission: Important Issues for Unions. *SA Labour Bulletin*, 19(4), September: 47-48.
- Wagner III, J. A. & Hollenbeck, J.R. 1995. *Management of Organizational Behavior*. New Jersey: Simon & Schuster.
- Walton, P. 1990. *Job Sharing: A Practical Guide*. London: Kogan Page.
- Warne, B.D., Lundy, K.L.P., & Lundy, L.A. 1992. *Working Part-Time: Risks and Opportunities*. New York: Praeger.
- Williams, F. 1979. *Reasoning with Statistics*. Chicago: Hort, Rinehart and Winston.
- Work-sharing Agreements. 1993. *European Industrial Relations Review*, (231), April: 14-16.
- Work Sharing Works, Could Work Better, Study Finds. 1989. *Work in America*: 14(6), June: 4-5.
- Work Sharing and Redundancies. 1993. *European Industrial Relations Review*, (239) December: 16-18.
- Working Time Arrangements at BMW Regensburg. 1990. *EIRR*, 197, June: 11-14.
- Working Time Management at BHW. 1991. *EIRR*, 211, August: 12-14.
- Young, G. 1993. Trade Unions: will they continue to play a progressive role in society? *Boardroom*, March: 3-7.