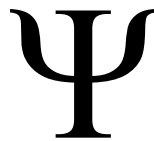




*Relations between job insecurity and job satisfaction,
subjective health complaints, and organizational
attitudes among industrial workers in Norway*

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The background to conduct a study investigating the relationships between job insecurity and its consequences was due to a personal interest in how employees and employers better can cope with this phenomenon, increasingly more and more common in the labour market today. To my knowledge, no studies have been conducted investigating these relations in Norway before. The present study is conducted as an independent investigation as a master thesis at the Research Centre for Health Promotion. The study was supported by NOK 2600 to the data collection process from the Faculty of Psychology, University of Bergen.

The process working on this thesis has been an informative and inspiring process, but has also been hard with many struggles to times. Especially the process of recruiting companies to participate in the study was a long and time consuming affair. Many companies were sceptical to let their employees participate in such a study and therefore turned down the request to participate. Due to practical limits within the companies to administer the questionnaires, and due to economic and practical limits in carrying out the study, the study design had to be modified from a planned randomly selected study design to a conveniently selected study design in order to get the study conducted at all.

I would like to thank the three companies who agreed to let the study be conducted in their companies and all the respondents who returned questionnaires and thereby contributed to the gathering of new knowledge about the phenomenon in an industrial setting in Norway.

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ABSTRACT

In order to stay vital and competitive in a changing labour market, organizations engage in various adaptive strategies such as downsizing and mergers. Adaptation strategies may vary but they all have one thing in common; they expose the workforce to feelings of uncertainty and job insecurity.

The aim of the thesis was to investigate the relationships between job insecurity and job satisfaction, subjective health complaints, and organizational attitudes. The definition of job insecurity used in this thesis rests on two fundamentals. Job insecurity is seen as a subjective experience and it is an involuntary event.

186 employees from three different companies in the steel industry in Norway undergoing downsizing and organizational change participated in the study. A response rate of 49.6 percent was achieved.

The results showed that job insecurity was negatively related to job satisfaction and organizational attitudes, and positively related to subjective health complaints. The relations were stronger for the attitudinal consequences, job satisfaction and organizational attitudes, than for health complaints. Results also revealed that work control, gender, and leader responsibility were significantly related to the level of job insecurity the employees experienced.

Results from regression analysis showed that coping and social support moderated some of the relations between job insecurity and the outcomes examined. The findings indicated that coping and social support can reduce the negative consequences of job dissatisfaction and non-compliant job behaviours when employees' job security is at stake. Employees who participate in and have an influence over the change processes are expected to experience fewer negative consequences of job insecurity than employees who do not participate.

SAMANDRAG

Organisasjonar undergår ulike tilpassingsstrategiar slik som nedskjeringar og samanslåingar for å kunne halde seg vitale og konkurransedyktige i ein stadig skiftande arbeidsmarknad. Tilpassingsstrategiar kan variere men dei har alle ein ting felles; dei utset arbeidsstyrken for kjensler av uvisse og jobbusikkerheit.

Målet med undersøkinga var å sjå på samanhengar mellom jobbusikkerheit og jobbtilfredsheit, subjektive helseplager og holdningar til organisasjonen. Definisjonen av jobbusikkerheit brukt i denne oppgåva bygger på to fundament; det er ei subjektiv erfaring og det er ei ufrivillig hending.

186 arbeidstakarar frå 3 ulike bedrifter innan metallindustrien i Noreg som undergår nedskjeringar og organisatoriske endringar, deltok i studien. Ein svarprosent på 49.6 prosent vart oppnådd.

Resultata viser at jobbusikkerheit er negativt relatert til jobbtilfredsheit og holdningar til organisasjonen, og positivt relatert til subjektive helseplager. Relasjonane er sterkare for holdningskonsekvensane, jobbtilfredsheit og holdningar til organisasjonen, enn for helseplager. Resultata viser også at kontroll i arbeidet, kjønn og leiaransvar bidreg signifikant til nivået av jobbusikkerheit arbeidstakarar opplever.

Regresjonsanalyser viser at meistring og sosial støtte modererer nokre av samhengane mellom jobbusikkerheit og dei undersøkte konsekvensane. Resultata indikerer at meistring og sosial støtte kan redusere negative konsekvensar av mistrivsel på jobben og negative holdningar og åtferd når arbeidstakarar sin tryggleik i forhold til arbeidet står på spel. Arbeidstakarar som er deltek i og har innverknad over endringsprosessane er venta å oppleve færre negative konsekvensar av jobbusikkerheit enn arbeidstakarar som ikkje deltek.

1.0 Introduction

Working life has been subject to dramatic changes over the past decades. In this context, job insecurity has emerged as an important construct (Sverke & Hellgren, 2002). Some of the dramatic changes affecting work and organizations include increased global competition, the impact of information technology, and reorganizing of companies leading to fewer employees. Forces like these have produced wrenching changes to all industrialized economies and these changes have made a most profound impact on number of job losses (Burke & Nelson, 1998). Elementary production work has been transferred to low-income countries and organizations have become leaner and more susceptible to fluctuation in labour market demands (Klein Hesselink & van Vuuren, 1999).

In recent years the psychological and health consequences of unemployment have been subject to increasing interest in research. Up till now, relatively little scientific attention has been paid to the possible psychosocial consequences of job insecurity, although in times of economic crisis and restructuring of many industries, it becomes a concern for increasingly larger sections of the population (Büssing, 1999). Employees who feel very insecure about their jobs typically have more psychosomatic complaints and are more depressed than employees who feel secure about their jobs. They typically report more nervousness, guilt, sadness, fear and anger, and less pleasure and self-confidence than employees who do not feel insecure (Hartley, Jacobson, Klandermans & van Vuuren, 1991). Feelings of job insecurity are typically accompanied by lower job satisfaction and weaker commitment to the organization as a whole. Job insecurity is especially prevalent among employees in industries that are downsizing and closing facilities, and especially stressful for those employees who will be least able to find other comparable jobs if they were to lose their current positions (Heaney, Israel & House, 1994).

Job insecurity is likely to persist as an important phenomenon in organizations. Researchers need to develop the capability to study the construct systematically and thoroughly. Only then will there according to Ashford, Lee and Bobko (1989) be a basis for helping managers and employees to cope with its effects. Increased productivity cannot be considered as the only justification for a healthy workplace.

The goal of simultaneous health and productivity is of crucial importance. After all, employees plagued with great job stress and ill health will not help to improve companies' productivity (Karasek & Theorell, 1990) and therefore the workers' health should be a goal in itself for companies.

1.1 Aim of the thesis

The general aim of this thesis is to contribute to a better understanding of the phenomenon job insecurity and to investigate the relationships between perceived stress generated from job insecurity on job satisfaction, subjective health complaints, and organizational attitudes reported by employees. To investigate the relationships between job insecurity and its consequences, one need to consider other factors that might have an influence on this relationship. Three major aspects of such influence are individual differences, work control, and social support. These relations can be illustrated as in the model below.

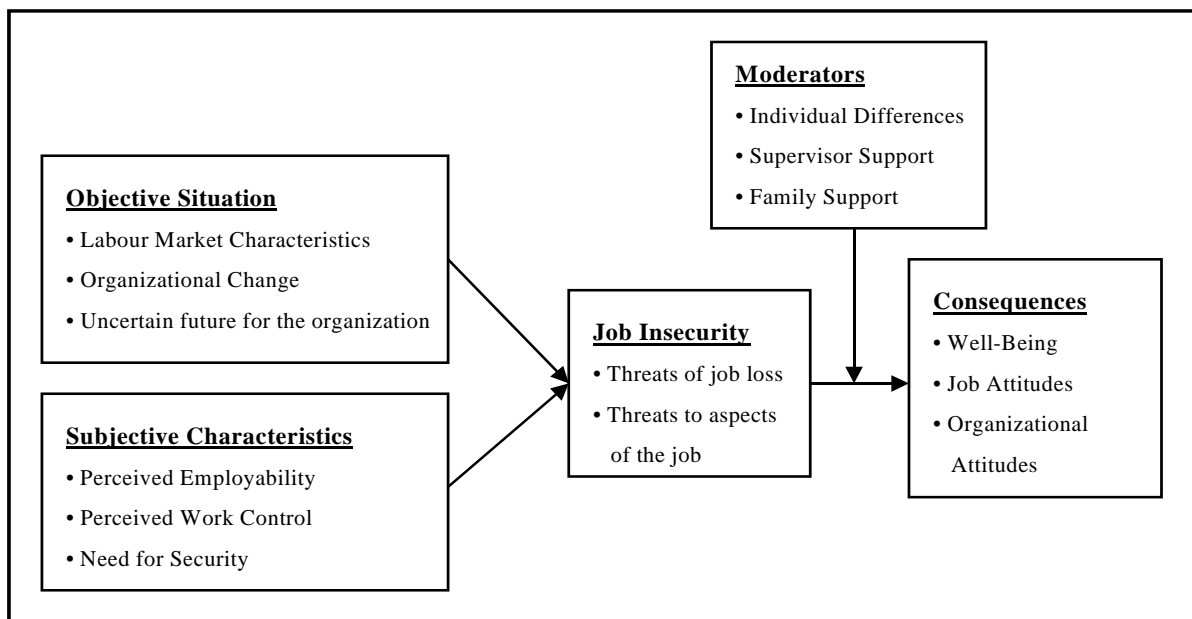


Figure 1.1 Integrated model of Job Insecurity (Adapted from Sverke & Hellgren, 2002)

The overriding goal of the thesis is to provide knowledge that might help health professionals, employees, and policy makers in companies to develop interventions and policies to efficiently prevent health complaints and job dissatisfaction at an early stage in times of increasingly uncertainty and job insecurity in many industries. Knowledge about the consequences of job insecurity can lead to early interventions and thereby counteract potentially harmful processes at an early stage, and might contribute to reduce unanticipated societal and individual costs for both employees and companies.

1.2 Research questions and hypotheses

The main objective behind the present study was to examine the relationships between job insecurity and its outcomes in accordance with central literature on the subject, and the main research question presented below was put forward:

- *What is the relationship between job insecurity as a stressor and job satisfaction, subjective health complaints, and organizational attitudes as outcomes among industrial workers in Norway?*

In order to explore the main research question, a set of additional sub-research questions were identified as presented below:

Research question 1:

- *Are there any differences in perceived job insecurity for gender, age, occupational group, length of employment in the company, and leader responsibility?*

Research question 2:

- *What is the relationship between work control and perceived levels of job insecurity?*

Research question 3:

- *What is the relationship between job insecurity and job satisfaction?*

Research question 4:

- *What is the relationship between job insecurity and subjective health complaints?*

Research question 5:

- *What is the relationship between job insecurity and organizational attitudes?*

Research question 6:

- *Is there a moderator effect of coping on the relationship between job insecurity and job satisfaction, subjective health complaints, and organizational attitudes?*

Research question 7:

- *Is there a moderator effect of social support on the relationship between job insecurity and job satisfaction, subjective health complaints, and organizational attitudes?*

In accordance with the sub-research questions presented and theoretical arguments from central authors on the phenomenon job insecurity, the following hypotheses were postulated:

Hypothesis 1:

- *Gender, age, occupational group, length of employment in the company, and leader responsibility, are significantly associated with perceived levels of job insecurity*

Hypothesis 2:

- *Work control is negatively associated with job insecurity*

Hypothesis 3:

- *Job insecurity is negatively associated with job satisfaction*

Hypothesis 4:

- *Job insecurity is positively associated with subjective health complaints*

Hypothesis 5:

- *Job insecurity is negatively associated with organizational attitudes*

Hypothesis 6:

- *Perceived coping resources moderates the relationships between job insecurity and job satisfaction, subjective health complaints, and organizational attitudes*

Hypothesis 7:

- *Perceived supervisor support moderates the relationships between job insecurity and job satisfaction, subjective health complaints, and organizational attitudes*

Hypothesis 8:

- *Perceived family support moderates the relationships between job insecurity and job satisfaction, subjective health complaints, and organizational attitudes*

The basis for these hypotheses will be presented in the following chapters.

1.3 Construct definitions

In this part of the thesis, important constructs will be defined. A more thorough elaboration of the definitions will be given as the concepts are introduced in the following chapters. Other additional related constructs will be defined where elaborated.

Job insecurity: “...*perceived powerlessness to maintain desired continuity in a threatened job situation.*” (Greenhalgh & Rosenblatt, 1984 p. 438)

Psychological stress: “...*a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being.*” (Lazarus & Folkman, 1984 p. 19)

Job satisfaction: “...*a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences.*” (Locke, 1983 p. 1300)

Subjective health complaints are conditions with few or no objective findings, even though these complaints may reach levels that require medical assistance and sickness benefit. (Eriksen, Ihlebæk & Ursin, 1999)

Organizational attitudes are employees' attitudes toward the organization and their work, job involvement, and willingness to remain with the organization. (Hellgren, 2003)

Control: “... *the exercise of effective influence over events, things, and persons.*” (Sutton & Kahn, 1987 p. 276)

Coping: “... *constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person.*” (Lazarus & Folkman, 1984, p. 141)

Social support: “...*the nature of the interactions occurring in social relationships, especially how these are evaluated by the person as to their supportiveness.*” (Lazarus & Folkman, 1984, p. 249)

1.4 The structure of the thesis

Job insecurity is a job stressor. To understand the structure of the topic, the first part of the thesis will be an elaboration of job insecurity and the different dimensions of the construct. The second part will be an elaboration of individual and organizational consequences of job insecurity with focus on job satisfaction, possible subjective health complaints and attitudes toward the organization. Next there will be an elaboration of the stress concept as developed by Lazarus and Folkman before an elaboration of the concept of coping and different coping strategies will be given with a special focus on work control and social support. The later chapters of the thesis will be a presentation of the study conducted, analyses and presentation of results, and last a discussion of the findings.

2.0 Job insecurity

Many jobs are not lost temporarily because of recession, but lost permanently as a result of new technology, improved machinery, and new ways of structuring work. Organizations are also becoming leaner and meaner aiming at maximum cost effectiveness. More and more companies are focusing on their core competencies and outsourcing all other tasks (Burke & Nelson, 1998). Signals like budget cuts, declining markets, and introduction of new technology, might put employees in positions where they fear of losing their jobs or important features of their jobs (van Vuuren & Klandermans, 1990). Job insecurity is an anticipatory stage in which employees are unsure if anybody will be forced to leave the organization and experience job loss. The population of employees subject to some degree of job insecurity is general considerably larger than the number actually undergoing job loss (Jacobson, 1991). The uncertainty if one still will have a job creates to some degree stress and possibly strain for the individuals who experience it.

2.1 Characteristics of job insecurity

Job insecurity is characterized as a perceptual phenomenon (Greenhalgh & Rosenblatt, 1984; Hartley et al., 1991; Jacobson, 1991) and the cornerstone in most psychological definitions of the construct, is the subjective experience (De Witte, 1999; Sverke & Hellgren, 2002). In its most general sense, job insecurity reflects a discrepancy between the level of security an individual experience and the level one might prefer. It follows that the term job insecurity is limited to permanent employees, who are past the organizational introduction stage. Different from job loss, which is unmistakably revealed by the fact in itself, job insecurity is cued by one or more inferential events which are perceived as threatening indicators. The very presence of job insecurity depends on the individual's interpretations and evaluations of different signals in the employing organization's external and internal environment (Hartley et al., 1991). The uncertainty associated with job insecurity is according to Büssing (1999) determined by four aspects; first, the general uncertainty, if the event 'unemployment' will happen, second, the uncertainty in time, when the event will occur, third, the uncertainty of content (i.e. of what kind will the event be), and fourth, uncertainty of the event outcomes. While job loss is an objective state of affairs, job insecurity is a purely perceptual phenomenon for individuals who experience it (Jacobson, 1991).

Job insecurity as a perceptual phenomenon is the result of a process that is conceptually close to a cognitive appraisal process. Lazarus and Folkman (1984) argue that through this process, the individual evaluates the significance of what is happening for one's own well-being. This will be fully elaborated later on in the thesis.

2.2 Dimensionality of job insecurity

A distinction can be made between global and multidimensional operationalizations of job insecurity. As noted by several authors (e.g. Ashford, Lee & Bobko, 1989, Hartley et al., 1991), early research often measured the construct as a global unidimensional phenomenon, reflecting only a general concern about continued existence of the present job and future employment. Usually, global definitions have been applied in the context of organizational crisis or change, in which job insecurity is considered as the first phase in the process of job loss (Kinnunen, Mauno, Nätti & Happonen, 1999). Most researchers have adopted a global view (De Witte, 1999) although some studies (e.g. Ashford et al., 1989; Hellgren, Sverke & Isaksson, 1999; Rosenblatt & Ruvio, 1996) have been based on multidimensional definitions. The multidimensional definitions also encompass factors such as threats to various job features and reflect the degree to which employees perceive they are powerless to counteract such threats (Ashford et al., 1989). To distinguish between the two dimensions of perceived loss of continuity in a job situation, Hellgren et al. (1999) uses the terms quantitative and qualitative job insecurity. Quantitative job insecurity refers to concerns about the future existence of the present job. Qualitative job insecurity concerns perceived threats of impaired quality in the employment relationship (e.g. deterioration of working conditions, lack of career opportunities, and decreasing salary development). The bulk of research on job insecurity still emphasizes a concern about the future existence of the job as such (e.g. Büssing, 1999; Hartley et al., 1991; Lim, 1996), thereby accepting a global operationalization of the construct. While most definitions of the construct share the view that job insecurity is a subjectively experienced stressor, it appears that the definition is broad enough to encompass different aspects of such uncertainty perceptions (Sverke & Hellgren, 2002). Also other aspects than threats to imminent job loss may be central aspects of employees' uncertainty perceptions.

Reisel and Banai (2002) discuss the empirical evidence of the multidimensional measurement of job insecurity, and examine which of the two dimensions of job insecurity, job loss or loss of job features best explains known outcome variables relevant to the organization.

Both theory and reasoning suggest that threat of job loss comprises a more substantial insecurity to an individual than threat of change and loss of a few job features (Greenhalgh & Rosenblatt, 1984; Hartley et al., 1991). The loss of one's entire job is a far greater threat to the individual, for instance in terms of economic consequences. Reisel and Banai's (2002) research among lower, middle and senior managers concludes that the job loss component of job insecurity explains more of the variance in perceived job insecurity than does the job features loss component. Their findings indicate that threat to the job in itself is the statistically significant component of job insecurity, at least in a sample of managers. They suggest the use of shorter instruments to measure job insecurity rather than longer and more complicated ones. They further argue that this may avoid response fatigue in respondents. But by using shorter global measures of the construct, one might lose information of great importance in other samples of insecure employees.

Job insecurity has according to Hellgren et al. (1999) been measured in an ad hoc manner, often with single items, scales with unknown psychometric properties, or measures without a theoretical basis. However, a number of conceptual clarifications have been made over the years. First, job insecurity reflects a fundamental and involuntary change concerning the continuity and security within the employing organization (Greenhalgh & Rosenblatt, 1984). Second, job insecurity is a subjective phenomenon based on the individual's own appraisal of uncertainties in the work environment. This implies that the feeling of insecurity may differ between individuals even if they are exposed to the same objective situation (Greenhalgh & Rosenblatt, 1984; Hartley et al., 1991). Third, conceptual advancement is represented by the introduction of multidimensional definitions. Although research on job insecurity has traditionally been focused on threats of imminent job loss, several commentators have argued that this definition is too narrow in that it fails to encompass concerns about for example deteriorated employment conditions, salary development, or career opportunities (Ashford et al., 1989; Greenhalgh & Rosenblatt, 1984; Hartley & Klandermans, 1986; Roskies & Louis-Guerin, 1990).

Many of the studies making use of multidimensional definitions of job insecurity combine the two measures into one globally comprehensive measure in their analyses (e.g. Ashford et al., 1989; Kinnunen et al., 1999), and because of this the relative influences of the different dimensions on the outcomes of job insecurity are often not examined (Hellgren, 2003).

2.3 Job insecurity defined

Job insecurity refers to employees' negative reactions to involuntary changes concerning their work and has been defined in various ways. For example, the construct has been described as employees' "*expectations about continuity in a job situation*" (Davey, Kinicki & Scheck, 1997, p. 323), "*concern about the future performance of the job*" (van Vuuren & Klandermans, 1990, p. 133), and "*perception of a potential threat to continuity in his or her current job*" (Heaney, Israel & House, 1994, p. 1431).

Greenhalgh and Rosenblatt (1984, p. 438) were the first authors to coin the phrase job insecurity. They defined job insecurity as "*...perceived powerlessness to maintain desired continuity in a threatened job situation.*" Their construct of job insecurity is multidimensional. The more features about one's work that an individual perceives to be threatened the greater the job insecurity. Greenhalgh and Rosenblatt's approach to job insecurity has two basic dimensions; the severity of the threat to one's job and the extent of one's powerlessness to counteract the threat. These two dimensions have a multiplicative relationship shown in the following equation:

$$\text{Felt job insecurity} = \text{Perceived severity of the threat} \\ \times \text{Perceived powerlessness to resist the threat}$$

The multiplicative relationship signifies the assumption that the employees only feel insecure about their jobs if they perceive the threat to be severe and they feel powerless. Employees who either do not care or who feel capable of resisting the threat to their jobs are presumed to feel no job insecurity (Greenhalgh & Rosenblatt, 1984).

A psychological definition of job insecurity rests according to Hellgren (2003) on two cornerstones. First, job insecurity reflects the subjective experience of a threat to an individual's present employment or a threat to what the individual regards as valued facets of it, and second, that this subjective experience is involuntary and therefore not welcomed by the individual. In defining job insecurity, three distinctions must be considered; first, insecurity as an objective or subjective phenomenon, second, insecurity as a cognitive or affective quality, and third, insecurity regarding the continuity of one's job or aspects of one's job. Such a conceptualization is consistent with the definition given by Greenhalgh and Rosenblatt (1984) and will be the definition used in the analysis of job insecurity.

From these definitions, it is apparent that job insecurity must be separated from actual job loss. In contrast to job loss or unemployment, which for the individual is an objective and distinct event, perceptions of job insecurity are personal and subjective interpretations of the work situation. Job insecurity refers to the anticipation of this stressful event in such a way that the nature and continued existence of one's job are perceived to be at risk (Sverke & Hellgren, 2002). This distinction can be characterized as a difference in the experience itself. Job loss is immediate, whereas job insecurity is an everyday experience involving prolonged uncertainty about the future (Sverke, Hellgren & Näswall, 2002). Since job insecurity is seen as a perceptual phenomenon rather than an attribute of the surroundings, this implies that the intensity of the experience can vary from individual to individual. The feeling of job insecurity may differ between individuals even if they are exposed to the same objective situation, and individuals may also differ in their reactions to perceptions of jobs at risk. Job insecurity will occur only in the case of involuntary loss of the job or aspects of the job (Greenhalgh & Rosenblatt, 1984).

A focus on the individual's experience implies a difference between perceptions and the objective reality and highlights how interpretations form the subjective reality. Hence, two employees in the same situation can experience differing degrees of job insecurity because they will perceive and interpret the situation differently. Subjective threat is derived from objective threat by means of the individual's perceptual processes, which transform environmental signals into information used in the thought process. Greenhalgh and Rosenblatt claim that employees have three basic sources of such signals. The first is official organizational announcements, the second is unintended organizational clues, and the third is rumours. The severity of the threat to continuity in a work situation will depend on the scope and importance of the potential loss to the individual and the subjective probability of the loss occurring. For employees, important distinctions include among several others whether the anticipated loss is temporary or permanent, and whether the change represents loss of the job itself or loss of job features. The sense of powerlessness is an important element of job insecurity because it worsens the experienced threat (Greenhalgh & Rosenblatt, 1984). Consistent with central propositions of stress research, anticipation of a stressful event can represent an equally important, or perhaps even greater, source of anxiety than the actual event in itself. Regardless of the objective severity of the situation, the individual's own evaluation of the situation as threatening is meaningful (Lazarus & Folkman, 1984).

3.0 Individual and organizational consequences of job insecurity

During the 1990s many employees have witnessed several organizational changes. The workforce is filled with victims, survivors, destroyed careers and career paths, and distrust in organizational leadership. Survivors work harder with fewer rewards. Burke and Nelson (1998) argue that those who lost their jobs may in fact be better off. They can now get on with other activities. Employees who see no end to the changes may feel powerless to influence them. Job loss relieves at least one major source of stress for employees, that of uncertainty (Jacobson, 1991). This threat is experienced as some degree of job insecurity. Employees will most likely react to job insecurity and these reactions will have consequences for organizational effectiveness (Greenhalgh & Rosenblatt, 1984).

It can readily be assumed that employees will react differently to the gradually changing characteristics of employment conditions and jobs (Sverke & Hellgren, 2002). An individual's reactions may depend on a number of factors like labour market characteristics, individual characteristics, family responsibility, age, and gender. On the one hand, employees who feel that they could easily get other work may view the changing nature of work positively. On the other hand, those who have economically responsibility for their family or who feel that they would have difficulties finding new work may react negatively. Kinnunen et al. (1999) argue that any organizational failure to communicate leaves employees uncertain about their future, and it is often this uncertainty rather than the changes in themselves that is stressful for employees. This is consistent with Lazarus and Folkman's (1984) view of the concept of stress which will be elaborated in the following chapter. In accordance with such stress theories, it is believed that individuals who for an extended period of time live with the threat of a negative event occurring sometime in the future, will experience the effects of the uncertainty as intensely, or even more intensely, than if the event had actually happened.

This chapter will discuss different consequences of job insecurity on an individual and an organizational level. A distinction between immediate and long-term consequences of the phenomenon will also be elaborated.

3.1 Individual consequences

Job insecurity is as mentioned earlier a subjective phenomenon. Employees reading signals from the management in the companies of possible changes in their work environment may for some reason begin to fear for the continuity of their jobs. Once employees believe they are at risk of losing their job, Hartley et al. (1991) argue they become aware of the subjective importance of the job features that are endangered. Job features an individual may fear losing include career progression, income, status, self-esteem, interpersonal relations, responsibility, and autonomy. For workers who have been stably employed by one company for a long time, losing one's job would mean separation from a work setting that has been the primary place of employment throughout most of the adult life (Heaney et al., 1994). If workers feel their needs threatened by an insecure employment situation, they are also experiencing a threat to vital economic, social, and personal aspects of their lives (De Witte, 1999). The more an individual values these features, the more severe will the effects of the loss be. The prospect of such loss will be more threatening if individuals are very dependent on their current job (Greenhalgh & Rosenblatt, 1984).

Occupational locking in is a term that refers to a phenomenon when individuals have almost no opportunity to move from their present job or when the only position for which they are qualified, is the one they currently hold (Burke & Nelson, 1998). Individuals reporting greater locking in are normally older, less educated, have more children, longer organizational tenure, and have made fewer previous geographic moves. These individuals are less expected to cope with the consequences of job insecurity than individuals low in occupational locking in.

Greenhalgh and Rosenblatt (1984) conceptualized job insecurity as a source of stress involving fear, potential loss, and anxiety. One outcome of such stress is strain in form of somatic complaints like lack of sleep, dizziness, and loss of appetite. Job insecurity has also been found to be associated with reduced psychological well-being, characterized by such phenomena as anxiety, depression, irritation, and in strain-related psychosomatic complaints resulting in increased medical consultations (Catalano, Rook & Dooley, 1986), and furthermore, threat of redundancy has been shown to have adverse effects on physical and psychological morbidity, sickness absence, and use of health services (Ferrie, 2001). Psychological well-being is according to Hartley et al. (1991) an umbrella that stands for a range of emotional and cognitive states. An individual's mental health, satisfaction with life or with work, is all considered aspects of his or her psychological well-being.

3.1.1 Subjective well-being

Because of the strains induced on individuals' well-being by job insecurity, the number of health complaints reported by employees is expected to increase as a result of the insecurity about future employment. Lazarus and Folkman (1984) accept the premise that stress, emotion, and coping are causally tied to possible illness and deteriorated subjective well-being for the individual. The authors raise the question of how appraisal and coping processes affect positive and negative emotion or subjective well-being in a specific stressful encounter. As the stressful encounter unfolds, coping becomes extremely important for the individual as the mechanisms through which a positive sense of well-being can be sustained in the face of adverse conditions. Individuals who are competent copers should experience less stress or be less oppressed by the ordinary stresses of living, because they handle situations in such a way as to prevent stress or mitigate it when it occurs. The more an individual expects not to have control, the greater will the cognitive, emotional, and motivational deficits be, leading to non-adaptive behaviour and depression. This can be that an individual fails to notice that his or her coping response might be connected to a favourable outcome or passivity leading to a condition of helplessness (e.g. giving up or losing interest in the outcome of the situation).

The ideal state for the individual is a condition of full well-being and absence of all health complaints according to the WHO's positive health concept (World Health Organization, 1986). In times of increasing job stress this ideal state seems to be more of a utopia. The amount of individuals experiencing such stress is growing throughout the entire Western world. Still it is important to focus on coping strategies and to develop ways to handle such stress, and thereby hopefully avoid severe and undesired health complaints. Since feelings of job insecurity have negative consequences for the well-being of the workers involved, management should attach importance to this issue. A decrease in well-being among employees can erode the effectiveness of the whole organization (Greenhalgh & Rosenblatt, 1984). The concept of coping will be fully elaborated in the following chapter.

3.1.2 Subjective health complaints

Subjective health complaints or subjective illnesses are conditions with few or no objective findings, even though these complaints may reach levels that require medical assistance and sickness benefit (Eriksen, Ihlebæk & Ursin, 1999). General medical examination or laboratory tests usually do not reveal any pathological findings, and the complaints may persist even when there is no suspicion of any serious organic damage (Eriksen & Ursin, 2002).

Such medically unexplained complaints are among the major reasons for sickness absence in Norway today (Tellnes, Svendsen, Bruusgaard & Bjerkedal, 1989). Individuals diagnosed with these illnesses typically complain of muscle pain, tiredness, depression, fatigue, headaches, sleep disturbances, concentration problems, and memory lapses (Eriksen & Ihlebæk, 2002).

The term subjective health complaints may be new but the complaints may be as old as humanity itself. These complaints are very frequent, and in light stages so common that they are almost normal. In their study developing a scoring system for subjective health complaints, Eriksen et al. (1999) found that out of a normal population, at least 75% had at least one complaint during the last 30 days. This is in accordance with other reports from Norway (Ihlebak, Eriksen & Ursin, 2002) and the Nordic European countries (Eriksen, Svendsrød, Ursin & Ursin, 1998). Some of the most frequent complaints are exhaustion, tiredness, and muscle pain (Ihlebak et al., 2002). These common complaints may turn into intolerable conditions that make medical and psychological assistance necessary and the problems can create enormous problems for the individual and for society at large. Most individuals do not seek assistance for these kinds of complaints, but the conditions are still the most frequent sources of long-term sickness compensation and permanent inability to work (Eriksen et al., 1998). Subjective health complaints without objective signs or symptoms is an important factor in short- and long-term sickness absence, and as many as 59% of days lost due to sickness absence in Norway annually are due to diagnoses that depend on subjective statements from the individual alone (Tellnes et al., 1989).

According to Eriksen and Ursin (1999), the prevalence of subjective health complaints in the normal working population is higher in groups that report high work loads and low levels of coping. This indicates that lack of coping with stress plays an important role in dealing with subjective health complaints. Individuals who feel they cope report fewer health problems than individuals who do not cope (Eriksen, Olf & Ursin, 2000) even if they have high job demands (Eriksen & Ursin, 1999). Occupational factors can only explain some of the variance in subjective health complaints, and the authors suggest that individual factors like psychological demands, perceived job stress, coping, and other psychological factors may be of greater importance. This will be more fully elaborated in the following chapter on how to cope with job insecurity.

The majority of studies that investigate the relationships between job insecurity and well-being or health complaints are based on self-reported data, but there is also evidence indicating that job insecurity is related to health indicators of more physiological or biological nature. It should be pointed out that not all studies investigating potentially consequences of job insecurity have found support for significant relations of job insecurity with work-related attitudes and health effects (e.g. Catalano et al., 1986; De Witte, 1999).

3.1.3 Attitudinal consequences

Companies expect downsizing and rightsizing to have economic as well as organizational benefits. The major economic benefit is increased value to shareholders. The rationale is that future costs are more predictable than future incomes, and therefore cutting costs will improve profits (Burke & Nelson, 1998). This is not always the case. The potential benefits of downsizing are often not fully realized because of an inability to adequately implement the restructuring. Employees plagued with stress reactions and impaired well-being cannot reverse decline and make their organizations more effective (Hartley et al., 1991). Attitudinal reactions (e.g. intentions of quitting, reduced organizational commitment and job satisfaction) have been found to relate to job insecurity (Armstrong-Stassen, 1993; Ashford et al., 1989; Heaney et al., 1994; Lim, 1996; Rosenblatt & Ruvio, 1996). Job satisfaction is the degree to which employees like their jobs and is of great importance in job stress studies. Locke (1983, p. 1300) defines job satisfaction as "*...a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences.*" If employees fear of losing their jobs, job satisfaction is expected to be reduced as an attitudinal consequence. Job satisfaction consists of different facets like payment, promotions, recognition, working conditions, co-workers and supervision (Judge, Parker, Colbert, Heller & Ilies, 2001), and if valued facets of the job are threatened it is likely to believe that overall levels of job satisfaction will be reduced. It is possible that the experience of job insecurity will result in attitudinal changes like reduced job satisfaction rather immediate, whereas other long-term reactions such as health-related symptoms may manifest itself at a later phase as a consequence of this (Hellgren, 2003).

Downsizing is not only limited to organizations in crisis. Burke & Nelson (1998) claim that downsizing as an organizational initiative to increase profitability will continue in the years to come. Different from previous times, white-collar workers now are as vulnerable as blue-collar workers are.

Job loss, and thereby job insecurity and reduced job satisfaction, will continue to be a problem for employees, and quite likely worsen. Downsizing is likely to continue as long as costs remain non-competitive with domestic and international rivals.

3.2 Organizational consequences

Radical changes from traditionally secure working environments to rapidly changing and insecure ones could be expected to have impact not only on the well-being of individuals, but also on their work attitudes and behaviour, and thereby in the long run the vitality of the whole organization (Sverke & Hellgren, 2002). A growing body of literature suggests that employee reactions to uncertain employment conditions can be of fundamental importance from both the occupational health and the managerial perspective (Armstrong-Stassen, 1993; Ashford et al., 1989; Greenhalgh & Rosenblatt, 1984; van Vuuren & Klandermans, 1990). For the individual, perceptions of job insecurity may have detrimental effects on employee well-being and job satisfaction. From the organization's point of view, job insecurity may have negative consequences for employees' attitudes toward the organization, willingness to remain with the organization, and work performance (Hellgren, 2003). Many studies have observed that job insecurity is negatively related to work-related attitudes like job satisfaction and job involvement (e.g. Ashford et al., 1989; Hartley et al., 1991; Lim, 1997).

Strains induced by job insecurity are important because of the effects on turnover. Like any stressor, job insecurity may be related to a withdrawal response, an attempt to avoid the stress (Hartley & Klandermans, 1986; Ashford et al., 1989). Greenhalgh and Rosenblatt (1984) argue that it would be rational for employees worried about continuity of employment to seek more secure opportunities if available. Turnover, particularly among highly skilled employees is a primary reason for organizations to be concerned about job insecurity. When individuals perceive their jobs becoming insecure, they may think of leaving the organization. The more valuable the employee, the greater is the chance that he or she will in fact leave (Greenhalgh & Sutton, 1991). Those with the best labour-market alternatives tend to be the first to leave the organization. Employees who trust their own employability may search for work elsewhere, and thereby avoid the insecurity phase. This will have obvious harmful consequences for organizational effectiveness.

Job insecurity is not an inevitable consequence of organizational changes resulting in personnel reductions (Burke & Nelson, 1998). Organizations can take measures to prevent negative effects of job insecurity by, for instance, providing accurate information, enhancing communication, preparing for alternative employment, and training their employees in how to cope with the stress created by such insecurity (Hartley et al., 1991). From an organizational health perspective, it becomes crucial to understand how the negative consequences of job insecurity for employees' well-being and work attitudes can be buffered. Various moderating variables like social support and coping may contribute in this relation and thereby hopefully reduce its negative effects for both employees and organizations (Sverke & Hellgren, 2002). This will be more fully elaborated in the following chapter.

3.3 Immediate and long-term consequences

Sverke, Hellgren and Näswall (2002) conducted a meta-analysis to investigate the immediate (i.e. attitudes) and long-term consequences (i.e. health and behaviour) of job insecurity. They observed that the relationships between job insecurity and the outcome variables were stronger for the immediate consequences and more moderate for the long-term. One problem with the studies they investigated is that the majority of the studies investigating the relationship between job insecurity and its consequences are cross-sectional and thereby limited with regard to their ability to control for initial levels of the outcome variables. Another problem can be that it will be harder to identify more long-term consequences which may manifest itself long after the studies were conducted. Hellgren (2003) assumes that certain stress reactions (e.g. attitude reactions) develop more quickly and in a way that is more immediately connected to the origin of the stressor, whereas other reactions (e.g. behaviour- and health-related symptoms) are experienced at a later phase. Sverke et al. (2002) found stronger associations between job insecurity and immediate consequences than for long-term consequences. This may be due to that the majority of the studies were cross-sectional in nature. Another possible explanation is that job insecurity is more strongly related to for instance attitudes than to ill-health and behaviour.

The relationships between job insecurity, individual and organizational immediate and long-term consequences can be illustrated as in the model below.

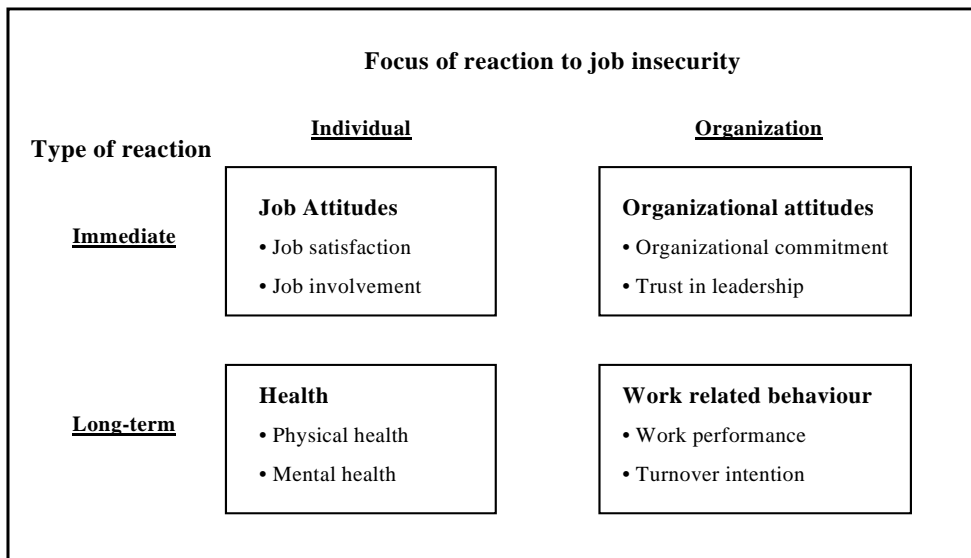


Figure 3.1 Types and focus of reactions to job insecurity (Adapted from Hellgren, 2003)

Longitudinal studies of the relationship between job insecurity and its outcomes can report on the consequences of prolonged exposure of job insecurity. Heaney et al. (1994) argue that prolonged insecurity lessens the individuals' perceptions of job satisfaction and increases the extent of physical health symptoms even after controlling for initial levels of the outcome variables.

Garst, Frese and Molenaar (2000) examined over a five-year period how job insecurity relates to depression and psychosomatic complaints, and found that the relation with depression was strengthened over time and that psychosomatic complaints grew stronger over time. This may indicate the need for more long-term longitudinal studies to identify any real significant relationships between prolonged job insecurity and psychosomatic complaints.

3.4 Consequences of the different aspects of job insecurity

Most researchers argue that the phenomenon of job insecurity is multifaceted and that it needs to be seen as consisting of a number of different dimensions or aspects (e.g. Greenhalgh & Rosenblatt, 1984; Hartley et al., 1991). The most common division has been between the threat of actually losing the job as a whole, and the threat to lose valued qualities and aspects of the job. Still only few studies have investigated how the different aspects of job insecurity relate differently to potential consequences. It is reasonable to believe that threat to one's employment as a whole has different consequences than threat to various aspects of the job.

It is also possible that the identified consequences develop differently over time depending on which aspect of job insecurity is in focus. Hellgren et al. (1999) found that the quantitative aspects of job insecurity (i.e. multidimensional insecurity) is primarily, and to a greater extent than the qualitative, related to work and organizational attitudes like job satisfaction and turnover intention. Qualitative aspects of job insecurity (i.e. global insecurity) were found to be related to physical and mental health complaints, and to carry-over effects from job-related issues to everyday life. Their findings indicate that different aspects of job insecurity may have different effects and thereby be related to different outcomes.

3.5 Direction of relationship

Hartley et al. (1991) raised the question whether the experience of job insecurity leads to decreased levels of job satisfaction or whether employees who are less satisfied with their job experience higher levels of job insecurity. The results of correlational studies do not reveal which variable affects the other, but this is often implicitly assumed based on theoretical arguments rather than scientifically investigated. Most researchers implicitly assume that job insecurity (the stressor) results in more negative attitudes and ill-health (strain). This relation have been investigated more carefully by Garst et al. (2000) and Hellgren and Sverke (2003). Their findings are based on longitudinal data and render support to the notion that job insecurity leads to ill-health, even though they also found some support for the direction of the relation being opposite. In testing the directions of relationships, Hellgren and Sverke (2003) found that job insecurity leading to health complaints best fitted their data, thereby implying that job insecurity precedes health complaints and not the reverse. Their results also show that only the relation between job insecurity and mental health complaints reached statistical significance. In the relation between job insecurity and physical health complaints, no significant association were found. Although their results indicate this direction, it is not possible to prove causality due to confounding of third variables. It may be that the relation between job insecurity and mental health complaints are influenced by a third variable having a relation with the investigated variables and thereby making the observed relation spurious. Another possible explanation for the non-effect of job insecurity on physical health complaints may be due to the time factor. Time is important in the stressor-strain relation since certain reactions follow immediately after the stressor is introduced, whereas others develop over a longer period of time.

4.0 Theoretical perspectives on work stress and job insecurity

As long as organizations need the skills of employees and can afford to keep them, the employees have a job. But employees need flexibility in the event that their employers no longer need these skills. According to Burke and Nelson (1998) some employers are already indicating to their staff that they can no longer offer job security, but instead hope to offer opportunities for growth, development, and acquisition of new skills and breadth of experience. Employees learn to manage their careers to guarantee future employability by ensuring that they have portable professional knowledge and skills. In developing a career-flexible workforce, workers are committed to continuous learning, reinventing themselves to keep pace with change, and taking responsibility for their own career management. Career flexibility has benefits for both organizations and employees, whether the employees remain with the organization or they leave it. Employees can more easily take on different kind of work tasks, and is also better prepared to take work outside the organization.

Below there will be given an elaboration of the concepts of stress and coping, and some coping resources of great importance for employees experiencing job insecurity.

4.1 Stress

Since the 1960s there has been a growing recognition that stress is an inevitable aspect of human life. What makes the difference in human functioning is how people cope with it (Lazarus & Folkman, 1984). A common characteristic of stress theories is that the nature of the causal link between the environment and the effects on individuals is harder to determine than for instance for the natural sciences. Instead of a single unambiguous cause-and-effect linkage typically for many of the natural sciences, many causes may accumulate to produce one single effect in stress models. On the other hand, a single cause, a stressor, may manifest itself in many quite different effects (Karasek & Theorell, 1990). In an organizational context, Fenlason and Beehr (1994) refer to stressors as the work-related causes of or inputs to job stress, and strains as individual outcomes or results of such stress.

4.1.1 The concept of stress

Lazarus and Folkman (1984) suggest stress to be treated as an organizing concept for understanding a wide range of phenomena of great importance in human adaptation. Stress is not a variable but a rubric consisting of many variables and processes.

Most often stress has been defined as either stimulus or response. Stimulus definitions focus on events in the environment (e.g. natural disasters, illness, or being laid off from work). The stimulus approach assumes that certain situations are normatively stressful but does not allow for individual differences in the evaluation of events. Response definitions refer to a state of stress. The individual is spoken of as reacting with stress, being under stress, and so on (Lazarus & Folkman, 1984). These approaches have limited utility, because a stimulus gets defined as stressful only in terms of a stress response.

Lazarus and Folkman (1984, p. 19) defines psychological stress as “...*a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being.*” Their definition of stress emphasizes the relationship between the individual and the environment. The definition takes into account characteristics of the individual on the one hand, and the nature of the environmental events on the other hand. They further argue that there is no objective way to predict psychological stress as a reaction without reference to properties of the individual. The judgement that a particular person-environment relationship is stressful hinges on cognitive appraisal. In accepting Lazarus and Folkman’s definition of stress, Hartley et al. (1991) argue that one can say that the extent to which changes in the work environment lead to a stressful perception of job insecurity depends on three major factors; first the beliefs about what is happening in the environment, that is, the appraisal of the threat posed by change, second the recourses available to the individual as perceived by the individual itself to counteract the threat, and third, the perceived seriousness for the individual of the consequences if the threat actually happens.

4.1.2 The cognitive appraisal processes

People and groups differ in their sensitivity and vulnerability to certain types of events, as well as in their interpretations and reactions. In order to understand variations among individuals under comparable conditions, Lazarus and Folkman (1984) argue one must take into account the cognitive processes that intervene between the encounter and the reaction, and the factors that affect the nature of this relation. If one does not consider processes like these, one will be unable to understand human variation under comparable external conditions. Individuals must distinguish between benign and dangerous situations, and these distinctions depend on what one has learned about the world and oneself through experience.

Cognitive appraisal processes mediate reactions and are essential for adequate psychological understanding. Lazarus and Folkman (1984, p. 19) defines cognitive appraisal as “...*an evaluative process that determines why and to what extent a particular transaction or series of transactions between the person and the environment is stressful.*” A cognitive appraisal reflects a unique and changing relationship that is taking place between an individual with certain distinctive characteristics (e.g. values and styles of thinking) and an environment which characteristics must be predicted and interpreted. Sutton and Kahn (1987) argue that prediction, understanding, and control in work settings can act as buffers toward stress by directly reducing certain stressful aspects of work and by weakening the complex relationship between such stressors and the resulting physiological and psychological strains such as decreased well-being and satisfaction. In accordance with this, Roskies, Louis-Guerin, and Fournier (1993) argue that dispositional traits of the individual can strongly influence the number and type of situations perceived as stressful. Even after an individual has perceived a situation as stressful, there are a number of different ways that dispositional traits can influence the amount of stress experienced. For example individuals low in negative affectivity or high in positive affectivity may have more resources (e.g. social support and control) or may use different and more effective coping strategies than other individuals experiencing the same situation. This will be more fully discussed later on in this chapter.

According to Lazarus and Folkman (1984), cognitive appraisal can be most readily understood as the process of categorizing an encounter and its various facets with respect to its significance for the individual’s well-being. The individual evaluates the significance of what is happening for his or her own well-being. Below follows an interpretation of basic forms of cognitive appraisal.

Primary appraisal

One can distinguish between three kinds of primary appraisals; irrelevant, benign-positive and stressful appraisals. *Irrelevant appraisals* occur when an encounter with the environment carries no implication for an individual’s well-being. Nothing is to be lost or gained in the situation. To be able to distinguish between relevant and irrelevant situations is highly adaptive for humans so that they will mobilize for action only when it is desirable or necessary. *Benign-positive appraisals* occur if the outcome of an encounter is perceived as positive. That is if it maintains or enhances well-being or promises to do so. *Stress appraisals* include some sort of harm/loss, threat, or challenge.

In *harm/loss*, some kind of damage has already been sustained to the individual. *Threat* concerns harms or losses that have not yet occurred, but that are anticipated. *Challenge* has much in common with threat in that it calls for mobilization of coping efforts, but the main difference is that challenge appraisals focus on the potential for gain or growth inherent in an encounter. Challenge is characterized by pleasurable emotions for the individual, whereas threat is characterized by negative emotions. The relationship between threat and challenge appraisals can shift as an encounter unfolds. A situation appraised as more threatening than challenging, can come to be appraised as more challenging than threatening because of cognitive coping efforts which enable the individual to view the situation more optimistically, or through changes in the environment that alter the relationship between the individual and the environment for the better (Lazarus & Folkman, 1984).

Secondary appraisal

When the well-being of the individual is in jeopardy, something must be done to manage the situation. Lazarus and Folkman (1984) call the evaluation of what might and can be done secondary appraisal. Secondary appraisal activity is a crucial feature of every stressful encounter because the outcome depends on what, if anything, can be done, and on what is at stake. The complex evaluative process of secondary appraisal takes into account which coping options are available, the likelihood that a given coping option will accomplish what it is supposed to, and the likelihood that the individual can apply a particular strategy or set of strategies effectively. Secondary appraisals of coping options and primary appraisals of what is at stake in the situation interact with each other in shaping the degree of stress and the strength and quality of the emotional reaction. Challenge appraisal is more likely to occur when the individual has a sense of control over the troubled relationship between the individual and the environment (Lazarus & Folkman, 1984).

Reappraisal

Lazarus and Folkman (1984) refer to reappraisal as an appraisal that follows an earlier appraisal in the same encounter and modifies it. It is a changed appraisal on basis of new information from the environment, which may resist or nourish pressures on the individual, and/or information from the individual's own reactions.

4.1.3 The potential role of affectivity

In developing their model of job insecurity, Greenhalgh and Rosenblatt (1984) postulated that individual differences can moderate the relationship between experienced job insecurity and its consequences for the individual. A growing body of literature suggests that self-reports of job stress, well-being, and health are under the influence of mood dispositions such as positive and negative affectivity, and hence, that these should be controlled for (Hellgren et al., 1999). Negative affectivity is a general dimension of subjective distress and includes a broad range of aversive mood states (e.g. anger, guilt, fearfulness, and depression). Individuals high in negative affectivity have a tendency to evaluate themselves, others, and the world in general in a more negative way, while those high in positive affectivity are characterized by high energy, excitement, and enthusiasm. In job stress studies, inflated or spurious correlations can result from failing to take stable individual characteristics into account (Brief, Burke, George, Robinson & Webster, 1988; Watson & Pennebaker, 1989).

The role of personality factors has received limited attention in job insecurity studies (Kinnunen et al., 1999), but according to Roskies et al. (1993) the current industrial trends have produced a host of job stressors that are difficult for individuals or companies to avoid. If some individuals can handle these pressures better than others it becomes vital to identify the factors producing this increased toughness, and to the degree it is possible to teach others how to achieve the same immunity. Roskies and colleagues argue that future research on job insecurity must be directed towards understanding specifically how personality factors interact with objective job stressors and use this knowledge to increase human resilience to stressors that cannot be avoided. Roskies and Louis-Guerin (1990) argue that personality factors are of special interest in situations where job insecurity is long lasting and therefore perceived as a chronic stressor. The major shortcoming in existing literature is to consider job insecurity as an ambiguous chronic threat, rather than as an acute crisis situation.

One can assume that if employees fear of losing their jobs, their psychological well-being deteriorates (van Vuuren & Klandermans, 1990). How individuals cope with the situation they are facing depends on a range of factors like social support, control, and individual characteristics. These are important constructs that need to be considered when investigating the consequences of job insecurity. A fully elaboration of these constructs and their relations follows later on in this chapter. Below follows a presentation of the concept of coping.

4.2 Coping

Coping activity must be distinguished from automatized adaptive behaviour. Definitions of coping must include efforts to manage stressful demands, regardless of outcome. Coping implies effort whereas automatized adaptive behaviour does not. Many sources of stress cannot be mastered and effective coping under such conditions is what allows the individual to tolerate, minimize, accept, or ignore what cannot be mastered. Coping should therefore not be equated with mastery of the environment (Lazarus & Folkman, 1984). The assumption underlying the contextual model in which Lazarus and Folkman works, is that coping thoughts and actions are influenced by the relationship between the individual and the environment in a given stressful encounter. Coping rarely takes place in a social vacuum. Most stressful events of daily living involve other persons. Coping must therefore be viewed within a social context and as part of a dynamic process. Coping within the contextual model is according to Folkman (1992) viewed as having two major functions; management of the problem (problem-focused coping) and regulation of emotion (emotion-focused coping).

4.2.1 The concept of coping

It is generally agreed that coping is a central issue in theoretical and empirical investigations addressing stressors and their possible outcomes (Vingerhoets & Van Heck, 1990). Lazarus and Folkman (1984, p. 141) defines coping as “... *constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person.*” Their definition is process-oriented rather than trait-oriented. It implies a distinction between coping and automatized adaptive behaviour by limiting coping to demands that are appraised as taxing or exceeding an individual’s resources. This will limit their definition of coping to conditions of psychological stress which requires mobilization and excludes automatized behaviours and thoughts that do not require effort. Coping as efforts to manage permits coping to include anything an individual does or thinks, regardless of how well or badly it works. By using the word manage, they avoid equating coping with mastery. Managing can include minimizing, avoiding, tolerating, or accepting the stressful conditions as well as attempts to master the situation (Lazarus & Folkman, 1984). Effective coping should not be considered as coping that solves problems or reduces distress without regard to what the individual is facing. Many situations of daily life cannot be mastered and sometimes problems are insoluble and the distress so intense and thus not easily regulated (Folkman, 1992).

4.2.2 Emotion-focused and problem-focused forms of coping

An important feature of Lazarus and Folkman's (1984) conceptualization of coping is that coping involves much more than problem solving. They make a distinction between coping functions and coping outcomes. A *coping function* refers to the purpose a strategy serves, while *coping outcome* refers to the effect a strategy has. This distinction is consistent with their definition in that coping is independent of outcome. Coping serves two overriding functions. One is to manage or alter the problem with the environment causing distress, *problem-focused coping*, and the other is to regulate the emotional response to the problem, *emotional-focused coping*. Generally, emotion-focused forms of coping are more likely to occur when there has been an appraisal that nothing can be done to modify harmful, threatening, or challenging environmental conditions. On the other hand, problem-focused forms of coping are more probable when such conditions are appraised as manageable to change (Lazarus & Folkman, 1984).

Vingerhoets and Van Heck (1990) investigated gender differences of coping strategies in relation to psychosomatic symptoms. They found men to prefer problem-focused coping strategies and women to prefer emotion-focused coping solutions. With problem-focused coping they refer to planned and rational actions, positive thinking, personal growth, day-dreaming and fantasies, while with emotion-focused coping they refer to self-blame, expression of emotions, seeking social support, wishful thinking and emotionality. In spite of the gender differences in coping strategies, the relationships between coping and complaints were generally similar for men and women.

The coping process begins with an individual's appraisal of a person-environment relation. The appraisal includes an evaluation of the personal significance of the encounter, primary appraisal, and an evaluation of the options for coping, secondary appraisal. The individual must ask oneself what is at stake in the situation and what can be done to alter the relation. Primary and secondary appraisal shape emotion quality and intensity, and together they influence the coping response on behalf of the coping resources available (Folkman, 1992).

4.2.3 Coping resources

Coping is determined by cognitive appraisal. The ways individuals cope depend heavily on the resources available to them and the constraints that inhibit use of these resources in the context of a specific encounter. Lazarus and Folkman (1984) are concerned with the resources an individual draws on in order to cope. The authors differentiate between physical coping resources (e.g. health and energy), psychological coping resources (e.g. positive beliefs), and competencies (e.g. problem-solving and social skills, control, social support, and material resources). Some of these will be elaborated later. As mentioned earlier in the chapter on job insecurity, job loss relieves at least one major source of stress, that of uncertainty. Job loss is already a certainty where the individual has to come to terms with the loss and have to cope with its consequences. What makes the job insecurity experience potentially stressful is the fact that coping may for the time being be inhibited by the event uncertainty job insecurity poses (Hartley et al., 1991). An actual job loss forces the individual to take action and to deal with the consequences of such a loss.

To the extent that job insecurity has become a permanent state for employees, Lim (1997) argues that it is important to identify factors that may reduce, moderate, or eliminate strains associated with such insecurity. Work control, social support and coping are important factors in this relation. Work control is in the present study hypothesized to have a direct effect on job insecurity and will therefore not be treated as a possible moderator. Social support and to feel that one has adequate resources available to cope with the situation one is facing, has been found to have moderating effects on the relation between work stress and different kinds of strains, and have shown to significantly contribute in protecting individuals at insecure work places from dissatisfaction, reduced well-being, and somatic symptoms (Vingerhoets & Van Heck, 1990; Lim, 1996). An elaboration of moderator variables will be given in the following chapter. To feel that one is coping with the situation one is facing makes it easier to deal with the consequences of job stress. For instance to have alternatives on the labour market is one way of work control that reaches beyond the limits of the company and is of specific interest in situations like job insecurity (Büssing, 1999). The more an individual feels he or she is coping with the situation one experiences, the less likely it is that one will experience negative consequences of job insecurity for example in terms of health complaints.

4.3 Modifying factors in the relationship between job insecurity and its outcomes

Job satisfaction, physical and mental health, and organizational commitment as outcomes of job insecurity are all correlated. Among insecure employees these outcomes are all typically reduced as a consequence. Job insecurity may evoke any combination of coping strategies, such as avoidance of the problem, and individual and collective action. Some employees may combine avoidance with job seeking, while others may engage in job seeking and collective action such as union-related work. Others again may simply withdraw and do nothing (Hartley et al., 1991). The more psychologically withdrawn employees are from their work, the less satisfied and committed they are to their work and their organization. According to Hartley and colleagues the less committed the employees are to the organization, the more likely it is that they will react to job insecurity by taking individual action. To a great extent individual action consists of job seeking behaviour. Employees who are less committed to their organization will try to leave it to regain security for themselves. Others who are more committed to the organization will more likely choose collective action to restore security within the organization.

The more committed employees are to the organization, the more likely it is that they will engage in collective action towards the threat by increased preparedness to the effects and consequences of job insecurity, for instance by taking part in union-related work (Sverke & Hellgren, 2001). While control at work, social support, and coping resources are considered main resources in dealing with stress from job insecurity (e.g. Ashford et al., 1989; Greenhalgh & Rosenblatt, 1984), few studies examine their influence empirically. Much of the evidence that links control with well-being comes from research that demonstrates the negative consequences of lack of control. Below follows a presentation of these constructs.

4.3.1 Social support

Stress, coping, and their adaptational outcomes must be viewed in the context of the individual's relationship to society. According to Lazarus and Folkman (1984), stress is created by mismatches between individual and social identities. The social environment is like the physical environment constantly changing from what is familiar and predictable, and thereby creating stress. The outcomes of such conflicts are expressed in terms of sense of well-being, social functioning, work functioning, and somatic health. What has changed is the kind of stress individuals must deal with and the resources available to do so, not the degree of stress.

The social environment is not just a source of stress, it also provides the individual with vital resources one can and must draw upon to survive and flourish. One of these resources is social support. Perceived social support (Lazarus & Folkman, 1984, p. 249) refers to “...*the nature of the interactions occurring in social relationships, especially how these are evaluated by the person as to their supportiveness.*” The authors treat social support as a resource, available in the social environment, but which the individual must cultivate and use. Further they argue that in order to live well, individuals must recognize and manage social demands constantly, as well as recognize and use available resources. Another definition of social support is given by Karasek and Theorell (1990, p. 69) who defines social support at work as “... *overall levels of helpful social interaction available on the job from both co-workers and supervisors.*” According to their definition, social relations at work might affect well-being, and social support can act as a buffer between psychological stressors at work and adverse outcomes. Social contacts and social structure can affect the basic physiological processes important to acquisition of new knowledge and can facilitate active coping patterns that may affect how the work situation is perceived.

According to Cohen and Wills (1985) social support may play a role at two different points in the causal chain linking stress to illness. First, support may intervene between the stressful event and a stressful reaction by reducing or preventing a stress appraisal response. Second, adequate support may intervene between the experience of stress and beginning illness by reducing or eliminating the stress reaction or by directly influencing physiological processes. Social support at the workplace and in connection to the work situation can take on several forms. Wills (1985) outlines the theoretical basis of social support processes and specific functions that may contribute to general well-being and serve to buffer the impact of particular life stressors. Wills distinguishes between different functions that can be provided through interpersonal relations. Two forms of such support are esteem- and informational support. During the life course, most individuals encounter threats to their self-esteem. Some occurrences might raise doubts about for instance own abilities, social attractiveness, or career performance. *Esteem support* is to have an interpersonal resource (e.g. co-workers, friends and family) that can counteract self-esteem threats and increase feelings of self-esteem (Wills, 1985). Studies of work stress and social support show large differences in reactions between individuals who do not have such relations and individuals who have at least one such relation (Cohen & Wills, 1985).

If problems cannot be resolved easily and quickly, Wills (1985) argue that individuals most likely will start to search for information about the nature of the problem, knowledge about relevant resources, and guidance about alternative ways to deal with the problem. *Informational support* is the process where other individuals may provide information, advice, and guidance about the problem in concern. Most individuals have the information necessary for effective functioning under ordinary circumstances. Only when environmental stressors exceed the individual's available knowledge and problem-solving ability, additional information and guidance becomes necessary (Wills, 1985).

It has been common to divide sources of social support to employees into three categories in the context of work-related stress; supervisors, co-workers, and family and friends. It is expected that supervisors have the strongest effect on psychological strains and that co-workers have the second strongest. Co-workers can render support to fellow employees, but are less influential than the supervisor. Family and friends are not present in the workplace and thus cannot provide the same sort of immediate social support. These groups are expected to have the weakest effect (Fenlason & Beehr, 1994).

But although hypothesized, it is not entirely clear that the supervisor is the most effective source in relieving employees' strains with social support. It is likely that support from co-workers and family or friends may also be effective as a stress treatment when the stress arises from the workplace. Such social support somehow increases the individual's ability to cope with stressful organizational situations by buffering the individual's life outside the organization (Greenhalgh & Rosenblatt, 1984).

Lim (1997) argue that it is possible that work-based support may facilitate effective behaviours for dealing with insecurity by providing individuals with a sense of purpose and certainty in the job insecurity context. The negative effects of job insecurity on individuals' psychological well-being are well documented in the literature (e.g. Ashford et al., 1989; Hartley et al., 1991). Lim (1996) expects the stress of such insecurity to spill over to the nonwork domain and affect the individual's life satisfaction. Nonwork-based support (e.g. family and friends) can play a critical role in helping individuals to react less negatively to a perceived threat to aspects of the job and for this reason make the individual better able to cope with job insecurity. Lim argue that organizations can play an important role in channelling efforts toward enhancing social support at work to assist employees in coping

with job insecurity in a manner that is less damaging to both the employee and the organization. Although the particular effects of social support may vary across studies, it appears that social support, both from supervisors and family, is generally helpful in reducing job-related stress among employees (Cohen & Wills, 1985).

4.3.2 Control

Lazarus and Folkman (1984) argue that intuitively it would seem that to cope with a situation is to attempt to control it, whether by altering the environment, changing the meaning of the situation, or managing one's emotions and behaviours. When control refers to cognitive or behavioural efforts to deal with a stressful encounter, they see coping and control as synonymous. Control at work is an important alleviating resource with respect to work stress not only as a moderator, but also as an additive main effect. Control is according to Büssing (1999) contributing directly to increasing levels of motivation, well-being, and health, in that strong feelings of control gives the individual a sense of mastery over one's own situation. Work control is in the present study hypothesized to have a direct influence on job insecurity instead of treated as a possible moderator as suggested by some authors (e.g. Büssing, 1999).

Uncontrollability plays a significant role in job insecurity. Lack of control, or the feeling of powerlessness towards the threat, is by some authors considered to be the core of the phenomenon (e.g. Greenhalgh & Rosenblatt, 1984; Jacobson, 1991). Sutton and Kahn (1987, p. 274) defines prediction as “... *the ability to forecast the frequency, timing, duration, and quality of events in one's environment.*” Job stressors that cannot be predicted may appear at any time. This implies a constant state of anxiety for the individual because one never receives feedback that one is safe, not even for a short period of time. Their concept of organizational control consists of a dependent relationship between the behaviour of an organizational member and the subsequent occurrence of outcomes in the work environment desired by that member. Sutton and Kahn (1987, p. 276) refer to control as “... *the exercise of effective influence over events, things, and persons.*” Their central assertion is that less strain will be suffered by individuals who can forecast the type and frequency of a stressor, who know the causes and mechanisms of that stressor, and who can produce responses that change significant aspects of the stressor. Sutton and Kahn's definition of control is quite similar to Karasek and Theorell's (1990, p. 14) concept of control who define control as “... *influence by employees in the work process decision.*”

4.3.3 Individual characteristics

More or less stable individual characteristics may operate as stress moderators in the relationship between job insecurity and its outcomes and can be of great importance in how individuals cope with the situation. The construct of Sense of Coherence (Antonovsky, 1987) has been used to describe relatively stable differences in the way individuals appraise and cope with stressful situations. According to Antonovsky's salutogenic theory, sense of coherence represents a global disposition to see life situations as understandable, meaningful, and manageable. It is a developmental construct that becomes crystallized around the age of 30. An individual with a strong sense of coherence would appraise job insecurity as more understandable and manageable than an individual high in negative affectivity who would appraise the situation in a general negative way as presented earlier in the thesis. Sense of coherence may affect both the expectancy and the outcome of a situation and may be regarded as a general outcome expectancy that moderates the impact of stressful situations (e.g. the relationship between job insecurity and its outcomes). Sense of coherence may influence stress and well-being in three ways. It may influence whether a stimulus is appraised as a stressor or not, it may influence the extent to which a stressor leads to tension, and it may influence the extent to which tension leads to adverse health consequences.

In accordance with Lazarus and Folkman's (1984) view, unpredictable or incomprehensible life situations are potent sources of stress, and as a global orientation to life, sense of coherence will influence the degree to which individuals view events in life as chaotic and incomprehensible, or coherent and comprehensible. As a secondary appraisal process, individuals with a strong sense of coherence will have a general confidence that resources are available to meet the demands posed by stressful situations. A strong sense of coherence may help to prevent stress from turning into potentially harmful tension which in turn may develop into health problems (Antonovsky, 1987). Sense of coherence can act as a classic moderator for life stress, and in this context a moderator for the effects of job insecurity.

In the present study, the stressor job insecurity will be investigated for its associations with job satisfaction, subjective health complaints, and organizational attitudes. The relationships between these variables will be controlled for moderator effects of coping and social support in relation to the theoretical presentation given. Before heading on to a presentation of the study conducted, some previous studies related to the topic will be presented.

4.4 Previous research

Research on the relationship between job insecurity and subjective health complaints is a relatively new topic in job stress studies. Empirical studies have repeatedly found job insecurity to be associated with impaired employee well-being, and it appears that physical health problems and mental distress increase proportionately with the level of job insecurity experienced (e.g. Ashford et al., 1989; Lim, 1996; Hartley et al., 1991). Studies have also found feelings of uncertain employment conditions to be related with reduced levels of work attitudes such as job satisfaction (e.g. Ashford et al., 1989; Hellgren et al., 1999). No studies on job insecurity were found to be conducted in Norway investigating the relationships presented in the research hypotheses. Some studies which demonstrate the relationships between job insecurity, reduced well-being, and health complaints are presented below.

De Witte (1999) conducted an exploratory study of 336 employees at a Belgian plant in the metalworking industry where he investigated three aspects of individual stress reactions to job insecurity; psychological well-being, job satisfaction, and physical strains. By stress reactions he refers to the consequences of the stressor (i.e. job insecurity) for the psychological well-being. De Witte found job insecurity to be associated with lower well-being after controlling for background variables such as gender and age. He found it to be one of the most distressful aspects of the work situation. The management of the company had at the time of the study no redundancy plans and no restructuring or downsizing had taken place during the last 10 years. This implies that although his data concern a plant in which there were no objective reasons for job insecurity, still about 9% of the interviewees felt insecure.

Roskies and Louis-Guerin (1990) studied the relations between job insecurity and health in 1291 managers in three Canadian companies characterized by cyclic employment. They found managers who were insecure about their jobs to report poorer health than managers who perceived their jobs not to be insecure. The level of distress rose proportionately with the degree of job insecurity they experienced. Among managers classified as highly insecure, they found anxiety scores as high as among individuals actually unemployed. They also found job insecurity to be related to negative work attitudes and behaviour, with insecure managers reporting decreased work effort, trust in the company, career satisfaction, and career optimism. Roskies and Louis-Guerin further argue that it is not the objective signs of job insecurity that influences health and work commitment, but instead it is the individual's subjective appraisal of the risk that is negatively affecting well-being and work attitudes.

In a longitudinal study in a large Swedish retail-chain by Hellgren et al. (1999), the overall objective was to examine the impact over time of job insecurity on employee attitudes and well-being. Their analyses were based on 375 individuals who participated on both data collection times. Consistent with prior studies (e.g. Ashford et al., 1989) they found job insecurity to associate with negative perceptions of physical and mental health as well as lowered job satisfaction and higher levels of turnover intention. Their results indicate that concern about losing the job is intimately related to stress symptoms such as ill-health and sleeping problems. These problems tend to transfer to non-work settings. In contrast, perceived threats to important job features appear to relate primarily to attitudinal outcomes, such as dissatisfaction with the present job and a tendency to leave the job voluntarily.

A study with similarities to the present study is the study conducted by Büssing (1999) in two German steel companies. The steel industry in Germany as well as in other Western countries has for some time been vulnerable to changes in the labour market. Büssing conducted a quasi-experimental field investigation among 123 blast furnace workers at comparable work places. One company had for some time had economic difficulties and had cut back half its workforce, while the other had no economic difficulties. 48 workers with highly insecure jobs were placed in the experimental group and 75 workers with no objective job insecurity were placed in the control group. Büssing investigated among other things if social support and control at work moderated the relationship between job insecurity and job satisfaction, strain, and psychosomatic complaints. By control at work, Büssing refers to having an influence on the conditions and on one's activities in correspondence with goals. The experimental group showed no substantive increase in psychosomatic complaints or job strain compared to the control group, but did experience diminished job satisfaction, reduced control and perceived alternatives on the labour market. The experimental group also showed less support from supervisors but more support from friends. Büssing's results showed that perceived and objective job insecurity is strongly correlated to job satisfaction. The correlations to strain and psychosomatic complaints were much lower, but still significant. The correlation between perceived insecurity and the moderator variables (i.e. social support and control at work) indicated only few relations of significant strength. Only social support from supervisors and friends were significant, whereas support from colleagues, spouse/partner, and other relatives were not. Although control at work exerts some direct influence on job satisfaction, Büssing (1999) found control at work to be much more successful in moderating the relation between objective job insecurity and strain than social support.

5.0 Method

It is important to gather knowledge about psychological and social factors at the worksite which may affect satisfaction, attitudes and health for individuals, groups, or the organization as a whole. These are factors which contribute to among other things work motivation, organizational learning, and efficiency (Skogstad et al., 2001).

5.1 Selection of research design

The data material used in the present study is based on survey research. The data are cross-sectional with only one data collection at one point in time. A survey comprises a non-experimental research design which aims at obtaining standardized information from a large population of individuals regarding the prevalence, distribution, and interrelations of selected variables within those populations. Surveys or self-report designs are a fast and efficient tool for gathering large amounts of quantitative research data (Ringdal, 2001).

5.2 Participants and procedure

The respondents in the present study are selected from industries that are expected to have some degree of job insecurity because of new ways of structuring work, changing labour markets, and current industrial trends in Western countries. The three large steel companies studied have all undergone and are going to undergo major restructuring and reorganizing. In recent years many employees have been offered compensation to quit their jobs and still more employees will have to go in the years to come. According to recent signals from the central management in the companies, a downsizing of another 1000 employees is expected spread over the three companies during a two-year period.

Because of the limited resources available for this study, the respondents were picked using convenience sampling among employees at different organizational levels in the three companies. The selection was undertaken by a contact person in each company. To participate in the study, the employee had to meet two inclusion criteria. The first was that the employee had been stable employed for at least 6 months so that one had passed the organizational introduction phase. The second criterion was that the employee had a permanent post of 80 percent or more.

In the data collection, questionnaires were mailed directly to the companies in postal packets and randomly distributed to the employees by the contact persons in the companies. A cover letter (Appendix 2) explaining the general purpose of the study and assuring the confidentiality of responses was also included in the mail-outs. The completed questionnaires were returned in pre-paid, self-addressed envelopes. Participation in the study was entirely voluntary. The data were collected during a time period of 3 months between December 2003 and February 2004. Limitations of the study and the study design will be discussed under methodological limitations in the discussion chapter later on in the thesis.

5.2.1 Response rate

Of a total of 375 questionnaires, 186 responses were returned. This gives a total response rate of 49.6 percent. A sample size of 375 was selected due to economical and practical limits of the thesis. A relatively low response rate is in accordance with other related studies on job insecurity. Heaney et al. (1994) report response rates for two surveys of 61 and 41 percent respectively, Hellgren et al. (1999) reports a rate of 71 percent in their study, while Lim (1997) reports a rate of 50 percent just to make a few comparisons. Response rates seem to vary according to who is administering the study and why the study is conducted. De Witte (1999) reports on a study where the study was commissioned and administered by the company itself, and can report a response rate as high as 98 percent. By reaching such high rates, questions can be asked if the study is conducted under absolute voluntary participation. If the response rate is high, the risk of response bias may be negligible. A response rate greater than 60 percent is probably sufficient for most purposes, but lower rates are also common (Hellevik, 1999). Some reflections about the response rate are discussed below.

5.2.2 Ethical considerations

Job insecurity is a highly individualized and sensitive topic, and because of its sensitivity and highly emotional overtones, many people are reluctant to become involved in its study and this may thereby affect the response rate. According to Hartley et al. (1991) organizations undergoing difficult times are extremely hesitant when asked to permit the gathering of data on such an emotionally sensitive topic. This is quite understandable since research efforts focused on job insecurity may in itself generate anxiety. The result of this is that the pervasive organizational phenomenon of low job security has remained relatively under-researched. But only by investigating the phenomenon systematically will there be a basis for employees and managers to cope with its effects (Ashford et al., 1989).

5.3 Instruments

All data in this study were measured by Norwegian versions of established international questionnaires, and included a broad range of factors, including demographic variables, work specific variables, and variables covering subjective health complaints. The questionnaire used in the present study is a combination of different scales and consists of a total of 144 variables. The questionnaire is presented in Appendix 2.

Many questionnaires consist of response categories often biased by response behaviour, for instance 'Little stress' - 'Much stress', 'Little pressure' – 'Much pressure'. With categories like these the data can easily be biased by general dissatisfaction, ongoing conflicts, or personal factors because of its highly positive or negative emotional statements in the response options. By avoiding response categories with positive or negative emotional statements, one reduces the chances of response bias (Ringdal, 2001). For most of the questions in the present questionnaire, the response categories only consist of how often a phenomenon occurs or how strongly one agrees or disagrees with a statement, for instance 'Very seldom or never' – 'Very often or always' and 'Strongly disagree' – 'Strongly agree'.

5.3.1 Demographic variables

Section 1 (Background variables) consist of 9 demographic variables like age, gender, educational level, occupational grouping, and length of employment in the present job.

5.3.2 QPS-Nordic

Section 2 to 8 (Work control, coping resources, social support, leadership, organizational climate, involvement in the organization, and work motivation) consist of 44 variables and are a selection from the full version of the General Questionnaire for Psychological and Social factors at work, QPS-Nordic. The QPS-Nordic measures factors common in most types of work and in most workplaces. The instrument is constructed to measure employees' perceptions of psychological, social, and organizational work conditions to make a ground for organizational development and interventions, to document changes in work conditions and to evaluate results of interventions, and finally to scientifically investigate relationships between work and health, motivation, job satisfaction, productivity, and so on (Skogstad et al., 2001).

5.3.3 Facet-free Job Satisfaction

Section 9 (Job satisfaction) consists of 5 items. One is a 5 point Likert scale rated from 1 strongly negative, 2 negative, 3 neutral, 4 positive to 5 strongly positive answer options. The other four items are rated on 3 point Likert scales, rated from 1 negative, 2 neutral, to 3 positive answer options. The Facet-free Job Satisfaction Scale is developed by Quinn and Staines (1979, referred in Cook, Hepworth, Wall & Warr, 1981) to capture workers general affective reactions to their work without reference to any specific job facet.

5.3.4 Job Insecurity Scale

Section 10 to 14 (Importance of job features, likelihood of job features continuation, importance of possible changes in the job, likelihood of changes in total job, and powerlessness) consist of 57 items. All 57 items are rated on 5 point Likert scales from 1 strongly negative, 2 negative, 3 neutral, 4 positive, to 5 strongly positive answer options. The Job Insecurity Scale is developed by Ashford, Lee and Bobko (1989) from the article by Greenhalgh and Rosenblatt (1984). Greenhalgh and Rosenblatt suggest that job insecurity is best measured as the interaction of several components; the importance of and threat to various job features, the importance of and threat to the job itself, and powerlessness to prevent a loss. Ashford et al. (1989) constructed the measure composed of subscales assessing these components.

5.3.5 Subjective Health Complaint Inventory (SHC)

The Subjective Health Complaint Inventory (Section 15) developed by Eriksen, Ihlebæk and Ursin (1999), consist of 29 items concerning subjective somatic and psychological complaints experienced during the last 30 days. Severity of each complaint is rated on a 4-point scale, ranging from 0 (none) to 3 (severe) complaints. The SHC is divided into five different subscales; musculoskeletal pain, pseudo-neurology, gastrointestinal problems, allergy, and flu. In the analysis of subjective health complaints in the present study, only the subscales musculoskeletal pain, pseudo-neurology and allergy are included. Eriksen et al. (1999) argue that the SHC inventory is a fast, inexpensive, simple, and reliable way to score subjective health complaints as they occur in the normal working population, and the items seem to cover a wide range of the most common complaints in words used and understood by the lay population. The system simply scores health complaints as experienced and reported by the general lay population, regardless of individuals' objective health status.

5.4 General methodological limitations

Previous results of studies concerning job insecurity have often been based on cross-sectional data that do not reveal the causes and effects of job insecurity. Longitudinal studies can usually throw more light on causal relationships (Kinnunen et al., 1999). Ashford et al. (1989) claim that longitudinal research is needed to assess how the strength and duration of job insecurity might affect different outcomes for individuals and organizations. It may be that insecurity regarding losing some job features has different effects than insecurity concerning losing the total job.

The primary problem with self-report questionnaires administered to workers is that as measures of the objective environment they are far more subject to bias than instruments traditionally used in the physical sciences. Although they are designed to measure the job objectively, such questionnaire instruments inevitably measure job characteristics as perceived by the employees, which may be biased by individual personality differences and may therefore not reflect the object task accurately (Karasek & Theorell, 1990).

Another possible limitation is the self-report nature of the physical symptomatology measure. Self-report health measures, as well as perceived stress measures, may reflect a common tendency toward negative affectivity, thus inflating the association between stress and ill health (Hartley et al., 1994). If workers evaluate themselves, others, and the world in general in a negative way, the data collected may potentially be biased by such views (Watson & Pennebaker, 1989; Brief et al. 1989).

Scores gathered by the Subjective Health Complaints Inventory may be treated statistically, but care should be taken when handling populations with a large proportion of healthy individuals. For many of the single items, most individuals do not report any complaints, and high levels of negative scores may yield data that are too skewed for many analyses (Eriksen et al., 1999). Like mentioned earlier, the prevalence of subjective health complaints in the general population is normally very high. Eriksen et al. (1998) argue that this has to be taken into account whenever these complaints are reported to be due to any new environmental factor or disease.

5.5 The Moderator-Mediator variable distinction

Baron and Kenny (1986) distinguish between the properties of moderator and mediator variables to clarify the different ways in which conceptual variables may account for differences in individuals' behaviour. They differentiate between two often confounding functions of third variables. First, the moderator function of third variables divides the independent variable in focus into subgroups that establish its domains of maximal effectiveness with regard to a given dependent variable. Second, the mediator function of a third variable represents the generative mechanism through which the independent variable in focus is able to influence the dependent variable of interest.

Moderator variables are typically introduced when there is an unexpectedly weak or inconsistent relation between the independent and the dependent variable. Mediator variables on the other hand are most typically introduced in the case of a strong relation between the independent and the dependent variable (Baron & Kenny, 1986).

5.5.1 Moderator variables

A moderator variable is either a qualitative (e.g. gender, education) or a quantitative (e.g. level of insecurity) variable that affects the direction of and/or strength of relation between an independent variable and a dependent variable. In a correlational analysis framework, a moderator is a third variable that effects the zero-order correlation between two other variables and the moderator effect may be said to occur where the direction of the correlation changes (Baron & Kenny, 1986). This can be illustrated as in Figure 5.1.

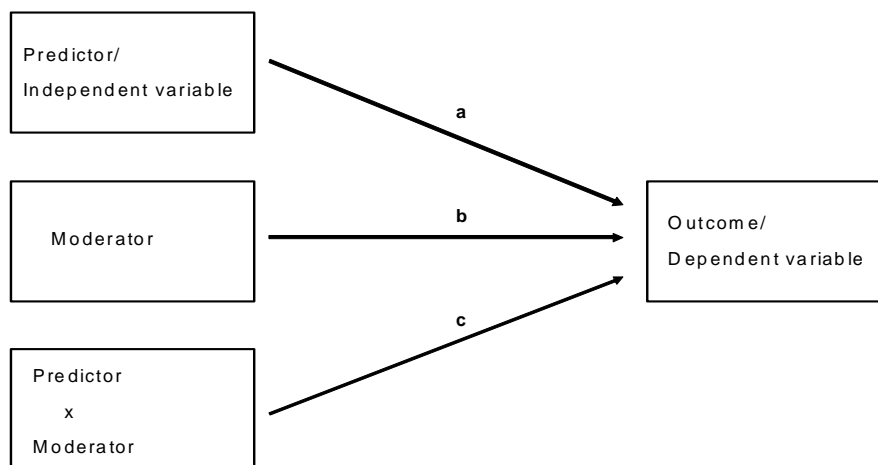


Figure 5.1 Moderator model (Adapted from Baron & Kenny, 1986)

The model has three causal paths in predicting the dependent variable; first, the impact of the independent variable (Path a), second, the impact of the moderator variable (Path b), and third, the interaction of these two (Path c). The moderator hypothesis is supported if the interaction of the independent and the moderator variable is significant.

To provide a clearly interpretable interaction term, it is desirable that the moderator variable is uncorrelated with both the independent and the dependent variable. Baron and Kenny (1986) argue that moderator variables always function as independent variables, whereas mediating events, depending on the focus of the analysis, shift roles from effects to causes.

5.5.2 Mediator variables

According to Baron and Kenny (1986), a given variable may function as a mediator to the extent that it accounts for the relation between the predictor and the criterion. A mediator explains how external physical events take on internal psychological significance. Whereas a moderator variable specifies when a certain effect will hold, a mediator variable explains how or why such an event occurs. This can be illustrated in a model that assume a three-variable system with two causal paths feeding into the dependent variable; first, the direct impact of the independent variable (Path c), and second, the impact of the mediator (Path b). There is also a path from the independent variable to the mediator (Path a). This basic causal chain is diagrammed in Figure 5.2.

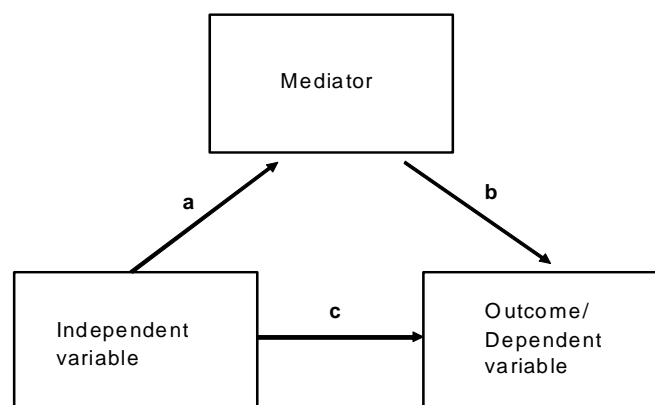


Figure 5.2 Mediation model (Adapted from Baron & Kenny, 1986)

Baron and Kenny argue that a variable functions as a mediator when it meets three conditions. First, variations in levels of the independent variable significantly account for variations in the presumed mediator (i.e. Path *a*). Second, variations in the mediator significantly account for variations in the dependent variable (i.e. Path *b*). And third, when paths *a* and *b* are controlled for and a previously significant relation between the independent and dependent variables is no longer significant. The strongest demonstration of mediation occurs when Path *c* is zero. When Path *c* is reduced to zero, there is strong evidence for a single dominant mediator. If the residual Path *c* is not zero, it indicates an operation of multiple mediating factors. To demonstrate mediation one must establish strong relations between the independent variable, the mediating variable and the dependent variable. Because social phenomena most often have multiple causes, a more realistic goal may be to seek mediators that significantly decrease Path *c* rather than eliminate the relation between the independent and dependent variables altogether. Such a significant reduction demonstrates that a given mediator is indeed potent (Baron & Kenny, 1986).

5.6 Analyses

SPSS 11.5 for Windows was used for the statistical analyses. Principles of how to use the Statistical Package for Social Sciences (SPSS) was derived from Pallant (2001). The different variables in the questionnaire were all summed up in total scores as continuous variables. Reliability tests and factor analysis were conducted to analyse scales and subscales to test the quality of the measurements. Correlational analyses were done to investigate statistical relations between the different scales and subscales. To test for relationships between job insecurity as a dependent variable in relation to work control and different demographic variables, standard regression analyses were conducted. Cross tabulations and multiple regression analysis were performed to test the relationships between job insecurity and the different immediate and long-term outcome measures. Regression analyses were also conducted to explore the possible moderating effects of coping and social support on these relations. A chance probability at the .05 level was accepted as the critical value for statistical significance.

In the different moderation analyses where no significant relations were found for the total sample, analyses were also done separately for the demographic variables gender, occupation and leader responsibility to look for significant differences in the different subgroups.

6.0 Results

Both individual and organizational immediate consequences of job insecurity are tested in the present study. Only individual long-term consequences are tested due to lack of measures to detect any organizational consequences of such relationships. Besides is the present study cross-sectional in nature and other long-term consequences will require the use of longitudinal study designs to detect any such relations. Moderator effects are also controlled for.

6.1 Sample characteristics

The sample consisted of 186 industrial workers in three large steel companies in the Western parts of Norway. 144 (77.4 %) of the respondents were men while 42 (22.6 %) were women. The age distribution and organizational tenure in the sample are displayed in the diagrams presented below. Of the respondents, 124 (66.7 %) are working in blue-collar jobs and 62 respondents (33.3 %) are working in white-collar jobs. 59 (31.7 %) of the respondents report leader responsibility to some extent.

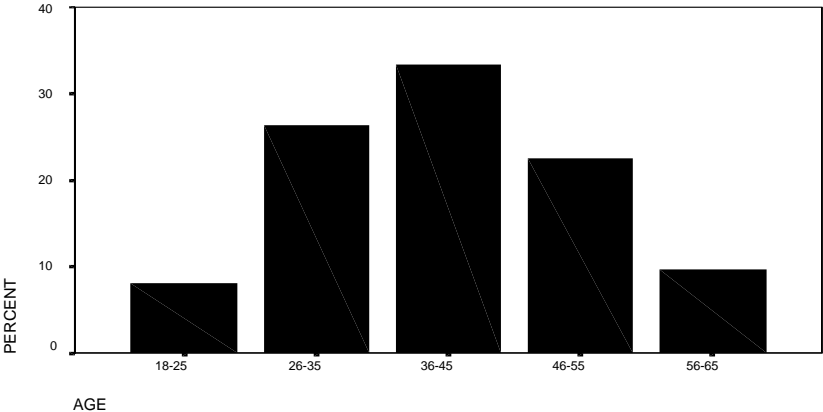


Figure 6.1 Age distribution

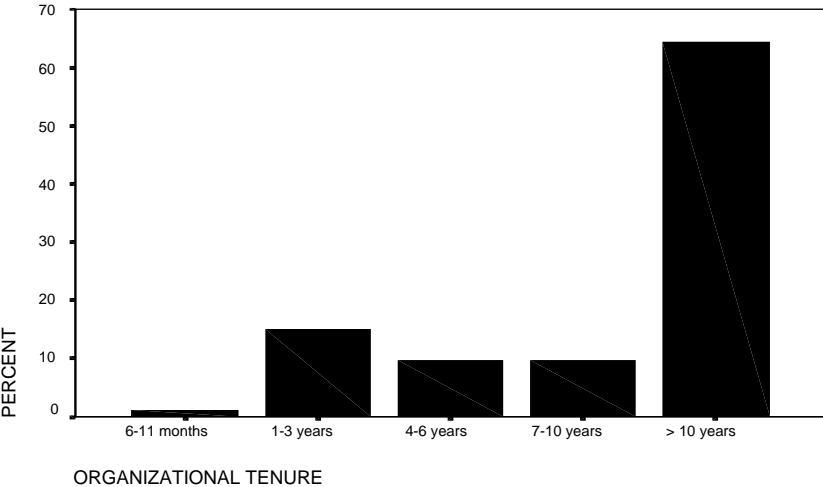


Figure 6.2 Organizational tenure

A full presentation of the descriptive statistics is presented in Appendix 1.1.

6.2 Summary of key variables

Below follows a presentation of the predictors, outcome, and moderator variables included in the analyses of this thesis.

Table 6.1 Descriptive statistics: Scales and subscales (n = 186)

Variable	Minimum	Maximum	Mean	Std.Deviation
Job Insecurity	380	1628	944.60	273.09
Job Satisfaction	6	17	12.89	2.49
Subjective Health Complaints	0	38	7.42	6.83
Organizational Attitudes	13	42	28.36	5.39
Work Control	17	53	35.30	7.94
Supervisor Support	11	25	18.06	3.39
Family Support	3	15	10.84	2.48
Coping Resources	10	25	19.85	2.36

Subjective health complaints, as mentioned earlier, are very frequent among individuals. Only 10 individuals (5.4%) reported no subjective health complaints at all. The ten most common health complaints reported by the respondents are presented in table 6.2. The single measure of tiredness was the most frequently reported complaint both for men and for women. For men, the most frequently reported complaints were tiredness, low back pain, cold/flu, and sleep problems, while for women the most frequently reported complaints were tiredness, headache, shoulder pain, and low back pain. The burden of health complaints were fairly equally distributed among men and women, expressed in percentage of the total, with men reporting more complaints than women on 14 measures and women reporting more complaints than men on 15 measures (Appendix 1.2). T-tests were conducted to investigate possible differences in gender and occupation, but no significant differences were found.

Table 6.2 10 most common Subjective Health Complaints (score over 0)

Variables	Total (n = 186)		Male (n = 144)		Female (n = 42)	
	(n)	(%)	(n)	(%)	(n)	(%)
Tiredness	132	71.0	104	72.2	28	66.7
Low back pain	87	46.8	66	45.8	21	50.0
Neck pain	82	44.1	57	39.6	25	59.5
Shoulder pain	82	44.1	57	39.6	25	59.5
Headache	78	41.9	52	36.1	26	61.9
Sleep problems	77	41.4	59	41.0	18	42.9
Cold/Flu	75	40.3	63	43.8	12	28.6
Stomach discomfort	65	34.9	56	38.9	9	21.4
Arm pain	64	34.4	45	31.3	19	45.2
Coughing	59	31.7	48	33.3	11	26.2

6.3 Relations between demographic variables and job insecurity

Standard regression analyses were done to test for relations between the demographic variables (i.e. gender, age, occupational group, length of employment in the company, and leader responsibility) and the total measure of job insecurity. The analyses revealed that only gender and leader responsibility showed any statistically significant relations ($p < .01$). Gender and leader responsibility both explained 5% of the variance in job insecurity. The significant results from these analyses are presented in Appendix 1.3. The same relations were also tested separately for the two dimensions of job insecurity. As for the total measure, only gender and leader responsibility revealed any significant relations ($p < .01$). Multidimensional job insecurity (i.e. concerns about aspects of the job) shows some weaker relations while global job insecurity (i.e. concerns about the total job) shows some stronger relations than the total measure of job insecurity. The significant relations of these analyses are presented in Appendix 1.4 and 1.5.

6.4 Correlational analysis

The correlational matrix shown in table 6.3 below indicates that all the criterion variables are significantly correlated to job insecurity in the proposed directions. As shown in the table, the reliability coefficients are rather high, ranging from .74 to .88. The Pearson-product moment correlations of the predictor, outcome, and the moderator variables are also shown in this matrix. The inter-correlations of the different aspects of the Job Insecurity Scale and its outcome measures are presented in Appendix 1.6.

Table 6.3 Variable inter-correlations and descriptive statistics

Variable	1	2	3	4	5	6	7	Mean	SD	Alpha
1 Job Insecurity	-							944.60	273.09	.88
2. Job Satisfaction	-.29**	-						12.89	2.49	.76
3. Subjective Health Compl.	.15*	-.29**	-					7.42	6.83	.86
4. Organizational Attitudes	-.33**	.55**	-.31**	-				28.36	5.39	.83
5. Work Control	-.26**	.41**	-.05	.25**	-			35.30	7.94	.86
6. Supervisor Support	-.06	.23**	-.20**	.38**	-.07	-		18.06	3.39	.80
7. Family Support	.00	-.01	-.07	.18*	-.03	.48**	-	10.84	2.48	.74
8. Coping Resources	.03	.08	-.24**	.19**	-.07	.24**	.14	19.85	2.36	.80

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Consistent with other studies on job insecurity (e.g. Ashford et al., 1989; Hellgren et al., 1999; Roskies & Louis-Guerin, 1990), job insecurity shows a negative relationship with individual and organizational consequences of the phenomenon. The total measure of job insecurity shows a relative weak positive correlation with subjective health complaints ($r = .15$), but stronger negative relations with job satisfaction ($r = -.29$) and with organizational attitudes ($r = -.33$). As shown in Appendix 1.6, multidimensional job insecurity (i.e. concerns about aspects of the job) shows a somewhat similar relationship as total job insecurity, except with subjective health complaints which does not correlate significantly. Job satisfaction ($r = -.27$) and organizational attitudes ($r = -.31$) show a bit weaker relations. Global job insecurity (i.e. concerns about the total job) does not correlate significantly with the health complaints, but shows a stronger negative relation to job satisfaction ($r = -.30$) and a similar negative relation to organizational attitudes ($r = -.33$).

Since there seems to be only small differences by using the two dimensions of job insecurity, only the total measure of job insecurity are used in the further analysis in this thesis.

6.5 Cross tabulations

Since significant differences in job insecurity were found for the demographic variables gender and leader responsibility using regression analysis, cross tabulations were performed to explore differences for males and females, and for employees with and without leader responsibility separately. These differences are shown in the tables below.

Table 6.4 Job Insecurity by Gender

Gender	Job Insecurity			Total
	Low	Medium	High	
Male	38.9%	32.6%	28.5%	100%
Female	16.7%	33.3%	50.0%	100%
Total	33.9%	32.8%	33.3%	100%

Table 6.5 Job Insecurity by Leader Responsibility

Leader Responsibility	Job Insecurity			Total
	Low	Medium	High	
Yes	39.0%	42.4%	18.6%	100%
No	31.5%	28.3%	40.2%	100%
Total	33.9%	32.8%	33.3%	100%

As shown in table 6.4 ($p < .01$, $\chi^2 9.27$), job insecurity seems to be of greater importance for women than for men. As much as 50% of the women report high job insecurity while only 16.7% report low insecurity. For men a more equal distribution pointed out. 28.5% of the men report high insecurity while 38.9% report low insecurity. Table 6.5 show that for employees with leader responsibility, only 18.6% report high job insecurity while as much as 39% report low insecurity ($p < .01$, $\chi^2 8.68$). For employees without leader responsibility, 40.2% report high insecurity while 31.5% report low insecurity. This indicates that leader responsibility is strongly associated with the level of job insecurity the employee experiences.

The effect of work control was tested in relation to job insecurity. Perceived work control is as described by several authors (e.g. Greenhalgh & Rosenblatt, 1984; Büssing, 1999) likely to affect the level of job insecurity the employees' experience. The relation between work control and job insecurity is significant ($p < .01$, $\chi^2 12.78$) like illustrated in the table below.

Table 6.6 Job Insecurity by levels of Work Control

Work Control	Job Insecurity			Total
	Low	Medium	High	
Low	29.0%	22.6%	48.4%	100%
Medium	30.0%	41.4%	28.6%	100%
High	44.4%	33.3%	22.2%	100%
Total	33.9%	32.8%	33.3%	100%

As seen in the table, work control seems to relate to the level of job insecurity experienced. The results show that in the low work control group, 48.4% report high levels of job insecurity. For employees who report high levels of control, 44.4% report low insecurity. This indicates that perceived work control to a large extent is associated with the level of insecurity the employee experience.

Cross tabulations were also performed between job insecurity and immediate and long-term consequences of the phenomenon. Only the immediate consequences for both individual and organization showed any significant relations. Neither the relation between job satisfaction and subjective health complaints was significant. The relation between job insecurity and job satisfaction is significant ($p < .01$, $\chi^2 13.53$). This is illustrated in the table below.

Table 6.7 Job Satisfaction by levels of Job Insecurity

Job Insecurity	Job Satisfaction			Total
	Low	Medium	High	
Low	27.0%	31.7%	41.3%	100%
Medium	23.0%	42.6%	34.4%	100%
High	50.0%	27.4%	22.6%	100%
Total	33.3%	33.9%	32.8%	100%

As much as half of the respondents who report high job insecurity report low job satisfaction. This indicates that job insecurity is indeed related to how employees feel about their work situation and how satisfied they are at work.

The relation between job insecurity and organizational attitudes as an immediate organizational consequence show a significant relation ($p < .01$, χ^2 14.27) like illustrated in the table 6.8 below.

Table 6.8 Organizational Attitudes by levels of Job Insecurity

Job Insecurity	Organizational Attitudes			Total
	Low	Medium	High	
Low	33.3%	23.8%	42.9%	100%
Medium	27.9%	31.1%	41.0%	100%
High	51.6%	32.3%	16.1%	100%
Total	37.6%	29.0%	33.3%	100%

51.6% of the sample that report high insecurity report low attitudes towards the organization. It seems clear that how the employees feel about their organization to a great deal is associated with job insecurity.

6.6 Multiple regression analysis

Standard multiple regression analysis were conducted to explore the predicative ability of work control on job insecurity. Regression analyses were also done for the independent predictor variable alone on the different dependent outcome measures. The results from these analyses are presented in Appendix 1.7 and 1.8.

Work control was as in accordance with the research hypothesis found to be significantly related to job insecurity. The results of the analysis show that 7% ($p < .01$) of the variance in job insecurity is explained by work control.

As an individual immediate consequence of job insecurity, job satisfaction was tested. The results show that 9% ($p < .01$) of the variance in the dependent variable is explained by job insecurity. The long-term consequence of job insecurity, subjective health complaints, was also tested without including job satisfaction as the immediate consequence in the analysis. Job insecurity alone explains only 2% ($p < .05$) of the variance in health complaints. Only individual long-term consequences were tested due to lack of measures to identify any organizational consequences of such relationships. This is due to the cross-sectional nature of the present study and organizational long-term consequences will need the use of longitudinal study designs to identify such relations. As immediate organizational consequence of job insecurity, organizational attitudes were tested. The results shows that job insecurity explain 11% ($p < .01$) of the variance in organizational attitudes.

When including both job insecurity and job satisfaction as predictors for subjective health complaints in a hierarchical regression analysis, interesting results appear. The variance explained increases from 2% with only job insecurity included to 9% when including both job insecurity and job satisfaction. The hierarchical regression analysis reveals that job insecurity is no longer significant in relation to subjective health complaints.

When job satisfaction is introduced in the equation, there is a beta-value drop from Model 1 to Model 2. This indicates that job satisfaction acts as a mediator in this relationship and renders support to Baron and Kenny's (1986) mediator hypothesis. To test for mediation one need to estimate three regression equations; first, regressing the mediator on the independent variable, second, regressing the dependent variable on the independent variable, and third, regressing the dependent variable on both the independent variable and on the mediator. The first regression is presented below in table 6.9. The second regression is presented in Model 1 in table 6.10, while the third regression is presented in Model 2 in the same table below.

Table 6.9 Hierarchical Regression Analysis

Mediator variable: Job Satisfaction (n = 186)

Independent variable	Beta	R²	R² Change	F Change
Job Insecurity	-.29**	.09	.09	17.37**

Table 6.10 Hierarchical Regression Analysis

Dependent variable: Subjective Health Complaints (n = 186)

Independent variables	Beta	R²	R² Change	F Change
<u>Model 1:</u>		.02	.02	4.13*
- Job Insecurity	.15*			
<u>Model 2:</u>		.09	.07	12.77**
- Job Insecurity	.07			
- Job Satisfaction	-.26**			

** Significant at the .01 level

* Significant at the .05 level

To establish mediation according to Baron and Kenny (1986), the independent variable must affect the mediator in the first equation, the independent variable must be shown to affect the dependent variable in the second equation, and the mediator must affect the dependent variable in the third equation. If these conditions all hold in the predicted directions, then the effect of the independent variable on the dependent variable must be less in the third equation than in the second. This seems to be the case since the beta-value in the third equation has a decline from a value of .15 in the second to .07 in the third, and since the previous significant relation between the independent and the dependent variable is no longer significant.

This mediational effect means that job insecurity has no direct effect on subjective health complaints. The effect of job insecurity on subjective health complaints is seen as an effect mediated by job satisfaction. Job insecurity has an effect on job satisfaction, which in turn affects subjective health complaints. In this sample job satisfaction acts as a mediator in the relation between job insecurity and subjective health complaints.

Hierarchical regression analysis were also conducted to control for the demographic variables gender and leader responsibility that were found to relate to job insecurity, in addition to work control in the relationship between job insecurity and its outcomes. The demographic variables did not contribute to any significant relations and were left out of the analysis. Summary of results from the hierarchical regression analysis after controlling for work control are presented in appendix 1.9 to 1.11.

Since work control was found to be associated to the level of job insecurity the individual experiences, the combined effects of work control and job insecurity were tested. After including work control in addition to job insecurity in the equation, the variance explained in job satisfaction ($p < .01$) increased from 9% to 21%. For subjective health complaints, neither work control nor job insecurity significantly contributed in the equation. The variance explained were 9% and is the same as when only job insecurity and job satisfaction were included ($p < .01$). For the organizational attitudes, there is an increase from 11% to 14% when work control is included into the equation ($p < .01$).

There seems to be a rather potent relation between the two measures combined on the two immediate outcome measures of job insecurity. No such relations were found for the long-term consequence subjective health complaints. Job insecurity and work control seems to be associated with job satisfaction to a larger extent than with organizational attitudes, although this relation also increases in strength.

6.7 Moderating interaction effects

Moderated regression analysis were conducted to examine the possible moderating effects of coping, supervisor and family support on the relationships between job insecurity and the different outcome measures as posited by the research hypotheses. Moderation implies according to Baron and Kenny (1986) that the causal relation between two variables changes as a function of the moderator variable. A moderator variable is a variable that affects the direction of and/or the strength of a relation between an independent and a dependent variable. The moderator hypothesis is supported if the interaction of the independent and the moderator variable is significant. A summary of these results are shown in Appendix 1.12 to 1.20.

For job satisfaction, both job insecurity ($p < .01$) and supervisor support ($p < .01$) show a statistically significant relation. Coping and family support do not significantly contribute. No moderating interaction effects for job satisfaction were found.

For the subjective health complaints, the mediational effect of job satisfaction had to be considered. Since there was found not to be a direct effect of job insecurity on health complaints, the moderator effect was tested for job satisfaction and coping, supervisor and family support. Job insecurity did not show any significant effects as suggested by the mediator hypothesis. Both job satisfaction and coping, and job satisfaction and supervisor support, showed a significant ($p < .01$) relation while family support did not significant contribute in this relation. The interaction effect of job satisfaction and coping was found to be significant ($p < .01$) explaining 3% of the variance in subjective health complaints, while the interaction effect for supervisor support ($p < .01$) explained 4% of the variance. No such interaction effects were found for family support.

For organizational attitudes both coping ($p < .01$), supervisor support ($p < .01$) and family support ($p < .01$) significantly contributes in addition to job insecurity ($p < .01$). No moderation effects were found for coping or supervisor support, but family support shows a statistical significant ($p < .05$) interaction effect. The gain in the amount of variance explained was 3% for organizational attitudes.

Where no significant interaction effects were found, analyses were conducted to look for differences in the demographic variables gender, occupation, and leader responsibility separately. There are theoretical arguments for differences in gender and occupational grouping and their perception of job insecurity. Men and women are often expected to cope with threats like job insecurity differently, and these different coping strategies are expected to affect the outcomes of job insecurity (Vingerhoets & Van Heck, 1990). Traditionally, white-collar workers are expected to experience less job insecurity than blue-collar workers, although this seems to be gradually changing since white-collar workers now also tend to be affected by insecure employment. Most jobs lost are manual jobs typically for blue-collar workers, but also white-collar workers now face an uncertain future in many industries (Burke & Nelson, 1998). Job insecurity was as showed earlier found to be associated with leader responsibility and this relation was also controlled for. These analyses are presented in Appendix 1.21 to 1.24.

No interaction effects were found for job insecurity and coping, supervisor or family support on job satisfaction for the total sample, but when looking at these relations separately significant relations appear. For coping, a significant interaction effect ($p < .05$) for white-collar workers were found explaining 8% of the variance in job satisfaction. For gender and occupation there were found significant relations for women and for white-collar workers. No significant relations were found for leader responsibility. For women, job insecurity and family support show a significant interaction effect ($p < .05$) explaining 7% of the variance in job satisfaction, while for the white-collar workers the interaction effect ($p < .05$) explained 6% of the variance. Job satisfaction and family support did not show any statistical significant interaction effects on the health complaints either for gender, occupation, or leader responsibility, neither did the effects of job insecurity and supervisor support on organizational attitudes. The relation between organizational attitudes and coping showed a significant interaction ($p < .05$) for employees with leader responsibility to some degree, explaining 8% of the variance in organizational attitudes.

This concludes the presentation of the analyses conducted in the study. Next follows a discussion of the findings and implications for practice and further research.

7.0 Discussion

The present study was conducted in an attempt to improve the understanding of how job insecurity relates to employee attitudes and health. In line with general literature on stress (e.g. Lazarus & Folkman, 1984; Karasek & Theorell, 1990), the uncertainty inherent in the perception of job insecurity appears to generate experiences of strain to some degree for the individuals involved. It is the ambiguity associated with the insecurity experience that makes it a highly stressful phenomenon for employees. Hellgren (2003) describes job insecurity as a significant stressor that is believed to bring on a number of consequences including negative health symptoms, a desire to leave the organization, as well as decreased loyalty and satisfaction with work. Insecurity concerning one's job has in later years become an increasingly more important and urgent problem due to factors such as globalization of the economy, increased internal and external competition, and organizational unpredictability.

Job insecurity falls into two categories, objective and perceived. The objective job insecurity relates as discussed earlier to threats external to the individual, whereas perceived insecurity represents the individual's appraisal of the threat (Catalano et al., 1986). The stress literature indicates it is not the objective stressor but rather how the stressor is appraised that determines whether the stressor will have adverse effects on work attitudes, health, and behaviour (Lazarus & Folkman, 1984). Therefore, perceived job insecurity is likely to be a more potent stressor than objective insecurity, although perceived job insecurity is unlikely to be widespread in the absence of objective job insecurity (Hartley et al., 1991).

A main purpose behind this thesis was to investigate the effects of job insecurity on different immediate and long-term outcomes caused by the phenomenon. The effects of job insecurity on job satisfaction, subjective health complaints, and organizational attitudes were investigated. The possible moderating effects of coping and social support on these relations were also investigated.

7.1 Limitations and methodological issues

A limitation of the present study is that the respondents were conveniently selected to participate. This was due to the limited resources available and in order to get the study conducted at all, there were no possibility to pick respondents from a probability sampling. Convenience sampling entails the use of the most conveniently available individuals to participate in the study. Ringdal (2001) argue that in cases in which the phenomenon under investigation is fairly homogeneous within the population, the risk of bias may be minimal. In heterogeneous populations, there is no other sampling approach in which the risk of bias is greater. There is reason to believe that the respondents investigated in this study are rather homogeneous due to the similarity of industry and work tasks.

Although the results may be appropriate for employees in similar industries, one should be careful to generalize the results to a wider population due to the sampling design. Still, one should have in mind that the results are to some degree similar with other studies investigating the same phenomenon. Approximately 50% of the employees who were asked to participate in the study returned questionnaires. One aspect to consider when analysing data of job insecurity is the possibility that employees who are experiencing high levels of job insecurity are reluctant to participate in such a study and the data collected may therefore be biased by such factors (Hartley et al., 1991). It is possible that employees who perceived their jobs to be insecure did not agree to participate in this study and thereby have biased the results. Another limitation is that the data collected was self-reported and hence some of the observed relationships may be exaggerated due to common-method bias. However, when results show that correlations between job insecurity and its outcomes are modest, Lim (1997) suggest that bias due to self-reporting may not be a critical problem.

Owing to the cross-sectional nature of the data and the methodological limitations presented, the results remain suggestive rather than conclusive. One avenue for future research is to replicate the study using a longitudinal methodology design.

7.2 Dimensionality of job insecurity

As mentioned in the elaboration of job insecurity, Reisel and Banai (2002) found stronger support for a global than for a multidimensional measure of job insecurity. They also suggested the use of shorter less complicated measures that may avoid response fatigue. The use of the complete Job Insecurity Scale may be an objection to the present study. The decision to include both dimensions in the study were done due to theoretical arguments from central authors on the topic (e.g. Ashford et al., 1989; Hellgren et al.,1999) in an attempt to identify interesting differences in how employees differ in their concern of losing important aspects of their work and their concern of losing their job as such.

Only very small differences were found between the total measure and the two dimensions of job insecurity. This may be due to the relative low response rate, and it is possible that a larger sample size would have identified more variance in the two dimensions. As shown by the correlational analyses, neither of the two dimensions significantly correlated with the long-term outcome subjective health complaints, and the relations with job satisfaction and organizational attitudes as immediate outcomes differed only very little. Regression analysis on the relations between demographic variables and job insecurity also indicated only very small differences, and the two dimensions were left out of the rest of the analyses.

Previous research by Hellgren et al. (1999) based on longitudinal data from a Swedish organization undergoing downsizing, found both dimensions of job insecurity examined separately to be related to deteriorated physical and mental health. They found that concern about losing the job (i.e. global job insecurity) was intimately related to stress symptoms such as ill-health, sleeping problems, and distress. They also found these problems to transfer to non-work settings. In contrast, they found perceived threats to important job features (i.e. multidimensional job insecurity) to relate primarily to attitudinal outcomes such as dissatisfaction with the present job and a desire to leave it voluntarily. The two dimensions of job insecurity were found to have important effects even after controlling for mood dispositions such as negative affectivity.

This indicates that the two dimensions of job insecurity is indeed important to consider even though no differences were found in this sample. The outcomes of job insecurity may be different due to what aspect of the job the employee perceives to be threatened, and this may demand different approaches when interventions is considered to alter the problem.

7.3 Influences on job insecurity

Several studies have shown the necessity of considering additional variables to differentiate sub-groups of individuals who are not equally affected by the stress and the critical incidents of perceived job insecurity (e.g. Karasek & Theorell, 1990; Hartley et al., 1991). It is for instance hypothesized that older employees on the one hand is less likely to lose their jobs due to longer organizational tenure, while on the other hand, the situation of job loss may have more dramatic effects for older employees in that it can be more difficult to get new work when reaching a certain age. How the employee feels that he or she is in control of the situation one is facing is also hypothesized to affect the degree of job insecurity experienced.

Regression analyses were conducted to explore the effects of demographic variables (i.e. gender, age, occupational group, length of employment in the company, and leader responsibility) and job insecurity. The results indicate that only gender and leader responsibility statistically differed in their relation to job insecurity, only partially rendering support to research hypothesis 1. Cross tabulations show that half of the women who participated in the study reported high job insecurity, while only 28.5% of the men did. For employees with leader responsibility, 18.6% reported high job insecurity, while for employees without any leader responsibility as much as 40.2% reported the same. Both gender and leader responsibility accounted for 5% of the variance in job insecurity separately.

There seems to be a clear association between gender and leader responsibility, and the levels of job insecurity the employees are experiencing, and this association seems to be of greatest importance for women without leader responsibility. This may be due to that employees with leader responsibility perceive they have more alternatives to resist the threat (e.g. higher education, more influence over decision making processes) than employees who do not have any leader responsibility. Job security may be more important at lower occupational levels than at higher levels. This does not mean that job security is not important at higher occupational levels, only that it may be relatively less important than other needs (Hartley et al., 1991). Employees at higher occupational levels may feel they have more competencies to resist the threats associated with job insecurity and may feel they have more influence over their own work situation and decision making processes. These perceptions may thereby have great importance in how affected employees are by the level of insecurity they experience.

If the perception of stress depends upon the appraisal of coping resources available as discussed by Lazarus and Folkman (1984), then employees with leader responsibility might be less affected by job insecurity because they may have greater resources and skills to cope with this threat (Roskies & Louis-Guerin, 1990). It is possible that men engage in problem-focused coping strategies while women prefer emotion-focused strategies like discussed by Vingerhoets and Van Heck (1990), although the results from the present study cannot confirm this hypothesis. It is also possible that the emotion-focused coping strategies does not have the same effects on job insecurity as the problem-focused strategies which aims at eliminating the problem in focus, thereby leaving women with higher perceptions of job insecurity than men.

On background of different theoretical approaches, Büssing (1999) argue that work control is proven to be an important alleviating resource with respect to work stress not only as a moderator between the stressor and the outcome, but also as an additive main effect in that control has an influence over the level of job insecurity experienced. Work control has been found to contribute to increasing work motivation, well-being, and reduced insecurity. But whether the stress usually generated from job insecurity in fact will influence the employee's well-being and behaviour, depends heavily on how the individual appraises the situation one is facing. As mentioned earlier, two employees in the same objective situation can experience different degrees of job insecurity because they appraise and interpret their situations differently. Since job insecurity is seen as a perceptual phenomenon, this implies that the intensity of the experience may vary from employee to employee.

Results from cross tabulations between work control and job insecurity as an independent variable show that there is a statistically significant relation between perceived work control and the level of job insecurity experienced. For employees who report low work control, 48.4% report high job insecurity, while for employees reporting high work control, 44.4% report low job insecurity. This indicates that perceived work control to a large extent predicts the level of insecurity the employee experiences, rendering support to research hypothesis 2. High levels of work control was in the present study found to be negatively related to job insecurity, while low levels of work control was found to be positively related to job insecurity. Regression analysis showed that 7% of the variance in job insecurity was explained by work control.

The results from the present study indicate that employees who perceive themselves to be in control over their situation experiences less strain than employees who do not. This is in accordance with the assertion by Sutton and Kahn (1987) who argue that control in organizational settings consists of a dependent relationship between the behaviour of an employee and the subsequent occurrence of outcomes such as job insecurity in the work environment. Job insecurity appears to exert a negative influence on variables that can be found in the run-up to psychological and physical stress reactions and psychosomatic complaints. If one feels that one can resist the threats of this insecurity, one is expected to experience less insecurity. If the employee perceives one has effective influence and control over events, things, and persons of vital importance in the work-setting, then the employee is expected to experience less insecurity than employees who do not have such influences. Employees who can produce responses that change significant aspects of stressors such as job insecurity are expected to better handle its effects than employees who do not, thereby experiencing less severe and undesired consequences.

7.4 Relations between job insecurity and the outcome variables

Employees are hypothesized to differ in their perceptions of and reactions to job stressors such as job insecurity due to the importance they perceive a possible job loss may have for their overall situation. How the employees perceive to have resources that may moderate the relations between a stressor and its outcomes is also of great importance. A discussion of the moderating effects of coping and social support is presented later on in this chapter.

There seems to be a relation between the different measures investigated in the study. The results indicate that high levels of job insecurity affect the outcome measures in a negative way. Like proposed by several researchers (e.g. Ashford et al., 1989; Hellgren et al., 1999; Lim, 1997), job insecurity is negatively related to job satisfaction and organizational attitudes, and positively related to ill-health. This indicates that job insecurity is strongly associated with how individuals feel about their work, how satisfied they are with their work, as well as their attitudes and loyalty towards the organization.

In the present study like in the meta-analysis conducted by Sverke et al. (2002), the observed relationships between job insecurity and the outcome variables are stronger for the immediate consequences and more moderate for the long-term consequence investigated. One problem in this context is that the majority of the studies conducted, as well as the present study, investigating the relationships between job insecurity and its consequences are cross-sectional and thereby limited with regard to control for initial levels of the outcome variables, as well as the possibility of identifying more long-term consequences. The direction of the relationships between job insecurity and its outcomes were not investigated in the present study, but are assumed to be in accordance with the findings of Hartley et al. (1991) and Sverke and Hellgren (2003) who found job insecurity to affect negative attitudes and ill-health, and not vice versa.

Below follows a discussion on the relations between job insecurity and the different outcome measures as posited by the research hypotheses.

7.4.1 Job insecurity and job satisfaction

Several authors (e.g. Armstrong-Stassen, 1993; Hellgren et al., 1999; Lim, 1997) assume that feelings of job insecurity are accompanied by lower job satisfaction and weaker commitment to the organizations. Employees who experience high levels of job insecurity may feel dissatisfied and may withdraw psychologically from their work. They may feel less motivated to go to work, be less interested in their work, and be less dedicated to their work than employees who feel less insecure.

When looking at job insecurity in relation to job satisfaction in this sample, cross tabulations show that as much as 50% of the high insecurity group report low job satisfaction. 41.3% of the employees who reports low job insecurity report high job satisfaction. Job insecurity seems to be highly associated with how satisfied employees are with their work situation, and 9% of the variance in job satisfaction is explained by job insecurity. The results render support to research hypothesis 3.

According to the theoretical model of immediate and long-term individual and organizational consequences of job insecurity by Sverke et al. (2002), the employees' job attitudes are expected to be lowered as a result of job insecurity. Both job satisfaction and job involvement are expected to be affected in a negative way, and the present results seem to confirm this tendency. An insecure job may lead the employees to perceive that the organization has defaulted in their obligations towards them. A failure on part of the organization to provide the employee with a secure work-setting may alter significantly the employee's view of what one is obligated to contribute with to the organization in return. This perception may upset the balance in the employee-employer relationship and may lead to potentially high levels of distress and frustration towards the organization (Lim, 1997). By occupying a certain job, the employee is obligated to perform the duties and fulfil the responsibility as prescribed for that job. But because of high levels of dissatisfaction towards the job as a result of job insecurity, employees may withdraw from their obligations of the work role and fail to perform their duties and responsibility as established by the organization. Non-compliant job behaviours such as reduced job satisfaction and job involvement may be the result of a perceived inequitable employment relationship due to the insecurity the employee is experiencing. This may have obvious negative consequences for the organization in terms of effectiveness and productivity in the long run.

In downsizing or reorganizing processes, organizations expect the interventions to have economic as well as organizational benefits. But these potential benefits are often not fully realized because of an inability to implement the restructuring in a manner that is viewed as rational for the employees. According to Armstrong-Stassen (1993), employees who feel their supervisors could be relied on when things get tough at work and is willing to listen to their problems, are expected to report greater job satisfaction, trust in the company, and greater commitment to the company as well. This indicates that supervisors can play a critical role in how employees who feel uncertain about their jobs react to job insecurity.

Employees who feel this kind of support from their supervisors would most likely consider the employee-employer relationship to be good and thereby handle the possible negative consequences of job insecurity better than employees who do not perceive they get such support. This is an important aspect for management to consider since negative attitudes towards the job are likely to affect the employees' attitudes towards the organization as well.

One consequence of negative attitudes towards the organization is willingness to remain with the organization, and this may have detrimental consequences for the organization. This aspect will be more fully discussed later on in this chapter.

7.4.2 Job insecurity and subjective health complaints

It is well documented in the literature (e.g. Heaney et al., 1994; De Witte, 1999) that job insecurity is related to deteriorated health. Job insecurity has been found to reduce psychological well-being and increase psychosomatic complaints and physical strains. Roskies and Louis-Guerin (1990) argue that there are significant relationships between high levels of job insecurity and health problems. Studies show that the higher the levels of perceived insecurity, the greater the number of ill health symptoms reported. But it is not the objective stressor job insecurity that determines if the employee experiences health complaints because of job insecurity, but rather how the individual subjectively appraises the situation and an evaluation of what is to be done about the current situation. If employees attributes the insecurity they are experiencing to characteristics outside one's control, this would increase the negative impact of job insecurity on well-being (Hartley et al., 1991). A growing body of literature also indicates that personality factors such as negative affectivity can account for much of the distress associated with for instance life crises and job stress (Brief et al., 1988).

The number of respondents reporting health complaints in this sample is in accordance with other samples investigating health complaints in normal populations in Norway (Ihlebak et al., 2002). They found that almost 97% had at least one complaint during the last 30 days. In this sample, 10 respondents or 5.4% did not report any complaints at all. Approximately 95% reported at least one complaint. Ihlebæk et al. (2002) found women to have higher prevalence than men, but analyses investigating differences in prevalence for men and women in the present study did not reveal any significant differences. Neither for occupation was any significant differences found.

Cross tabulations identified that there was a relation between job insecurity and the individual immediate consequence of the phenomenon, job satisfaction. The relationship between job insecurity and the long-term consequence subjective health complaints does not show any significant relations using cross tabulation, although correlational analysis showed the relation to be significant. This is due to the mediational effect of job satisfaction in the relation between job insecurity and health complaints as described in the previous chapter. Even though subjective health complaints does not show any significant relation to job insecurity using cross tabulation, the relation was found to be significant using regression analysis. Subjective health complaints show a relative weak relation with job insecurity when investigating it separately against job insecurity explaining only 2% of the variance, but when introducing job satisfaction into the analysis this former significant relation disappears. Job satisfaction as a mediating factor in this relationship increased the variance explained with 7% to 9% when both variables were included.

The results from this sample of employees indicate that job insecurity has no direct effect on subjective health complaints, but only a mediated effect through job satisfaction in accordance with the mediator hypothesis as described by Baron and Kenny (1986). Job insecurity is still an important factor in relation to subjective health complaints, but the relationship is best explained as an indirect relation. Although the relation between job insecurity and health complaints was found to be mediated through job satisfaction, the results render support to research hypothesis 4 in that job insecurity has a negative impact on health.

A possible explanation of the relative weak relation with subjective health complaints could be that job insecurity is more strongly related to attitudes than to ill-health and behaviour as discussed by Sverke et al. (2002). It may be that the long-term consequences of job insecurity (i.e. health complaints, reduced work performance, and turnover intention) may manifest itself at a later point in time, and it is possible that the results would have identified stronger long-term effects if the study was to be repeated in the same sample after some time. Hellgren (2003) assumes that certain stress reactions from job insecurity, like reduced job satisfaction and organizational attitudes may develop more quickly and be more immediately connected to the origin of the stressor, whereas ill-health reactions are experienced at a later phase.

As outlined by Lazarus and Folkman (1984) in their definition of psychological stress, it is when the relationship between the individual and its environment is exceeding one's resources that well-being may be endangered. In the primary appraisal process, the individual must distinguish the job insecurity experience as either irrelevant, benign-positive, or stressful. It is only if the individual appraises job insecurity as stressful that well-being may be endangered. Lazarus and Folkman further argue that it is through secondary appraisal that the individual must evaluate what might and can be done to manage the situation. If the individual perceives one has enough coping resources available to counteract the threat one is facing, then it is likely that no severe damage would be sustained to the individual's well-being. If the individual on the other hand, do not feel one has appropriate coping resources available, then it is quite likely that this will affect the individual's overall health, resulting in an increase in reported subjective health complaints.

7.4.3 Job insecurity and organizational attitudes

As was the case for job insecurity in relation to job satisfaction, the relation to organizational attitudes are also assumed to be affected in a negative way. Job satisfaction and organizational commitment are correlated and therefore the more satisfied the employees are with their jobs, the more committed they are to their organizations. Insecure employees are expected to be less interested in the situation of their company as a whole, compared to employees who perceive themselves not to have an insecure work situation (Hartley et al., 1991). When the organization is facing an uncertain future, the employees can respond by either leaving the organization, protesting against the organization, or show loyalty towards the organization.

The less committed employees are to their organization, the more likely it is that they will react to job insecurity by taking individual action which to a large extent consists of job seeking behaviour. This response is quite understandable. In cases where little is to be done to alter the situation one is facing, many employees feel the only way out of the problem will be to leave the organization and seek for secure employment elsewhere. Criticism towards the organization has greater impact if it is offered by employees who can afford to leave the organization instead of by employees who have no other job alternatives. The better qualified employees who can easily get work elsewhere, are whose voices that are the most effective. The organization will be more open to their demands when their criticism is accompanied by threats of quitting (Hellgren, 2003).

For job insecurity in relation to organizational attitudes the results show that in the high insecurity group, 51.6% report low degrees of positive attitudes towards the organization. 41.3% of the low job insecurity group report positive attitudes towards the organization. Job insecurity explains 11% of the variance in organizational attitudes, and seems to be of great importance in how committed employees are to their organization. The results render support to research hypothesis 5.

According to Hartley et al. (1991) employees who experience high degrees of job insecurity are more willing to undertake individual action to counteract the threat they perceive more often than employees who do not feel threatened. They are more likely to consider seeking another job more often than their more secure colleagues, they pay more attention to information about possible other jobs, and they are more likely to apply for other jobs. But a desire to leave the organization is not the only consequence of job insecurity. Trust in leadership, organizational commitment, and work performance may also all be dramatically reduced (Hellgren, 2003). This may have detrimental consequences for the company.

It is rational for employees to seek for other jobs were they do not have to fear losing their work and thereby eliminate the stress caused by job insecurity. It is possible that those employees most valuable to the organization will be the first to leave, because they want a more secure work setting for themselves. Different from other employees who do not feel they have alternatives on the labour market, the most valuable and better skilled employees may find interesting and challenging work elsewhere and thereby might in fact leave the organization.

A consequence for the organization may be that the remaining work force is plagued with stress reactions due to the uncertainty they experience, and this may be difficult to alter to the better for the organization. Job insecurity and work-related stress is not only costly in terms of health for the employees involved, it may also be costly in financial terms for the organization. Employees plagued with stress reactions will not contribute to increase the efficiency and productivity of the organization, and such reactions may have detrimental consequences for the vitality of the organization as a whole in the long run. This is important aspects for management to notice since the amount of individuals experiencing such stress is growing throughout the entire Western world (Hartley et al., 1991; Lim, 1997).

The results of the analyses of the relationships between job insecurity and the different outcome measures indicate that for both individuals and for the organization as a whole, job insecurity is a phenomenon to consider and try to take steps to prevent and reduce the negative consequences of. All the outcome measures of job insecurity investigated in the present study were found to be significantly affected in a negative way. A better handling of the phenomenon may benefit both employees and organizations in terms of higher job satisfaction and commitment, and hopefully less ill-health (Hellgren, 2003).

7.5 Moderator effects of coping

To cope with stress refers to the various ways different individuals deal with the stress they experience. Coping is the outcome of the cognitive appraisal process in which the individual evaluates both the threat and the alternatives for dealing with the threat. In Lazarus and Folkman's (1984) view there are two major functions of coping that can change the situation for the better, either by changing one's actions and changing the threatening environment, or by eliminating emotional stress. As elaborated earlier, the authors distinguish between two forms of coping behaviour, problem-focused and emotion-focused coping. Problem-focused coping intend to remove the unpleasant event or to mitigate its influence, while emotion-focused coping intend to alleviate the distressing feeling caused by the unpleasant event, for instance by alcohol use or defence mechanisms such as denial. When coping is defined as a moderator, it means that coping is viewed as a preceding condition that affects the strength of the relation between the stressor and the different outcomes.

For job satisfaction, no significant moderator effect of job insecurity and coping was found for the total sample. When looking at this relation separately for occupation, white-collar workers showed a significant moderator effect explaining 8% of the variance in job satisfaction. Due to the mediational effect of job satisfaction on the relation between job insecurity and subjective health complaints, the interaction between job satisfaction and coping was investigated. The moderator effect of job satisfaction and coping showed a significant relation for subjective health complaints explaining 3% of the variance. No moderator effect was found for job insecurity and coping for organizational attitudes, but when looking at this relation separately for employees with or without leader responsibility, the results identified a significant moderator effect for employees with leader responsibility, explaining 8% of the variance in organizational attitudes.

The findings renders partially support to research hypothesis 6, but only the interaction effect for subjective health complaints identified a significant relation for the total sample. Since coping were found to moderate the relation between job insecurity and job satisfaction for white-collar workers, and the relation between job insecurity and organizational attitudes for employees with leader responsibility, this may indicate that these two groups of employees perceives to have the most effective coping resources available to counteract the threat they are facing. Employees in these two groups may for instance feel they are better qualified for the jobs they are holding, and they may have better education which makes it easier to get new work if they were to lose their present jobs. Such resources to cope with possible stressful situations would make the situation less threatening for those employees. It is not possible to conclude that problem-focused coping strategies is more strongly related to men, while emotion-focused coping strategies is related to women as proposed by Vingerhoets and Van Heck (1990). It might be possible that job insecurity is appraised differently by men and women, and that this will contribute to the choice of different coping strategies, but the results from this study cannot confirm this hypothesis. Due to the present results it seems that coping is a potent moderator between job insecurity and its outcomes, although the results vary in strength.

7.6 Moderator effects of social support

Social support is according to Lazarus and Folkman (1984) the evaluation of the individual's social relationships due to their supportiveness. It is a resource available in the social environment which the individual must cultivate and use. Social support may intervene between the stressful event (e.g. job insecurity) and a possible stressful reaction (e.g. reduced job satisfaction) by reducing the stress appraisal response. Such support may also intervene between the experience of stress and beginning strain by reducing or eliminating the stress reaction. According to Fenlason and Beehr (1994), supervisors are expected to have the strongest effect on psychological strains and co-workers expected to have the second strongest. Family and friends are also important, but they are usually not present in the workplace and thus cannot render the same immediate support. In general work-based support, such as support from supervisors and colleagues, has been found to be more relevant for work stress than non-work-based support (Lim, 1997). However, the results from this study cannot confirm this tendency. In investigating the possible moderators supervisor and family support, the intention was to identify if the variables moderates the different outcomes of job insecurity.

For the immediate individual consequence job satisfaction, no moderator effects for either supervisor or family support were found when analysing the total sample. This indicates that for the total sample, social support does not significantly moderate the relationship between job insecurity and job satisfaction. But when looking at these relations separately for gender and occupation, family support show a significant moderation effect for women and for white-collar workers. Supervisor support still did not show any significant relations. It may be that women and white-collar workers seeks and finds support from family and friends to be helpful in relieving the perceived stress from job insecurity on job satisfaction better than men and blue-collar workers. Supervisor and family support were also investigated as moderators in the relationship between job insecurity, job satisfaction, and subjective health complaints. Supervisor support was found to significantly moderate this relation for the total sample, while no such effect were found for family support. Analyses investigating a moderation effect of family support for gender and occupation separately did not show any significant results. On the relationship between job insecurity and organizational attitudes, no significant moderation effect was found for supervisor support but moderation was found for family support for the total sample. Supervisor support did not show any moderation on this relation neither for gender nor occupation.

The results from the present study indicate that family support is as important as supervisor support for the sample investigated. Supervisor support which by several authors are hypothesised to be of greatest importance in this relationship, was found only to be significant for the subjective health complaints, only partly supporting research hypothesis 7, while family support was found to be significant for organizational attitudes for the total sample, and for job satisfaction for women and for white-collar workers, also only partly supporting research hypothesis 8.

Although hypothesized, it is not entirely clear that supervisor support is the most effective way in relieving employees' strains with social support. It is likely that support from family and friends may also be effective as a stress treatment when the stress arises from the workplace (Fenlason & Beehr, 1994). Support from others at the workplace can contribute to buffer employees from dissatisfaction and non-compliant behaviours when their job security is at stake, but equally important is support provided by family and friends which may buffer individuals against negative outcomes such as life dissatisfaction associated with job insecurity (Lim, 1996). Family and friends can assist employees in alleviating this outcomes.

To feel that one has family and friends that is supportive, and to have a good social life outside the organization may compensate or add to the support one perceives getting from supervisors and co-workers at the workplace. This could be to have someone to talk to about the problems one is facing or just to feel that someone cares.

Although not fully supported, the hypothesized effects of social support seems to be of great importance in alleviating the possible negative consequences of job insecurity and a combination of the two forms of social support is indeed important in this relation. Cohen and Wills (1985) argue that there are large differences in stress reactions between individuals who do not have any such relations and individuals who have at least one such relation.

7.7 Summary and conclusions

This present study adds to the accumulating body of research on job insecurity, and hopefully it will contribute to explain some of the relationships between experienced job insecurity and its consequences for employees experiencing the phenomenon. The overriding goal of the thesis was to provide knowledge that can be a basis to develop interventions that can counteract the negative consequences of job insecurity. It may provide policy makers and health professionals with knowledge on how to more efficiently prevent possible health complaints and undesired consequences at an early stage and thereby reducing the possible negative consequences for individuals who experience job insecurity.

Some of the important findings in this study were the identification of factors like gender, leader responsibility, and work control, which to a large extent seems to be associated with the levels of job insecurity the employee is experiencing. The outcomes of job insecurity investigated in the present study, job satisfaction, subjective health complaints, and organizational attitudes, were all affected in a negative way as posited in the research hypotheses. Another important finding was the identification of the moderator variables coping and social support which may reduce these negative consequences of job insecurity.

By enabling both employees and employers to better handle job insecurity, which seems to be an increasingly more important aspect of working life today because of all the restructuring and new ways in which to define work, the negative effects of the phenomenon will hopefully be reduced. To the extent that job insecurity has been shown to be detrimental to outcomes which are valued by the employees as well as the employers, organizations can play an important role in channelling efforts toward enhancing social support at work and to assist individuals in how to cope with job insecurity in a manner that is less damaging to both individuals and organizations. A better understanding of how work control, coping, and social support helps to buffer the individual against strains associated with such insecurity, can contribute to designing and implementing efforts to build a strong social support system at the workplace as well as contribute to enhance employees' levels of perceived control. It is not the change posed by job insecurity in itself that constitutes stress, but rather the way it is appraised and dealt with by the individual. If companies better can help the employees to deal with this stress, it is expected that the experience of job insecurity will be reduced.

To find out more about how appropriate the present results are can only be decided in light of future research, which under optimal conditions should look at objective and subjective job insecurity in a longitudinal and controlled investigation. Such procedures can identify the long-term effects of the different aspects of job insecurity as well as control for prior levels of the outcomes of the phenomenon.

7.8 Implications for practice

To the extent that job insecurity has become a permanent state for employees, it becomes crucial to understand and identify factors that may reduce or eliminate strains associated with such insecurity (Lim, 1997). It is of great importance for both individuals as well as organizations to understand and thereby try to prevent and reduce the consequences that may occur. Knowledge about the consequences of job insecurity can lead to interventions that may counteract potentially harmful processes at an early stage, and might contribute to reduce unanticipated societal and individual costs for both employees and companies.

Negative effects of job insecurity will most likely increase over time because of the ongoing restructuring of working life one is witnessing today. Heaney et al. (1994) suggests that worksite health professionals should develop strategies for reducing the impact of job insecurity on employee well-being, particularly in industries where employment opportunities are declining. Health professionals can for example attempt to provide the employees with accurate information and improve communication to reduce unnecessary uncertainty, advocate for retraining of employees to alternatives on the labour market, and provide training to employees in how to cope with the stress created by job insecurity. Heaney and colleagues further suggests that health professionals should support policy initiatives at local and national levels for ensuring employment opportunities. This is important and necessary steps to take for management and companies to make sure that employees are capable of dealing with the stress usually generated from job insecurity.

Control at work was in the present study found to be highly associated with the levels of job insecurity experienced, and would therefore be of great importance in how to prevent or reduce negative consequences of job insecurity. One way to enhance control for the individual is according to Burke and Nelson (1998) to try to assure employability versus job security for the employees. This can be done through acquisition of new skills that are valued on the labour market, so that the employee would be better able to take on new work if the present company no longer can offer secure employment. A feeling that one has enough coping resources to handle the possible stressful situation would most likely affect this relation positively and make negative consequences less severe. Another way to make employees cope with job insecurity is to enhance the levels of perceived social support the individual experiences, both at home and at work.

Although support from family and friends may be difficult to enhance from the work setting, a focus on the positive effects of this aspect may hopefully get employees to seek such support and thereby help insecure employees to better handle the phenomenon. A better focus on social support from supervisors and co-workers in the work setting may enhance positive feelings towards the job and the company, thereby reducing negative effects of job insecurity. To feel that one is still wanted in the company will most likely reduce negative effects. The relations between the moderator variables and the outcome variables in the present study show similarities with other studies investigating the subject (e.g. Lim, 1997; Büssing, 1999).

Despite that previous research indicates that experiences of job insecurity can arise in situations that objectively appear to be secure, Hellgren (2003) argue that insecurity is most often associated with organizations undergoing restructuring which endanger employees' positions in the organizations. It is in this context that most studies have been conducted and also where the strongest effects have been identified, and is why the discussion of what organizations can do to try to reduce the negative effects of future reorganizations and personnel reductions appears to be of such importance. Organizations can do a range of different initiatives to try to prevent the emergence of negative effects associated with job insecurity. Providing sufficient information and improve communication in the organization is two important initiatives. Accurate information and communication can calm the staff and prevent the spreading of false rumours that may worsen the situation. It is important to give this information to the employees affected as early as possible since prolonged insecurity has been shown to have negative consequences for the individual (Jacobson, 1991; Heaney et al., 1994). Another important aspect to consider is the legitimacy of the reorganizing organizations are undergoing. If changes are seen as credible and necessary by the employees, their reactions are expected to be less severe (Hartley et al., 1991; Hellgren, 2003).

The success or failure of any downsizing or reorganization strategy is in the end essentially determined by the reactions of the survivors in the organization. Employees who have participated in and have had an influence over the change process are expected to experience fewer negative consequences of job insecurity. Hopefully a better handling of the phenomenon will not only reduce the effects of job insecurity on employees, but also make the organization more effective and a better place to be for all.

7.9 Implications for research

Given that job insecurity is a phenomenon likely to persist in organizations facing competitive pressures, researchers need to study this construct systematically and thoroughly. Only then will there be a basis for helping managers and employees to cope with its possible negative effects (Ashford et al., 1989). Research efforts which aim to increase the understanding of factors which may help to alleviate the strains associated with job insecurity, can contribute significantly in the design and implementation of organizational interventions to assist individuals in how to cope with this kind of work-related stress (Lim, 1996).

It is essential to find out more about why some individuals are apparently untouched by feelings of job insecurity while others react very negatively. It is presumed that differences in perception of job insecurity stems from different evaluations of what is to be done about the problem. Lazarus and Folkman (1984) argue that one in order to understand variations among individuals must take into account the cognitive appraisal processes that intervene between the experience of a stressor, job insecurity, and the possible outcomes. If this reaction exceed the individual's resources it will most likely endanger his or her well-being. For many individuals job insecurity appears to have a detrimental effect on their psychological well-being. Job insecurity is as shown related to impaired health, reduced job satisfaction and reduced organizational commitment. One must be careful to draw conclusions based on correlational studies but according to Hartley et al. (1991) one thing is clear, job insecurity is not a healthy state of mind. The bulk of research on job insecurity up till now has been cross-sectional, and therefore very little is known about the long-term effects of job insecurity on employee attitudes and well-being. Hellgren et al. (1999) argue that prior levels of such outcomes should be taken into account to gather knowledge on the consequences of prolonged job insecurity.

For future research on the topic of the present study, a natural step will be to identify factors that contribute towards a better understanding specifically of how personality factors interacts with objective job stressors and use this knowledge to increase human resilience to stressors that cannot be avoided. Roskies and Louis-Guerin (1990) argue that personality factors are of special interest in situations where job insecurity is long-lasting and therefore perceived as a chronic stressor. The major shortcoming in existing literature is to consider job insecurity as an ambiguous chronic threat, rather than as an acute crisis situation. Another implication for future research is to include in the study a clear distinction between the two concepts of coping presented, emotion-focused and problem-focused coping. Such a distinction would help to better predict which of the coping resources best moderates possible consequences of job stressors, and would be of great importance in planning interventions to counteract negative effects of organizational change.

To gain more insight into and a better understanding of the individual and situational dynamics of job insecurity as a stressor, it would be useful to gain additional qualitative narrative and socio-demographic data from individuals affected by the phenomenon. The availability of information from sources other than the respondents themselves, such as company records, would also be useful especially in situations where one would like to make a distinction between the objective situation and the subjective appraisal of job insecurity (Büssing, 1999; Kinnunen et al., 1999).

The results of using the total Job Insecurity Scale did not reveal any different relations for the two sub-scales investigated, and in light of these results a shorter less complicated measure may have been used. This may have increased the response rate and is an argument to consider if the study is to be repeated at a later point in time. On the other hand, a larger sample size would as discussed earlier increase the possibility to identify differences in the two sub-scales and would have gained new insight in how employees differ in their concerns of losing aspects of their jobs or their jobs as such. Larger scale research is needed to identify the possible importance of the two sub-scales of job insecurity, and it would most likely be appropriate to develop a shorter less complicated measure that would gain insight into both dimensions of job insecurity. Since no previous studies on job insecurity and its outcomes were found to be conducted in Norway, further research is needed to investigate how job insecurity affects employees in a broader Norwegian context other than the ones studied here. Job insecurity will as discussed most likely continue to be a problem in many industries in the years to come, and further large scale research in different work-settings and occupational groups in Norway is needed. By the use of measures like the one of the present study, companies can diagnose their current situations, plan future interventions, pinpoint particular aspects of the job that are problematic, and attempt to prevent or reduce future job insecurity which will hopefully gain both employees and the organization as a whole.

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APPENDIX I

- **Tables**

Appendix 1.1 **Descriptive statistics**

Variable	Category	Frequency	Percent
Gender	Male	144	77.4%
	Female	42	22.6%
	Total	186	100.0%
Age	18 - 25 years	15	8.1%
	26 - 35 years	49	26.3%
	36 - 45 years	62	33.3%
	46 - 55 years	42	22.6%
	56 - 65 years	18	9.7%
	Total	186	100.0%
Occupation	Blue collar worker	124	66.7%
	White collar worker	62	33.3%
	Total	186	100.0%
Length of employment in the company	6 months - 3 years	30	16.1%
	4 - 6 years	18	9.7%
	7 - 10 years	18	9.7%
	More than 10 years	120	64.5%
	Total	186	100.0%
Leader responsibility	Yes	59	31.7%
	No	127	68.3%
	Total	186	100.0%

Appendix 1.2**Reported Subjective Health Complaints (Score over 0)**

Variable	Total (n = 186)		Male (n = 144)		Female (n = 42)	
	(n)	(%)	(n)	(%)	(n)	(%)
Cold/Flu	75	40.3	63	43.8	12	28.6
Coughing	59	31.7	48	33.3	11	26.2
Asthma	21	11.3	19	13.2	2	4.8
Headache	78	41.9	52	36.1	26	61.9
Neck pain	82	44.1	57	39.6	25	59.5
Upper back pain	51	27.4	35	24.3	16	38.1
Low back pain	87	46.8	66	45.8	21	50.0
Arm pain	64	34.4	45	31.3	19	45.2
Shoulder pain	82	44.1	57	39.6	25	59.5
Migraine	13	7.0	12	8.3	1	2.4
Extra heartbeats	19	10.2	14	9.7	5	11.9
Chest pain	19	10.2	18	12.5	1	2.4
Breathing difficulties	26	14.0	21	14.6	5	11.9
Leg pain during physical activity	41	22.0	31	21.5	10	23.8
Stomach discomfort	65	34.9	56	38.9	9	21.4
Heartburn	33	17.7	30	20.8	3	7.1
Ulcer/Dyspepsia	7	3.8	7	4.9	0	0.0
Stomach pain	37	19.9	28	19.4	9	21.4
Gas discomfort	57	30.6	42	29.2	15	35.7
Diarrhoea	54	29.0	47	32.6	7	16.7
Obstipation	12	6.5	8	5.6	4	9.5
Eczema	30	16.1	26	18.1	4	9.5
Allergies	23	12.4	17	11.8	6	14.3
Heat flushes	26	14.0	17	11.8	9	21.4
Sleep problems	77	41.4	59	41.0	18	42.9
Tiredness	132	71.0	104	72.2	28	66.7
Dizziness	31	16.7	19	13.2	12	28.6
Anxiety	27	14.5	22	15.3	5	11.9
Sadness/Depression	45	24.2	37	25.7	8	19.0

Appendix 1.3 Standard Multiple Regression Analysis between Demographic variables and Job Insecurity

Dependent variable: Job Insecurity (n = 186)

Independent variable	Beta	R ²	F
Gender	.22	.05	9.51**
Independent variable	Beta	R ²	F
Leader responsibility	.22	.05	9.11**

Appendix 1.4 Standard Multiple Regression Analysis between Demographic variables and Multidimensional Job Insecurity

Dependent variable: Multidimensional Job Insecurity (n = 186)

Independent variable	Beta	R ²	F
Gender	.20	.04	7.37**
Independent variable	Beta	R ²	F
Leader responsibility	.20	.04	7.78**

Appendix 1.5 Standard Multiple Regression Analysis between Demographic variables and Global Job Insecurity

Dependent variable: Global Job Insecurity (n = 186)

Independent variable	Beta	R ²	F
Gender	.24	.06	11.13**
Independent variable	Beta	R ²	F
Leader responsibility	.22	.05	9.27**

** Significant at the .01 level

* Significant at the .05 level

Appendix 1.6

Variable inter-correlations and descriptive statistics.

Variable	1	2	3	4	5	6	7	8	9	10	11	Mean	SD	Alpha
JOB INSECURITY														
1. Importance of job features	-											65.14	6.50	.82
2. Likelihood of feature's continuation	.23**	-										47.95	11.56	.93
3. Multidimensional Job Insecurity	.18*	.28**	-									605.78	175.02	.90
4. Importance of possible changes in total job	.17*	.11	.14	-								38.72	6.90	.84
5. Likelihood of changes to total job	-.09	.30**	.08	.19**	-							24.05	6.08	.77
6. Global Job Insecurity	-.07	.01	.83**	.47**	.33**	-						338.82	109.75	.82
7. Powerlessness	-.10	-.12	.89**	.10	.01	.88**	-					10.76	2.88	.86
8. Job Insecurity Total	.09	.18*	.98**	.27**	.19*	.93**	.93**	-				944.60	273.09	.88
OUTCOMES														
9. Job Satisfaction	.11	-.02	-.27**	-.04	-.13	-.30**	-.29**	-.29**	-			12.89	2.49	.76
10. Subjective Health Complaints	-.04	.03	.14	.09	-.01	.14	.13	.15*	-.29**	-		7.42	6.83	.86
11. Organizational Attitudes	.20**	-.03	-.31**	.02	-.15*	-.33**	-.34**	-.33**	.55**	-.31**	-	28.36	5.39	.83

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Appendix 1.7 Standard Multiple Regression Analysis

Dependent variable: Job Insecurity (n = 186)

Independent variable	Beta	R ²	F
Work Control	-.26	.07	13.81**

Appendix 1.8 Standard Multiple Regression Analysis

Dependent variable: Job Satisfaction (n = 186)

Independent variable	Beta	R ²	F
Job Insecurity	-.29	.09	17.37**

Dependent variable: Subjective Health Complaints (n = 186)

Independent variable	Beta	R ²	F
Job Insecurity	.15	.02	4.13*

Dependent variable: Organizational Attitudes (n = 186)

Independent variable	Beta	R ²	F
Job Insecurity	-.33	.11	22.55**

** Significant at the .01 level

* Significant at the .05 level

Appendix 1.9 Hierarchical Regression Analysis

Dependent variable: Job Satisfaction (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.17	.17	37.98**
- Work Control	.41**			
<u>Model 2:</u>		.21	.04	8.44**
- Work Control	.36**			
- Job Insecurity	-.20**			

Appendix 1.10 Hierarchical Regression Analysis

Dependent variable: Subjective Health Complaints (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.00	.00	.53
- Work Control	-.05			
<u>Model 2:</u>		.02	.02	3.61
- Work Control	-.02			
- Job Insecurity	.14			
<u>Model 3:</u>		.09	.07	14.12**
- Work Control	.09			
- Job Insecurity	.09			
- Job Satisfaction	-.30**			

Appendix 1.11 Hierarchical Regression Analysis

Dependent variable: Organizational Attitudes (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.06	.06	12.26**
- Work Control	.25**			
<u>Model 2:</u>		.14	.08	15.94**
- Work Control	.18*			
- Job Insecurity	-.28**			

** Significant at the .01 level

* Significant at the .05 level

Appendix 1.12 Moderated Regression Analysis

Interaction effects of Coping and Job Insecurity

Dependent variable: Job Satisfaction (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.09	.09	17.37**
- Job Insecurity	-.29**			
<u>Model 2:</u>		.09	.00	1.56
- Job Insecurity	-.30**			
- Coping Resources	.09			
<u>Model 3:</u>		.11	.02	3.16
- Job Insecurity	-.31**			
- Coping Resources	.10			
- Job Insecurity x Coping Resources	.13			

Appendix 1.13 Moderated Regression Analysis

Interaction effects of Supervisor Support and Job Insecurity

Dependent variable: Job Satisfaction (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.09	.09	17.37**
- Job Insecurity	-.29**			
<u>Model 2:</u>		.13	.04	9.56**
- Job Insecurity	-.28**			
- Supervisor Support	.21**			
<u>Model 3:</u>		.14	.01	1.42
- Job Insecurity	-.28**			
- Supervisor Support	.22**			
- Job Insecurity x Supervisor Support	.08			

Appendix 1.14 Moderated Regression Analysis

Interaction effects of Family Support and Job Insecurity

Dependent variable: Job Satisfaction (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.09	.09	17.37**
- Job Insecurity	-.29**			
<u>Model 2:</u>		.09	.00	.01
- Job Insecurity	-.29**			
- Family Support	-.01			
<u>Model 3:</u>		.09	.00	.40
- Job Insecurity	-.29**			
- Family Support	-.01			
- Job Insecurity x Family Support	-.05			

Appendix 1.15 Moderated Regression Analysis

Interaction effects of Coping and Job Insecurity

Dependent variable: Subjective Health Complaints (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.02	.02	4.13*
- Job Insecurity	.15*			
<u>Model 2:</u>		.09	.07	12.77**
- Job Insecurity	.07			
- Job Satisfaction	-.26**			
<u>Model 3:</u>		.14	.05	10.54**
- Job Insecurity	.08			
- Job Satisfaction	-.24**			
- Coping Resources	-.23**			
<u>Model 4:</u>		.17	.03	7.08**
- Job Insecurity	.07			
- Job Satisfaction	-.22**			
- Coping Resources	-.21**			
- Job Satisfaction x Coping Resources	.18**			

Appendix 1.16 Moderated Regression Analysis

Interaction effects of Supervisor Support and Job Insecurity

Dependent variable: Subjective Health Complaints (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.02	.02	4.13*
- Job Insecurity	.15*			
<u>Model 2:</u>		.09	.07	12.77**
- Job Insecurity	.07			
- Job Satisfaction	-.26**			
<u>Model 2:</u>		.11	.02	3.97*
- Job Insecurity	.07			
- Job Satisfaction	-.23**			
- Supervisor Support	-.14*			
<u>Model 3:</u>		.15	.04	8.99**
- Job Insecurity	.06			
- Job Satisfaction	-.20**			
- Supervisor Support	-.13			
- Job Satisfaction x Supervisor Support	-.21**			

Appendix 1.17 Moderated Regression Analysis

Interaction effects of Family Support and Job Insecurity

Dependent variable: Subjective Health Complaints (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.02	.02	4.13*
- Job Insecurity	.15*			
<u>Model 2:</u>		.09	.07	12.77**
- Job Insecurity	.07			
- Job Satisfaction	-.26**			
<u>Model 3:</u>		.09	.00	1.23
- Job Insecurity	.07			
- Job Satisfaction	-.27**			
- Family Support	-.08			
<u>Model 4:</u>		.09	.00	.03
- Job Insecurity	.07			
- Job Satisfaction	-.27**			
- Family Support	-.08			
- Job Satisfaction x Family Support	-.01			

Appendix 1.18 Moderated Regression Analysis

Interaction effects of Coping and Job Insecurity

Dependent variable: Organizational Attitudes (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.11	.11	22.55**
- Job Insecurity	-.33**			
<u>Model 2:</u>		.15	.04	8.72**
- Job Insecurity	-.34**			
- Coping Resources	.20**			
<u>Model 3:</u>		.16	.01	2.29
- Job Insecurity	-.33**			
- Coping Resources	.19**			
- Job Insecurity x Coping Resources	-.10			

Appendix 1.19 Moderated Regression Analysis

Interaction effects of Supervisor Support and Job Insecurity

Dependent variable: Organizational Attitudes (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.11	.11	22.55**
- Job Insecurity	-.33**			
<u>Model 2:</u>		.24	.13	30.82**
- Job Insecurity	-.31**			
- Supervisor Support	.36**			
<u>Model 3:</u>		.24	.00	.00
- Job Insecurity	-.31**			
- Supervisor Support	.36**			
- Job Insecurity x Supervisor Support	-.01			

Appendix 1.20 Moderated Regression Analysis

Interaction effects of Family Support and Job Insecurity

Dependent variable: Organizational Attitudes (n = 186)

Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.11	.11	22.55**
- Job Insecurity	-.33**			
<u>Model 2:</u>		.14	.03	6.49**
- Job Insecurity	-.33**			
- Family Support	.18**			
<u>Model 3:</u>		.17	.03	5.59*
- Job Insecurity	-.31**			
- Family Support	.16*			
- Job Insecurity x Family Support	-.16*			

** Significant at the .01 level

* Significant at the .05 level

Appendix 1.21 Moderated Regression Analysis

Interaction effects of Coping and Job Insecurity

Dependent variable: Job Satisfaction		White Collar (n = 62)		
Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>				
- Job Insecurity	-.29*	.09	.09	5.67*
<u>Model 2:</u>				
- Job Insecurity	-.29*	.11	.02	1.70
- Coping Resources	.16			
<u>Model 3:</u>				
- Job Insecurity	-.14	.19	.08	5.87*
- Coping Resources	.26*			
- Job Insecurity x Coping Resources	.34*			

Appendix 1.22 Moderated Regression Analysis

Interaction effects of Family Support and Job Insecurity

Dependent variable: Job Satisfaction		(Female n = 42)		
Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>				
- Job Insecurity	-.50**	.25	.25	13.34**
<u>Model 2:</u>				
- Job Insecurity	-.52**	.36	.11	6.40*
- Family Support	-.33*			
<u>Model 3:</u>				
- Job Insecurity	-.39**	.43	.07	5.10*
- Family Support	-.20			
- Job Insecurity x Family Support	-.33*			

Appendix 1.23 Moderated Regression Analysis

Interaction effects of Family Support and Job Insecurity

Dependent variable: Job Satisfaction		(White Collar n = 62)		
Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.09	.09	5.67*
- Job Insecurity	-.29*			
<u>Model 2:</u>		.14	.05	3.98
- Job Insecurity	-.31*			
- Family Support	-.24			
<u>Model 3:</u>		.20	.06	4.04*
- Job Insecurity	-.27*			
- Family Support	-.30*			
- Job Insecurity x Family Support	-.25*			

Appendix 1.24 Moderated Regression Analysis

Interaction effects of Coping and Job Insecurity

Dependent variable: Organizational Attitudes		(Leader Responsibility n = 59)		
Independent variables	Beta	R ²	R ² Change	F Change
<u>Model 1:</u>		.09	.09	5.83*
- Job Insecurity	-.31*			
<u>Model 2:</u>		.14	.05	2.91
- Job Insecurity	-.36**			
- Coping Resources	.22			
<u>Model 3:</u>		.22	.08	5.50*
- Job Insecurity	-.40**			
- Coping Resources	.09			
- Job Insecurity x Coping Resources	-.31*			

** Significant at the .01 level

* Significant at the .05 level

APPENDIX II

- **Cover Letter**
- **Questionnaire**
- **Approval from NSD**



UNIVERSITETET I BERGEN

HEMIL-senteret

Senter for forskning om helsefremmende arbeid, miljø og livsstil

Førespurnad om deltaking i spørjeundersøking

Som hovudfagsstudent ved HEMIL-senteret, Universitetet i Bergen, vil eg med dette spørje deg om å delta i ei spørjeundersøking i samband med eit forskingsprosjekt eg held på med.

Formålet med undersøkinga mi er å finne ut av om jobbusikkerheit, det vil seie usikkerheit ved framhald av noverande arbeid, verkar inn på deg som arbeidstakarar.

Ved å fylle ut det vedlagde spørjeskjemaet vil du vere med å gi ny og svært nyttig kunnskap som kan danne grunnlag for å iverksette tiltak som kan redusere opplevd ubehag ved det å vere usikker på om ein framleis har ein jobb å gå til.

For enkelte kan jobbusikkerheit vere eit sensitivt tema, men likevel er det viktig å få tak i god informasjon om feltet for slik å kunne utvikle gode tiltak for å handtere og redusere negative konsekvensar av problemet.

Deltaking i spørjeundersøkinga er frivillig. Dine svar er anonyme og personopplysningar vil bli handsama konfidensielt og vil ikkje bli offentleggjort slik at det går an å spore opplysningar tilbake til deg eller di bedrift. Forskingsprosjektet er meldt til og godkjent av Personvernet for forskning, Norsk Samfunnsvitenskapleg Datateneste AS. Dersom du har spørsmål omkring undersøkinga, kan du ta kontakt med meg på e-post (lars.hauge@student.uib.no) eller på telefon (xxxxxxx).

Håpar du tek deg tid til å fylle ut det vedlagde skjemaet og returnere det i den vedlagde frankerte svarkonvolutt innnan --.---.---

På førehand takk!

Med vennleg helsing

Lars Johan Hauge

Hovudfagsstudent ved HEMIL-senteret, Universitetet i Bergen





UNIVERSITETET I BERGEN

HEMIL-senteret

Senter for forskning om helsefremmende arbeid, miljø og livsstil

ARBEIDSMILJØUNDERSØKELSE

BLANT INDUSTRITILSATTE

2003 – 2004



Besvarelse av spørreskjemaet

På følgende sider vil du finne spørsmål og påstander om arbeidet ditt og bedriften du arbeider i. Formålet med spørreskjemaet er å samle informasjon som behøves for å utvikle og forbedre din arbeidssituasjon og arbeidsmiljøet.

Ta den tiden du trenger for å svare. Du avgir svar på spørsmålene ved å sette ring rundt det svaralternativet som passer best med din oppfatning.

For eksempel:

	meget sjelden eller aldri	nokså sjelden	av og til	nokså ofte	meget ofte eller alltid
Eks. Ser du på arbeidet ditt som meningsfylt?	1	2	3	(4)	5

1. BAKGRUNNSSPØRSMÅL

<p>1. Alder</p> <p>18 – 25 år 1</p> <p>26 – 35 år 2</p> <p>36 – 45 år 3</p> <p>46 – 55 år 4</p> <p>56 – 65 år 5</p> <p>over 65 år 6</p>	<p>5. Hvor lenge har du arbeidet for denne bedriften (organisasjonen)?</p> <p>6 – 11 måneder 1</p> <p>1 – 3 år 2</p> <p>4 – 6 år 3</p> <p>7 – 10 år 4</p> <p>over 10 år 5</p>
<p>2. Kjønn</p> <p>Mann 1</p> <p>Kvinne 2</p>	<p>6. Hvor lenge har du arbeidet i din nåværende stilling?</p> <p>6 – 11 måneder 1</p> <p>1 – 3 år 2</p> <p>4 – 6 år 3</p> <p>7 – 10 år 4</p> <p>over 10 år 5</p>
<p>3. Formell utdanning (omtrent antall år). Sett ring rundt tallet for den utdanningen du har.</p> <p>Grunnskole (1-9 år) 1</p> <p>Videregående skole eller yrkesskole (10-12 år) 2</p> <p>Høgskole eller Universitet (13-16 år) 3</p> <p>Høyere universitetsgrad (> 16år) 4</p>	<p>7. Er ditt ansettelsesforhold hos din nåværende arbeidsgiver:</p> <p>Permanent 1</p> <p>Midlertidig 2</p>
<p>4. Yrkeskategori</p> <p>Industriarbeider/Håndverker (Ufaglært) 1</p> <p>Industriarbeider/Håndverker (Faglært) 2</p> <p>Administrasjon lavere nivå (Kontortilsatt, ekspedisjon, sekretær, regnskap o.l.) 3</p> <p>Administrasjon høyere nivå (Ledelse, økonomiansvarlig, personalansvarlig, direktør o.l.) 4</p>	<p>8. Har du lederansvar?</p> <p>Ja 1</p> <p>Nei 2</p> <p>9. Hvor stor stillingsprosent har du?</p> <p>_____ prosent</p>

2. KONTROLL I ARBEIDET

	meget sjelden eller <u>aldri</u>	nokså <u>sjelden</u>	av og <u>til</u>	nokså <u>ofte</u>	meget ofte eller <u>alltid</u>
10. Hvis det finnes flere forskjellige måter å utføre arbeidet ditt på, kan du selv velge hvilken framgangsmåte du skal bruke?	1	2	3	4	5
11. Kan du påvirke mengden av arbeid som blir tildelt deg?	1	2	3	4	5
12. Kan du selv bestemme ditt arbeidstempo?	1	2	3	4	5
13. Kan du selv bestemme når du skal ta pauser?	1	2	3	4	5
14. Kan du selv bestemme lengden på pausene dine?	1	2	3	4	5
15. Kan du selv bestemme arbeidstiden din (fleksitid)?	1	2	3	4	5
16. Kan du påvirke avgjørelser om hvilke personer som du skal samarbeide med?	1	2	3	4	5
17. Kan du selv bestemme når du skal ha kontakt med kunder/klienter?	1	2	3	4	5
18. Kan du påvirke beslutninger som er viktige for ditt arbeid?	1	2	3	4	5

3. MESTRING AV ARBEIDET

	meget sjelden eller <u>aldri</u>	nokså <u>sjelden</u>	av og <u>til</u>	nokså <u>ofte</u>	meget ofte eller <u>alltid</u>
19. Er du fornøyd med kvaliteten på arbeidet som du utfører?	1	2	3	4	5
20. Er du fornøyd med mengden arbeid som du får gjort?	1	2	3	4	5
21. Er du fornøyd med din evne til å løse problemer som dukker opp i arbeidet?	1	2	3	4	5

		meget sjelden eller <u>aldri</u>	nokså <u>sjelden</u>	av og <u>til</u>	nokså <u>ofte</u>	meget ofte eller <u>alltid</u>
22.	Er du fornøyd med din evne til å ha et godt forhold til dine arbeidskolleger?	1	2	3	4	5
23.	Får du informasjon om kvaliteten på arbeidet som du utfører?	1	2	3	4	5
24.	Kan du selv umiddelbart avgjøre om du har gjort godt eller dårlig arbeid?	1	2	3	4	5

4. SOSIALT SAMSPILL

		meget sjelden eller <u>aldri</u>	nokså <u>sjelden</u>	av og <u>til</u>	nokså <u>ofte</u>	meget ofte eller <u>alltid</u>
25.	Om du trenger det, kan du få støtte og hjelp i ditt arbeid fra dine arbeidskolleger?	1	2	3	4	5
26.	Om du trenger det, kan du få støtte og hjelp i ditt arbeid fra din nærmeste sjef?	1	2	3	4	5
27.	Om du trenger det, er dine arbeidskolleger villige til å lytte til deg når du har problemer i arbeidet?	1	2	3	4	5
28.	Om du trenger det, er din nærmeste sjef villig til å lytte til deg når du har problemer i arbeidet?	1	2	3	4	5
29.	Om du trenger det, kan du snakke med dine venner om problemer du har i arbeidet?	1	2	3	4	5
30.	Om du trenger det, kan du snakke med din partner eller en annen nær person om problemer du har i arbeidet?	1	2	3	4	5
31.	Bli dine arbeidsresultater verdsatt av din nærmeste sjef?	1	2	3	4	5
		svært lite eller ikke i <u>det</u> <u>hele tatt</u>	nokså <u>lite</u>	<u>noe</u>	nokså <u>meget</u>	svært <u>meget</u>
32.	Føler du at du kan stole på at venner og familie vil støtte deg hvis det blir vanskelig på jobben?	1	2	3	4	5

5. LEDERSKAP

	meget sjelden eller <u>aldri</u>	nokså sjelden	av og til	nokså ofte	meget ofte eller <u>alltid</u>
33. Oppmuntrer din nærmeste sjef deg til å delta i viktige avgjørelser?	1	2	3	4	5
34. Oppmuntrer din nærmeste sjef deg til å si fra når du har en annen mening?	1	2	3	4	5
35. Hjelper din nærmeste sjef deg med å utvikle dine ferdigheter?	1	2	3	4	5
36. Prøver din nærmeste sjef å løse problemer med en gang de dukker opp?	1	2	3	4	5
	svært lite eller ikke i det <u>hele tatt</u>	nokså <u>lite</u>	<u>noe</u>	nokså <u>meget</u>	svært <u>meget</u>
37. Stoler du på ledelsens evne til å ivareta bedriftens/ virksomhetens framtid?	1	2	3	4	5

6. ORGANISASJONSKLIMA

	meget sjelden eller <u>aldri</u>	nokså sjelden	av og til	nokså ofte	meget ofte eller <u>alltid</u>
38. Tar de ansatte selv initiativ på ditt arbeidssted?	1	2	3	4	5
39. Blir de ansatte oppmuntret til å tenke ut måter for å gjøre tingene bedre på ditt arbeidssted?	1	2	3	4	5
40. Er det god kommunikasjon i din avdeling?	1	2	3	4	5
	svært lite eller ikke i det <u>hele tatt</u>	nokså <u>lite</u>	<u>noe</u>	nokså <u>meget</u>	svært <u>meget</u>
41. Får du belønning for velgjort arbeid i din bedrift/virksomhet? (penger, oppmuntring o.l.)	1	2	3	4	5

		svært lite eller ikke i det <u>hele tatt</u>	nokså <u>lite</u>	<u>noe</u>	nokså <u>meget</u>	svært <u>meget</u>
42.	Blir de ansatte tatt godt vare på ved din bedrift/ virksomhet?	1	2	3	4	5
43.	Hvor meget er ledelsen i din bedrift/ virksomhet opptatt av den ansattes helse og velvære?	1	2	3	4	5

7. ENGASJEMENT I BEDRIFTEN

De følgende utsagn handler om engasjement i bedriften eller virksomheten du arbeider i. Oppgi i hvilken grad du personlig er enig eller uenig i følgende påstander:

		<u>helt uenig</u>	<u>delvis uenig</u>	verken enig eller <u>uenig</u>	<u>delvis enig</u>	<u>helt enig</u>
44.	Jeg sier til mine venner at dette er en god bedrift å arbeide i	1	2	3	4	5
45.	Mine verdier er veldig like bedriftens verdier	1	2	3	4	5
46.	Denne bedriften inspirerer meg virkelig til å yte mitt beste	1	2	3	4	5

8. ARBEIDSMOTIVASJON

	<i>Når du skal vurdere en ideell jobb, hvor viktig er følgende forhold:</i>	svært <u>uviktig</u>	nokså <u>uviktig</u>	verken viktig eller <u>uviktig</u>	nokså <u>viktig</u>	svært <u>viktig</u>
47.	Å utvikle seg personlig gjennom jobben	1	2	3	4	5
48.	Å få god lønn og materielle goder	1	2	3	4	5
49.	At arbeidet er konfliktfritt og velordnet	1	2	3	4	5
50.	Å få opplevelsen av å gjøre noe verdifullt	1	2	3	4	5
51.	At arbeidet er trygt med fast inntekt	1	2	3	4	5
52.	At det fysiske arbeidsmiljøet er fritt for farer og helseskader	1	2	3	4	5
53.	Å kunne bruke min fantasi og kreativitet i arbeidet	1	2	3	4	5

9. JOBBTILFREDSHET

<i>Indikér i hvilken grad du er tilfreds med din arbeidssituasjon:</i>		svært <u>mis- fornøyd</u>	<u>mis- fornøyd</u>	verken <u>mis- fornøyd</u> eller <u>fornøyd</u>	<u>fornøyd</u>	svært <u>fornøyd</u>
54.	Alt i alt, hvor tilfreds er du med jobben din?	1	2	3	4	5
55.	Hvis du kunne velge å gå inn i hvilken som helst jobb, hva ville du velge?	ville foretrekke en annen jobb enn den jeg <u>har nå</u>		ville ikke jobbet i det hele <u>tatt</u>		ville ønske den jobben <u>jeg har nå</u>
56.	Ut fra det du vet i dag, ville du tatt den jobben du nå har?	jeg ville uten tvil <u>takket nei</u>		jeg ville tenke meg om <u>to ganger</u>		jeg ville uten å nøle ta den samme <u>jobben</u>
57.	Svarer jobben til forventningene dine?	ikke særlig lik <u>forventningene</u>		litt lik <u>forventningene</u>		svært lik <u>forventningene</u>
58.	Hvis en god venn av deg var interessert i å ta en jobb tilsvarende din for samme arbeidsgiver, hva ville du råde han/henne til?	jeg ville fraråde min venn <u>det</u>		jeg ville vere i tvil om å anbefale <u>det</u>		jeg ville anbefale det på det <u>sterkeste</u>

10. VIKTIGHET AV JOBBKARAKTERISTIKA

<i>I arbeidslivet ditt, hvor viktige er hver av de følgende karakteristika for deg personlig?</i>		<u>svært</u> <u>uviktig</u>	<u>nokså</u> <u>uviktig</u>	verken viktig eller <u>uviktig</u>	<u>nokså</u> <u>viktig</u>	<u>svært</u> <u>viktig</u>
59.	Geografisk plassering?	1	2	3	4	5
60.	Å ha mulighet til forfremming?	1	2	3	4	5
61.	Å opprettholde din nåværende lønn?	1	2	3	4	5
62.	Å opprettholde mulighet til å motta lønnsøkning?	1	2	3	4	5
63.	Statusen som følger fra din posisjon i organisasjonen?	1	2	3	4	5
64.	Å ha frihet til å planlegge ditt arbeid?	1	2	3	4	5
65.	Å ha frihet til å utføre ditt arbeid på en måte du synes passer?	1	2	3	4	5
66.	Å ha tilgang til ressurser (personell, materiell, informasjon) i organisasjonen?	1	2	3	4	5
67.	En følelse av fellesskap i å arbeide sammen med gode kollegaer?	1	2	3	4	5
68.	Tilbakemeldingen du får fra ledelsen om hvordan du utfører arbeidet ditt?	1	2	3	4	5
69.	Kvaliteten på veiledningen du mottar?	1	2	3	4	5
70.	De fysiske kravene arbeidet ditt pålegger deg?	1	2	3	4	5
71.	Å ha mulighet til kontakt med brukere, kunder osv?	1	2	3	4	5
72.	Å ha en jobb der du utfører mange ulike oppgaver?	1	2	3	4	5
73.	Å ha en jobb der du utfører oppgaver fra start til slutt?	1	2	3	4	5
74.	Å ha en jobb som har viktig betydning for andre?	1	2	3	4	5
75.	Å ha et arbeid der du kan vite hvor bra du gjør det mens du gjør det?	1	2	3	4	5

11. SANNSYNLIGHET FOR FRAMHOLD AV JOBBKARAKTERISTIKA

	<i>Når du ser fram i tid, hva er sjansene for at det kan skje endringer som du ikke ønsker eller er enig i, og som vil påvirke disse karakteristika på en negativ måte?</i>	negativ endring svært <u>usannsynlig</u>	negativ endring nokså <u>usannsynlig</u>	negativ endring litt <u>sannsynlig</u>	negativ endring nokså <u>sannsynlig</u>	negativ endring svært <u>sannsynlig</u>
76.	Geografisk plassering?	1	2	3	4	5
77.	Å ha mulighet til forfremming?	1	2	3	4	5
78.	Å opprettholde din nåværende lønn?	1	2	3	4	5
79.	Mulighet til å oppnå lønnsøkning?	1	2	3	4	5
80.	Å opprettholde nåværende status som følger fra din posisjon i organisasjonen?	1	2	3	4	5
81.	Å opprettholde din nåværende frihet til å planlegge ditt arbeid?	1	2	3	4	5
82.	Å opprettholde din nåværende frihet til å utføre ditt arbeid på en måte du synes passer?	1	2	3	4	5
83.	Å opprettholde nåværende tilgang til ressurser (personell, materiell, informasjon) i organisasjonen?	1	2	3	4	5
84.	Å opprettholde en følelse av fellesskap i å arbeide sammen med gode kollegaer?	1	2	3	4	5
85.	Mengden tilbakemelding du får fra ledelsen om hvordan du utfører arbeidet ditt?	1	2	3	4	5
86.	Kvaliteten på veiledningen du mottar?	1	2	3	4	5
87.	De fysiske kravene arbeidet ditt pålegger deg?	1	2	3	4	5
88.	Å ha mulighet til kontakt med brukere, kunder osv?	1	2	3	4	5
89.	Å ha en jobb der du utfører mange ulike oppgaver?	1	2	3	4	5
90.	Å ha en jobb der du utfører oppgaver fra start til slutt?	1	2	3	4	5
91.	Viktigheten av arbeidet ditt?	1	2	3	4	5
92.	Grad av å vite hvor bra du gjør arbeidet ditt mens du gjør det?	1	2	3	4	5

12. VIKTIGHET AV MULIGE ENDRINGER I ARBEIDSSITUASJON

<i>Tenk deg at hver av de følgende hendelsene kan skje deg; hvor viktig for deg personlig er muligheten for:</i>		<u>svært</u> <u>uviktig</u>	<u>nokså</u> <u>uviktig</u>	<u>verken</u> <u>viktig</u> eller <u>uviktig</u>	<u>nokså</u> <u>viktig</u>	<u>svært</u> <u>viktig</u>
93.	At du kan miste arbeidet ditt og bli flytta til et lavere nivå i bedriften?	1	2	3	4	5
94.	At du kan miste arbeidet ditt og bli flytta til en annen jobb på det samme nivået i bedriften?	1	2	3	4	5
95.	At antall arbeidstimer bedriften kan tilby deg kan variere fra dag til dag?	1	2	3	4	5
96.	At du kan bli flytta til en annen jobb på et høyere nivå i din nåværende geografiske lokalisering?	1	2	3	4	5
97.	At du kan bli flytta til en annen jobb på et høyere nivå i en annen geografisk lokalisering?	1	2	3	4	5
98.	At du kan bli permittert for ei kort tid?	1	2	3	4	5
99.	At du kan bli sagt opp permanent?	1	2	3	4	5
100.	At din avdeling eller bedrifts framtid kan være usikker?	1	2	3	4	5
101.	At du kan få sparken?	1	2	3	4	5
102.	At du kan bli pressa til å godta tidlig pensjonering?	1	2	3	4	5

13. SANNSYNLIGHET FOR ENDRINGER I ARBEIDSSITUASJON

<i>Igjen, når du tenker på framtida, hvor sannsynlig er det at hver av disse hendelsene faktisk kan hende deg i din nåværende jobb?</i>		<u>svært</u> <u>usann-</u> <u>synlig</u>	<u>nokså</u> <u>usann-</u> <u>synlig</u>	<u>litt</u> <u>sann-</u> <u>synlig</u>	<u>nokså</u> <u>sann-</u> <u>synlig</u>	<u>svært</u> <u>sann-</u> <u>synlig</u>
103.	At du mister arbeidet ditt og blir flytta til en ny jobb på et lavere nivå i bedriften?	1	2	3	4	5
104.	At du mister arbeidet ditt og blir flytta til en ny jobb på samme nivå i bedriften?	1	2	3	4	5

		svært <u>usann- synlig</u>	nokså <u>usann- synlig</u>	litt <u>sann- synlig</u>	nokså <u>sann- synlig</u>	svært <u>sann- synlig</u>
105.	At antall arbeidstimer bedriften kan tilby deg kan variere fra dag til dag?	1	2	3	4	5
106.	At du blir flytta til en høyere posisjon i din nåværende lokalisering?	1	2	3	4	5
107.	At du blir flytta til en høyere posisjon i en annen geografisk lokalisering?	1	2	3	4	5
108.	At du mister arbeidet ditt og blir permittert for ei kort tid?	1	2	3	4	5
109.	At du mister arbeidet ditt og blir sagt opp permanent?	1	2	3	4	5
110.	At din avdeling eller bedrifts framtid er usikker?	1	2	3	4	5
111.	At du mister arbeidet ditt ved at du blir sparka?	1	2	3	4	5
112.	At du mister arbeidet ditt ved at du blir pressa til å godta tidlig pensjonering?	1	2	3	4	5

14. PÅVIRKNINGSMULIGHETER

	<i>Indikér hvor sterkt du er enig eller uenig i de følgende påstandene:</i>	sterkt <u>uenig</u>	nokså <u>uenig</u>	verken enig eller <u>uenig</u>	nokså <u>enig</u>	sterkt <u>enig</u>
113.	Jeg har nok makt i denne bedriften til å kontrollere hendelser som kan påvirke min jobb	1	2	3	4	5
114.	I denne bedriften kan jeg motvirke negative hendelser fra å påvirke min arbeidssituasjon	1	2	3	4	5
115.	Jeg forstår denne bedriften godt nok til å være i stand til å kontrollere hendelser som kan påvirke meg	1	2	3	4	5

15. HELSEPROBLEMER SISTE 30 DØGN

Under nevnes noen vanlige helseplager. Vurder hvert enkelt problem/symptom og oppgi i hvilken grad du har vært plaget av dette i løpet av de siste tretti døgn.

	ikke <u>plaga</u>	litt <u>plaga</u>	en del <u>plaga</u>	alvorlig <u>plaga</u>
116. Forkjølelse, influensa	0	1	2	3
117. Hoste, bronkitt	0	1	2	3
118. Astma	0	1	2	3
119. Hodepine	0	1	2	3
120. Nakkesmerter	0	1	2	3
121. Smerter øverst i ryggen	0	1	2	3
122. Smerter i korsrygg	0	1	2	3
123. Smerter i armer	0	1	2	3
124. Smerter i skuldre	0	1	2	3
125. Migrene	0	1	2	3
126. Hjertebank, ekstraslag	0	1	2	3
127. Brystsmerter	0	1	2	3
128. Pustevansker	0	1	2	3
129. Smerter i føttene ved anstrengelser	0	1	2	3
130. Sure oppstøt, «halsbrann»	0	1	2	3
131. Sug eller svie i magen	0	1	2	3
132. Magekatarr, magesår	0	1	2	3
133. Mageknip	0	1	2	3
134. «Luftplager»	0	1	2	3
135. Løs avføring, diaré	0	1	2	3
136. Forstoppelse	0	1	2	3
137. Eksem	0	1	2	3
138. Allergi	0	1	2	3
139. Hetetokter	0	1	2	3
140. Søvnproblemer	0	1	2	3

		<u>ikke plaga</u>	<u>litt plaga</u>	<u>en del plaga</u>	<u>alvorlig plaga</u>
141.	Tretthet	0	1	2	3
142.	Svimmelhet	0	1	2	3
143.	Angst	0	1	2	3
144.	Nedtrykt, depresjon	0	1	2	3