Work Motivation
-Studies of its Determinants and Outcomes

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To my mother

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1. Introduction

How to motivate employees has been one of the central concerns for many researchers and practitioners for decades. During the years, many work motivation theories have been presented in the literature. The theories have provided different conceptualizations of the factors that drive the process by which behavior is energized, directed, and sustained in organizational settings (Leonard, Beauvais, & Scholl, 1999).

Increased interest in work motivation is due to higher global competition, changes in work tasks, and the fact that today's growing industry is the service industry where the employee is the main asset. The main assumption of the concept of work motivation is that it predicts different work-related behaviors such as absenteeism, turnover, and job performance. To have a high rate of absence as well as turnover is very costly for organizations, and having personnel that is highly motivated might prevent some of the withdrawal behaviors. In addition, to have employees who are hard working and perform well will have the opposite effect on the profitability of organizations.

Moreover, traditional employment arrangements have been replaced by outsourcing, temporary work, and individual career paths (Hall, 1996). Further, work activities have been reshaped by new technology and have shifted from manual labor to knowledge and service work (Adler, 1992; Howard, 1995). This has also been the case in Sweden, where the economy has gone through a revolutionary change, where the population working in manufacturing industries has been reduced and the expanding sector is that of services (Nelson, 1994). Because working conditions and work forms are constantly changing, new studies are called for in order to increase the understanding of factors and processes that influence an employee's motivational level.
In the present thesis, work motivation was examined in different service industries. Work motivation was defined as willingness to work, a measure introduced by Sjöberg and Lind (1994). They found that factors explaining the

variance of willingness to work were work interest, creativity, perceived risks, and organizational commitment.

1.1. Purposes of the thesis

Work motivation, its determinants, and work-related behaviors as a result of motivation have been studied for decades. Many different theories trying to explain work motivation as well as related factors have been developed over the years. Although work motivation has been studied for quite some time, measures are still used that have not shown to be valid assessments. Two well-established measures of work motivation are job satisfaction and organizational commitment (Maehr & Braskamp, 1986). These measures are often used in Sweden and internationally without scrutinizing their validity as measures of work motivation. Generally, these measures of work motivation have shown to be quite weakly related to job performance (see for example, Iaffaldano & Muchinsky, 1985; Leong, Randoll, & Cote, 1994; Mathieu & Zajac, 1990). However, the validity of these measures of work motivation has been taken for granted by many researchers and practitioners.

Consequently, Sjöberg and Lind (1994) suggested an alternative measure of work motivation, defined as willingness to work. This measure has the purpose of assessing how willing a person is to work. An argument for a volitional approach of measuring work motivation is that previous studies have shown that volitional approaches are the most efficient ones in predicting and explaining action (Ajzen, 1991; Sjöberg, 1998). Moreover, how willing a person is to work may be reflected in voluntarily actions, how important the work is to the person etc, and these types of questions were included in the present work motivation measure.

The first objective of the present thesis was to explore the determinants of work motivation, defined as willingness to work. The independent variables included were selected on the basis of the previous findings of Sjöberg and Lind (1994) as well as results presented in previous studies in the international literature.

Moreover, the factors that in the Sjöberg and Lind (1994) study were found to explain work motivation were primarily work interest, perceived risks, creativity, and organizational commitment. These independent variables accounted for around 60% of the variance in work motivation.

The second objective was to investigate the relationship between work motivation, defined as willingness to work, and different work-related behaviors. The work-related behaviors included were absenteeism, intention to quit, number of hours worked (per week), and job performance. This makes it possible to evaluate the construct validity of work motivation. It was also examined whether the new measure of work motivation could be considered as a more valid assessment than two more established measures (job satisfaction and organizational commitment).

Three work groups were included in the studies. The groups were: employees of pre-schools, employees of an insurance company, and insurance sales personnel. The reasons for selecting those particular groups were, firstly, that they all belong to the service industry[1], and secondly, that employees in these work groups have experienced drastic changes over the years.

1.2 Organization of the thesis

In Chapter 2, a theoretical framework is presented. In this part, the definition of work motivation, trends in work motivation theorizing, and different work motivation theories including a presentation of the work motivation measure used in the thesis are discussed. Further, different work-related behaviors are introduced and some general information about the service industry is given. In Chapter 3, the research approach employed is presented. The results of the studies are presented in Chapter 4. In Chapter 5, a general discussion, including limitations of the studies, and suggestions of studies further in the subject are shown. Finally, Chapters 6 and 7 include references and appendices.

[1] Read more about service industry in Appendix A.

2. Theoretical framework

2.1 Definition of work motivation

Motivation can be described as the need or drive that incites a person to some action or behavior. The verb motivate means to provide reasons for action. Motivation, then, provides a reason for exerting some sort of effort. This motivation springs forth from individual needs, wants, and drives (Timm & Peterson, 2000).

Motivation is not directly observable. Because it is not observable, motivational processes can be inferred only from analysis of these continuing streams of behavior that are determined both by environment and heredity and are observed through their effects on personality, beliefs, knowledge, abilities, and skills (Kanfer, 1990).

There is no generally accepted definition of work motivation, and there are many reasons for the apparent difficulty to define motivation. Firstly, there are many philosophical orientations toward the nature of human beings and about what can be known about people (Pinder, 1998). Secondly, it is a fact that historically motivation has been used to explain "too much with too little" (Ferguson, 1976, p. 6). In the light of these difficulties in obtaining a comprehensive yet more informative definition, it seems reasonable to focus on the adequacy of those definitions offered in different approaches.
The definitions appear, however, generally to have three common denominators which may be said to characterize the phenomenon of motivation. That is, when we discuss motivation, we are primarily concerned with: (1) what energizes human behaviors; (2) what directs or channels such behavior; (3) how this behavior is maintained or sustained (Steers & Porter, 1983).

A definition that covers these denominators is presented by Pinder (1998) where work motivation is defined as "a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behaviors, and to determine its form, direction, intensity, and duration" (p.11).

Further, Pinder (1998) described intensity as the momentary magnitude of actual motivational arousal, regardless of potential available. Moreover, to fully understand work motivation, one must allow for the specific goals toward which motivated energy is directed (Katerberg & Blau, 1983).

2.2 Trends in work motivation theorizing

Theories of work motivation have passed through many stages, influencing and being influenced by the prevailing management ideologies and philosophies of each era. Although it is possible to trace a sequence to this development, it does not mean that the old theories have died. There are employers and managers today adhering vigorously to one or other of them, basing their beliefs not on research or empirical evidence but on an almost ideological framework of values and assumptions. These beliefs help them understand their own role and those of others around them.

During the early part of this century, the predominant theory about management was the classical or "scientific" management approach. This theory portrayed working people as making rational economic calculations and following a consequent logical pattern of behavior at work (for review, see Taylor, 1947). Employers, who accepted this theory, believed that their workforce was driven by the desire to earn the most money possible.

However, after testing the dominating theory the conclusion was that behavior at work could not fully be explained by reference to the desire to earn as much money as possible. A new theory was put forward (see Mayo, 1949) proposing

that the reason why some workers slowed down their effort towards the end of their day must result from some factor which was preventing these workers from keeping up their effort. The most likely factor was fatigue; workers were not strong enough or sufficiently well nourished to keep their effort up all day.

This led to research studies by Elton Mayo and his team from Harvard University (see Mayo, 1949). The research team set up a major series of studies at the Hawthorne Works of the Western Electric Company which continued for ten years. Their aim was to study the effects of a range of fatigue-inducing factors such as levels of lighting, temperature, frequency of breaks, etc. in combination with an incentive payment by results systems (Landberger, 1958). Their findings were not expected. The variable that enhanced the productivity among the employees was not the level of lightning, temperature etc but rather the increased interest shown by the company in its employees, by regularly asking questions about their health, morale, personal lives, etc. This unintentional effect of observing people at work became known as "The Hawthorne Effect", and the result had an almost revolutionary effect on prevailing theories of motivation to work. Instead of focusing on money as the motivator, attention turned to the importance of "human relations" as a mean of motivating employees.

Motivation theories were then developed which under-pinned or built upon the "human relations" findings. The new focus for motivation theory was on the search for satisfaction of human needs. The new approach swept through management thinking in the 1950's.

Motivation theories emphasizing what it is that motivates people, and theories included in this paradigm, were Maslow's need hierarchy and Hertzberg's two factor theory. Moreover, Maslow (1970) offered his "need hierarchy" according to which human beings have their needs arranged in a hierarchy such that they are motivated to seek satisfaction of the lower levels of need first. Once that level of need is satisfied it is no longer a motivator, and the person is motivated by the next level up the hierarchy. Basic needs such as shelter, food and warmth

are at the bottom level of Maslow's hierarchy, which then progresses through physical well being, social acceptance, self-esteem, to "self-actualization" (realizing one's own potential).

A second well-known theory in this category is Hertzberg's two-factor theory. According to Hertzberg, work motivation is dependent on "hygiene" factors (salary, prestige) and motivators (achievement, responsibility). A person is motivated if both kinds of needs are satisfied. Herzberg declared that "real" motivation is only reached when a person experiences self growth, which can only be satisfied through work enrichment and teamwork (Herzberg, 1968, 1987).

There is a third need theory developed by Hackman and Oldham (1976), the Job Characteristic Model (JCM). They claimed that job enrichment is based on five increasing core dimensions: skill variety (the extent to which a job entails different activities and involves a range of different skills and talents); task identity (the extent to which a job involves completion of a whole piece of work with a visible outcome); task significance (the extent to which a job has meaningful impact on other people, either inside or outside the organization); autonomy (the extent to which a job provides freedom, independence and discretion in planning the work and determing how to undertake it); feedback (the extent to which work activities result in direct and clear information on the effectiveness of job performance). These core characteristics, if presented in work tasks, create three psychological states: experienced meaningfulness, experienced responsibility, and knowledge of results. These factors, if present, are assumed to produce satisfaction and motivation to promote high quality work (Hackman & Oldham, 1976, 1980).

All the need theories have been tested empirically, but none of them has received much scientific support. According to other researchers, Maslow's theory is difficult to test and very few studies have demonstrated the validity of the theory (Salancik & Pfeffer, 1977; Kanfer, 1990; Neher, 1991). Only a weak relationship has been found between Herzberg's factors and work motivation

(Sjöberg & Lind, 1994). Hackman and Oldham's theory has been tested by others and those studies have found a weak relationship, approximately 0.15, between experienced task characteristics and performance. Thus, the Job Characteristic model only explains around 2% of the variance in performance (Fried & Ferris, 1987; Stone, 1986; Loher, Noe, Moeller, & Fitzgerald, 1985). Although the core dimension does appear to influence, very weakly, personal and work outcomes, there is some doubt about the validity of the causal relationship (Wall, Clegg, & Jackson, 1978).

A major development in motivation theory in the 1970s was based on Vroom's Expectancy Theory (Vroom, 1964). The theory argues that a person's motivation to perform a given act will depend on valences, instrumentality, and expectancy. According to the theory, the act with the highest motivational force is the one the individual will choose to pursue (Locke & Henne, 1986). The theory is founded on the idea that people prefer certain outcomes from their behavior over others. They anticipate feelings of satisfaction, should the preferred outcome be achieved (Vroom, 1964). However, Van Eerde and Thierry (1996) reported a quite low correlation, around 0.20, between the variables in Vroom's VIE theory and performance.

Another well established theory, Equity theory, has experienced its ups and downs since Adams (1965) first proposed it as a way of understanding how employees respond to situations in which they are treated more or less favorably in comparison to a referent "other". Equity theory focuses on people's feelings of how fairly they have been treated in comparison with the treatment received by others. The equity model (Adams, 1965) is based on the assumption that humans want to be treated equally for their services. People are motivated by their need for fair treatment. Equity exists when output (e.g., ability, seniority) and input (e.g., money, promotion) ratios for the individual employee and the reference source (e.g. co-worker, profession) are equal (Katzell & Thompsson, 1990). Job dissatisfaction is assumed to occur whenever a person perceives that he or she is not being paid equally with others. Witt and Nye (1992) found in a meta-analysis that perceived fairness of pay or promotion and job satisfaction

had an average correlation of 0.28 and 0.43. In a study by McFarlin and Sweeney (1992), the same conclusions were reached.

Theories of goals and targets have become popular in recent decades, for instance Locke's argument that people are motivated by relatively difficult goals that they have agreed to seek (Latham & Locke, 1979). This puts the source of motivation not on some "need" of the employee, but on the achievement of a goal with which he/she has been involved. Similar to goal theory are those theories of behavior modification, such as guidance, prompting, feedback, and reinforcement to bring about the desired changed (for review, see Guest, 1984). Goal setting theory will be further discussed below.

Kanfer (1992) stated that the direction and focus of recent work motivation theory and research correspond closely to new development in the broader field of motivational psychology. During the past ten years, major integrative theories of human motivation have been proposed by clinical, instructional, social, and personality researchers, including Bandura (1986, 1988), Carver and Scheier (1981), Heckhausen and Kuhl (1985), and Weiner (1986). Many new research directions in work motivation are built upon earlier theories and studies ,and as Barbuto and School (1998, p.1011) wrote, " an integrative taxonomy that may better account for various motivations is necessary to advance our understanding of individual behavior".

2.3 Work motivation theories

2.3.1 Introduction

If there is a cornerstone in the science of human behavior, it must be the field of motivation. In fact, motivation has been described as "one of the most pivotal

concerns in organizational research (Baron, 1991, p. 1). Motivational theories ask a fundamental question, namely: What moves a person? Thus, they are concerned with the prime forces at work in human nature and human culture (Ryan, 1998). The importance of motivation as an organizing psychological concept is in one sense remarkable given its status as a hypothetical construct that can be only indirectly inferred from observed behaviors. As such, it can take on many forms, and this is reflected in the variety of theories and taxonomies of motivation (Heckhausen, 1991). However, Locke (1991) claimed that the field of work motivation has become increasingly confused over the past several decades. The major cause of this confusion has been an overabundance of theories and paucity of frameworks for integrating them (Locke & Latham, 1990a) and the fact that various theories involve different levels of analysis and thus deal with different stages of the motivation process (Locke & Henne, 1986).

Kanfer (1992) as well as Locke and Henne (1986) have suggested that motivation theories and their associated constructs can be organized in terms of their conceptual proximity to action. Distal constructs or as Locke and Henne named it, general constructs (e.g., needs, values, motives) have only an indirect impact on behavior and performance. Most distal theories of motivation have enjoyed their greatest success in predicting other distal constructs, such as pre-decision and decision processes and intentions, rather than behavior or performance.

Proximal constructs or specific constructs (e.g., intentions, goals, self-regulation) on the other hand focus on motivational constructs at the level of purposive action. Analyses of motivational processes in these theories tend to begin with the individual's goals rather than with the factors that have shaped the individual's objectives. Such theories concentrate on the processes and variables that affect the goal-behavior/performance relation.

In conclusion, the distinction between distal and proximal constructs and theories is based upon the call for differentiation of the motivational processes underlying choice and volition (e.g., see Ajzen, 1985; Heckhausen & Kuhl, 1985; Gollwitzer, 1990). Moreover, work motivation in the present thesis is defined as willingness to work and the assumption is that actions or behaviors are directed, predicted and explained by volitional processes or will.

2.3.2 Work motivation defined as willingness to work

2.3.2.1 Will/volitional variables as predictors of behaviors

Different approaches to the study of work motivation have been suggested during the years. A work motivation measure was introduced by Sjöberg and Lind (1994), where work motivation was defined as willingness to work and the assumption behind the measure was primarily that will is the process by which behavior is energized, directed, and sustained in organizational setting. To clarify, will is a collective term denoting processes involved in the regulation of actions and regulation simply means controlling an action, that is, causing it to follow the course required to achieve a certain goal (Binswanger, 1991).

In previous studies, volitional variables, for example, intentions, have been shown to be more efficient predictors of actions compared to variables like, for example, personality (e.g., Furnham, Jackson, & Miller, 1999; Tett, Jackson, & Rothstein, 1991), and life style (e.g., Sjöberg, 1993), which according to Sjöberg (1998) is a strong argument for a volitional approach to explain and predict action. There is, however, a personality dimension, conscientiousness, that has been shown to be quite strongly related to work-related behaviors, such as job performance (Barrick & Mount, 1991; Mount, Barrick, & Strauss, 1999; Stewart 1999). This personality dimension is associated with a person's conscience, self-control (Stewart, 1999), organization persistence and achievement orientation

(Goldberg, 1993). Moreover, this personality dimension is in conceptualization quite close to the concept of will and volition, which may strengthen the notion of a volitional approach to predict actions.

In earlier studies, behavioral intentions (e.g., willingness to work) have been shown to be efficient predictors of behaviors. For example, in the domain of health, intentions have been very effective at predicting a variety of health-promoting actions, such as dieting (Schifter & Ajzen, 1985) and exercise (Godin, Valois, & Lepage, 1993). Studies regarding participation in an union have shown that willingness to participate is a strong determinant of actual participation (Kuruvilla & Sverke, 1993; Kuruvilla & Fiorito, 1994). As Fishbein and Ajzen (1975) expressed it: "Since much human behavior is under volitional control, most behaviors can be accurately predicted from an appropriate measure of the individual's intention to perform the behavior in question" (p. 380). But what is will? This question will be discussed in the next part more in depth.

2.3.2.2 The concept of will

Volition or will is an old psychological construct with strong ties to modern philosophy and a range of colloquial meanings (Pervin, 1992). In everyday use, the term denotes willfulness, or dogged perseverance in pursuit of difficult goals. Psychologists have defined volition more precisely as the tendency to maintain focus and effort toward goals despite potential distractions. Another definition was suggested in Reber's (1985) dictionary of psychology: "the voluntary selection of particular action or choice from many potential actions or choices". This indicates that the definitions can differ somewhat but include a conscious choice of action.

Will was a central notion in classical philosophy and psychology up to the early 20th century. Then it almost disappeared from the late 1950s Psychological

Abstracts no longer carried a specific entry for 'will' or 'volition' (Nilsson, 1998).

The Greek divided the soul into three parts - knowing, feeling, and willing. From the late Antiquity the concept of will became connected with free will, which might be one of the reasons for the disappearance of will within empirical psychology. Secondly, psychologists dissociated themselves from philosophy and stressed the strictly experimental character of psychology.

There is now again some room for concepts similar to will and there is an increasing willingness among psychologists to explore phenomena that belong to will (Wärneryd, 1998). There is also a growing realization that traditional models of motivation do not explain the diversity of behavior found in organizational settings. Instead, attention to the role of volitional processes in models of motivation would be emphasized (Kanfer, 1990). In industrial and organizational psychology, issues related to volition first appeared in the context of goal-setting research. In 1968, Locke proposed that an individual's goals served as the immediate regulator of action. Attempts to understand the psychological processes underlying these phenomena, in turn, led to increasing interest in self-regulation, social cognitive, and volitional concepts (Kanfer, 1992). In addition, in attitude research there is a special interest in an attitude component called "intention". "Intentions are assumed to capture the motivational factors that influence a behavior; they are indicators of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior.

As a general rule, the stronger the intention to engage in a behavior, the more likely should be its performance" (Ajzen, 1991, p. 181).

So far it is assumed that individuals consciously and willfully regulate their own behaviors. There are other scholars who have a different view that an individual perceives him/herself to have far more control over his or her everyday behavior than he/she actually has (e.g., Wegner & Wheatley, 1999). The source of

behavioral control is said to come not from active awareness but from subtle cues in the environment and from thought processes and information not readily accessible to consciousness (Park, 1999). Further, Bargh and Chartrand (1999) stated that to consciously and willfully regulate one's own behavior, evaluations, decisions, and emotional states require considerable effort and that it is slow. Regulation of behavior appears to require a limited resource that is quickly used up, so conscious self-regulatory acts can only occur sparingly and for a short time. On the other hand, the non-conscious or automatic processes are unintended, effortless, very fast, and many of them can operate at any given time.

To sum up, the definition of work motivation used here is willingness to work. Previous studies have shown that volitional processes predict and explain action well. The standpoint here is that behavior is primarily willfully regulated.

2.3.3 Beliefs and attitudes

People have attitudes and hold them toward many or most other people in their life spaces. They also tend to form attitudes in relation to tangible as well as intangible objects, causes, concepts, acts, and other phenomena with which they are familiar. There are no limits to the attitudes people hold. Attitudes are learned throughout life and are embodied within our socialization process. Some attitudes may be central/stronger to us -a core construct- and may be highly resistant to any change, whereas other, more peripheral attitudes may change with new information or personal experiences (Mullins, 1996).

In recent literature on attitudes, Olson and Zanna (1993) claimed that there are a varity of definitions of attitudes and no single commonly accepted definition. Nevertheless, there appear to be three common themes or elements that run through the most common definitions, according to Olson and Zanna (1993). The first element is that attitudes generally involve an evaluative component. A second common component of definitions of attitudes is that they are

"represented in memory". The third common element of definitions and conceptualizations of attitudes is that they entail cognitive, affective, and behavior components. A straightforward definition of attitude that is consistent with the thoughts of Olson and Zanna (1993), has been offered by Eagly and Chaiken (1993) "Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor...psychological tendency refers to a state that is internal to the person, and evaluating refers to all classes of evaluating responding, whether overt or covert, cognitive, affective, or behavioral " (p. 1).

The nature of the relationship between attitudes and behavior has been departing over the years. It seems to make intuitive sense to many people that attitudes are major causes of behavior. However, the connection between attitudes and behavior has shown to be weak or unpredictable (for a review, see Andrich & Styles, 1998).

A theory that has discussed the connection between attitudes and behavior is the theory of reasoned action (Fishbein & Ajzen, 1975). Fishbein and Ajzen have suggested that one useful way to conceptualize the notion of job attitude is to subdivide it into three related parts: (1) beliefs about one's job, (2) the attitude itself, and (3) the behavioral intentions that result from the attitude. The process is presented in Figure 1.

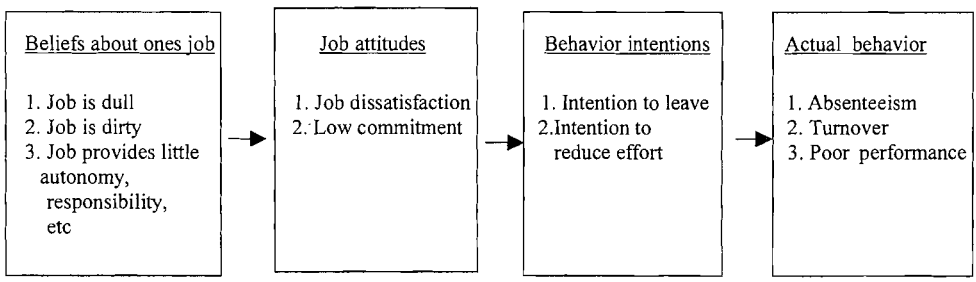

Figure 1. A conceptual model of attitudes (after Fishbein, 1967). Adapted from Steers and Porter (1983, p. 330).

As shown in Figure 1. beliefs about one's job (e.g., this job is dull) lead to negative job attitudes (e.g., job dissatisfaction) which, in turn, lead to the behavioral intentions to leave or reduce effort on the job. These behavioral intentions are then translated into actual behavior, assuming the individual is able to carry out his or her intentions.

The distinction between beliefs and attitudes should be clarified. To begin with, beliefs, which are concerned with what is known about the world; they center on what 'is', on reality, as it is understood. As suggested earlier: "An attitude represents a person's general feeling of favorableness or unfavorableness toward some stimulus object...as a person forms beliefs about an object, he automatically and simultaneously acquires an attitude toward that object. Each belief links the object to some attribute; the person's attitude toward the object is a function of his evaluations of these attributes" (Fishbein & Ajzen, 1975, p. 216). The general attitude a person has toward an object is seen as an aggregation of all the beliefs that she holds about it, each weighted by the positive or negative evaluation she places on the various beliefs. Therefore, two employees may have the same set of beliefs about a job (e.g., it's of low status) but hold different attitudes toward it because one of them prefers routine work whereas the other desires more uncertainty (Pinder, 1998).

It is often discussed how stable attitudes are and the general view about the stability of attitudes and beliefs is that they are stable over time, are resistant to change, and exert strong influence on information processing, overt behavior and formation (e.g., Prislin, 1996). As stated above, the strength of attitudes varies and the features of strong attitudes are related to a number of attitudinal qualities. Thus, the persistence of an attitude over time is positively associated with the amount of experience with the attitude object (Doll & Ajzen, 1992), the certainty with which the attitude is held (Pelham, 1991), the importance of the attitude (Kronsnick, 1988), the internal consistency of the attitude (Norman, 1975), and the affective extremity of the attitude (Schuman & Presser, 1981). Furthermore, it might be quite difficult to change existing work attitudes. However, Pinder (1998) wrote that one way to influence a person's attitudes

might be to introduce new information about the job that links the job with attributes that the employee evaluates as positive (such as its variety and status). Alternatively, one could attempt to change the employee's assessment of the desirability or undesirability of the attributes that the employee associates with a job (Pinder, 1998). This requires the manager to be well informed about the employee's preferences, because attitudes and beliefs differ among individuals.

Lastly, two of the most widely studied work attitudes are job satisfaction and organizational commitment. These constructs are frequently used as measures of work motivation (Maehr & Braskamp, 1986; Schou, 1991). These job-related attitudes are discussed further in next section.

2.3.3.1 Job satisfaction

Job satisfaction is, without any doubt, the job-related attitudinal construct that has received most attention in modern times (Pinder, 1984; O'Conner, Peters, & Gordon, 1978). A literature review by Locke (1976) estimated that over 3,300 projects had been conducted and reported on job satisfaction during the previous 25 years. Further, Cranny, Smith, and Stone (1992) suggested that more than 5,000 studies of job satisfaction had been published. Although a large body of research on job satisfaction has been accumulated over the years, there are still major shortcomings in job satisfaction research. One of them is the loose coupling between its theories and its measurement. This is a paradoxical situation. While job satisfaction is one of the most frequently studied areas in industrial and organizational psychology, it is also one of the most theory-free concepts in the field (Büssing, 1992).

As a result of many decades of effort by social scientists, there appears to be a high level of agreement among them on the meaning of the construct of job satisfaction. Most often, job satisfaction is conceptualized as a general attitude toward an object, the job. For example, Porter, Lawler, and Hackman (1975, p. 53-54) as well as Locke and Henne (1986, p. 21) have defined job satisfaction

similarly and these definitions are consistent with the general construct stated above. The definition given by these authors are similar to the one offered by Locke (1976, p. 1300) who defined job satisfaction as "a pleasurable or positive emotional state, resulting from the appraisal of one's job experience".

Several articles have discussed whether a single-item measure is adequate or not to measure overall job satisfaction. The conclusion which has been drawn that in most studies is that a single-item measure of overall job satisfaction is acceptable (e.g., see, Wanous, Reichers, & Hudy, 1997) but a single-item measure tends to paint a rosier picture of job satisfaction than the impression conveyed from the multiple-item measure would justify (e.g., see Oshagbemi, 1999). However, in more recent work on the concept job satisfaction, multidimensionality is emphasized (Buckley, Carraher, & Cote, 1992). Moreover, Taber, and Alliger (1995) found that task-level measurement assessed different psychological processes than those assessed by traditional global and facet measures. They suggested that by complementing traditional, global measurement procedures, task-level assessment might facilitate new research into the nature of job satisfaction. Empirical data indicate that global measures of job satisfaction are not equivalent to the sum of multi-dimensional job satisfaction (Scarpello & Campbell, 1983).

Job satisfaction has regularly been used as a measurement of work motivation, but it has turned out to be a quite poor assessment of work motivation. Firstly, job satisfaction is by definition not the same as motivation. Job satisfaction can be described more as an attitude, an internal state, a measurement of how satisfied or dissatisfied one is with one's job, if one likes it or dislikes it in different aspects. It is possible to like a job because it makes low demands on one's effort, or because one is able to work hard to complete a task one dislikes (Mullins, 1996). Secondly, Locke and Latham (1990a) stated that motivation and satisfaction are independent outcomes and different theories. Finally, previous studies have only shown weak relationships to different work-related behaviors. Iaffaldano and Muchinsky (1985) found in their meta-analysis that the relationship between job performance and job satisfaction was weak.

Another work-related behavior that has been related to job satisfaction is, for example, absenteeism, and only a weak correlation, approximately -0.2, between job satisfaction and absenteeism has been reported (Hackett, 1989; Hackett & Guion, 1985). Moreover, Tharenou (1993) found that non-legitimate absenteeism was more strongly correlated to job satisfaction than legitimate absenteeism. However, Haccoun and Desgent (1993) reported that most absenteeism was legitimate and only 20% reported no legitimate reasons for absenteeism. Intention to quit has shown to be more strongly related to job satisfaction than the actual turnover behavior (e.g., Hellman, 1997; Tett & Meyer, 1993).

Even though job satisfaction might not be considered the best measurement of work motivation, it is still interesting to measure job satisfaction in order to shed some light on its relations to different factors. Empirical research has investigated numerous variables in an attempt to determine how job satisfaction is created and how it affects other work outcomes.

It is not only external components that affect job satisfaction, it has been shown that approximately 30% of the observed variance of job satisfaction was due to genetic factors (Arvey, Abraham, Bouchard, & Segal, 1989). Further, research findings have shown that job satisfaction is stable over time (Staw & Ross, 1985; Steel & Rentsch, 1997). Personality has also been shown to affect job satisfaction. Staw, Bell, and Clausen (1986) discovered a link between childhood personality and job satisfaction later in life, and there has been considerable interest in the relationship between individual dispositions and job satisfaction. Weiss and Cropanzano (1996) suggested that affective temperament may influence the experience of emotionally significant events at work, which in turn influence job satisfaction. Furthermore, in several studies it has been demonstrated that an individual's core self-evaluation was linked to job satisfaction (Judge, Locke, Durham, & Klunger 1998; Judge, Bono, & Locke, 2000). Judge, Locke, and Durham (1997) defined core self-evaluation as fundamental assessments that individuals make about themselves and their self-

worth: self-esteem, generalized self-efficacy, locus of control, and low neuroticism.

Watson and Keltner Slack (1993) indicated that job satisfaction can be viewed in the context of more general emotional lives of employees. A fairly high positive relation between overall job satisfaction and life satisfaction was reported by Adams, King, and King (1996). Judge and Watanabe (1993) found that the relationship between job satisfaction and overall life satisfaction was fairly strong in cross-sectional results, but longitudinal results suggested a weaker relationship over a 5-year period, particularly with respect to the effect of job satisfaction on life satisfaction.

There are additional aspects of job satisfaction that have been studied. Jabri (1992) found a moderate correlation between job satisfaction and appropriate task allocation. Melamed, Ben-Avi, Luz, and Green (1995) showed that job satisfaction was mainly related to subjective monotony, whereas absence due to sickness was equally related to work conditions and subjective monotony. Communication with the manager was reported to be an important predictor of job satisfaction (Callan, 1993; Miles, Patrick, & King, 1996). Miles, Patrick, and King (1996) also found that supervisors reported a higher level of job satisfaction than other employees.

Introduction of new technology can increase the stress level of employees, which, in turn, can decrease job satisfaction (Aiello & Svec, 1993). Job content and participation significantly influenced job satisfaction after the introduction of new technology (Korunka, Weiss, Huemer, & Karetta, 1995). Kahn and Robertson (1992) found that training and experience had no effect on job satisfaction and work motivation when using computers. Blau (1999) reported that task responsibilities and employee performance appraisal satisfaction significantly affected overall job satisfaction. Further, Blau found that the supervisor's role in affecting employee job satisfaction is important.

Because job satisfaction is one of the most studied constructs, several factors have been associated to it and only a few of them have been reported in the review above. The second job attitude frequently examined is organizational commitment. Like job satisfaction, organizational commitment is often used as a work motivation measure. Organizational commitment is discussed more in detail in the next section.

2.3.3.2 Organizational commitment

Like job satisfaction, organizational commitment has received substantial attention in past research. Several organizational commitment definitions have been offered over the years. They appear, however, to reflect at least three general themes: affective attachment to the organization, perceived costs associated with leaving the organization, and the obligation to remain with the organization (Meyer & Allen, 1991).

Organizational commitment is often employed as an assessment of work motivation (Maehr & Braskamp, 1986; Schou, 1991). However, it should be notified that organizational commitment is not by definition the same as work motivation, in fact, it is possible to be quite committed to an organization without being highly motivated to work.

Also, the relationship between organizational commitment and different work-related behaviors has been reported to be weak or inconsistent. Baugh and Roberts (1994), Mowday, Porter, and Dubin (1974), as well as Ward and Davis (1995), concluded that organizational commitment and job performance are positively correlated. Brett, Cron, and Slocum (1995) examined the relationship between organizational commitment and performance using economic dependency on work as a moderator. They reported that there were stronger relationships between organizational commitment and performance for those with low financial requirements than for those with high requirements. Kalleberg and Marsden (1995) discovered a modest relationship between

organizational commitment and job performance, while Leong, Randell, and Cote (1994), Mathieu and Zajac, (1990) and Tett and Meyer (1993) found only a weak correlation between these two variables. On the other hand, Wright (1997) found a negative association between measures of organizational commitment and job performance. Recently, Benkhoff (1997) investigated the link between employee commitment and organizational performance in terms of sales targets met and changes in profits. The result indicated a link between commitment and performance.

Generally, it is believed that employees who are more strongly committed to the organization avoid withdrawal behaviors, such as being absent (Blau & Boal, 1989). However, little evidence shows that a meaningful and consistent attitude-absenteeism relation does exist (Hackett, 1989; Hackett & Guion, 1985; Mayer & Schoorman, 1992; Randell, 1990). Sagie (1998) divided absenteeism into voluntary absence and involuntary absence and the result showed that organizational commitment was strongly related to voluntary absence, but not to involuntary absence. Another withdrawal behavior is turnover, and a moderately strong relationship has been found between commitment and turnover (Hulin, 1991).

A multidimensional scale to measure commitment has been suggested that involves the dimension of affective commitment (affective reaction to an organization), continuance commitment (a commitment to continue one's task), and finally a normative component (the employee's feelings of obligation to remain with the organization) (Allen & Meyer, 1990). These three dimensions have been supported in several studies (Cohen, 1996; Durman, Grube, & Castañeda, 1994; Irving, Coleman, & Cooper, 1997; Ko, Price, & Mueller, 1997). Distinctions between different types of commitment have, however, only given an insignificant improvement in the prediction of performance (Mayer & Schoorman, 1992).

Meyer, Paunonen, Gellatly, Goffin, and Jackson (1989) examined the relationship of job performance with affective commitment and continuance

commitment and concluded that affective commitment, which refers to identification with, involvement in, and emotional attachment to the organization, is correlated positively and continuance, which refers to commitment based on employees' recognition of the costs associated with leaving the organization, is correlated negatively with all measures of performance. The dimension of affective commitment was found to be the only dimension of commitment that was related to turnover and to absenteeism (Somers, 1995). The results of a longitudinal study found that the correlation between job satisfaction and the dimension of organizational continuance commitment was quite high (Cramer, 1996). Jaros (1997) found that affective commitment had a significantly stronger correlation with turnover intentions than normative and continuance commitment. Eby, Freeman, Rush, and Lance (1999) reported that affective commitment was strongly related to turnover behavior as well as absenteeism.

Organizational commitment is strongly affected by organizational factors including leadership, culture, values, and norms (Cohen, 1992; Gellatly, 1995; Markham & Mckee, 1995). Steers (1977) found that organizational commitment was influenced by need for achievement, group attitudes toward the organization, education (inversely), organizational dependability, perceived personal importance to the organization, and task identity. Steers stated that a common theme in these variables is the notion of exchange among individuals. Further, individuals come to organizations with certain needs, desires, skills, and so forth, and expect to find a work environment where they can utilize their abilities and satisfy many of their basic needs. When the organization provides such a vehicle, the likelihood of increasing commitment is apparently enhanced. When the organization is not dependable, however, or when it fails to provide employees which challenging and meaningful tasks, the commitment level tends to diminish. In a study by Nyhan (1999) it was found that to increase organizational commitment managers must be willing to build on their investments in the people in their organizations, by letting the employees participate in decision making, and allowing feedback from and to employees. The perception that one is competent also affects the degree of attachment to an

organization. Benkoff (1997) found that regular training at work influenced commitment to the organization and a person's perception of his/her competence.

2.3.4 Incentives and rewards theory (extrinsic motivation)

Extrinsic motivators, such as incentives, have long been thought, both theoretically and practically, to affect employee motivation and performance (e.g., see Skinner, 1938; Hull, 1943; Taylor, 1947). Incentives are not only thought to enhance motivation and performance but also to shape the employment relationship. Simply, pay has been seen as the means for attracting, retaining, and motivating employees primarily because of its near universal appeal and the ease, directness, and certaintly with which it can be delivered (Greller & Parsons, 1995). Pay systems or compensation systems, philosophies, and practices act together with other elements of the organization environment influencing employees' attitudes, behavior, and how they define their relationship with the organization (Rousseau & Greller, 1994).

The relationship between employees and compensation plays different interrelated roles. First, pay systems make a statement regarding what is important. Some systems value technical work, other value customer service. Some recognize individual performance, some value performance in terms of group products (Murphy & Cleveland, 1991). Second, pay provides reinforcement. People like receiving pay. They work in directions that produce pay, if these directions are made clear to them (Lawler, 1971). Third, pay provides feedback on performance (Herold & Parsons, 1985; Greller & Parsons, 1995).

It is quite clear in the literature that both financial and non-financial incentives can increase performance (Lawner, 1990; Milkovich & Newman, 1993), especially when the incentive system is properly designed (Guzzo, Jette, & Katzell, 1985). Financial incentives also convey symbolic meaning (e.g.,

recognition, status) beyond their monetary value: They meet multiple human needs and serve multiple functions (Steers, Porter, & Bigley, 1996). Financial incentives supplement intrinsic rewards. People need money (Steers et al, 1996). Moreover, in general, financial incentives have a positive relationship to work motivation (Locke, Feren, McCaleb, Shaw, & Denny, 1980).

However, a meta-analytic review presented by Jenkins, Mitra, Gupta, and Shaw (1998) found that financial incentives were not related to performance quality but had a correlation of .34 with performance quantity.

Five primary theoretical frameworks address the relationship between money and performance. Expectancy theory suggests that tying financial incentives to performance increases extrinsic motivation to extend effort and consequently performance (Lawer, 1971, 1973; Vroom, 1964). Reinforcement theory, although less cognitive in focus, argues that tying money to performance will reinforce performance (Komaki, Coombs, & Schepman, 1996). Goal setting theory indicates that financial incentives increase acceptance of difficult performance goals, and enhance performance (Locke, Latham, & Erez, 1988). By contrast, cognitive evaluation theory proposes that performance-contingent financial incentives erode intrinsic motivation and hereby diminish task performance (Deci & Ryan, 1985). Equity theory (e.g., Adams, 1963) argues that people are motivated to reduce inequity, but makes no specific predictions regarding the relationship between financial incentives and performance per se, although under certain conditions, deviations from fairness may erode the association of financial incentives to performance (e.g., Kanfer, 1990).

But money alone is not always enough to motivate high performance. Consequently, all researchers do not accept the role of money as one of the most salient motivational factors and overall, both theory and practice highlight the ambiguity in how financial incentives affect performance. Kohn (1993) has published warnings in the popular literature about the harmful effects of rewards on employee performance. He states that "rewards typically undermine the very processes they are intended to enhance" (Kohn, 1993, p. 54). He claims that

rewards used in work organizations, such as stock options, pension plans, sale commissions, bonuses, and vacations generally result only in "temporary compliance".

Perhaps the most significant argument against financial incentives concerns the detrimental effects of money on intrinsic motivation (Eisenberg & Cameron, 1996; Kohn, 1993). Opponents argue that financial incentives control employee behavior externally, reducing self-determination and intrinsic motivation (Deci & Ryan, 1985). They also jeopardize the relationship between supervisors and subordinates (Meyer, 1975). Opponents argue further that money is not a motivator (Kohn, 1993); financial incentives may reduce job dissatisfaction, but they do not motivate (Hetzberg, 1968). Further, Cavanagh (1992) found that the level of salary was not a significant factor to determine job satisfaction. Holzer (1990) discovered that experience and knowledge had more influence on productivity than earnings. Like Holzer, Guest (1990) could not find a strong relationship between productivity and salary in an analysis of British productivity in the 80's.

People's attitudes toward money may have significant impacts on their perceptions of work-related tasks, the reward system, and their intrinsic motivation to a task. This in turn may influence their work-related behavior, task performance, job satisfaction and morale, and the effectiveness of the organization (Tang, 1995). People's attitudes toward money are consistent with their inner values, their frame of reference, their culture, and their experience in society. Tang (1995) reported that those people who value money do not necessarily have a higher income than those who do not, and they therefore tend to have a higher level of pay dissatisfaction.

Pay satisfaction has also shown to influence work related behaviors. One of the most well-known models of pay satisfaction was proposed by Lawler (1981) and later modified by Heneman (1985). Both of these models are based on the concept that discrepancies in employee's perception of amount that should be received and perception of amount that is received are major determinants of

pay satisfaction. One of the differences between the two models is that Heneman's (1985) model conceptualizes pay satisfaction in multi-dimensional terms. Heneman (1985) argued that individuals develop a general attitude to their compensation, as well as more specific attitudes towards each of several component parts of their compensation, including (a) salary level (external competitiveness), (b) pay structure (internal consistency), (c) individual salary (employee's contribution) and (d) the administration of the entire pay system. The four dimensions have been supported (Judge, 1993; Judge & Welbourne, 1994). Heneman (1985) also stated that pay satisfaction can be expected to be related to such behaviors as turnover, absenteeism, and union activity.

Lum, Kervin, Clark, Reid, and Sirola (1998) supported the finding that pay satisfaction has an effect on turnover intention. In addition, Aryee (1999) showed that the relationship between pay satisfaction and life satisfaction was significant and positive.

How and if incentives will affect motivation and job performance among employees might depend on, for example, cultures, position in the organization, and other factors. According to Persson (1994), Swedish companies do not consider payment as a motivational aspect, partly because the level of salary is often decided outside the organization. An employee's level of payment is often due to position only, not to performance. Pfeffer and Langton (1993) found that the greater the degree of wage dispersion within academic departments, the lower individual faculty members' satisfaction and research productivity are and the less likely it is that faculty members will collaborate on research. In a study by Levine (1993) both employees in the USA and Japan were studied. The result showed that workers receiving high wages (compared with an average worker) were less likely to quit the job and are more satisfied with their pay.

To conclude, there are few systematic examinations of the relationship of financial incentives to employee behaviors, and little effort is devoted to assessing this relationship in the cumulative scientific knowledge base. This is perhaps because studies of the impact of financial incentives are complex. They

must address the different meanings, literal and symbolic, of money, and other outcomes (e.g., promotions, coworkers resentment, turnover) that might deliberately or inadvertently be associated with financial incentives, differences in utility of money, social comparison that financial incentives evoke, group norms, organizational structure, and so on. An estimate of the overall association of financial incentives with performance is necessarily affected by a multitude of factors. Such factors are attitude toward money, cultural differences, and the tax system.

2.3.5 Intrinsic motivation

A more current trend in work motivation views behavior as being intrinsically motivated. Intrinsically motivated behavior can be defined, loosely, as behavior that is performed for its own sake rather than for the purpose of acquiring any material or social rewards. Intrinsic motivation, or engaging in a task for its enjoyment value, is one of the most powerful forms of motivation according to Deci and Ryan (1987). Further, it is associated with enhanced performance, improved conceptual and creative thinking, superior memory recall, positive affect, subsequent willingness to engage in other tasks, and better psychological and physical health compared with other forms of motivation (Deci & Ryan, 1992).

One theoretical guide for much of that work has been self-determination theory. A central point of self-determination theory is that people work, not only for extrinsic rewards, but also to fulfill psychological needs such as autonomy, competence, and relatedness. Moreover, if those three psychological needs are fulfilled, for example in the workplace, this will lead to greater satisfaction, enhanced performance, and general well-being according to the theory (e.g., Deci & Ryan, 1985; 1987; Ryan & Deci, 2000). These findings have been supported in other studies as well (e.g., Ilardi, Leone, Kasser, & Ryan, 1993; Lu, 1999). Further, although feelings of competence and interest in the task are central to intrinsic motivation, a person must also feel free of pressure, for

example from rewards or potential punishment. The person must feel that her "locus of causality" is internal, meaning that she is responsible for the choice of the activity, that she is in command of how she is spending her time. Hence, the notion of choice is central to the concept of self-determination. The person must be in control of the alternatives for action and be able to choose among them (Pinder, 1998).

One question extensively studied is the relation between intrinsic and extrinsic motivation or more specifically, how extrinsic rewards affect intrinsic motivation. According to Deci (1975) the detrimental effects of extrinsic events on intrinsic motivation depend on the perceived salience of "controlling" versus "informational" properties of the extrinsic event. According to Deci's theory, events that are interpreted by the individual as informational should facilitate intrinsic task interest, particularly when the information provided conveys a sense of personal competence. Several studies testing this aspect of Deci's theory provide further empirical evidence indicating that a variety of extrinsic organizational events, such as rewards, goal-setting, feedback, and modeling may also affect task interest, enjoyment, and behavior (Collar & Barrett, 1987; Harackiewicz, Sansome, & Manderlink, 1985).

Moreover, Deci, Koestner, and Ryan (1999) found in their meta-analysis of 128 studies that engagement-contingent, completion-contingent, and performance-contingent rewards significantly undermined free-choice intrinsic motivation, as did rewards, all tangible rewards, and all expected rewards. Positive feedback on the other hand enhanced both free-choice behavior and self-reported interest. To further support this, Wild, Enzle, Nix, and Deci (1997) found that participants in a study who read about an extrinsically motivated target expected that task engagement would be less enjoyable and associated with less positive affect and that there would be poorer quality of interpersonal relations, compared with participants reading about intrinsically motivated targets. Participants in a second study who were taught a skill by an extrinsically motivated (paid) target reported lower interest in learning and lower task enjoyment than those taught

by intrinsically motivated (volunteer) target, despite receiving identical lessons and learning to the same criterion level.

However, other meta-analyses have not reached the same conclusion. One meta-analysis reported that, overall, a reward does not decrease intrinsic motivation. When interaction effects are examined, findings show that verbal praise produces an increase in intrinsic motivation. The only negative effect appears when expected tangible rewards are given to individuals simply for doing a task (Cameron & Pierce, 1994; Eisenberger, Pierce, & Cameron, 1999). According to Wiersma (1991, 1992) the effects of intrinsic and extrinsic rewards on motivation are additive. In a study by Reeve and Deci (1996) they showed that winning (relative to losing) increased intrinsic motivation by enhancing perceived competence and a pressured (relative to non pressured) interpersonal context decreased intrinsic motivation by diminishing perceived self-determination.

To conclude, studies have shown that people who are intrinsically motivated, enhance their performance and increase job satisfaction. The view presented here is that opportunities for self-determination are regarded as a sign of the psychological well-being of individuals. This view is not shared by all researchers. Schwartz (2000) argues instead that freedom, autonomy, and self-determination can become excessive, and when that happens, freedom can be experienced as a kind of tyranny. Furthermore, in the literature it is argued either for extrinsic motivation or intrinsic motivation. Frey (1997) suggested a more balanced approach to understand the concept of work in firms. Frey stated that both intrinsic and extrinsic motivation must be taken into account.

2.3.6 Goal and goal setting

Goals are widely recognized as being central to the understanding of motivated behavior, with different research disciplines emphasizing different levels and types of goals and their consequences. Personality research has focused on the

nature of goals or higher level personal striving (e.g., Carver & Scheier, 1981; Emmons, 1989), whereas Locke and Latham (1990b) focused on middle-level task goals; cognitive researchers have emphasized even lower level goals such as script concepts (cf. Austin & Vancouver, 1996). Austin and Vancouver (1996) stated that few researchers integrate multiple levels into a single theoretical approach. Austin and Vancouver (1996) stated after reviewing goal constructs in psychology that "the use of goals to understand behaviors, ranging from the movement of a hand to life tasks to the way one sees the world, may leave some a bit queasy. Yet, in all cases, the goals serve as a standard with which perception of current or anticipated states are compared, which in turn affects some processes (p. 361). A definition of goal presented by Austin and Vancouver (1996, p. 338) said that a goal can be described "as internal representations of desired states, where states are broadly construed as outcomes, events, or processes. Internally represented desired states range from biological set points for internal processes (e.g., body temperature) to complex cognitive depictions of desired outcome (e.g., career success)".

Goal setting processes have come to occupy a central role in current theories of applied motivation (Kanfer, 1990; Locke & Latham, 1984, 1990b. Goal attributes, such as specificity and difficulty, have consistently been linked to the effectiveness of goal setting based primarily on social cognitive theory (Bandura, 1986).

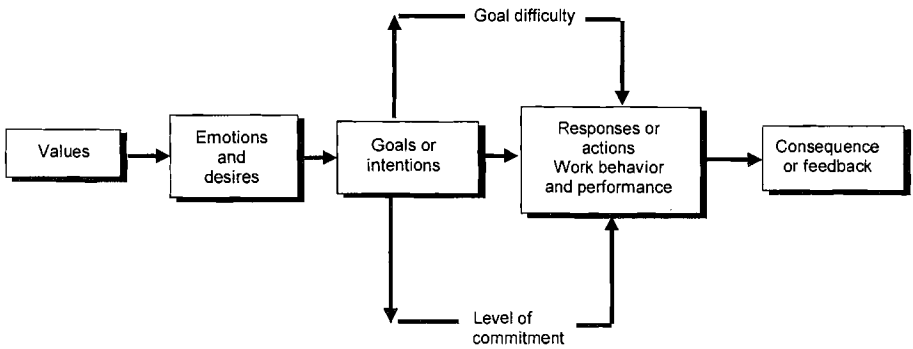

Figure 2. An illustration of Locke's theory of goal-setting (adapted from Mullins, 1996, p. 511).

The most fundamental belief of Locke and Latham's (1984, 1990b) goal setting theory is that goals are responsible for human behavior. Locke and Latham accept the importance of perceived value, and suggest that these values create the experience of emotions and desires. People strive to achieve goals to satisfy their emotions and desires. Goals guide people's responses and actions. Goals direct work behavior and performance, and lead to certain consequences or feedback (Locke & Latham, 1984; 1990b). Locke and Latham's theory of goal setting is illustrated in Figure 2.

Furthermore, a goal is something that a person tries to attain, achieve, or accomplish. In work settings, goals may take the form of constructs such as a level of job performance, a quota, a work norm, a deadline, or even a budgetary spending limit (Locke, Shaw, Saari, & Latham, 1981). Multiple reviews and meta-analyses of goal-setting literature have concluded that there is substantial support for the basic principle of goal setting theory (Locke & Latham, 1990a, 1990b; Wofford, Goodwin, & Premack, 1992). First, specific and difficult goals consistently lead to better performance than specific and easy goals, general goals such as "do your best", or no goals (Brown & Latham, 2000; Locke, 1996; Tubbs, 1986; Vance & Colella, 1990). The effectiveness of difficult goals is predicted on the assumption that commitment to such a goal is high (Locke, Latham, & Erez, 1988). As stated by Locke, Latham, and Erez (1988), "It is virtually axiomatic that if there is no commitment to goals, then goal setting does not work" (p. 23). Goal commitment is proposed to be a moderator of the relationship between performance and task performance. Higher levels of goal commitment lead to a stronger relationship between performance goals and subsequent performance. However, a meta-analytic review by Donovan and Radosevich (1998) found that the moderating effect of goal commitment on goal-performance accounted for only 3% of the variance in performance.

Twenty years of research on the effects of goal-setting on performance have led several reviewers (Locke, et al., 1981; Mento, Steel, & Karren, 1987; Tubbs, 1986) to conclude that the effects of goals on performance are among the most robust of any theory to be found in the motivation literature. Pinder (1984)

observed in his own review of all the major motivation theories that "goal setting theory has demonstrated more scientific validity to date than any other theory or approach to work motivation....." (p. 169). Goal setting increases performance motivationally through its effect on one's intentions regarding effort and persistence; it increases performance cognitively by directing attention/intention to discover strategies that will lead to goal attainment (Earley, Conolly, & Ekegren, 1989; Latham, Winters, & Locke, 1994). However, Kanfer and Akerman (1989) concluded that goal setting is an effective motivational technique only when the first two of three stages of learning have taken place: declarative and knowledge compilation. It has been found that setting specific goals on tasks where the person has yet to acquire the requisite ability to perform well has a negative effect on performance.

There are different ways goals can be set. The goals may be self-set or set by others. However, concerning assigned goals, Wright, Hollenbeck, Wolf, and McMahan (1995) reported that how assigned goals are derived and how they are communicated to subjects affects goal setting outcomes. Additionally, Gollwitzer (1999) suggests that goals and resolutions stand a better chance of being realized when they are furnished with implementation intentions that link anticipated suitable opportunities to intended goal directed behavior. Implementation intentions delegate the control of goal-directed behaviors to specified anticipated environmental stimuli. People are frequently confronted with situations where they cannot rely on their habits and automatically activated goals. This is when action control through the formation of implementation intentions is most valuable (Gollwitzer, 1999). Sheldon and Elliot (1998) showed that autonomous goals, which are undertaken with a sense of full willingness and choice, are better attained than controlling goals, which are felt to be compelled by internal or external forces or pressure.

In conclusion, although goal setting theory is known as valid and useful, there are some criticisms to it. Deci (1992) stated that goal setting theory is relatively mute on the issue of human nature. Deci claimed that the idea of goals, as efficient causes of behavior, represents a type of explanation that has a machine

metaphor flavor, and goal mechanisms are still mechanisms regardless of whether they are cognitions or associations. He argued that a comprehensive theory of motivation requires more than the concept of goals.

2.3.7 Perceived control

The concept of employee control has had a long tradition in organizational behavior theory and research (Ganster & Fusilier, 1989), being central to both participation in decision making literature (Locke & Schweiger, 1979) and job design literature (Hackman & Oldham, 1976). More recently, the construct has been the focus of research in the occupational stress area (Karasek, 1979; Karasek & Theorell, 1990). Moreover, personal control over one's work environment is an important theme in many branches of social science.

Personal control can be defined as an individual's belief in his or her ability to effect a change in a desired direction (Greenberger & Strasser, 1986), which in the work context reflects the extent to which employees perceive that they have the opportunity to adopt behavioral efforts to control the quality, occurrence, and duration of significant work-related events (Jimmieson & Terry, 1998). Typically, control at work is made available by providing employees with a range of different control options, including choice of work tasks, methods of work, work pacing, work scheduling, control over resources, and control over the physical environment (see Ganster, 1988).

Baltes and Baltes (1992) claimed that, in work situations, personal control beliefs have consequences for job performance, largely because of their positive or negative effects on work motivation. Specifically, Baltes and Baltes argued that, because the attainment of work goals usually requires events to be changed to suit the goal seeker to some extent, low personal control situations at work upset and distract highly motivated employees much more than poorly motivated employees. Employees who are not highly motivated are more willing to accept the consequences of not being able to control events to their liking

because they are less concerned about reaching their work goals. Because being distracted and upset impairs performance in most jobs (Weiner, 1979), personal control should moderate the relations between work motivation and job performance. Orpen (1994) found that personal control moderated the effects of work motivation on job satisfaction and performance, with highly motivated employees being more adversely affected by low personal control. Dwyer and Ganster (1991) found that perceived workload and control interacted significantly to explain variance in satisfaction with work itself. Control over one's work, including job autonomy and non-routine work, is positively associated with job satisfaction (Ross & Reskin, 1992). The results presented by Jimmiesson and Terry (1998) indicated that a high level of both objective and subjective work control has a positive impact on level of task satisfaction. Similar findings were presented by Sargent and Terry (1998) who presented a positive relationship between perceived control and job satisfaction as well as psychological well-being (Daniels & Guppy, 1992). Finally, Ashforth and Saks (2000) found that there were two distinct responses to perceived personal control. The first implied a proactive orientation where control begets control and the second implied a reactive orientation where unmet expectation prompts a sense of futility and withdrawal.

To conclude, it has been shown that it is important for employees, or for all people for that matter, to perceive themselves to have control over a situation. In fact, perceived control and generalized expectancies of control may be important cognitive mediators of actual control (Frese, 1989). Indeed, laboratory research suggests that a belief in control may be more important than actual control (Ganster & Fusilier, 1989).

2.3.8 Factors related to work motivation

2.3.8.1 Occupational and organizational stress (work stress)

Stress has become one of the most serious health issues of the twentieth century- a problem not just for individuals in terms of physical and mental disabilities, but also for employers and governments who have started to assess its financial damage. Matteson and Ivancevich (1987) estimate that stress causes half of absenteeism, 49% of turnover, and 5% of total lost productivity due to preventable occupational stress. Occupational stress has serious consequences for both individuals, employees and organizations.

The term stress, meaning hardship or adversity, can be found - though without a programmatic focus – at least as early as in the 14^{th} century, (for further historical outlooks of stress see Khan & Byosier, 1992; Lazarus, 1993). Organizational stress or job stress has many definitions, but research under that label is usually concerned with the negative effects of the workplace environment, sometimes in conjunction with the employee's own characteristics, on an employee's health and well-being (Beehr, 1995).

Much of the impetus for this interest in occupational stress has grown from the early work of Karasek and his colleagues (e.g., Karasek, 1979; Karasek, Marxer, Ahlbom & Theorell, 1981; Karasek & Theorell, 1990). Karasek (1979) hypothesized that job demand (e.g. high workload) was not in itself harmful, but when combined with low employee control, demand could lead to the development of cardiovascular diseases. When both job demands and control are high, Karasek describes the job as 'active', that is, one in which the demands act as sources of challenge, rather than sources of mental and physical stress, which can also lead to the individual experiencing an increased motivation to perform. The model has been supported to some extent by some studies (Daniels & Guppy, 1992; Ross & Reskin, 1992), whereas others have shown no support for it (Fletcher & Jones, 1993). A prediction of Karesek's Job-demand model is that

motivation and job satisfaction will occur in situations where both job demands and worker's control are high, which was supported by Jonge, Breukelen, Landeweerd, and Nijhuis (1999). In a Swedish study, it was found that both women and men having no control over their work situation, together with having monotonous work tasks, had a higher stress level. The highest perceived stress level, both in women and men, was found in female dominated professions (Knutsson & Nilsson, 1994).

Many other theories explaining work stress have been suggested and contemporary approaches to occupational stress use a psychological model which views work stress as part of a dynamic interaction between the worker and the work environment. Two related theories can be found in this approach: interactional theories and transactional theories.

Interactional theories emphasize the importance of the "fit" between a person and their work. According to French, Caplan, and Van Harrison (1982), work stress results primarily from an incompatible person-environment fit, producing psychological strain and stress-related physical disorders. Stress can best be looked at as a particular relationship between an individual and a specific environment, as a process taking place in a context. The other approach, transactional theories, focus on the cognitive processes and emotional reactions that underpin the interactions. A transactional approach to stress was suggested by Lazarus (1991), who argued that traditional approaches to work stress are not useful at the individual and group level.

Stress can best be looked at as a particular relationship between an individual and a specific environment, and as a process taking place in a context. Stress also depends on how an individual appraises what is happening.

However, stress has many effects. Generally, stress has been shown to lower job satisfaction (Kahn & Byosiere, 1992). Chaplain (1995) found a negative relation between job satisfaction and stress in a study of English primary school teachers. Further, high occupational stress reports were related to low level of

job satisfaction. Lu (1999) found in a study of employees in Taiwan that work motivation, especially intrinsic motivation, was positively associated with well-being. Fogarty Machin, Albion, Sutherland, Lalor, and Revitt (1999) examined the relationship between stress, strain and job satisfaction in two studies and found that stress and strain accounted for 29% of the variance in the first study and 35% in the second study. Begley and Czajka (1993), found, however, that stress increased job displeasure only when commitment was low.

Spielberger and Reheiser (1994) suggested a work stress measurement called the Job Stress Survey (JSS), which was designed to assess the perceived intensity and frequency of occurrence of working conditions that are likely to adversely affect the psychological well-being of the employees. In a study of white-collar employees of a large manufacturing firm, the results showed that they considered lack of organizational support more stressful than experienced job pressure (Turnage & Spielberger, 1991). Results from a sample of MBA students and a sample of practicing managers showed that employees in high-stress jobs were rated as more effective, committed, and burned out than employees in low-stress jobs when performance was measured by using subjective descriptive anchors (Rotondo Fernandez & Perrewé, 1995).

Stressful situations may lead, not only to dissatisfaction, but also to somatic problems (coronary heart disease, hypertension, migraine headaches, insomnia), psychological difficulties (anxiety, depression, fear, etc.) and adverse behavioral reactions (for example drinking, smoking). While stress can thus manifest itself in many ways, one of the more significant symptoms from an organizational perspective is employee burnout. Burnout is characterized by deteriorating job performance and decreasing energy levels caused by the cumulative effect of continuing daily pressure (Etzion, 1988). One question that could be asked is if job satisfaction is an antecedent or a consequence of psychological burnout (Wolpin, Burke, & Greenglass, 1991).

To conclude, some researchers have pointed out the need of understanding stress not only from an individual perspective but also as an organizational phenomenon (Burk, 1993; Jaffe, 1995; James & Arroba, 1999). Further, James (1999) stated that a strategic initiative on stress can only be achieved by understanding stress as part of the fabric of organizational life.

2.3.8.2. Work interest

Interest is described as a pleasant emotional state that directs and sustains activity (Izard, 1977), and the presence or absence of interest in work tasks, and generally in life, colors the experience of existence and of what is worth our attention (Wiener, 1986). Izard (1977) classifies interest as an emotion others classify interest in attributional terms (Weiner, 1986).

Interest is manifested behaviorally through voluntary participation in particular activities, sustained attention to and enjoyment of the activities, and subsequent persistence in them (Dawis, 1991). Bingham (1937) defined interest as "a tendency to become absorbed in an experience and to continue in it ...not only in terms of the objects and activities which get attention and yield satisfaction, but also in terms of the strength of the tendencies to give attention to and seek satisfaction in these competing objects of interest" (p. 62). Dawis (1991) stated that Bingham's definition consists of several elements which are the following: An interest (a) is a dispositional variable (tendency), (b) has cognitive (attention), behavioral (experience), and affective (satisfaction) components, and (c) has dimensions of intensity (strength of tendency) and duration (continuance in experience).
Moreover, Sjöberg (1997) claimed that interest is characterized by several states. Firstly, interest is a psychological condition (process) that is characterized by concentration and enjoyment. Secondly, it is easier for us to learn if we are interested. Thirdly, interest is strongly dependent on possibility of autonomy, like intrinsic motivation, we tend to lose interest if we perceive external control. Thus, it is possible that rewards associated with control might decrease work

interest. It is also possible that the way job tasks are construed has some influence on work interest. For example, optimal level of challenge is possibly one factor of importance, frequent feedback another. Finally, interest is a function of challenge and ability, which determines what is a moderately difficult challenge. It is important that a challenge can stimulate an activity where an individual has a good chance of succeeding. Similar findings as those of Sjöberg have been reported by Csikszentmihalyi (1992). Csikszentmihalyi has mainly studied expert performers' experience of interest and found that interest is a psychological state characterized by strong concentration and sense of enjoyment, which is described as "flow". The subjects described it as being strongly concentrated and that they felt joy and satisfaction.

Some researchers argue that certain conditions must be fulfilled in order to develop interest: (a) the individual must have a certain specific ability and sensitivity, (b) there must be environmental possibilities and (c) social support (Deci, 1992; Lykke, Bouchard, McGue, & Tellegen, 1993). In addition, Cury, Biddle, Famose, Goudas, Sarrazin, and Durand (1996) found that perceived competence influenced interest positively, which was also found in the study of Harackiewicz, Barron, and Elliot (1997).

Lykke, Bouchard, McGue, and Tellegen (1993) reported that about 50% of interest variance was associated with genetic variation. Further, in longitudinal studies, some stability over time was found for vocational interest (Austin & Hanisch, 1990; Dawis, 1991, Lubinski, Benbow, & Ryan, 1995; Swanson & Hansen, 1988). In fact, people often give interest as a reason for their vocational choice (Sjöberg, 1983).
In prior studies, it has been reported that work interest has been associated with a host of positive consequences, such as greater perceived competence, freedom, and positive emotions (Deci, 1992) as well as a positive relation both to job satisfaction and commitment (Winer & Gati, 1986). A previous study showed that work interest is one of the most influential factors in explaining work motivation (Sjöberg & Lind, 1994). Furthermore, in a meta-analysis of predictors of job performance for salespeople, interest was a promising predictor

both of performance ratings (.50) and a sales criterion (.50) (Vinchur, Shippman, Switzer, & Roth, 1998).

In conclusion, most people have fewer problems performing interesting activities at work than boring ones because they perceive interesting work tasks to be more enjoyable (Green-Demers, Pelletier, Stewart, & Gushue, 1998). That interesting work tasks was one of the most important factors when it comes to their job has been found in several studies (e.g., Giorgi, & Marsch, 1990; Kovach, 1995; Tollgerdt-Andersson, 1993; Quintanilla, 1990). Work interest has also been associated with meaningful work tasks, possibilities to make choices, self-determination, competence and producing results (Thomas & Velthouse, 1990).

2.3.8.3 Creativity

Creativity, which refers to employees' generation of novel and useful ideas (Amabile, 1983) is a topic that is important at both the individual and societal level. Individuals, organizations, and societies must adapt existing resources to changing task demands in order to remain competitive. Therefore, creativity is important for organizations (Sternberg & Lubart, 1996). Moreover, organizations today operate in an increasingly uncertain world. Organizations constantly search for new marketing strategies, new products, services, new manufacturing processes, and new managerial practices to adapt to the rapidly changing environment. Almost all of these new ways of doing business start with new ideas. Thus, more than ever before, organizations strive for creativity and innovation in order to survive and grow (Kanter, 1983; Van Gundy, 1987).

Numerous commentators have argued that enhancing the creative performance of employees is a necessary step if organizations are to achieve competitive advantage (Amabile, 1988; Shalley, 1995). When employees perform creatively, they suggest novel and useful products, ideas, or procedures that provide an organization with important raw material for subsequent development and

possible implementation (Amabile, 1988; Staw, 1990; Woodman, Sawyer, & Griffin, 1993).

Scott (1996) has formulated a recently suggested definition of creativity. Scott stated that if creativity is defined as "the process of using imagination and skill to invent a unique product or thought, the employee is allowed more creative latitude" (p. 66). Scott claims that this proposal differs from standard definitions of creativity, because it incorporates artistic emphasis and the 'bottom-line concerns' of management.

Amabile (1985) suggested that the more skilled a person is in a specific area, the higher ability that person has to, for example, generate new ideas. Creative behavior is likely to be determined by a complex interaction between the attributes of the individual and the attributes of the environment (Mumford & Gustafson, 1988). A large body of literature has focused on determining a set of personal characteristics and attributes associated with creative achievement (Barron & Harrigton, 1981; Davis, 1989). This research has examined personal characteristics ranging from biological factors to measures of cognitive styles and intelligence (Amabile, 1983; Barron & Harrigton, 1981; Davis, 1989). In general, these studies have demonstrated that a stable set of core personal characteristics, including broad interest, attraction to complexity, intuition, aesthetic sensitivity, tolerance of ambiguity, and self-confidence, relate positively and consistently to measures of creative performance across a variety of domains (Barron & Harrigton, 1981; Martindale, 1989). Although the search for personal characteristics predictive of creative performance dominated creative research for several decades, recent research has begun to examine the effects of such contextual factors as goals, deadlines, and expected evaluations on the individual's creative performance (Amabile, 1982; Amabile, Goldfarb, & Blackfield, 1990; Shalley, 1995). Most of this research, however, has been conducted in behavioral laboratories and has followed an "intrinsic motivation" perspective.

According to this perspective, the context in which an individual performs a task influences his or her intrinsic motivation, which in turn affects creative achievement (Amabile, 1988). Individuals are expected to be most creative when they experience a high level of intrinsic motivation, that is, when they are excited about their work activity and interested in engaging in it for the sake of the activity itself (Amabile, 1983; Shalley, 1991). Under these conditions, individuals are free of extraneous concerns and are likely to take risks, to explore new cognitive pathways, and to be playful with ideas and materials (Amabile, Goldfarb, & Brackfield, 1990) They are also likely to stay focused on the internal nature of the task and work longer on the idea or problem. Situations that encourage this exploration and persistence should increase the likelihood of creative performance. An intrinsically motivated individual tends to be cognitively more flexible (McGraw & Fiala, 1982), to prefer complexity and novelty (Pittman, Emergy, & Boggiano, 1982). Therefore, he or she is more likely to find many alternatives to solve a problem, to use nontraditional approaches, and to be persistent. All of these arguments suggest that an intrinsically motivated individual is more likely to exhibit high creativity. A number of studies have supported the arguments that intrinsic motivation leads to creativity (Amabile, 1985; Amabile, 1997; Koestner, Ryan, Bernieri, & Holt, 1984).

Several organizational conditions or work environments have been suggested in order to enhance creativity. Ekvall (1996) identified ten organizational conditions that stimulate creativity and innovation: challenge, freedom, idea support, trust/openness, dynamism/liveliness, playfulness/humor, debates, low conflicts, high risk taking, and idea time. Zhou (1998) reported that individuals who received positive feedback delivered in an informational style, and those who worked in a high task autonomy work environment, generated the most creative ideas. Amabile, Conti, Coon, Lazenby, and Herron (1996) stated that five work environment dimensions differed between high and low creative projects, and thus these dimensions may play an important role in influencing creative behavior in organizations: challenge, organizational encouragement, work group support, supervisory encouragement, and organizational

impediments. Recent theory and research on organizational creativity has emphasized the importance of creating favorable work environments to release employees' creative energy (e.g., Amabile, 1988; Woodman, Sawyer, & Griffin, 1993).

In addition, Oldham and Cummings (1996) reported that participants (171 employees from two manufacturing facilities) produced the most creative work when they had appropriate creativity-relevant characteristics, worked on complex, challenging jobs, and were supervised in a supportive, non controlling fashion.

Creativity has been argued to be positively related to work motivation (Tollgerdt-Andersson & Sjöberg, 1992). Tollgerdt-Andersson and Sjöberg (1992) argued that creativity is a motivational factor in both general and specific work situations. Tierney, Farmer and Graen (1999) found that when employees enjoy creative-related tasks, their level of creative output is high. Kaufmann and Vosburg (1997) found that mood affects performance of creative problem-solving tasks and the worst performance was obtained in a positive mood condition.

Furthermore, Amabile (1998, 1997) claimed that within every individual, creativity is a function of three components: expertise (knowledge-technical, procedural, and intellectual.), creative-thinking skills (determine how flexibly and imaginatively people approach problems) and intrinsic motivation (an inner passion to solve the problem at hand leads to solutions far more creative than do external rewards, such as money). Monetary rewards given for performance of an assignment over which the individual has no choice, can enhance creativity, but when the individual is offered a reward for consenting to perform the task, creativity may be undermined (Amabile, 1983). In addition, Amabile (1988) found that extrinsic rewards decrease creativity and the quality of what is produced. If a person is doing a work task for his or her own sake and not only because of external rewards the result is a higher creative level.

To encourage creativity, managers may consider giving positive feedback in an informal style. If feedback is going to be delivered, it is advisable to do so in an informal manner. In addition, when designing the work environment to facilitate creativity, managers need to consider multiple aspects of the organizational context, including social and task dimensions. The study suggests that by simultaneously giving positive feedback in an informal style, and allowing high autonomy at work, managers may substantially facilitate employees' creativity (Zhou, 1998).

2.3.8.4 Work environment

The physical work environment includes everything from the design of the building to the location of public transportation or parking facilities. Characteristics of the physical work environment, such as the lightning, noise levels, temperature, air quality (Baron, 1994), and the availability of equipment needed to perform the job, may limit the degree to which employees can convert all of their well-intended efforts.

Recognition that the work environment can significantly affect job satisfaction has stimulated research in all areas of work environment. For example, the general layout of working spaces in a building has been shown to affect such things as communication (Nemcek & Grandjean, 1973). Lighting can be linked not only to feelings of fatigue but can also give impressions of clarity, spaciousness, and relaxation (Flynn, 1977).

Altering the length or pattern of the work shift can frequently lead not only to happier but also to more productive workers as both boredom and fatigue are enemies of happiness and productivity (Evans, 1975). Four-day work weeks are becoming more and more popular. Management has found that the four-day week can facilitate recruitment, raise morale, lower absenteeism, and even increase production (Poor, 1973). In a study of nurses, varying shift work gave less job satisfaction than permanent shift work (Jawal & Baba, 1992).

Because noise can directly alter arousal levels, it can improve or retard performance depending on other task characteristics (Kryter, 1970). A number of offices allow music or play music to their employees. In general, most of these studies suggested that music has a small positive effect on performance (Sundstrom, 1986). Oldham, Cummings, Mischel, Schmidtke, and Zhou (1995) found that employees that used headset or could listen to music at work exhibited significant improvements in performance, turnover intentions, organizational satisfaction, mood states, and other responses. The mood state of relaxation explained the relation between stereo use and performance best.

There is a second aspect of work environment which is the psychological one. Gummer (1998) emphasized the enormous importance of the role played by social psychological factors in how people acted in organizations. Higgins (2000) reported that the more good relationships an individual has to colleagues the greater will his or her work satisfaction be. A study has shown that social support received from coworkers is an important factor for job satisfaction (Ducharme & Martin, 2000). Organizational support increases employees' expectation and innovation behavior (Eisenberger, Fasolo, & Davis-LaMastro, 1990; Meyer & Allen, 1987). Eisenberger, Fasolo and Davis-LaMastro (1990) found that perceived organizational support and involvement in the employees' work was quite strongly related to performance and absenteeism.

Furthermore, a positive atmosphere and "good chemistry" between people at the workplace increases people's productivity and well-being (Sjöberg & Tollgerdt-Andersson, 1985). Experimental studies of small groups have shown that there is a relationship between what people think about each other and performance (Lott & Lott, 1985). Furthermore, Giorgi and Marsch (1990) found that nice colleagues was one of the most important factors at work. Ravlin and Meglino (1987) showed that people valued that "one care about each other" at work. Eisenberger and his associates (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Shore & Tetrick, 1991) proposed that employees in the workplace form a

general perception of the extent to which their organization values their contributions and cares about their well-being.

In conclusion, most managers would certainly like to create a working environment in which people like working and in which people work well, a working environment which helps to enrich the life of those who work there. As shown here, the working environment is not only the physical one, like lightning and location, but also the coworkers' support and social relationship in general at work is important for creating this kind of working environment.

2.3.8.5 Perceived risks

Risks and negative incidents can be perceived differently and have different effects depending on, for example, a person's earlier experience. McLain (1995) claimed that different risks are associated with multifaceted subjective interpretations. The explorations of the ways in which individuals interpret societal, individual, and organizational risks suggest that different kinds of risks are associated with differing cognitive interpretations (March & Shapira, 1987; Slovic, 1987; Sitkin & Pablo, 1992). The aims of risk perception research are to understand what factors and what processes are involved in subjective judgment of risk (Drottz-Sjöberg, 1995).

Risk is a common word in many languages, and its various meanings were summarized by Drottz Sjöberg (1995): "risks can be construed as either the *mere possibility* of an adverse event, the *cause* of an event, the *magnitude* of the consequence, as someone or something *judged as a hazard* and as the *conceptualization* of a procedure for the estimation of a quantity" (p. 123). This illustrates the variety of concepts included in the construct of risk. All those together constitute the risk concept (Drottz-Sjöberg, 1995).

Perceived risks have been studied in relation to, for example, job satisfaction, where Leigh (1991) as well as Roberts (1993) found that dangerous working

conditions decrease job satisfaction. Moreover, Zaccaro and Stone (1988) reported that the perceived risk level and intellectual challenges are important aspects of job characteristics. Risk interpretation, such as an individual's concerns about risk, the fairness of risk exposure, and the economic meaning of risk, has been found to be related to job satisfaction, just as concern with perceived work environment conditions, compensation fairness, and rewards for performance influence job satisfaction (Cook, Hepworth, Wall, & Warr, 1981). McLain (1995) found that lower perceived risk and stronger belief that risk exposure was evenly distributed were positively related to satisfaction with both workplace conditions and with work in general. Hall and Spector (1991) reported that individuals working at the same job, and who experienced less satisfaction, perceived greater workload, dangerousness, and role conflict.

Perceived risks have in a previous study by Sjöberg and Lind (1994) been related to work motivation. They found two kinds of perceived risks; one that is positively related to, and one negatively related to, work motivation. It is possible that some kind of risks and incidents decrease the motivation level, while others are accepted and do not affect motivation. Taking on a difficult task always involves a risk, and risk seems to have a dual effect on motivation.

It gives rise to fear, of course, but in studies of fighter pilots flying difficult and somewhat risky missions under very high stress (Svensson Angelborg-Thanderz, Sjöberg 1993) a clear tendency was found that perceived risks gave challenge and a positive will to achieve (Svensson, Angelborg-Thanderz, Sjöberg, & Gillberg, 1988).

People perceive risks or negative incidents differently, which makes it difficult to predict which factors are considered the most negative ones. Therefore, it is important to be aware of the influence that differently perceived risks have on people. It might be difficult to completely avoid some of the risks at work, but to be aware of them and maybe discuss them with the employees might help decreasing the negative influence of perceived risk on work motivation. A risk at a workplace could be dependent on the actual environment. It is important

that people feel safe at work and that it should be experienced as comfortable and that right facilities should be provided in order to do a good job.

2.3.8.6 Background factors

The age of the person, how long a person has worked in an organization or in a profession, marital status, and whether the employee is a man or a woman are only some of the background factors that have shown to affect an individual at work. Previous studies have shown that background data are among the best predictors of job performance (Hunter & Hunter, 1984; Mumford & Stokes, 1992).

Several studies have examined the relationship between age and job satisfaction. In fact, observed age differences in overall job satisfaction are greater than those associated with gender, education, ethical background or income (Weaver, 1980). The relationship has shown to be inconsistent. Firstly, in an extensive review of the literature on age, Rhodes (1983) concluded that overall job satisfaction was positively associated with age with older employees tending to report higher satisfaction than younger ones (Doering, Rhodes, & Schuster, 1983; Warr, 1992). Secondly, the relationship between age and job satisfaction has also been shown to be u-shaped. Kacmar and Ferri (1989), as well as Oswald and Warr (1996), reported a U-shaped relationship between age and job satisfaction. Thirdly, Geyer and Daly (1998) examined the age-job satisfaction relationship in facility relocation settings and found a modest but significant negative correlation, which was not in line with the presented studies above. Finally, Rhodes (1983) found approximately equal support for each of four possible age-job satisfaction relations: negative, positive, curvilinear (inverted U), and non-significant.

After reviewing 96 independent studies, McEvoy and Cascio (1989) concluded that age and job performance generally were unrelated across different occupations. However, for young employees the relationship between age and

performance was consistent and moderately positive. In a meta analysis, Cohen (1993) reported that the relationship between age and organizational commitment as well as the relationship between tenure and organizational commitment was weak.

The results of Wahn's (1998) study showed a positive relationship between tenure and continuance commitment and a negative relationship between educational level and continuance commitment. Holtzer (1990) found that previous experience and tenure in the current job have significant positive effects on wages and productivity. Quiñones, Ford, and Teachout (1995) found in their meta-analytic review a quite strong positive relationship between work experience and job performance. This was also the finding of Kolz, McFarland, and Silverman (1998).

Meaningful work was more likely to be ranked as first preference by women, whereas promotion opportunities and security were more often ranked first by men (Tolbert & Moen, 1998). Such findings are consistent with a number of prior studies that have suggested that men are more oriented toward extrinsic rewards, whereas women set a higher value on intrinsic rewards (Beutel, 1995; Lueptow, 1996). Firebaugh and Harley (1995) found that 85% of U.S. workers were happy with their jobs and that men and women were equal in that regard. Aven, Parker, and McEvoy (1993) found in their meta-analysis no differences between men and women concerning affective commitment. Loscocco (1990) claimed that women may be less committed than men to employers because women's first focus of loyalty is the home whereas career is second. Marsden, Kalleberg, and Cook (1993) reported that men tend to have slightly higher overall levels of general organizational commitment than women. Mathieu and Zajac (1990) found the opposite, that is, that women in general are more organizationally committed, although the difference was small. Wahn (1998) claimed that women reported a higher level of continuance commitment than men, but the sex difference was small.

2.3.8.7 Management/leadership

"Managers spend too much time in denial by insisting that they build a motivating workplace when they often sabotage it. A motivating work environment is the responsibility of everyone" (Emmerich, 1998, p. 20).

Management is the process of getting productive work done through the efforts of other individuals; thus, understanding human motivation is essential for managerial success. To do this effectively, the manager must answer this question: "What will motivate people to willingly work toward organizational goals?" The manager must predict, with reasonable accuracy, the kinds of behavior that result when different motivators are present. To make these predictions, the manager needs to understand what motives or needs are most likely to evoke productive behaviors in individuals at a particular time (Timm & Peterson, 2000). While understanding the nature of motivation and some of its effects on people is very useful, even more important is knowing how to create situations where motivation can work for managers and for their organization (Timm & Peterson, 2000).

Managers can influence motivation by doing the following: (1) Having realistic expectations, (2) Communicating about wants, needs, and goals, (3) Understanding the differences between motivators and maintenance factors, (4) creating a motivational climate (openness between managers and subordinates), and (5) using the reward system (Timm & Peterson, 2000).

Supervisors and leaders have shown to have impact on subordinates' motivation. Matching managers with teams that are not their natural fit will produce excessive stress and friction between both parties (Allender & Allender, 1998). Moreover, Lu (1999) stated that having a supportive supervisor at work could make all the difference in the world. Indeed, supervisors can supply necessary information and practical guidance, provide appreciation and recognition, decide promotion and increase in payment etc. Lu (1999) found that social support (from supervision) demonstrated consistent protective effects on well- being.

Tharenou (1993) investigated support received from supervisors, and found in a longitudinal study that such support reduced the level of uncertified absence. Supervisors' consideration towards their subordinates was also shown by Zaccaro, Craig, and Quinn (1991) to be negatively associated with absenteeism in the previous six months.

Miles, Patricks and King (1996) reported that communication (positive- relation communication, upward-openness communication and job-relevant communication) with one's superior was a significant predictor of job satisfaction.

Furthermore, a leader's behavior or leadership style has in several studies shown to be an important factor when it comes to subordinates' motivation as well as job satisfaction. Many different leadership/management styles have in the literature been suggested as successful. Holdnak, Harsh, and Bushardt (1993) found two correlations between a leader's behavior or style and job satisfaction, suggesting that a leader who uses consideration in leadership has a positive impact on his or her subordinates' job satisfaction. Holdnak et al. (1993) also found a negative relationship between initiating structure behavior (involves behaviors with which the leader organizes and defines the relationship in the group) and job satisfaction, suggesting that leaders who use an initiating-structure style will see a decrease in job satisfaction and a negative relationship between initiating-structure leadership behavior and job satisfaction.

Moreover, Bryman (1992) found that transformational leadership (by developing, inspiring and challenging the intellects of followers in order to go beyond their self-interest in the service of a higher collective purpose, mission or vision) behaviors were positively related to a number of important organizational outcomes, including perceived extra effort and job satisfaction.

2.3.9 Summary

To sum up, there are many ways of defining work motivation depending on how the human being is perceived. However, work motivation may be defined as the process by which behavior is energized, directed, and sustained in work settings. The definition of work motivation that was presented in this thesis is willingness to work, which is built on the assumption that it is the will of an individual that affects the work behavior. Moreover, many different factors and work motivation theories have been introduced in the literature over the years. The factors that were included in this thesis have in previous studies been shown to either enhance or decrease motivation. Some of the factors have traditionally been related to work motivation whereas others have more recently been presented. In addition, the presented predictors of work motivation emphasize different aspects. Some of the factors, such as payment, goal setting, work environment, leadership, and perceived risks are factors that can be found outside the individual, whereas intrinsic motivation, work interest, creativity, and perceived control are factors that are to a higher extent related to factors inside an individual. This shows the variety of factors that have been related to work motivation.

2.4 Work related behavior

Motivation is not directly observable. What we observe is a multidimensional stream of behavior and the products of those behaviors (Atkinson & Birch, 1970). There are three groups of behaviors or behavior outcomes associated with work motivation: directional, intensity and persistence behaviors (Kanfer, 1990). One way of looking at directional measures of work behavior is through withdrawal behaviors, for example, absenteeism and turnover, which are most often used when investigating choice decisions between mutually exclusive courses of actions. In the category of intensity measures, job performance and task effort are common ways of measuring this. Number of hours worked is one way of assessing persistence. Similar criterion variables were used in a meta-analysis to evaluate the validity of Vroom's Expectancy work motivation theory (Van Eerde & Thierry, 1996).

Withdrawal, as well as job performance and number of hours worked, are presented in more detail below. A valid and useful measure of work motivation should be closely related to these behaviors, as work motivation is reflected in these work related behaviors. Sjöberg and Lind (1994) found that work motivation defined as willingness to work was strongly related to absenteeism as well as number of hours worked.

2.4.1 Direction (withdrawal behaviors)

Absenteeism and turnover are two of the most commonly acknowledged forms of withdrawal (Pinder, 1998). The voluntary turnover of desirable employees is in general considered detrimental to the organization, both in replacement costs and work disruption. Generally, withdrawal behaviors might not only mirror dissatisfaction but also low motivation level among employees.

2.4.1.1 Absenteeism

It is clear that absenteeism presents problems to both human resource practitioners and researchers. Discontinuous attendance at work can immediately lead to reduction in output, as a needed employee is not available. It has proven difficult to determine the factors influencing attendance or on non-attendance. One study has shown that absenteeism increased with age and women in general were more absent than men (Warr & Yearta, 1995). Other studies have found that those employees who perceived social support at work as high reported fewer sickness absences (Cutrona & Russel, 1990; Unden, 1994).

Wooden (1995) listed organizational commitment as one of the most important factors that has impact on absence. He commented that higher levels of organizational commitment positively related to attendance, which suggested that increased organizational commitment could lead to substantially reduced levels of absenteeism. Significant, but weak negative relationships have previously been found to exist between organizational commitment and absenteeism in some studies (Blau, 1986; Mayer & Schoorman, 1992; Steers, 1977) but not in others (Ivancevich, 1985; Jamal, 1984). In fact, Ivancevich (1985) found that an individual's past absenteeism was a better predictor of subsequent absenteeism than the individual's level of organizational commitment. Savery, Travaglione and Firns (1997) reported only a weak negative association between organizational commitment and absenteeism, and other researchers have cast doubt on the existence of a negative relation between organizational commitment and absenteeism (Angle & Perry, 1981; Mowday, Porter, & Steers, 1982).

Employee absenteeism is a costly personnel problem attracting the attention of theoreticians and practitioners alike (Hackett, 1989). Considerable research on this topic has concerned the links between absence from work and work-related attitudes, such as job satisfaction. Hanisch and Hulin (1991) theorized that absenteeism reflects "invisible" attitudes, such as job dissatisfaction. However,

results have shown that no meaningful relationship between job satisfaction and absenteeism exists (Hackett, 1989; Hackett & Guion, 1985; Mayer & Schoorman, 1992).

Two basic types of absences have been distinguished: involuntary (e.g., certified sickness) and voluntary (e.g., vacation, uncertified sickness). Voluntary absences are under the direct control of the employee and are frequently utilized for personal aims such as testing the market for alternative employment prospects. Conversely, involuntary absences are beyond the employee's immediate control. Hence, voluntary rather than involuntary absence from work may reflect job dissatisfaction and lack of commitment to the organization. Consequently, one may expect that work attitudes will be more negatively related to voluntary absence than to involuntary absence (Sagie, 1998). Moreover, Sagie (1998) found that job satisfaction and organizational commitment were strongly related to aggregated duration of voluntary absence, but not of involuntary absence.

2.4.1.2 Turnover (Intention to quit/leave)

Employee turnover may result in dramatic financial costs to organizations. Turnover not only has economic impact but also adversely affects training, organizational development, and other human resource-development interventions (Hatcher, 1999). Voluntary turnover has been the subject of extensive theorizing and research because of its potential costs to organizations in terms of loss of valuable human resources and disruption of ongoing activities (Cascio, 1991a). Over time, organizations invest substantial resources in their employees. The corresponding costs to the firm regarding employees quitting the organization and the subsequent hiring of replacement employees can be significant in terms of personal, work-unit, and organizational readjustments (Cascio, 1991b; Mobley, 1982).

In many models, turnover intention is the immediate precursor to actual turnover (e.g., Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Mobley, 1981; Mobley, Griffeth, Hand, & Meglino, 1979; Steers & Mowday, 1977; Sager, Griffeth, & Hom, 1998), and the relationship between intentions to quit and actual turnover has been well-documented in the literature (e.g., Hom, Griffeth, & Sellaro, 1984; Steel & Ovalle, 1984). Fishbein and his colleagues (Fishbein, 1967; Fishbein & Ajzen, 1975) argued that behavioral intention is antecedent to actual behavior.

Although the relationship between job satisfaction and intention to leave is generally thought to be negative (Carsten & Spector, 1987; Tett & Meyer, 1993), the magnitude of this relationship varies in the available literature. Spector and Jex (1991) found that the relationship was strong (r = -.59 for a sample of 322 U.S state civil-service employees. Hellman (1997) reported that the relationship between job satisfaction and intention to leave was negative (r =-.47). A moderate relationship (r = -.23, N = 190) was reported by Keller (1984). Similarly, Newman (1974) used aspects of Fishbein's behavioral intentions model to examine the turnover process among 108 U.S. nursing-home employees and found a quite weak relationship (r = -.10). Furthermore, employees from a large U.S. federal agency were less likely than employees within the private sector to leave the organization.

Mathieu and Zajac (1990) as well as Randell (1990) have reported a weak relationship between organizational commitment and turnover. Werbel and Gould (1984) revealed an inverse relationship between organizational commitment and turnover for nurses employed more than one year. Previous work by Cohen (1991) has indicated that this relationship was stronger for employees in their early career stages (i.e., up to 30 years old) than for those in later career stages.

2.4.2 Persistence (Number of hours worked)

Behaviors that are referred to as persistence are behaviors related to, for example, how long a person works (Kanfer, 1990). It is important here to distinguish between voluntary and unvolutary hours worked, because a person who is forced to work overtime might not be motivated to do so, whereas a person who by free will stays at work might be motivated to do so. This behavior is rarely related to work motivation, because there might be other factors that affect the number of worked hours more than motivation itself. However, Wallence (1997) found that work motivation was positively associated with number of hours worked.

Individuals who view their work as salient are highly committed to their work and/or career and therefore typically devote considerable time to their work role (Aryee, 1992; Frone & Rice, 1987; Greenhaus & Kopelman, 1981; Greenhaus, Parasuraman, Granrose, Rabinowitz, & Beutell, 1989; Wiley, 1987). Research that compares number of worked hours with gender of workers found that women work on an average fewer hours per week than men (Voydanoff, 1988). Wallence (1997) reported that internal factors (job commitment) and external factors that reflect both work-related (work overload) and domestic (preschool children for women) pressures are related to number of hours worked.

2.4.3 Intensity (Job performance)

It is common to evaluate and compare theories of work motivation by the extent to which they successfully predict job performance (for a review, see Kanfer, 1992). Motivation and job performance is not the same thing (Kanfer, 1990, 1992; Pinder, 1998). Kanfer (1990) stated that the construct of motivation subsumes the determinants and processes underlying the development of intentions, choice behaviors, and volitional activities.

The product of these motivational processes is the individual's overt and/or covert behaviors. In contrast, performance typically refers to an evaluation of the individual's behaviors.

It is assumed that the performance occurs in the context of a job, position, or role in an organization, even if the organization consists of only two people. The organization is assumed to exist for accomplishing certain goals, even if they cannot be articulated. A full understanding of job performance depends on having some understanding of the organizational goals to which individual performance is supposed to contribute. Performance is something that people do and is reflected in the actions that people take. It includes only those actions or behaviors relevant to the organizational goals. Performance is not the consequence(s) or result(s) of action, it is the action itself. Admittedly, this distinction is troublesome in at least one major respect. That is, behavior is not always observable and can be known only by its effects (Campbell, 1991).

Performance is to be distinguished from effectiveness and productivity. Effectiveness refers to the evaluation of the results of performance. By definition, the variance of a measure of effectiveness is controlled by more than the actions of the individual plus error (Campbell & Campbell, 1988). The definition of productivity, usually agreed upon, is the ratio of effectiveness to the cost of achieving that level of effectiveness (Mahoney, 1988).

It is axiomatic that job performance is not one thing. A job is a very complex activity and there are a number of major performance components distinguishable in terms of their determinants and co-variation patterns with other variables (Campbell, 1991).

Campbell (1991) suggested a performance model including three major determinants. The first is declarative knowledge, which refers to knowledge about the facts and things. Specifically, it represents an understanding of a given task's requirements (e.g., general principles for equipment operation; Anderson, 1985; Kanfer & Ackerman, 1989). Examples of declarative knowledge include

knowledge of labels, facts, principles, goals, and self. The second determinant is procedural knowledge and skill, which is attained when declarative knowledge, or knowing what to do, has been successfully combined with knowing how to do it. Examples of procedural knowledge and skill include cognitive, psychomotor, physical, perceptual, interpersonal, and self-management skills. The third determinant, motivation, could be seen as a direct determinant of performance.

Often job performance can be divided into task performance and conceptual performance. Task performance consists of job-specific behaviors including core job responsibilities, for which the primary antecedents are likely to be ability and experience. Conceptual performance consists of non-job-specific behaviors, such as cooperating with coworkers and showing dedication, for which the primary antecedents are likely to be volition and personality (Borman & Motowidlo, 1993). The concept of conceptual performance has recently attracted considerable research attention, most likely due to changes in the nature of organizations, such as team-based work (Borman & Motowidlo, 1997b).

Motowidlo, Borman, and Schmit (1997) claimed that job performance is behavioral, episodic, evaluative, and multidimensional. Further, they suggested a definition of job performance as "the aggregated value to the organization of the discrete behavioral episodes that an individual performs over a standard interval of time". (p. 71). The theory that Motowidlo, Borman, and Schmit (1997) presented predicted that individual differences in personality and cognitive ability variables, in combination with learning experiences, lead to variability in knowledge, skills, and work habits that mediate effects of personality and cognitive ability on job performance. Moreover, the kinds of knowledge, skills, work habits, and traits that were associated with task performance are different from the kinds that were associated with conceptual performance.

As Campbell (1991) suggested, two of the major determinants of performance refer to different kinds of knowledge. It is important to let people in their own time acquire skills through practice (Ericsson, Krampe, & Tesch-Römer, 1993) to be able to perform well. To be ready to practice, the learner must, however, possess some initial competence. Exercising the initial competence by repeatedly attempting to perform a novel task engenders increased competence and, eventually, mastery, even in the absence of instruction. Kolz, McFarland, and Silverman (1998) found that both ability and experience were important predictors of work performance. The traditional view, supported by considerable empirical evidence, is that cognitive ability is the most important determinant of work motivation (Hunter & Hunter, 1984; Ree, Earles, & Teachout, 1994).

The assumption is that motivated employees perform better, and that can depend on, for example, that they have a greater need for success, which can be met only by good performance (Staw, 1984). They are also more goal-oriented and compelled by their commitment to exert great effort in their work (Steers, 1977). It should, however, be noted that poor job performance is not always a result of low motivation (Pinder, 1998). In many cases it might be better attributed to external factors, such as characteristics of the work environment (Baron, 1994), and the availability of materials needed to perform a job.

Other factors than motivation and competence have been suggested to effect job performance. In pervious research it was found that autonomy (freedom to work independently) and discretion (participation in decision-making) enhance both motivation and job performance (Darden, Hampton, & Howell, 1989). Employees are also assumed to work better if their jobs are well defined and if they are recognized when they do their work well (Cheng & Kalleberg, 1996). Length of service with the current employer appears to enhance performance. Respondents who felt that they are noticed when they work well were more likely to report better performance. Workers who report that hard work leads to pay rises tend to report poorer quality performance, which is surprising because pay rises are presumably used by employers to stimulate better performance (Cheng & Kalleberg, 1996). Ree, Earles, and Teachout (1994) found that

general cognitive ability is the best predictor of all criteria and that specific abilities or knowledge added only a small amount to predict job performance (Ree, Earles & Teachout, 1994).

2.4.3.1 Ratings of job performance

Arvey and Murphy (1998) stated that the notion that job performance is more than just the execution of specific tasks and that it involves a wide variety of organizational activities has important implications for the understanding and measurement of job performance. Different approaches have been suggested in order to rate performance. One way of measuring performance is through subjective measurement and another is to use an objective measurement. In a study comparing self-reported job performance ratings and ratings given by their superiors, for example, Heneman (1974) found that self-report measures had less halo error, restriction of range, and leniency than the more objective measures, such as sales, a finding supported by Arvey and Murphy (1998) who stated that subjectivity does not automatically translate into rater error or bias and that self-ratings are most likely valid reflections of true performance. Further, Jourden and Heath (1996) reported that after completing a task, most individuals typically rank their performance below the median (a negative performance illusion) and most group members rank their group performance above the median (a positive performance illusion). Group members consistently assign their group a higher rank than individuals assign themselves. Moreover, Heneman concluded that self-reported measures are more appropriate for research purposes than for organizational evaluations. In addition, more objectives measures are useful only in specific settings and cannot be applied to the whole labor force (Steers, 1977; Judge & Ferris, 1993).

A number of recent studies have examined the relative value and interchangeability of different types of performance measures. Bommer, Johnson, Rich, Podsakoff, and MacKenzie (1995) assessed the relationships between relatively objective and subjective measures of employee performance. Using meta-analytic techniques to summarize the relationships for over 50 independent samples, the overall corrected mean correlation between the two types of measures was .39, suggesting that the two measures were significantly and moderately related but not totally substitutable. Heneman (1986) examined the relationship between supervisory ratings of performance and result-oriented measures of performance - essentially a comparison of subjective versus objective criterion measures. He reported a mean correlation of .27 between subjective and objective performance measures.

2.4.4 Summary

Work motivation itself is hard observe, instead it is reflected in different behaviors. Behaviors that often are studied to understand work motivation are absenteeism, turnover, number of hours worked, and job performance. For a work motivation measure to be valid and useful it should be able to predict different work-related behaviors. Commonly used measures of work motivation (e.g., job satisfaction and organizational commitment) have not shown strong relationships to work-related behaviors, for example, job performance. However, Sjöberg and Lind (1994) found that work motivation defined as willingness to work was strongly related to both absenteeism and number of hours worked.

3. Research approach

This section of the thesis presents the research approach of the three empirical studies. The participants of the studies were, in Study 1, pre-school employees, in Study 2, employees of an insurance company and in Study 3, salespeople in an insurance company. In the introduction section, advantages and disadvantages using a qualitative approach is discussed. Further in this part of the thesis, the three work groups are presented with background data. The scales used in the studies are presented with descriptive statistics including reliability measures.

3.1 Introduction

The purposes of the thesis were to first explore the factors that explain the variance in willingness to work (work motivation) and secondly to investigate the relations between willingness to work and work-related variables. Three studies were included in the thesis, and two of these, Study 1 and 2, were very similar in research design and had the same research purpose. In fact, the questionnaires used were similar with only a few differences and included factors that were hypothesized to affect work motivation as well as self-rated work-related behaviors. In the third study, the purpose was to investigate the relationship between willingness to work and job performance, and in this study a somewhat different questionnaire was used.

There are both advantages and disadvantages using questionnaires (a quantitative approach). First of all, using a questionnaire is a simple and effective method to collect data from a large sample. The researcher's influence on the participants is minimized, and the respondents are able to choose whether they want to fill it in. Secondly, Chadwick, Bahr, and Albrecht (1984) argued that the questionnaire survey is a useful way to obtain information about sensitive topics. It is suggested that to report how often one exhibits deviant or

disapproved behavior it is easier for the respondent completing a questionnaire than it would be in face-to-face interaction with an interviewer. Finally, if the respondent is convinced that the questionnaire is anonymous, he or she can freely report attitudes and behaviors without embarrassment or fear of reprisal.

Chadwick, Bahr, and Albrecht (1984) also brought up some disadvantages of using this kind of method. First, they indicated that valuable information might be lost if the researcher cannot follow up interesting leads. However, to minimize this problem, interviews were done prior to the survey in order to increase knowledge about the studied groups and to be certain that valuable information would be included in the final questionnaire. The interviews were done with 16 persons for Study 1 (employees in pre-schools) and 16 for Study 2 (employees in an insurance company) and 6 for Study 3 (insurance sales personnel).

Second, another limitation might be that a questionnaire must be relatively brief, otherwise most respondents will not take the time to complete it (see Aaker & Day, 1990). Although the questionnaire in the samples was very long, the response rate in the three studies were quite high, 72% for the pre-school employees, 82% for employees in an insurance company, and 73% for salespeople in an insurance company. Although the response rates were quite high, there were employees who did not respond. The respondents' average time for answering the questions was approximately 60 minutes in Study 1 and 2. Some of the respondents stated that the questionnaire included too many questions and that it took long time to answer and that might be one of the reasons for the non-responses. There might be other reasons as well. Rogelberg and Luong (1998) presented four classes of non-response, the individual (a) never actually received the survey, (b) is unable to complete it (e.g., ill, cannot read), (c) misplaced or forgot the survey out of carelessness, or (d) has made a conscious decision not to respond to the survey (i.e., noncompliance).

Finally, one should also be aware of problems that could be related to using self-reports of, for example, behaviors and attitudes, because they are influenced by

features of the research instrument, including question wording, format, and context (Schwarz, 1999). In the next section, all of the studied groups are presented and the questionnaires used are shown in detail.

3.2 Study 1 (pre-school employees)

3.2.1 Participants

Twenty-three pre-schools in the county of Stockholm, including the city of Stockholm, participated in the study. The sample consisted of 179 employees. The number of women who participated was 165 while 14 respondents were men. The age range of the participants was 25 to 64 years with an average age of 44 years. The number of years worked in the organization ranged from 1 year up to 37 years, with an average of 11.5 years. The group with the highest representation in this study was pre-school teachers, 48% of the sample, with a training of two-and-a-half years of post-secondary studies. The rest of the participants had a variety of other types of educations.

3.2.2 Procedure

The selection of pre-schools was based on the criterion of a sufficiently large, heterogeneous sample. There were 23 pre-schools randomly selected.

The questionnaires and an envelope were distributed to each participant and also collected by the author. Instructions were both written and oral.

The total number of distributed questionnaires was 250 of which 179 responded (response rate of approximately 72%).

3.2.3 Questionnaire

The questionnaire included 16 scales and background questions. The questions were to be rated on 5-, 6- or 7-point Likert-type scales. The midpoints were labeled "neither-nor". The extreme positive and negative anchors of the scales usually had the verbal labeling of "very" together with the positive or negative keyword. Regarding some background questions the respondents simply answered "yes" or "no", and supplied further information by using an open-ended format.

Many of the questions included in the questionnaire were developed and used in the study of Sjöberg and Lind (1994). Other scales were either adapted from previous research or developed by the author. The instruments developed for the present study were based on 16 interviews with employees working at different pre-schools. The purpose of the interviews was to increase the knowledge of the studied group, mainly in the areas of work tasks, work environment, attitudes towards the job, different job risks and of stressful situations. In order to be certain that the questionnaire was relevant for the group, 16 employees other than the ones who were interviewed, were invited to participate in a focus group, where the questionnaire, with an emphasis on the developed questions for this particular study, was discussed and the face validity of the questionnaire was confirmed. The scales included in the study are presented in next section.

3.2.3.1 Scales included

The scales that were included in the study were either developed by Sjöberg and Lind (1994), developed by others or developed for this particular study.

Work motivation**[2] was the main variable in the study. Work motivation defined as *willingness to work* was measured using Sjöberg and Lind's (1994) 12-item scale. This scale has been used among people working in the service sectors as well as in the manufacturing industry (Sjöberg & Lind, 1994). The scale measured how willing a person was to work by, for example, asking questions about his or her general motivation, how often the respondent felt strong will to work, etc. The respondent was presented items with a response scale ranging from 5 (*Positive*) to 1 (*Negative*).

Overall job satisfaction was measured by one single item. The questions asked how satisfied he or she was with the job. The 7-point scale was anchored by 7 (*Very satisfied*) and 1 (*Not satisfied at all*). Several studies have shown that a global rating of job satisfaction is an inclusive measure of overall job satisfaction (e.g., Scarpello & Campbell, 1983; Wanous, Reichers, & Hudy, 1997).

Organizational commitment was measured by a 24-item scale developed by Allen and Meyer (1990). The scale assessed an individual's degree of commitment to an organization. The respondent indicated how she or he felt about each item, using a 6-point scale ranging from 6 (*Strongly agree*) to 1 (*Strongly disagree*).

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[2] The scales that are presented in Appendix B are marked with **. The scales that are not presented can be obtained from the author.

General work attitudes** was measured with 18 questions regarding an employee's attitude towards his or her job. This scale was developed by Sjöberg and Lind (1994) for this particular study. The respondent indicated how she or he felt about each item, using a 6-point scale ranging from 6 (*Strongly agree*) to 1 (*Strongly disagree*).

Opinions of one's job** was measured by 24-item scale. This measure was developed for this particular study. The respondent indicated how she or he felt about each item, using a 6-point scale ranging from 6 (*Strongly agree*) to 1 (*Strongly disagree*). Questions included brought up questions concerning general beliefs/opinions about one's job.

Social relations was measured with 2 questions regarding relations to other colleagues. This scale was developed by Sjöberg and Lind (1994). The 5-point scale was anchored by 5 (*Very good*) and 1 (*Very bad*).

Work environment included 15 questions about different aspect in the physical environment. This scale was developed for this study. The 5-point scale was anchored by 5 (*Very satisfying*) and 1 (*Very dissatisfying*).

Work interest** was measured by a scale that included 35 specific work tasks for this particular group. The respondent rated how interesting he or she found different work tasks. The 7-point scale was anchored by 7 (*Extremely interesting*) and 1 (*Completely uninteresting*).

Leadership consisted of 4 question concerning the mangers knowledge and interest of one's job. This scale was developed by Sjöberg and Lind (1994). The respondent indicated how she or he felt about each item, using a 5-point scale ranging from 5 (*Yes, absolutely*) to 1 (*Absolutely not*).

Creativity was measured by 17-item scale developed by Sjöberg and Lind (1994). The scale assessed the degree to which an employee use their creativity. The respondent indicated how she or he felt about each item, using a 5-point scale ranging from 5 (*Strongly agree*) to 1 (*Strongly disagree*).

Perceived risks** was originally developed by Sjöberg and Lind (1994). In this study risks that were related specifically to pre-schools were added. The scale contained 27 different risks related to professional life (physical, personal or social). The respondent indicated the frequency of encountering different risks described by each item using a scale anchored by 4 (*Never*) and 0 (*Very often*).

Intrinsic motivation was measured by 21 questions and the scale was developed by Ryan (personal communication, 1994). The instrument assessed an individual's perceived competence, autonomy, and relatedness. The respondent indicated how she or he felt about each item using a 6-point scale anchored by 6 (*Strongly agree*) and 1 (*Strongly disagree*).

General intrinsic and extrinsic motivation was measured by Amabile, Hill, and Hennessey's (1994) Work Preference Inventory including 15 questions about intrinsic motivation (e.g., the degree to which a person is motivated by activities that are spontaneously initiated and experienced as enjoyable) and 15 questions about extrinsic motivation (e.g., the degree to which a person is motivated by external inducements). The respondent indicated how she or he felt about each item using a 6-point scale anchored by 6 (*Strongly agree*) and 1 (*Strongly disagree*).

Occupational and work stress was assessed with Job Stress Survey (JSS) a 19-item scale developed by Turnage and Spielberger (1991). The respondent rated how often he or she experience stress in different situations. The 7-point scale was anchored by 7 (*Never*) and 1 (*Very often*).

Pay satisfaction was measured with a 25-item scale. The instrument was developed by Carraher (1991). The questions asked how satisfied he or she was with different aspects of payment. The 5-point scale was anchored by 5 (*Very satisfied*) and 1 (*Not satisfied at all*).

Perceived control was assessed with a scale developed by Dwyer and Ganster (1991). Questions about how an employee perceives him- or herself having control at work were asked. The respondent indicated how she or he felt about each item using a 5-point scale anchored by 6 (*To a very high degree*) and 1 (*To a very low degree*).

Reported number of hours worked per week (effective time) was measured using one question. The participant was asked how many hours he/she spent each week at work. The response alternatives were 1 (*Much less than 40 hours*), 2 (*Less than 40 hours*), 3 (*Approximately 40 hours*), 4 (*More than 40 hours*), 5 (*Much more than 40 hours*). In Sweden, a full-time week is 40 hours.

Absenteeism was measured by only one question: how many days the respondent had been absent from work during a period of twelve months. The response alternatives were 1 (*More than 20 days*), 2 (*16-20 days*), 3 (*11-15 days*), 4 (*6-10 days*), and 5 (*0-5 days*).

Intention to quit was measured by two items, which brought up the questions about whether the respondent had thought about quitting his or her job and how often the participant had been looking for a new working position. The response alternatives ranged from 1 (*Often*) to 5 (*Never*).

Background factors included questions about age, income, sex, number of years working in the organization, and education.

3.2.3.1.1. Indices

A large number of measurements or questions were used. One way to reduce the multiplicity of test and measures to greater simplicity is to perform a factor analysis. The purpose of using factor analysis is to summarize the interrelationships among the variables in a concise but accurate manner as an aid in conceptualization (Gorsuch, 1983). Furthermore, most factor analytic methods initially produce results in a form that is difficult or impossible to interpret. A principal factor matrix and its loadings account for the common factor variance of the test scores, but they do not in general provide scientifically meaningful structures. It is the configurations of tests or variables in factor space that are of fundamental concern. In order to discover these configurations adequately, the arbitrary reference axes must be rotated (Kerlinger, 1986). The rotation that was used in the reduction process in the thesis was *varimax rotation.*

Organizational commitment

Organizational commitment was measured with Allen and Meyer's (1990) scale. Allen and Meyer (1990) suggested that organizational commitment should be divided into three dimensions, affective, normative, and continuance organizational commitment. Questions related to the dimension affective organizational commitment deal with affective reactions to the organization, normative organizational commitment with the employee's feelings of obligations to the organization, and continuance organizational commitment with questions about commitment to continue one's work tasks. In the factor analysis a number of factors were a prior determined due to earlier findings (c.f. Cohen, 1996; Irving, Coleman, & Cooper, 1997).

A *KMO* [3] measure (.811) and *Bartlett's test* ($p < .000$) indicated that the data were suitable for factor analysis (cf. Hair, Andersson, Tatham, & Black, 1998).

[3] Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is an index used to examine the appropriateness of factor analysis. High values (between .5 and 1.0) indicate that factor analysis is appropriate (Malhotra, 1999).

In Table 1, the result of a principal component analysis is presented with a varimax rotation.

The result confirmed the three factors affective, continuance, and normative organizational commitment. There were no overlaps between the factors. However, two of the items had a factor loading smaller than .40, and therefore those two were excluded. Otherwise the factor loadings within the factors were rather high.

Table 1

Three-factor solution obtained in an analysis of Allen and Meyer's organizational commitment scale (Study 1).

	Factor loadings		
	Affec-tive OC	Continu-ance OC	Norm-ative OC
I would be very happy to spend the rest of my career with this organization	.66		
I enjoy discussing my organization with people outside it	.49		
I really feel as if this organization's problems are my own	.60		
I think that I could easily become as attached to another organization as I am to this one	.44		
I do not feel like ' a part of the family' at my organization (R)	.79		
I do not feel 'emotionally attached' to this organization (R)	.59		
This organization has a great deal of personal meaning to me	.72		
I do not feel a strong sense of belonging to my organization (R)	.42		
It would be very hard for me to leave my organization right now, even if I wanted to		.61	
Too much in my life would be disrupted if I decided I wanted to leave my organization now		.62	
It wouldn't be too costly for me to leave my organization now (R)		.40	
Right now, staying with my organization is a matter of necessity as much as desire		.48	
I feel that I have too few options to consider leaving this organization		.79	
One of the few serious consequences of leaving this organization would be the scarcity of available alternatives		.75	
One of the major reasons why I continue to work for this organization is that leaving would require considerable personal sacrifice - another organization may not match the overall benefits I have here		.41	
I think that people these days move from company to company too often			.58
I do not believe that a person must always be loyal to his or her organization (R)			.41
Jumping from organization to organization does not seem unethical at all to me (R)			.70
One of the major reasons why I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to stay			.62
If I got another offer of a better job elsewhere I would not feel it was right to leave my organization			.55
I was taught to believe in the value of remaining loyal to one organization			.51
Things were better in the days when people stayed with one organization for most of their careers			.65

Note. Loadings below .40 are not shown in the table. OC= organizational commitment. (R)= items with reversed coding.

General attitudes

General attitudes towards one's job was measured with Sjöberg and Lind's (1994) scale. In their study, two factors were found: positive evaluation of one's job and negative evaluation of one's job. A prior determined factor analysis with a two- factor solution was performed. The *KMO* (.885) measure as well as *Bartlett's test* ($p < .000$) showed that a factor analysis was suitable for the data. The two factors were confirmed also in this study. The result is shown in Table 2. Furthermore, two of the items from the original scale were deleted because the factor loadings were under .40. Otherwise the factor loadings were high.

Table 2

Two-factor solution obtained in an analysis of a general attitude scale (Study 1)

	Positive evaluation of one's job	Negative evaluation of one's job
My job is nice	.59	
My job is ideal for me	.72	
My job is good	.62	
My job is valuable	.51	
My job is fantastic	.88	
My job is better than most jobs	.76	
I am satisfied with my job	.86	
My job is excellent	.88	
I am comfortable with my job	.70	
My job is bad		.62
My job is a waste of time		.76
My job is not suited for me		.70
My job is worse than most jobs		.55
My job is not acceptable to me		.60
My job is very bad		.70
My job is worthless		.63

Note. Loadings below .40 are not shown in the table.

Work interest

Work interest for specific work tasks was measured with a scale that was developed for this specific work group. In order to minimize the number of questions a principal component analysis was performed. The *KMO* measure (.751) and *Bartlett's test* ($p < .000$) indicated that a factor analysis was appropriate for the data. The number of factors chosen was based on the cumulative percentage of explained variance. Accordingly, three factors were selected due to the total variance explained (58%). Varimax rotation was then used to get a more interpretable solution. A satisfactory interpretation of the three-factor solution was found. The first factor was called interest in pedagogical work tasks (e.g., reading to the children), the second one interest in practical work tasks (e.g., preparing meals), and the third one interest in administrative work tasks (e.g., marketing the pre-school). Two of the items from the original scale were excluded because the factor loadings were smaller than .40. The result is illustrated in Table 3.

Table 3

A factor analysis with a varimax rotation of work interest among pre-school employees (Study 1)

	Factor loadings		
	Pedagogical work task	Practical work tasks	Administrative work tasks
To meet with colleagues	.61		
To read to the children	.63		
To lead creative playing (i.e., painting)	.55		
To play theatre with children	.43		
To make excursions with children	.48		
To work with a mixed age group of children	.67		
Get further advance training	.46		
To read literature about pedagogy	.60		
To lead sports	.58		
To tell the children about society	.48		
To teach the children reading, counting and writing	.66		
To let the children take initiative	.73		
To meet with children	.58		
To be outside playing with children	.60		
To work with the oldest children		.53	
To help the children to get dressed		.74	
Parental meetings		.51	
To supervise trainees		.62	
To prepare meals		.53	
To solve conflicts between the children		.55	
To work with the youngest children		.48	
To eat with the children		.52	
To shop for the pre-school		.47	
To cooperate with other pre-schools		.58	
To clean		.53	
To meet with parents			.66
To have contact with authorities			.82
Accounting			.79
Management			.71

Note. Loadings below .40 are not shown in the table.

Intrinsic motivation

Intrinsic motivation was measured with Ryan's (personal communication) scale. The developer of the instrument suggested that the scale contained three dimensions and therefore three factors were a priori determined in the factor analysis. The *KMO* measure (.816) and *Bartlett's test* ($p < .000$) showed that a factor analysis was appropriate to use for the data. The suggested dimensions were perceived competence (e.g., the degree to which an employee perceives him/herself as competent), perceived relatedness (e.g., the degree to which an

employee feels related to the organization and colleagues), and perceived autonomy (e.g., the degree to which a person is not controlled). The three factors were confirmed. There were several items that were deleted, because the factor loadings were smaller than .40. The result is presented in Table 4.

Table 4
Three-factor analysis of Ryan's intrinsic motivation scale (Study 1)

	Factor loadings		
	Autonomy	Relatedness	Competence
I feel like I can make a lot of input to deciding how my job gets done	.78		
I am free to express my ideas and opinions on the job	.73		
My feelings are taken into consideration at work	.47		
I feel like I can pretty much be myself at work	.71		
I really like the people I work with		.85	
I get along with people at work		.79	
I pretty much keep to myself when I am at work (R)		.56	
I consider the people I work with to be my friends		.80	
People at work care about me		.78	
The people I work with do not seem to like me much		.40	
People at work are pretty friendly towards me		.78	
I do not feel very competent when I am at work (R)			.70
People at work tell me I am good at what I do			.40
I have been able to learn interesting new skills on my job			.71
Most days I feel a sense of accomplishment from working			.63
On my job I do not get much of a chance to show how capable I am (R)			.70
When I am working I often do not feel very capable (R)			.63

Note. Loadings below .40 are not shown in the table.

Occupational stress

The developers of the Job Stress Survey (JSS; Turnage & Spielberger, 1991) suggested the scale to be divided into two factors, one measuring lack of support (e.g., degree to which lack of support affects an employee) and the other job pressure (e.g., the degree to which job pressure affects an employee). The *KMO* measure (.772) as well as *Bartlett's test* ($p < .000$) showed that a factor analysis was suitable. A factor analysis with two factors was performed and the prior finding was confirmed. The result is shown in Table 5.

Table 5

Two–factor analysis of job stress (Study 1)

	Factor loadings	
	Lack of support	Job pressure
Lack of opportunity for advancement	.53	
Poor or inadequate supervision	.77	
Inadequate support by supervisor	.74	
Personal insult from customer/consumer/colleague	.40	
Fellow workers not doing their job	.59	
Difficulty getting along with supervisor	.76	
Inadequate salary	.48	
Negative attitudes towards organization	.56	
Lack of participation in policy-making decisions	.42	
Poorly motivated co-workers	.51	
Making critical on-the-spot decisions	.54	
Inadequate or poor quality equipment		.57
Insufficient personnel to handle assignment		.58
Dealing with crisis situations		.41
Frequent interruptions		.60
Meeting deadlines		.59
Excessive paperwork		.43
Competition for advancement		.59
Noisy work area		.52
Assignment of new or unfamiliar duties		.51
Assignment of increased responsibility		.57
Covering work for another employee		.59
Frequent changes from boring to demanding activities		.47
Working overtime		.63
Performing tasks not in job description		.54
Insufficient personal time		.68

Note. Loadings below .40 are not shown in the table.

General intrinsic and extrinsic motivation

Amabile et al. (1994) developed a scale called Work Preference Inventory which assesses individual differences in intrinsic and extrinsic motivational orientation. The *KMO* measure (.683) and *Bartlett's test* ($p < .000$) showed that a factor analysis was appropriate for the data. The two suggested factors were confirmed in this study. The result of a two-factor analysis is shown in Table 6. There were, however, 4 items in the intrinsic scale and 6 in the extrinsic scale with factor loadings smaller than .40. The result is illustrated in Table 6.

Table 6

Two- factor analysis intrinsic and extrinsic motivation (Study 1)

	Factor loadings	
	Intrinsic motivation	Extrinsic motivation
I enjoy tackling problems that are completely new to me	.84	
I enjoy trying to solve complex problems	.81	
The more difficult the problem is, the more I enjoy trying to solve it	.80	
I want my work to provide me with opportunities for increasing my knowledge and skills	.52	
Curiosity is the driving force behind much of what I do	.76	
I enjoy relatively simple, straightforward tasks	.41	
I enjoy doing work that is so absorbing that I forget about everything else	.40	
What matters most to me is enjoying what I do	.30	
It is important for me to have an outlet for self-expression	.44	
I prefer work I know I can do well over work that stretches my abilities	.55	
No matter what the outcome of a project is, I am satisfied if I feel I gained a new experience	.48	
I want to find out how good I really can be at my work		.60
I am keenly aware of the (promotion) goal I have for myself		.40
I am strongly motivated by the (grades) (money) I can earn		.46
I am strongly motivated by the recognition I can earn from other people		.44
I want other people to find out how good I really can be at my work		.60
I seldom think about (grades and awards) (salary and promotion).		.59
To me, success means doing better than other people		.58
I have to feel that I'm earning something for what I do		.57
I prefer working on projects with clearly specified procedures		.62
I prefer having someone set clear goals for me		.40

Note. Loadings below .40 are not shown in the table.

Perceived risks

Two dimensions of risks were suggested by the developers (Sjöberg & Lind, 1994). The risks that were positively related to work motivation were denoted accepted risks and the others that were negatively related to work motivation were denoted risk burden.

The risks that were positively related to willingness to work were, for example, "That I could catch a less serious infection", "That I perceive myself as incapable of demands the job requires". Risks that instead were negatively related to willingness to work were, for example, "That I have to give negative information to others", "That a parent is critical about me".

Creativity

Creativity could according to the developers Sjöberg and Lind (1994) be divided into two indices, the degree to which an employee uses his or her creativity, spontaneous creativity, and the degree to which an employee does not use his or her creativity, creativity inhibition. The questions included in spontaneous creativity were, for example, "I often find solutions to problems when I least expect it" and "Intuition is most important in my job". Questions related to creativity inhibition were instead, for example, "My work tasks can best be solved with well-known routines" and "The most important thing in problem solving is not to make any mistakes".

One dimensional scales

Pay satisfaction, perceived control, work environment, leadership, and opinion of one's job were analyzed as a one-dimensional scale. Heneman and Schwab (1985) suggested, however, that the pay satisfaction scale could be divided into five dimensions which are: satisfaction with pay level, benefits, raises, structures, and administration. Although this might have had an impact on the result, the decision was made to treat the scale as one-dimensional. A reliability analysis was performed all of the indices and it is presented in the next chapter.

3.3 Study 2 (employees of an insurance company)

3.3.1 Participants

A total of 160 employees of an insurance company in Sweden participated in the study. The age range was from 25 to 64 years with a mean age of 44 years. There were 79 men and 81 women. The mean educational level of the respondents was 3-4 years of high school in the technical field. The length of employment in the organization was from 1 to 37 years with a mean of 11.5 years. The number of years working within the occupational area varied from 1 to 41 with 18.1 years as the mean length of experience.

3.3.2 Procedure

The questionnaires were distributed to each participant and also collected by the author. The participants were given a questionnaire together with an envelope, in order to ensure anonymity. Instructions were written on the questionnaire. The author collected the questionnaires after about four weeks. The total response rate was 82% (160 out of 195).

3.3.3.Questionnaire

The majority of the of the instruments were similar to those used in Study 1 with a few exceptions. The scales that were included in Study 1, but not in this particular study, was general work attitudes (positive and negative evaluation of one's job). The reason for not including this scale in this study was mainly the similarity of this scale to that of opinion about one's job. Instead of the two excluded scales, two other instruments were added measuring goal setting and general work interest.

3.3.3.1 Scales included

A similar questionnaire was used in Study 1 and 2. Therefore, the only scales presented here are the ones not present in Study 1.

Work interest** was measured by a scale that included 40 specific work tasks for this particular group. The respondent indicated how interesting he or she found different work tasks. The scale ranged from 7 (*Extremely interesting*) to 1 (*Completely uninteresting*).

Perceived risks** were measured by 14 risk items concerning professional life (physical, personal, and social). The respondent indicated the frequency of encountering different risks described by each item using a scale anchored by 4 (*Never*) to 0 (*Very often*).

Goal setting was assessed with 53-item scale developed by Locke and Latham (1984). The questions included were related to goals and how they affect an individual's job. The scale ranged from 5 (*Strongly agree*) to 1 (*Strongly disagree*).

General work interest was assessed with 1 item. This question was developed by Sjöberg and Lind (1994) and the respondent was asked how their work interest developed over the years. The scale range from 5 (*Increased very much*) to 1 (*Decreased very much*).

3.3.3.1.1 Indices

A principal component analysis was used also in this study to obtain a more manageable number of variables. In several of the scales, factors were already suggested by the developer of the instrument. Principal component analyses were also in this case performed in order to confirm the factors found in Study 1.

Organizational commitment

The results of a principal components analysis using a varimax rotation showed that the three factors suggested by Allen and Meyer (1990) were formed. The *KMO* measure (.839) and *Bartlett's test* ($p < .000$) indicated that the data were suitable for factor analysis. Two of the items were deleted due to factor loadings smaller than .40. The factors that were obtained in Study 1 were confirmed also in Study 2, which validates that the instrument contain three factors. The factor loadings were quite high, and no overlaps between the factors were found. In Table 7 the result is presented.

Table 7

Three-factor solution obtained in an analysis of Allen and Meyer's organizational commitment scale (Study 2)

	Factor loadings		
	Affective OC	Continuance OC	Normative OC
I would be very happy to spend the rest of my career with this organization	.71		
I enjoy discussing my organization with people outside it	.73		
I really feel as if this organization's problems are my own	.73		
I think that I could easily become as attached to another organization as I am to this one	.53		
I do not feel like 'a part of the family' at my organization (R)	.87		
I do not feel 'emotionally attached' to this organization (R)	.87		
This organization has a great deal of personal meaning to me	.83		
I do not feel a strong sense of belonging to my organization (R)	.90		
It would be very hard for me to leave my organization right now, even if I wanted to		.81	
Too much in my life would be disrupted if I decided I wanted to leave my organization now		.82	
It wouldn't be too costly for me to leave my organization now (R)		.70	
Right now, staying with my organization is a matter of necessity as much as desire		.69	
I feel that I have too few options to consider leaving this organization		.68	
One of the few serious consequences of leaving this organization would be the scarcity of available alternatives		.51	
One of the major reasons why I continue to work for this organization is that leaving would require considerable personal sacrifice - another organization may not match the overall benefits I have here		.57	
I think that people these days move from company to company too often			.41
I do not believe that a person must always be loyal to his or her organization (R)			.53
Jumping from organization to organization does not seem at all unethical to me (R)			.67
One of the major reasons why I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to stay			.77
If I got another offer of a better job elsewhere I would not feel it was right to leave my organization			.69
I was taught to believe in the value of remaining loyal to one organization			.64
Things were better in the days when people stayed with one organization for most of their careers			.65

Note. Loadings below .40 are not shown in the table

Work interest

Work interest for specific work tasks was measured with a scale that was developed for this specific work group. A similar work interest scale was developed for Study 1 with different work tasks. The *KMO* measure (.812) and *Bartlett's test* ($p < .000$) indicated that a factor analysis was appropriate for the data. The unrotated principal components analysis showed that a three-factor solution accounted for 61% of total explained variance, and therefore also in this study three factors were selected. A varimax rotation was performed to get a more interpretable solution. The result is shown in Table 8. Moreover, the first factor formed was called interest in administrative work tasks, the second one interest in client-related work tasks and the third one interest in business-related work tasks.

Table 8

A factor analysis with a varimax rotation of work interest among employees (Study 2)

	Factor loadings		
	Administrative work tasks	Client related work tasks	Business related work tasks
To report	.83		
To write letters, reports etc	.76		
Accounting	.79		
Administrative work tasks	.68		
Management	.66		
To solve conflicts	.65		
To introduce new colleagues	.64		
To collect information	.63		
To work with changes within the organization	.62		
To update handbooks and other materials	.55		
To educate others	.51		
To be responsible for payments to clients	.51		
To market one's company	.49		
To give service and support within one's department	.47		
To solve problems in groups	.47		
Meetings	.42		
To teach others about products		.72	
To be responsible for different work tasks		.70	
To develop new ideas and products		.69	
Further training		.66	
To cooperate with others outside my own department		.63	
Telephone contact with clients		.60	
To use new techniques (e.g., computers)		.52	
To travel for business purposes		.51	
To present new ideas and products		.50	
To participate in development projects		.50	
To solve problems related to clients		.49	
International contacts and cooperation		.43	
To give service to clients		.42	
To do business			.85
To negotiate			.80
To work with numbers			.75
To make money			.74
To create and increase networks			.69
To close a deal			.68
To make decisions			.64

Note. Loadings below .40 are not shown in the table

Intrinsic motivation

The result of a three-factor analysis of Ryan's intrinsic motivation scale with the dimensions autonomy, relatedness, and competence is shown in Table 9. The *KMO* measure (.792) and *Bartlett's test* ($p < .000$) showed that a factor analysis was appropriate to use. As in Study 1, several of the items were deleted, because the factor loadings were smaller than .40. However, the items deleted were the same as in Study 1, except for one item. This makes the scale quite stable over two different work groups.

Table 9
Three-factor analysis of Ryan's intrinsic motivation scale (Study 2)

	Factor loadings		
	Autonomy	Related-ness	Competence
I feel like I can make a lot of input to deciding how my job gets done	.55		
I am free to express my ideas and opinions on the job	.56		
My feelings are taken into consideration at work	.40		
There is not much opportunity for me to decide for myself how to go about my work (R)	.45		
I really like the people I work with		.67	
I get along with people at work		.50	
I consider the people I work with to be my friends		.63	
People at work care about me		57	
The people I work with do not seem to like me much		.40	
There are not many people at work that I am close to (R)		.41	
I do not feel very competent when I am at work (R)			.61
People at work tell me I am good at what I do			.58
I have been able to learn interesting new skills on my job			.63
Most days I feel a sense of accomplishment from working			.69
On my job I do not get much of a chance to show how capable I am (R)			.65
When I am working I often do not feel very capable (R)			.65

Note. Loadings below .40 are not shown in the table.

Occupational stress

Two factors were suggested by the developers of the Job stress survey (JSS; Turnage & Spielberger, 1991). The factors were confirmed in Study 1, which was also the case in this study. The *KMO* measure (.764) as well as *Bartlett's test* ($p < .000$) were calculated and the result showed that a factor analysis was suitable for the data. The result is reported in Table 10.

Table 10

Two–factor analysis of Job Stress Survey (Study 2)

	Factor loadings	
	Lack of Support	Job pressure
Lack of opportunity for advancement	.62	
Poor or inadequate supervision	.64	
Inadequate support by supervisor	.66	
Personal insult from customer/consumer/colleague	.54	
Fellow workers not doing their job	.60	
Difficulty getting along with supervisor	.44	
Inadequate salary	.59	
Negative attitudes towards organization	.62	
Lack of participation in policy-making decisions	.53	
Poorly motivated co-workers	.54	
Performing tasks not in job description	.40	
Inadequate or poor quality equipment		.72
Insufficient personnel to handle assignment		.46
Dealing with crisis situations		.48
Frequent interruptions		.51
Meeting deadlines		.56
Excessive paperwork		.51
Assignment of new or unfamiliar duties		.57
Assignment of increased responsibility		.70
Covering work for another employee		.52
Working overtime		.66
Frequent changes from boring to demanding activities		.72
Making critical on-the-spot decisions		.58
Insufficient personal time		.42

Note. Loadings below .40 are not shown in the table.

General intrinsic and extrinsic motivation

Intrinsic and extrinsic motivation were measured with Amabile et al's. (1994) Work Preference Inventory. In Study 1, the two factors were confirmed. In this study, the two factors were once again confirmed with some of the items deleted due to factor loadings smaller than .40. A *KMO* measure (.792) and *Bartlett's test* ($p < .000$) were also performed, which showed that the data were suitable for a factor analysis. The result is presented in Table 11.

Table 11
Two-factor analysis of intrinsic and extrinsic motivation (Study2)

	Factor loadings	
	Intrinsic motivation	Extrinsic motivation
I enjoy tackling problems that are completely new to me	.81	
I enjoy trying to solve complex problems	.74	
The more difficult the problems, the more I enjoy trying to solve it	73	
I want my work to provide me with opportunities for increasing my knowledge and skills	.68	
Curiosity is the driving force behind much of what I do	.73	
I enjoy relatively simple, straightforward tasks	.44	
I enjoy doing work that is so absorbing that I forget about everything else	.48	
What matters most to me is enjoying what I do	.46	
It is important for me to have an outlet for self-expression	.54	
I prefer work I know I can do well over work that stretches my abilities	.45	
It is important for me to be able to do what I most enjoy	.50	
No matter what the outcome of a project is, I am satisfied if I feel I gained a new experience	.42	
I want to find out how good I really can be at my work	.47	
I'm more comfortable when I can set my own goals	.41	
I prefer to figure things out for myself	.42	
I am strongly motivated by the (grades) (money) I can earn		.50
I am keenly aware of the goals I have for myself		.62
I am strongly motivated by the recognition I can earn from other people		.67
I want other people to find out how good I really can be at my work		.67
I seldom think about (grades and awards) (salary and promotion).		.59
I am keenly aware of the (goals I have for getting a good grade.) (income goals I have for myself.)		.47
To me, success means doing better than other people		.68
I have to feel that I'm earning something for what I do		.55
I am not that concerned about what other people think of my work		.61
I prefer having someone set clear goals for me in my work		.48

Note. Loadings below .40 are not shown in the table

Perceived risks and creativity

Perceived risks as well as creativity were divided, as in Study 1, into two indices. The indices that were formed were accepted risks and risk burden. Creativity was divided into spontaneous creativity and creativity inhibition.

One dimensional scale

Pay satisfaction, perceived control, work environment, leadership, and opinion about one's job were analyzed as one-dimensional as in Study 1. A factor not included in Study 1 was goal setting. In a study by Lee, Bobko, Earley, and Locke (1991), 10 factors were formed . However, in this study goal setting is analyzed as if it was one-dimensional. A reliability analysis was performed for all the indices and is presented in the next chapter.

3.3.3.1.2 Conclusion

The *KMO* measure and *Bartlett's test* showed that using a factor analysis was an appropriate way of reducing questions in all of the scales. Furthermore, the three dimensions of organizational commitment suggested by the developers were confirmed in both studies (Study 1 and 2). Work interest was measured with scales that were developed for the studies, and which measured the level of interest for different work tasks. Three factors were formed in Study 1 as well as in Study 2. Three dimensions of intrinsic motivation were suggested by the developer and also these dimensions were confirmed in both of the studies. The two-factor solution of organizational stress was found in Study 1 as well as in Study 2. Intrinsic motivation and extrinsic motivation could, as in previous studies, be separated and the results that were obtained here showed the same division. The findings in Study 1 and Study 2 confirmed the stability and validity of the instrument.

3.4 Study 3 (salespeople in an insurance company)

3.4.1 Participants

Data were collected in an insurance company's sales department. The total number of salespeople working there was 62. The number of employees who participated in the study was 45, 12 women and 33 men, whose age ranged from 25 to 51 years (mean age = 38 years). The range of work experience within the profession was 1-26 years (average length of job experience = 11 years). The participants' level of education ranged from high school to a university degree (modal educational level = three or four years of upper secondary high school).

3.4.2 Procedure

The questionnaires were distributed to each participant by the author, who also collected them. Participation in the study was voluntary, and the respondents were informed of their rights to confidentiality and anonymity. There was no time limit on the participant's completion of the questionnaire. The total response rate was 73%.

3.4.3 Questionnaire

In this study, work motivation defined as willingness to work, job satisfaction and organizational commitment were also included in this study. However, organizational commitment was not divided into three dimension as in Study 1 and 2. The scales that were neither included in Study 1 nor 2 are presented further below.

3.4.4 Scales included

Job performance** was measured by two different scales. Objective job performance was measured by the total sales volume (January 1 to May 31)[4]. Subjective job performance was measured by letting the respondents rate their performance in different work tasks on a scale developed by the author. The scale ranged from 5 (*Very good*) to 1 (*Very poorly*).

The scales included in the study were all one-dimensional. Reliability analysis was performed for all for the indices and presented in Chapter 4.

[4] The variable objective job performance was transformed into a logarithmic scale to obtain a less skewed variables.

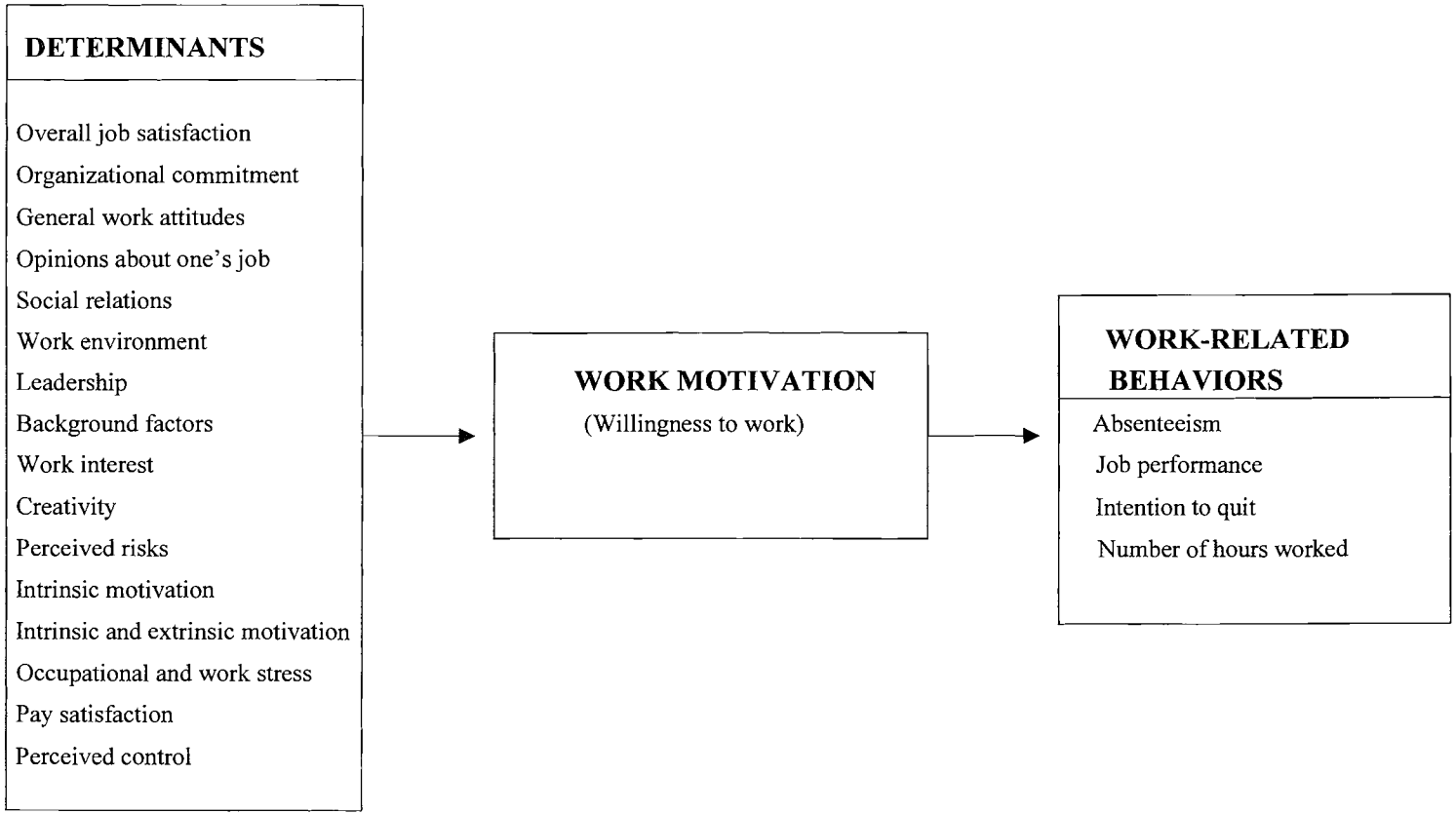

Figure 3. An overview of the included factors in the thesis.

4. Results

In this section, results from all of the analyses performed are shown. The presentation of the analyses and results will follow the research questions in section 1.4. The first question was to explore the variables that contribute to explain the variance in work motivation defined as willingness to work. This was studied in Study 1 and 2. The second question was to investigate the validity of the measure willingness to work by examining the relationship between willingness to work and work-related behaviors. This was studied in Study 1, 2, and 3. In Figure 3, all of the indices included in the analyses are presented.

4.1 Descriptive results

4.1.1 Introduction

For all of the indices, the reliability test was estimated. Reliability refers to the consistency of examinees' relative performances over repeated administrations of the same test or parallel forms of the test. One common way of estimating reliability is by calculating a Cronbach's alpha (α), which is a function of internal consistency, that is, the interrelatedness of items (Cortina, 1993). The level of Cronbach's alpha has often been discussed and the most common level to be accepted is an alpha equal to or above .70 (Cortina, 1993; Peterson, 1994).

It is often discussed in the literature how the number of items in a scale affect the reliability. The principle of aggregation holds that the use of multiple observations cancels out random error around an individual's true score, thereby providing a more reliable measurement. Despite the well-known attenuating effects of low reliability on correlation size, researchers often use single-item measures so as to minimize questionnaire length (e.g., Tett & Meyer, 1993).

This practice has the obvious consequence of underestimating a relation of interest, and could lead to serious misjudgements in the relative contributions of two variables whose measures differ markedly in length (Cooper & Richardson, 1986). However, in an article by Embretson (1996) "the new rules of measurements" were presented and it was stated that short tests could be more reliable than longer tests. For a further discussion of reliability, see for example Crocker and Algina (1986).

4.1.2 Study 1: Descriptive results

In Table 12, descriptive statistics including mean, standard deviation, and reliability of index are reported. The majority of the indices showed a satisfactory reliability value (α) equal to or over .70. In two of the indices, risk burden and intention to quit, the magnitude of reliability (α) was lower than .70. However, Schmitt (1996) stated that there is no sacred level of acceptance level of alpha. In some cases, measures with (by conventional standards) low levels of alpha may still be quite useful. Thus, all of the indices were used in further analysis.

Table 12

Descriptive statistics and reliability of indices (Study 1)

Variables	*M*	*SD*	Cronbach alpha (α)
Work motivation	3.50	.49	.79
Job satisfaction	5.48	.81	N/A[a]
Affective commitment	3.46	.99	.85
Normative commitment	3.48	.87	.73
Continuance commitment	2.96	.96	.72
Social relation	4.37	.69	.82
Work environment	3.53	.53	.82
Work interest (pedagogical)	5.48	.81	.90
Work interest (practical)	4.91	.83	.85
Work interest (administrative)	4.42	1.39	.84
Management/leadership	3.89	.79	.75
Evaluation of one's job (positive)	4.54	.95	.83
Evaluation of one's job (negative)	1.67	.67	.89
Spontaneous creativity	3.63	.45	.71
Creativity inhibition	2.71	.56	.75
Accepted risks	2.78	.43	.85
Risk burden	3,19	.48	.65
Job pressure	4.78	.97	.86
Lack of support	5.37	.65	.83
Intrinsic motivation	4.05	.59	.82
Extrinsic motivation	3.61	.60	.71
Pay satisfaction	2.38	.73	.95
Opinion about one's job	4.65	.66	.73
Perceived competence	4.53	.80	.70
Perceived autonomy	4.52	.85	.74
Perceived relatedness	4.51	1.2	.79
Perceived control	3.52	.42	.88
Number of hours worked	3.87	1.4	N/A[a]
Absenteeism	2.50	.58	N/A[a]
Intention to quit	2.70	.92	.68

[a] Alpha cannot be assessed for single-item.

4.1.3 Study 2: Descriptive results

In Table 13, descriptive statistics are shown for the indices included in Study 2. All of the indices except risks burden had an α value equal to or large than .70. Risk burden was, despite the value of α, included in further analysis.

Table 13
Descriptive statistics and reliability of indices (Study 2)

Variables/ Indices	*M*	*SD*	Cronbach alpha (α)
Work motivation	3.26	.64	.80
Job satisfaction	5.03	1.14	N/A[a]
Affective commitment	3.04	1.01	.91
Normative commitment	2.64	.77	.73
Continuance commitment	3.48	.85	.72
Social relation	4.20	.76	.70
Work environment	3.83	.64	.86
Work interest (Business)	5.13	.90	.84
Work interest (Clients)	5.20	.77	.85
Work interest (Administrative)	4.67	.81	.90
General work interest	3.26	1.13	N/A[a]
Management/leadership	3.90	.87	.78
Goal setting	3.00	.42	.87
Spontaneous creativity	3.40	.49	.74
Creativity inhibition	2.80	.79	.58
Accepted risks[d]	2.90	.45	.79
Risk burden[e]	2.75	.62	.50
Job pressure	5.15	.81	.88
Lack of support	5.27	.62	.83
Intrinsic motivation	4.18	.56	.83
Extrinsic motivation	3.47	.74	.72
Pay satisfaction	3.12	.80	.97
Opinion about one's job	4.17	.86	.92
Perceived competence	4.33	.72	.71
Perceived autonomy	4.13	.75	.71
Perceived relatedness	4.66	.68	.83
Perceived control	3.50	.47	.88
Absenteeism	4.41	1.1	N/A[a]
Number of hours worked	2.69	.94	N/A[a]
Intention to quit	2.96	1.2	.71

[a] Alpha cannot be assessed for single-item..

4.1.4 Study 3: Descriptive results

In Study 3, the α values of all the included indices were satisfactory. The result is presented in Table 14.

Table 14
Descriptive statistics and reliability of indices (Study 3).

Variable	*M*	*SD*	Cronbach alpha (α)
Willingness to work	3.95	.47	.77
Job satisfaction	5.67	.60	N/A[a]
Organizational commitment	2.90	.59	.83
Work interest	5.30	.72	.85
Subjective job performance	4.04	.45	.90
Objective job performance	15.87	1.2	N/A[a]

[a] Alpha cannot be assessed for a single item

4.2 Determinants of willingness to work

4.2.1 Introduction

In Chapter 2, an overview of factors that in prior studies have shown to be related to work motivation was presented. Willingness to work was introduced by Sjöberg and Lind (1994) and in their study, the factors that explained the variance in willingness to work were work interest, perceived risks, creativity, and organizational commitment. Therefore, these factors were expected to contribute to explain the variance in willingness to work.

In the present studies, a large number of indices were included. In order to explore which of the independent variables that accounted for explaining the variance in willingness to work, a stepwise multiple regression was performed. The specific procedure employed was backward elimination or a decremental approach of stepwise regression, as Bobko (1990) named it. The backward solution starts with calculating the total multiple regression equation, then drops variables from the equation if the variables do not contribute significantly to the prediction of the criterion, here willingness to work, based on the significance tests of their beta weights. In this procedure, the multiple correlation coefficient is reduced as each variable is removed. When enough variables are removed, a significant drop occurs in the magnitude of R^2. At this point, the stepwise procedure - dropping a variable at each step and recomputing R^2 – is terminated. Only variables that are theoretically meaningful and significant at the 10%-level or lower were included in the final model. The results are presented below.

It should be mentioned that in order to use a multiple regression analysis several assumptions have to be met. Therefore, the present data (in Study 1 and 2) were tested for outliers, multi-collinearity, normality and heteroscedasticity (Berry, 1993). No severe problem was found in either of the studies[5].

[5] The result can be obtained from the author.

4.2.1.1 Study 1: Determinants of willingness to work

In this study, 179 pre-school employees participated. The factors or indices included from the start were job satisfaction, organizational commitment (affective, normative, and continuance), general work attitudes (positive and negative evaluation of one's job), opinion about one's job, social relations, physical work environment, work interest (pedagogical, practical, and administrative work tasks), leadership, creativity (spontaneous creativity and creativity inhibition), perceived risks (accepted risks and risk burden), intrinsic motivation (perceived competence, perceived relatedness, and perceived autonomy), general intrinsic motivation, extrinsic motivation, work stress (job pressure and lack of support), pay satisfaction, and perceived control. The intercorrelations among these variables are shown in Table 15.

Table 15. Correlation matrix of all included variables (Study 1)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1.Willingness to work																														
2.Job satisfaction	.48																													
3.Education	.06	.09																												
4.Age	-.08	.03	.03																											
5.Tenure	.09	-.03	.05	.27																										
6.Accepted risks	.42	.46	.09	-.02	-.04																									
7.Risk burden	-.09	.03	-.12	.18	.27	.35																								
8.Spontaneous creativity	.25	.11	-.18	-.11	-.25	-.12	-.28																							
9.Creativity inhibition	-.19	-.16	-.04	.19	.09	-.14	.13	-.18																						
10.Social relations	.30	.41	-.05	-.06	-.02	.43	.16	.08	-.08																					
11.Perceived control	.42	.40	.09	.03	-.18	.52	.04	.07	-.25	.23																				
12.Work environment	.34	.46	-.02	.04	-.04	.42	-.02	-.05	-.18	.22	.42																			
13.Pay satisfaction	.22	.27	.07	.10	.04	.36	.06	-.18	-.11	.10	.29	.32																		
14.Affective OC	.60	.46	.05	.06	-.07	.38	.01	.11	-.06	.28	.41	.29	.31																	
15.Continuance OC	.15	.06	-.11	.03	-.13	.03	-.03	-.06	.22	-.13	.06	.03	.06	.41																
16.Normative OC	.36	.23	.02	.16	.07	.19	.09	.10	.19	.10	.13	.13	.13	.57	.51															
17.Perceived autonomy	.43	.38	.05	-.12	-.07	.40	.03	.18	-.23	.38	.49	.15	.15	.45	.04	.16														
18.Perceived relatedness	.41	.36	.09	-.16	.02	.41	.08	.08	-.27	.59	.29	.19	.15	.34	-.09	-.01	.59													
19.Perceived competence	.52	.45	.13	-.14	-.04	.45	-.05	.16	-.33	.30	.39	.29	.20	.35	-.05	.01	.45	.57												
20.Job perssure	.22	.41	.16	.09	.03	.56	.20	-.14	-.07	.18	.35	.47	.34	.23	-.07	.07	.10	.12	.25											
21.Lack of support	.23	.48	.12	.00	.02	.62	.21	-.16	-.05	.46	.33	.38	.42	.34	-.05	.07	.28	.30	.32	.73										
22.Interest in pedagogical tasks	.46	.20	-.16	-.25	-.08	.17	.06	.35	-.23	.13	.19	.13	-.06	.21	-.07	.08	.32	.27	.31	-.04	.00									
23.Interest in practical tasks	.58	.41	-.11	-.09	-.21	.41	.00	.33	-.21	.22	.41	.40	.13	.41	.08	.24	.40	.26	.43	.25	.21	.59								
24.Interest in administrative tasks	.22	-.02	.04	-.19	-.15	.05	-.18	.32	-.16	.03	.16	.03	.03	.06	-.04	.13	.08	.04	.09	-.01	-.01	.37	.39							
25.Negative evaluation	-.43	-.33	-.09	.06	.04	-.33	-.03	-.06	.26	-.19	-.28	-.22	-.18	-.22	.08	-.04	-.31	-.49	-.46	-.13	-.20	-.37	-.35	-.07						
26.Beliefs about one's job	.56	.48	.08	-.06	-.10	.45	.02	.19	-.26	.21	.49	.38	.2	.54	.11	.29	.50	.39	.58	.25	.30	.42	.49	.16	-.43					
27.Extrinsic motivation	.02	.17	-.01	-.05	.05	.22	.11	-.05	-.34	.15	.05	-.10	.14	.07	-.28	-.30	.09	.22	.16	.16	.27	.01	.02	-.17	-.18	.09				
28.Positive evaluation	.61	.51	.01	-.02	-.03	.43	.10	.16	-.12	.28	.45	.37	.22	.48	.04	.31	.57	.41	.47	.27	.29	.47	.57	.14	-.44	.60	.00			
29.Intrinsic motivation	.41	.12	.04	.31	.16	-.02	-.23	.49	-.31	.13	.21	-.09	-.20	.20	-.12	.09	.39	.21	.28	-.08	-.09	.46	.34	.39	-.17	.30	.18	.34		
30.Management/leadership	.49	.28	-.17	-.08	-.14	.22	-.06	.32	-.13	-.15	-.30	.19	.03	.34	.11	.20	.40	.27	.40	-.03	.03	.65	.80	.23	-.39	.43	.02	.51	-.36	

Note. OC = organizational commitment

After performing a backward elimination procedure[6] the variance in willingness to work was explained to 59%. The factors that to the highest extent contributed to explaining the variance in willingness to work were, affective organizational commitment, positive evaluation of one's job, interest in pedagogical work tasks, accepted risks, risk burden, and perceived competence. General intrinsic motivation and normative organizational commitment were also factors contributing to explain the variance in willingness to work. The result is presented in Table 16.

Table 16
The multiple regression model with willingness to work as the dependent variable and its explanatory variables. N=179

Explanatory variables	**b**	**β**
Affective organizational commitment	.15	.26**
Positive evaluation of the job	.17	.20**
Interest in pedagogical work tasks	.14	.18**
Accepted risks	.23	.17**
Risk burden	-.19	-.16**
Perceived competence	.12	.16**
General intrinsic motivation	.12	.12*
Normative organizational commitment	.01	.11*
R^2_{adj}		*0.59*

* $p \leq .05$. ** $p \leq .01$.

[6] Other stepwise procedures were performed and similar results were obtained.

4.2.1.1.1 Conclusion

The main point of this study was to explore the explanatory factors of work motivation, defined as willingness to work, for pre-school employees. The variance in willingness to work was explained to 59%, which is a quite high percentage of explained variance. In fact, there is only limited room for further improvement here, because the dependent variable is also affected by reliability deficiencies. The explanatory factors were the following: Affective commitment, positive evaluation of one's job, interest in pedagogical work tasks, risk burden, accepted risk, perceived competence, general intrinsic motivation, and normative organizational commitment. Sjöberg and Lind (1994), who introduced the work motivation measure used, found that similar factors explained willingness to work.

An explanatory factor that explained quite a large portion of the variance in willingness to work was affective organizational commitment. According to the result, the more an employee feels affectionately attached to the organization, the higher the motivational level is. In a previous study, affective organizational commitment was shown to be quite strongly associated with different work related behaviors, like job performance (Meyer & Allen, 1997), absenteeism, and turnover (Somers, 1995). Normative organizational commitment also contributed to explaining the variance in willingness to work. The results showed that the more an employee feels obligated to the organization, the more motivated he or she is.

The explanatory variable, positive evaluation of one's job, which reflects general attitudes towards one's job, was also a relatively strong explanatory factor to explain willingness to work. This indicates that the more positive an individual is towards his or her job, the higher the motivational level is. This is in line with what Katzell and Thompson (1990) concluded. However, in general, the relationship between work attitudes and behavioral variables has been found to be weak (for a review, see Andrich & Styles, 1998).

Interest in pedagogical work tasks was another explanatory variable of willingness to work. The conclusion to be drawn here is that when people work with tasks they find interesting, it affects their motivation in a positive way. In this case, many of the employees in pre-schools probably might choose this particular job because they are interested in children and pedagogical work tasks, such as reading to the children and teaching children different things. In the study of Sjöberg and Lind (1994), work interest was the strongest explanatory variable of work motivation.

Both groups of risks, accepted risks and risk burden, contributed to explaining willingness to work. The fact that risks can both increase and decrease the motivation level might be a little bit confusing. Normally, risks are associated with something negative at work, such as giving colleagues negative critique, and when an individual is exposed to that, the motivational level will decrease. It has, however, been found that some high risk situations might instead be perceived as a challenge (Svensson, Angelborg-Thanderz, & Sjöberg, 1993).

Another variable that contributed to explaining willingness to work was perceived competence (for a review, see Deci & Ryan, 1985). This study shows that willingness to work increased with improved perceived competence. Competence refers to knowledge and skills which people have at their disposal and which they can use efficiently to reach certain goals in a wide variety of contexts or situations (Kirschner & Van Vilsteren, 1997).

Not only the dimension of intrinsic motivation suggested by Deci and Ryan, (1985), perceived competence contributed to explaining the variance in willingness to work but also intrinsic motivation introduced by Amabile, Hill, and Hennessey (1994), which measured intrinsic motivation more in general. The result indicates that the more intrinsically motivated in whole a person is the more willing to work he or she is. In a previous study, it was found that if the intrinsic needs are met in a workplace, this will lead to increased job satisfaction and improved job performance (Ilardi, Leone,& Ryan, 1993).

To sum up, the result of the study showed that in order to explain willingness to work among pre-school employees and most likely in other professions and organizations as well, a variety of factors must be considered. I believe that to increase the understanding and prediction of work motivation, it might be helpful to take into account a variety of factors, which has been demonstrated in this explorative study.

4.2.1.2 Study 2: Determinants of willingness to work

In this study, 160 employees of an insurance company participated. The variables included in the analysis from the beginning were, job satisfaction, organizational commitment (affective, normative, and continuance), goal setting, opinion about one's job, social relations, physical work environment, work interest (client, business, and administrative work tasks), leadership, creativity (spontaneous creativity and creativity inhibition), perceived risks (accepted risks and risk burden), intrinsic motivation (perceived competence, perceived relatedness, and perceived autonomy), general intrinsic motivation, extrinsic motivation, work stress (job pressure and lack of support), pay satisfaction, and perceived control. The intercorrelations among these variables are shown in Table 17.

Table 17. Correlation matrix of all included variables (Study 2)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1.Willingness to work																														
2.Job satisfaction	.64																													
3.Affective OC	.50	.43																												
4.Normative OC	.21	.25	.65																											
5.Continuance OC	-.12	-.11	.29	.58																										
6.Social relations	.41	.51	.35	.16	-.10																									
7.Environment	.43	.40	.31	.19	-.06	.34																								
8.Interest (Business)	.40	.25	.09	.12	-.21	.10	.25																							
9.Interets (Clients)	.26	.11	.13	.07	.13	.01	.10	.64																						
10.Interest (Administrative)	.48	.36	.45	.23	-.05	.20	.26	.51	.60																					
11.General interest	.54	.53	.36	.24	-.06	.25	.26	.23	.24	.37																				
12.Ledership/management	.52	.55	.38	.18	-.09	.51	.32	.24	.11	.34	.37																			
13.Goal setting	.35	.41	.40	.35	.12	.38	.15	.13	.07	.27	.29	.51																		
14.Spontaneous creativity	.34	.13	.08	-.02	-.14	.02	.04	.42	.48	.25	.20	.11	.01																	
15.Creativity inhibition	-.16	-.08	-.03	-.06	.19	-.12	-.01	-.30	-.21	-.15	-.02	-.13	-.07	-.15																
16.Accepted risks	.51	.54	.27	.07	-.33	.47	.41	.33	.18	.32	.34	.43	.19	.15	-.17															
17.Risk burden	-.15	-.08	-.09	-.05	-.17	-.20	-.09	-.06	-.02	-.11	.17	.10	-.11	-.21	-.05	.35														
18.Job pressure	.27	.23	.12	.09	-.13	.21	.23	.16	.01	.18	-.22	-.32	.23	-.11	-.06	.53	.39													
19.Lack of support	.33	.45	.20	.10	-.15	.47	.32	.05	.13	.11	.17	-.51	.37	-.18	-.06	.53	.29	.65												
20.Intrinsic motivation	.14	.09	.01	.06	.15	.11	.10	.49	.55	.29	.16	.06	.07	.52	-.16	.13	.04	.04	.16											
21.Extrinsic motivation	.20	.13	.16	.22	.12	.06	.22	.25	.28	.14	.26	-.04	.13	.13	-.03	.02	.06	.02	.22	.33										
22.Pay satisfaction	.28	.29	.38	.15	-.01	.23	.26	.11	.12	.30	.17	.39	.38	.03	-.05	.37	.01	.21	.42	.09	.12									
23.Beliefs about one's job	.65	.58	.50	.13	-.16	.35	.36	.21	.16	.34	.37	-.41	.23	.29	-.12	.56	.09	.13	.28	.22	.15	.24								
24.Percieved competence	.52	.48	.27	.06	-.34	.42	.17	.32	.25	.32	.32	-.46	.24	.23	-.40	.58	.10	.23	.35	.25	.06	.25	.56							
25.Perceived autonomy	.46	.35	.18	.13	-.30	.23	.12	.16	.14	.30	.25	-.41	.17	.33	-.21	.49	.05	.30	.27	.21	.03	.29	.58	.61						
26.Perecived relatedness	.23	.26	.24	.07	-.13	.57	.20	.05	.01	.23	.10	-.22	.14	.05	.09	.37	.13	.04	.33	.03	.10	.23	.34	.43	.35					
27.Percieved control	.41	.39	.25	.05	-.15	.31	.32	.21	.15	.34	.26	.44	.26	-.22	-.16	.51	.01	.33	.40	.14	.03	.42	.54	.49	.64	.24				
28.Age	.09	.10	.18	-.16	-.09	.07	.07	.02	-.02	.06	.11	.04	-.02	.09	.06	.13	.12	.14	.06	.06	-.14	.03	-.07	-.02	.04	.03	.00			
29.Education	-.11	-.11	.10	.05	-.09	-.16	.08	-.01	-.07	-.11	-.10	.01	-.05	-.10	.10	-.16	.22	-.04	.02	.06	.00	.01	.25	.18	.11	.09	-.18	.07		
30.Tenure	.11	.02	.34	-.27	-.17	-.04	-.01	.15	-.01	.12	-.03	-.04	-.05	.06	.02	.00	-.08	.06	.02	.09	.08	.00	-.20	.04	-.08	.10	.01	.21	.09	

Note. OC = organizational commitment

Willingness to work was explained to 69% by a number of explanatory variables. As in Study 1, the explanatory variables were selected after performing a backward elimination procedure [7]. The factors that accounted for the highest explanatory values were, first of all, beliefs about one's job and perceived competence, which were significant at the 1% level. Job satisfaction, risk burden, spontaneous creativity, work interest (business related work tasks) and affective organizational commitment were significant at the 5% level, whereas development of general work interest and perceived work environment were significant at the 10% level. The results of the analysis are presented in Table 18.

Table 18
Regression model obtained after performing a backward elimination procedure with willingness to work as the dependent variable, N=160

Explanatory variables	**b**	β
Opinion about one's job	.22	.30***
Perceived competence	.16	.20***
Job satisfaction	.09	.16**
Risk burden	-.14	-.16**
Spontaneous creativity	.18	.13**
Interest in business related work tasks	.09	.13**
Affective organizational commitment	.08	.12**
General development of work interest	.08	.10*
Perceived work environment	.10	.10*
R^2_{adj}		.69

* $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

[7] Other stepwise procedures were performed and similar results were obtained.

The results show that as in Study 1, attitudes about one's job (opinion about one's job), perceived competence, perceived risks (risk burden), work interest and affective organizational commitment contributed to explaining the variance in willingness to work. The variance in willingness to work was also in this study explained to a high extent.

4.2.1.2.1 Conclusion

The result showed that the explanatory variables that accounted for the variance in willingness to work were the following: Opinion about one's job, perceived competence, job satisfaction, risk burden (risks negatively related to work motivation), spontaneous creativity, work interest (in business related work tasks), affective organizational commitment, physical work environment, and increased general work interest over the years. The variance in willingness to work was explained to 69% by these explanatory factors. Thus, the level of explanation of the dependent variable, willingness to work, was high. There is only limited room for future improvement here, because the dependent variable is affected by reliability deficiencies.

It seems like an individual's beliefs or opinion about the job influence his or her willingness to work a great deal. In previous studies, it has been argued that beliefs directly affect intentions (Weber & Gillespie, 1998). Montgomery (1998) stated that if the strength of a behavioral intention is equivalent to volitional strength, then it follows from reasoned action theory (for a review, see Fishbein & Ajzen, 1975) that volitional strength is dependent on the individual's beliefs. It should be noted that in a great number of studies, Ajzen and Fishbein have demonstrated a fairly close relationship between behavioral intentions and actual behavior (see e.g., Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980). Beliefs have been found to affect attitudes. Like work attitudes, beliefs are difficult to influence or change. One way might be to introduce new positive information about the job (Pinder, 1998).

As in Study 1, the results of this study showed that the more competence an employee perceives him- or herself to have at work or for a specific work task, the higher the motivational level is. It has been found that if the perceived competence is fulfilled in the workplace, this will result in increased job satisfaction (Ilardi, Leone, Kasser, & Ryan, 1993).

Moreover, if people experience unpleasant events (risk burden) and situations or if the workplace is perceived to be dangerous, this has shown to affect people negatively, not only in this study but in others as well (e.g., Roberts, 1993). If the work environment instead is perceived to be pleasant, this will affect motivation positively, as the result of the study showed.

To let people come up with their own ideas and give them support in their creative processes was an important factor in explaining willingness to work. This supported the findings of Tollgerdt-Andersson and Sjöberg (1992).

In Study 1, it was found that work interest had a significant impact on work motivation. In this study, work interest, both general work interest as well as interest for specific work tasks (business), were important determinants of willingness to work. Sjöberg and Lind (1994) have reported the same and this indicates that work interest is an important variable to explain willingness to work

Affective organizational commitment, another variable which was reported to have a significant impact on willingness to work in Study 1, was shown to be the dimension of the three organizational commitment dimensions suggested by Allen and Meyer (1990) that has the strongest relation with willingness to work also in this study. In previous studies, a quite strong association has been found between affective commitment and job performance (Meyer & Allen, 1997). Affective commitment has also been found to have an impact on turnover and absenteeism (Somers, 1995).

As the result showed, willingness to work was explained with a variety of explanatory factors. In the present study, variables of intrinsic values, such as perceived competence, spontaneous creativity, and work interest stand for a quite large amount of explanatory power together with job attitudes, like job satisfaction, affective commitment, and opinion about one's job. There were two variables that represent the environment, and these were perceived physical work environment and risk burden. This reflects the complexity of work motivation and shows that it is important to integrate numerous variables in order to understand and predict work motivation.

4.2.2 A structural model of willingness to work

4.2.2.1 Introduction

As the results showed in the two previous studies, based on the data from pre-school employees as well as employees in an insurance company, several of the variables, such as work interest, perceived risks, affective organizational commitment, and perceived competence contributed to explaining the variance in willingness to work in both of the groups.

All of the mentioned variables have been shown to have strong direct relationships to willingness to work, as shown in the two previous studies. Furthermore, in previous studies direct relationships between some of the variables included, such as work interest, has been shown to have a positive relationship with organizational commitment (Winer & Gati, 1986). A study of Cury, Biddle, Goudas, Sarrazin, and Durand (1996) found that perceived competence influenced students' interests. It should be mentioned that the dimension of perceived risks included for further analysis was accepted risks, although risk burden was the dimension that contributed significantly to explaining willingness to work.

However, the decision was made to include accepted risks due to the results presented in the correlation matrices in Tables 15 and 17, because this factor was more strongly related to willingness to work than risk burden.

The purpose of this study was to examine the indirect as well as direct relationships between willingness to work and the explanatory variables mentioned above. Participants are the same as in the two previous studies, pre-school employees and employees of an insurance company. The purpose of including a second sample in this article was to examine the stability of the revised model for Study 1.

In order to examine the direct as well as indirect relations in a model, structural equation model LISREL (Jöreskog & Sörbom, 1996) was used. A Structural Equation Model (SEM) can be described as a multivariate technique combining aspects of multiple regression (examines dependence relationships) and factor analysis (representing unmeasured concepts factors with multiple variables) to estimate a series of interrelated dependence relationships simultaneously (Hair, Andersson, Tatham, & Black, 1998). Moreover, an additional characteristic of SEM techniques is its ability to represent unobserved concepts, latent variables, in these relationships and account for measurement errors in the estimation process (Hair et al., 1998). A latent variable is a hypothesized and unobserved concept that can only be approximated by observable or measurable variables. The observed variables are known as manifest variables, which can be obtained through e.g., surveys, tests etc. The most obvious difference between SEM and other multivariate techniques is the use of separate relationships for each of a set of dependent variables. The characteristic of LISREL is that the entire LISREL model can be expressed in terms of eight matrices, two defining the structural equations, two defining the correspondence of indicators and constructs, one for the correlation of exogenous ("independent") constructs, one for the correlation of endogenous ("dependent") constructs, and finally two detailing the correlated errors for the measurement of exogenous and endogenous variables (Hair et al., 1998).

On the basis of the literature reviewed, the hypothesized model is presented in Figure 4.

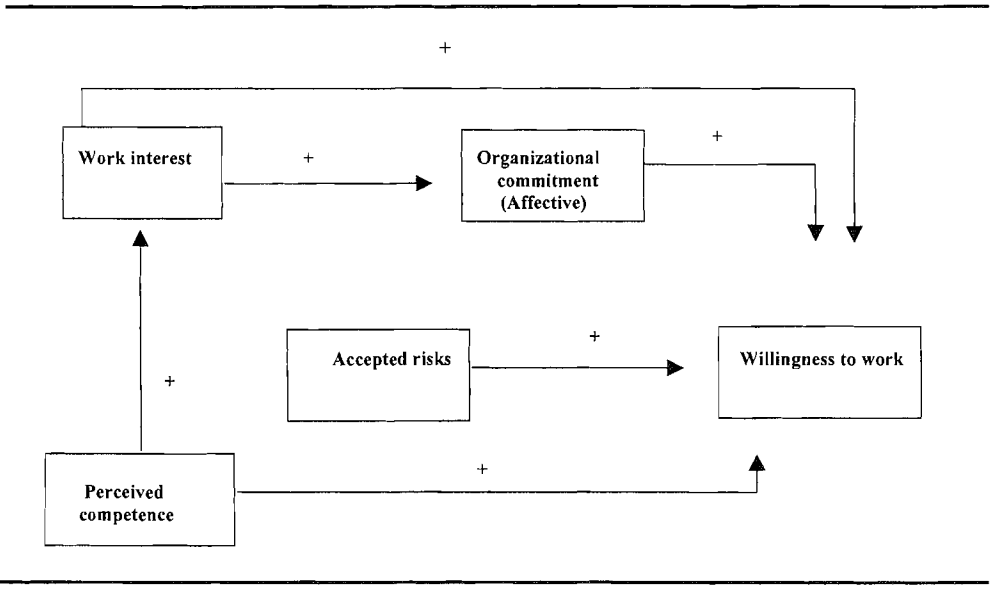

Figure 4. A hypothesized work motivation model

4.2.2.2 Study 1: Structural model of willingness to work

Table 19 reports intercorrelations for the indices. The underlying observed variables and their factor loadings on respective latent variables are presented for willingness to work and accepted risks in Appendix C1, affective organizational commitment in Table 1, work interest in Table 3, and perceived competence in Table 4.

Table 19
Intercorrelations for the complete set of indices (Study 1)

	1	2	3	4
1. Willingness to work				
2. Affective organizational commitment	.59			
3. Perceived competence	.51	.36		
4. Work interest (pedagogical tasks)	.46	.20	.33	
5. Accepted risks	.42	.37	.43	.21

Note. All correlations are significant at $p < .01$ at least.

The correlations between willingness to work and the other variables are quite high, as expected. Many of the factors are rather highly correlated like accepted risks and perceived competence as well as accepted risks and affective commitment. Perceived competence is quite strongly correlated to both affective commitment and work interest.

4.2.2.2.1 Model estimation and modification

Estimation methods in structural equation modelling are developed under various assumptions. One is the assumption that estimates and tests are based on large samples. The sample size ($N = 179$) in this study could be considered to be small. The adequacy of the test statistics is thus likely to be influenced by the sample size (Hu & Bentler, 1998). Therefore, the following fit indices were chosen because, according to Hu and Bentler (1998), they are less affected by sample size: Standardized Root Mean Square Residual (SRMR), Goodness of Fit Index (GFI), Comparative Fit Index (CFI), and Incremental Fit Index (IFI).

The model presented in Figure 4 was estimated using LISREL 8.30 (Jöreskog & Sörbom, 1999) with the sample covariance matrix as input. The results of estimating the hypothesized model were, χ^2 (4) = 30.4, SRMR = .14, GFI = .94, CFI = .86 and IFI = .87. The result is shown in Table 20.

The fit indices suggested potential for improvement through model modification. LISREL modification indices suggested, firstly, to add a path linking accepted risks to affective organizational commitment, secondly to add a path between perceived competence and affective organizational commitment. The path between accepted risks and willingness to work was not significant and was deleted. This improved the model fit to χ^2 (4) = 4.55, p = .34, SRMR = .04, GFI = .99, CFI = 1.00, and IFI = 1.00. The revised model fits the data better than the initial model. The results of the revised model analyses are shown in Figure 5.

As expected, work interest, intrinsic motivation, and affective organizational commitment had a significant impact on willingness to work, whereas accepted risks did not. As predicted, a positive and significant path was found between perceived competence and work interest as well as between work interest (pedagogical work tasks) and organizational commitment (affective). In the revised model the path between work interest and affective organizational commitment was not significant and was deleted.

Approximately 52% of the variance in willingness to work, 20% of the variance in affective organizational commitment and 11% of the variance in work interest (in pedagogical tasks) was explained by the model.

Table 20
Hypothesized model (Study 1)

Structural paths	Unstandardized coefficient	t-value[a]
Affective OC → WTW	.25	7.93
Work interest → WTW	.22	5.18
Perceived competence → WTW	.17	3.85
Accepted risks → WTW	.13	1.75
Work interest → Affective OC	.27	2.75
Perceived competence → Work interest	.32	4.60

[a] t-values greater than 2.0 are significant. OC = Organizational commitment, WTW = Willingness to work, Work interest = Interest in pedagogical work tasks.

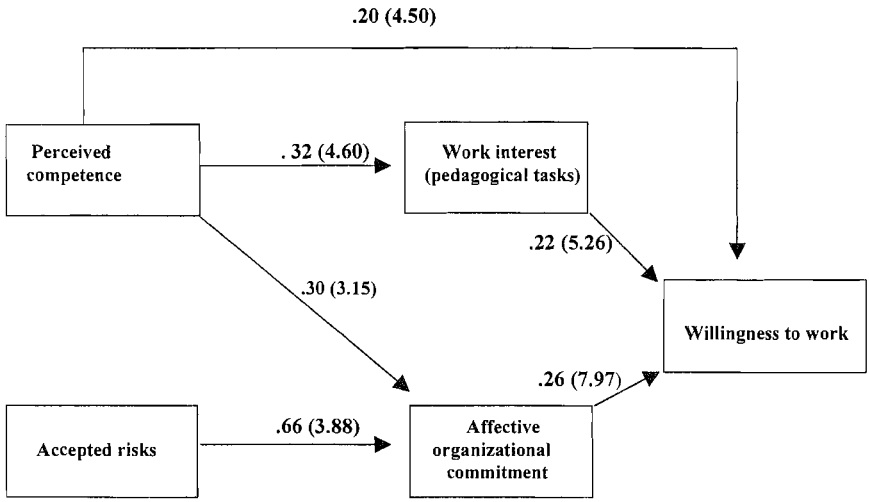

Figure 5. Revised model of willingness to work for Study 1. Unstandardized coefficients and *t*-values within parantheses are presented.

For this sample the fit indices suggest a good fit of the data to the revised model.

4.2.2.3 Study 2: Structural model of willingness to work

In Table 21, intercorrelations of the idices included in the analysis are shown. Factor loadings on respective latent variables are presented for willingness to work and accepted risks in Appendix C2, for affective organizational commitment in Table 7, perceived competence in Table 9, and work interest in Table 8.

Table 21
Intercorrelations of the indices included in the model (Study 2)

	1	2	3	4
1. Willingness to work				
2. Affective organizational commitment	.52			
3 Perceived competence	.58	.26		
4. Work interest (business tasks)	.45	.09	.32	
5. Accepted risks	.59	.29	.59	.34

Note. Correlations above r= .20 are significant on ($p < .01$).

All of the variables were highly correlated to willingness to work, which was expected. In addition, the relationship between perceived competence and accepted risks was very high. The rest of the relationships were quite high, around .30, except for the relationship between work interest and affective organizational commitment.

4.2.2.3.1 Model estimation

The revised model presented in Figure 6 was estimated using LISREL 8.30 with the sample covariance matrix as input. The results of estimating the revised

model are presented in Figure 6. Estimation of the revised model resulted in χ^2(df= 3) = 12.51, p = 0.01, SRMR = 0.05, GFI = 0.97, CFI = 0.95, and IFI = 0.95.

Approximately 49% of the variance in willingness to work, 9% of the variance in affective organizational commitment, and 10% of the variance in work interest (in business related work tasks) was explained. Furthermore, the revised model fit the data quite well. Most of the paths were significant, except the paths between perceived competence and work interest and perceived competence and affective organizational commitment.

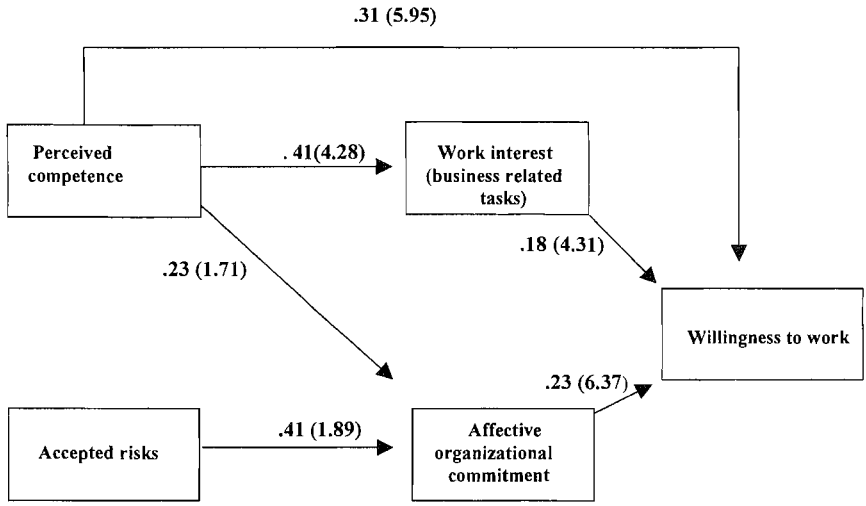

Figure 6. Revised model of willingness to work for Study 2. Unstandardized coefficients and *t*-values within parantheses are presented.

4.2.2.4 Conclusion

In Study 1, a positive relationship was observed between affective organizational commitment, work interest in pedagogical work tasks, accepted risks, perceived competence and willingness to work. The hypothesized relationship between perceived competence and work interest in pedagogical work tasks was significantly positive. The relationship between work interest and affective organizational commitment was significant in the hypothesized model but not in the revised model and was therefore deleted.

One relationship that was expected to be significant, the one between accepted risks and willingness to work, was not supported in this study and deleted. The link that was suggested to be added in the model was the one between accepted risks and affective organizational commitment. Another added link was the one between perceived competence and affective organizational commitment.

In study 2, which was used to confirm or examine the stability of the model, the fit indices showed a good fit of the data. In this second study, most of the paths were supported. There were some paths that were not supported and those were the relationships between work interest and affective organizational commitment and between perceived competence and affective organizational commitment.

As the results indicate, the level of willingness to work is increased when employees find their work task interesting. This supports previous findings by Sjöberg and Lind (1994) and Tollgerdt-Andersson and Sjöberg (1992). The more attachment to the organization an employee experiences, the more motivated he or she is. A person who perceives him/herself as competent at work will experience higher work motivation than a person who does not perceive him/herself as having competence. Deci and Ryan (1987) found that the higher the perceived competence, the greater the job satisfaction and job performance.

In the model, perceived competence was a factor that had impact not only on willingness to work but also on many of the other variables in the analyses. Consistent with the theoretical proposition of perceived competence, Cury, Biddle, Famose, Goudas, Sarrazin, and Durand (1996) found that it was an important factor for determining interest. However, as Sansone (1986) stated, competence perceptions are only important to interest if competence itself is valued in that context.

In the revised model, it was shown that the more the risks are accepted by an employee the more affectively committed to the organization he or she is. The perception of one's competence has a positive impact also on affective organizational commitment.

To sum up, the results showed that the indices of fit suggest a good fit of the data to the revised model in both of the studies. This gives indications of a quite stable model. It also supports tentative conclusions regarding causal relationships.

4.3 Results of construct validity studies

4.3.1 Introduction

The purpose of this section was to examine the construct validity of willingness to work, which was investigated in three groups, pre-school employees (Study 1), employees in an insurance company (Study 2), and salespeople in an insurance company (Study 3). Validity is the degree to which an instrument actually measured what it was supposed to measure. It is always relevant to question the validity of an instrument. It is particularly relevant when new instruments are being developed or when previously validated instruments are translated and used in other countries (e.g., Lincoln & Kalleberg, 1990).

4.3.1.1 The relationship between willingness to work and work-related behaviors

Work motivation has been defined as the process by which behavior is energized, directed, and sustained in organizational settings (Steers & Porter, 1991). Therefore, a goal of work motivation theories is to be able to explain the factors or processes that affect the direction, intensity and persistence of behavior in the workplace. Behaviors that have often been examined are withdrawal behaviors, such as absenteeism and turnover, because of the costs for organizations (Steers & Porter, 1983). In the present study, intention to quit is investigated. In prior studies, turnover intention has been found to be an immediate precursor to actual turnover (e.g., Hom, Caranikas-Walker, Prussia & Griffeth, 1992). A work-related behavior that reflects how hard an individual works is the number of hours (each day, week etc) he or she puts into work. The assumption here is that the more time an individual voluntarily puts into work, the higher the motivational level is. Wallace (1997) found a positive association between work motivation and number of hours worked. A positive relationship has been found between job performance and work motivation (for a review, see Pinder, 1984; Locke & Latham, 1990a; Locke & Henne, 1986; Maeher & Braskamp, 1986).

In Study 1, 179 pre-school employees participated. The work-related behaviors studied were absenteeism, number of hours worked, and intention to quit. The construct validity was studied by examining the relationship between willingness to work and the work-related behaviors.

Table 22
Intercorrelations among the variables. N=179 (Study 1)

Variables	**1**	**2**	**3**
1. Willingness to work			
2. Absenteeism	- .12		
3. Number of hours worked	.31*	- .14	
4. Intention to quit	- .56**	.11	- .03

*$p < .05$, **$p <. 01$.

In Table 22, the correlations[8] among willingness to work, absenteeism, number of hours worked (per week) and intention to quit show that both number of hours worked (per week) (.31) and intention to quit (-.56) were strongly related to willingness to work, whereas absenteeism (-.12) was quite weakly associated with willingness to work.

[8] Cohen (1988, 1992) suggested that a correlation coefficient around .10 is small, .30 is medium and .50 is large.

In Study 2, 160 employees of an insurance company participated. The work-related behaviors studied were also in this study absenteeism, number of hours worked, and intention to quit. The result is reported in Table 23.

Table 23
Intercorrelations among the variables N=160 (Study 2)

Variables	**1**	**2**	**3**
1. Willingness to work			
2. Absenteeism	- .16*		
3. Number of hours worked	.48**	- .19*	
4. Intention to quit	- .31**	.01	- .08

*$p < .05$, **$p <. 01$.

In Table 23, the correlations show that willingness to work had a strong relationship to number of hours worked (.48), a moderate relationship to intention to quit (-.31) and a weak relationship to absenteeism (-.16). Similar results were found in Study 1.

In Study 3, 45 salespeople in an insurance company participated. The work-related behavior that was related to willingness to work in this study was job performance. Job performance was measured with a subjective, self-rating measure and an objective job performance measure, sales volume.

Table 24
Intercorrelations between willingness to work and job performance

Variables	1	2
1. Willingness to work		
2. Objective job performance	.57	
3. Subjective job performance	.39	.78

Note. All correlations are significant at $p < .01$ at least.

In Table 24, the relationship between willingness to work and objective job performance (sales volume) was quite strong (.39). The correlation between job performance and self-rated performance was even stronger (.57).

4.3.1.1.1 Conclusion

The purpose of this part was to examine the construct validity of willingness to work. In Study 1 and 2, the work-related behaviors that were included were absenteeism, intention to leave, and number of hours worked. The results show that the relationships between willingness to work and work-related behaviors varied. Willingness to work was weakly related to absenteeism in both Study 1 ($r = -.12$) and Study 2 ($r = -.16$).

The relationship between willingness to work and number of hours worked was moderate in Study 1 (r = .31) and quite strong in Study 2 (r = .48). The association between willingness to work and intention to quit was strong in Study 1 (r = -.56) and moderate in Study 2 (r = -.31).

Absenteeism was expected to be highly associated with willingness to work but the result showed a weak relationship. The fact that absenteeism was so difficult to explain is in line with the literature (e.g., Björklund, 1991), but still a disappointment in this study because previous work by Sjöberg and Lind (1994) succeeded much better in this matter. Sjöberg and Lind found that 18% of the variance was explained. The study of Sjöberg and Lind (1994) was conducted in 1992, whereas the present data were collected during 1995. Two conditions were changed in 1995 that might have affected the respondents. First, the law concerning payment during sick leave from work was changed so that one day of a qualifying period for benefit was introduced and the compensation was decreased from 90% to 80% for the employee. This law gained legal force in April 1993[9]. Another factor that might have influenced the participants was the number of people unemployed. In 1992[10], 233,200 people were unemployed whereas in 1995, 332,900 people were unemployed in Sweden.

Nevertheless, previous results regarding the effect of unemployment rate on absenteeism have shown some inconsistencies. Markham (1991) found that when unemployment rate increased, absenteeism decreased. These findings were supported by Leigh (1986). In one study in Sweden (Knutsson & Goine, 1998), there was no relationship between unemployment rate and sickness absence found for women. Among men, however, an inverse relationship between unemployment rate and long term sickness absence was found.

In Study 3, willingness to work was related to subjective as well as object job performance. The result showed a satisfactory result. The relationship between

[9] The law of public insurance (Lagen om allmän försäkring (AFL) or The law of sick leave payment (Sjuklönelagen, Sj11). The statute book of Sweden. (http://www.jit.se/lagbok).
[10] The numbers are from National Statistics Sweden

willingness to work and job performance showed that willingness to work was strongly correlated with subjective as well as objective job performance (.57, and .39, respectively). In the study of Sjöberg and Lind (1994) a strong relationship between economic successes of the company and willingness to work was found, which strengthen the findings of this study.

In conclusion, the result showed that work-related behaviors were quite strongly related to willingness to work, which supports the construct validity of the scale. However, it should be mentioned that absenteeism was quite weakly associated with willingness to work in Study 1 and 2. The reason might be due to the way absenteeism was measured or other factors that were discussed earlier.

4.3.1.2 Willingness to work and other work motivation measures (job satisfaction and organizational commitment)

To study the construct validity of willingness to work further, this measure was related to two traditional and well established measures of work motivation, job satisfaction and organizational commitment. Moreover, it was also investigated whether willingness to work was a more efficient measure of work motivation than the more traditional ones (job satisfaction and organizational commitment).

The result of the relationships between willingness to work and the two traditional work motivation measures (job satisfaction & organizational commitment) in Study 1 is reported in Table 25.

Table 25
Intercorrelations between willingness to work and traditional work motivation measures (job satisfaction and organizational commitment. N=179 (pre-school employees.)

Variables	1	2
1. Willingness to work		
2. Job satisfaction	.48*	
3. Organizational commitment	.48*	.34*

Note. *$p < .01$

The result shows a strong relationship between willingness to work and the two traditional measures of work motivation job satisfaction (.48) and organizational commitment (.48).

Furthermore, the result in Study 2 showed that the association between willingness to work and job satisfaction was high (.62), whereas the relationship between willingness to work and organizational commitment was weaker (.23). The result is presented in Table 26.

Table 26
Intercorrelations between willingness to work traditional work motivation measures (job satisfaction and organizational commitment). N=160 (employees of an insurance company)

Variables	1	2
1. Willingness to work		
2. Job satisfaction	.62	
3. Organizational commitment	.23	.26

Note. All correlations are significant at $p < .01$ at least.

In Study 3, the result showed that the relationship between willingness to work and the traditional work motivation measures was weak (.27 and 27, respectively). The result is presented in Table 27.

Table 27
Intercorrelations of willingness to work and traditional work motivation measures (job satisfaction and organizational commitment) N=45 (salespeople)

Variables	1	2
1. Willingness to work		
2. Job satisfaction	.27	
3. Organizational commitment	.21	.10

4.3.1.2.1 Conclusion

The results from the analyses showed that willingness to work was quite strongly related to job satisfaction and organizational commitment in both Study 1 (r =.48, .48, respectively) and Study 2 (r = .62, .23, respectively). However, in Study 3 the correlation between willingness to work and the two traditional work motivation measures (job satisfaction and organizational commitment) was only moderately strong, (.27, 21, respectively).

The conclusion that can be drawn from the result is that the construct validity could be supported in Study 1 and 2 but not in Study 3. The strength of the relationships varied, and the strongest relationship was found between willingness to work and job satisfaction.

4.3.1.3 Is willingness to work a more efficient measure of work motivation than the two traditional ones (job satisfaction and organizational commitment)?

The purpose of this section was to investigate if the new measure of work motivation, willingness to work, is a more efficient measure than job satisfaction and organizational commitment. In order to examine this, all of the measures were related to work-related behaviors (for a review of willingness to work, see Table 22 and 23).

The results in Study 1 showed that job satisfaction was strongly associated with intention to quit (-.58) and to some extent to absenteeism (-.20) but weakly related to number of hours worked (.05). Organizational commitment was weakly related to both absenteeism (-.07) and number of hours worked (.10), whereas the association to intention to quit was stronger (-.48). It should, however, be mentioned that it might be an overlap between intention to quit and organizational commitment, because there were questions in the organizational commitment scale that concerned quitting the job.

In Study 2, both job satisfaction and organizational commitment were strongly related to intention to quit (-.52, -.44) and weakly associated to absenteeism (-.08, .02). Job satisfaction was also quite strongly related to number of hours worked (.35) whereas organizational commitment was weakly associated with number of hours worked (.08).

In Study 3, job performance (objective and subjective) was associated with all of the work motivation measures. The results showed that job satisfaction was strongly associated with objective (.34) as well as subjective (.49) job performance. Organizational commitment, on the other hand, was weakly related to both of the job performance measures (.19, .08).

Willingness to work was, like job satisfaction and organizational commitment, weakly related to absenteeism in Study 1 (-.12) and 2 (-.16). Moreover, intention to quit was quite highly associated with willingness to work in Study 1 (-.56) and Study 2 (-.31), which the two traditional work motivation measure also were. Number of worked hours was in both of the studies, Study 1 (.31) and 2 (.48), stronger related to willingness to work compared to the other two traditional work motivation measures. Moreover, willingness to work was more strongly associated with both objective (.39) and subjective (.57) job performance than job satisfaction and organizational commitment.

Regression models were performed with absenteeism, intention to quit, and number of hours worked as dependent variables and willingness to work, job satisfaction, and organizational commitment as independent variables to investigate if construct validity was improved by adding job satisfaction and organizational commitment to willingness to work.

In Study 1, the result shows that by adding job satisfaction and organizational commitment to the model, the work-related behaviors that were affected were absenteeism, to a small degree, and intention to quit. Although job satisfaction and organizational commitment were added to the regression model, absenteeism was poorly explained, only to 2%. The work-related behavior that was explained to the highest extent was intention to quit and all of the three work motivation measures contributed to explaining the variance to 46%, compared to 31% with only willingness to work as the explanatory variable. Willingness to work as a single explanatory variable accounted for 9% of the variance in number of hours worked. The result is shown in Table 28.

Table 28

Regression models with absenteeism, number of hours worked and intention to quit as dependent variables (Study 1)

Model	R	R^2	R^2 change	R^2_{adj}
Absenteeism				
1[a]	.31	.01		.01
2[b]	.20	.04	.03	.02
Number of hours worked				
1[a]	.31	.09		.09
2[b]	.33	.11	.01	.09
Intention to quit				
1[a]	.56	.31		.31
2[b]	.69	.47	.16	.46

[a] Predictor: Willingness to work,

[b] Predictors: Willingness to work, job satisfaction & organizational commitment

Also, in Study 2 different regression models were tested. Willingness to work, job satisfaction and organizational commitment were used as predictors of absenteeism, hours worked and intention to quit. The proportion of explained variance increased in intention to quit when job satisfaction and organizational commitment were added to the regression model. The explained variance in absenteeism and number of hours worked did not increase noticeably by adding job satisfaction and organizational commitment. The variance in absenteeism was as in Study 1 poorly explained, at the highest 2%. The work-related behavior that was explained to the highest extent was intention to quit and by adding job satisfaction and organizational commitment the variance increased. Number of hours worked was explained to 19% and by adding job satisfaction and organizational commitment the portion of explained variance did not increase. The result is shown in Table 29.

Table 29

Regression models with absenteeism, number of hours worked and intention to quit as dependent variables (Study 2)

Model	*R*	R^2	R^2 change	R^2_{adj}
Absenteeism				
1[a]	.16	.03		.02
2[b]	.16	.03	.00	.01
Number of hours worked				
1[a]	.44	.19		.18
2[b]	.45	.20	.01	.19
Intention to quit				
1[a]	.31	.09		.09
2[b]	.60	.36	.27	.35

[a] Predictor: Willingness to work

[b] Predictors: Willingness to work motivation, job satisfaction & organizational commitment

4.3.1.3.1 Conclusion

A comparison in construct validity was made between the new measure of work motivation (willingness to work), and the two traditional ones (job satisfaction and organizational commitment). The results showed that willingness to work, job satisfaction and organizational commitment were quite weakly related to absenteeism. All of the three measures were strongly associated to intention to quit, whereas willingness to work showed a generally stronger relationship to number of hours worked.

Regression analyses were performed in order to investigate if the predictive power increased by adding job satisfaction and organizational commitment to willingness to work, to a regression model. The work-related behavior where the proportion of explained variance increased by adding job satisfaction and organizational commitment was intention to quit. The variance in the other two work related behaviors was not affected as much or at all when job satisfaction

and organizational commitment were added. The result supported the construct validity of willingness to work, because willingness to work contributed by itself to a high extent to explain the variance in the work-related behaviors.

4.3.1.4 Does work motivation in general predict work-related behaviors?

In Study 1, a canonical correlation analysis[11] (CCA) was performed, to investigate the overall effects of the set of work motivation variables (willingness to work, job satisfaction and organizational commitment) on the set of work related behaviors (absenteeism, number of hours worked, and intention to quit). The canonical correlation coefficient measures the degree of correlation between the two variates[12] or sets of variables described earlier. The canonical correlation coefficient between the first canonical variate of the dependent variables and the first canonical variate of the independent variables was .71 and significant at the 1%-level [$\chi^2(9)=127$]. The canonical R^2 was computed, which represents the square of the canonical correlation coefficient and is interpreted as the proportion of variance that is shared between the two canonical variates. For the model, 50% of the variance in the first criterion canonical variate is accounted for by its predictor canonical variate counterpart. As such, the overall relationship is reasonably strong.

Also, in Study 2, a canonical correlation analysis was performed, to investigate the overall effects of the set of work motivation variables (willingness to work, job satisfaction, and organizational commitment) on the set of work related behaviors (absenteeism, number of hours worked and intention to quit). The canonical correlation coefficient between the first canonical variate of the

[11] A canonical correlation analysis describes the nature of the relationships between two sets of variables. The underlying logic of canonical correlation involves deriving these linear combinations so that the correlation between the two linear combinations is maximized.

[12] Canonical variates are pairs of linear combinations of variables. One variate is derived from the dependent variables and the other from the independent variables.

dependent variables and the first canonical variate of the independent variables was .67 [χ^2 (9) =114]. For the model, 45% of the variance in the first criterion canonical variate was accounted for by its predictor canonical variate counterpart. As such, the overall relationship is reasonably strong.

4.3.1.4.1 Conclusion

It was also investigated if work motivation (including willingness to work, job satisfaction, and organizational commitment) is an efficient predictor of work-related behaviors (absenteeism, number of hours worked, and intention to quit). This was employed using canonical correlation analysis. The results showed a strong relationship in both of the studies (. 71, and .67).

In conclusion, the results showed that the three work motivation measures together were quite efficient predictors of work-related behaviors.

5. General discussion

5.1 A summary of the findings

There were two main questions investigated in the thesis. The first question was to investigate the determinants of work motivation defined as willingness to work. The second question was to examine the construct validity of the willingness to work scale.

The participants were three different professional groups that all belong to the service industry. The first group included 179 pre-school employees, the second group 160 employees of an insurance company, and finally 45 insurance salespeople.

A large number of factors that have been shown to be related to work motivation were included in the first research question which was carried out in Study 1 and 2. The variables that were selected to be included in the study were chosen due to previous findings of Sjöberg and Lind (1994) and to other results regarding variables that have shown to be related to work motivation. In Study 1, the participants were 179 pre-school employees. After using a multiple regression analysis with a backward elimination procedure, the factors that contributed to explaining the variance in willingness to work were affective organizational commitment, positive evaluation of one's job, interest in pedagogical work tasks, risk burden, accepted risks, perceived competence, general intrinsic motivation, and normative organizational commitment. These factors accounted for 59% of the explained variance.

In Study 2, 160 employees of an insurance company participated. The purpose was to explore the determinants of willingness to work. The variables contributing to explaining the variance in work motivation were quite similar. The variance was explained in work motivation to 69%. The determinants were opinion about one's job, perceived competence, job satisfaction, risk burden,

spontaneous creativity, interest in business related work tasks, affective organizational commitment, general work interest, and perceived work environment.

As the results showed in the two studies, there were several factors that had an impact on willingness to work in both of the studies. This was in line with what Sjöberg and Lind (1994) found in their study. A further analysis was made on the factors that explained the variance in both of the studies in order to examine the relationships between them more thoroughly. Therefore, a LISREL analysis (Jöreskog & Sörbom, 1996) was carried out to investigate direct as well as indirect relationships between affective commitment (organizational commitment), accepted risks (perceived risks), work interest (specific work tasks), perceived competence (intrinsic motivation), and willingness to work. The result showed significant paths between affective organizational commitment, work interest, accepted risks, perceived competence, and willingness to work. Further, the path between perceived competence and work interest was significant. A significant path between work interest and affective organizational commitment was also found. Moreover, significant paths between accepted risks and affective organizational commitment as well as perceived competence and affective organizational commitment were found. The revised model that was found in Study 1 was confirmed in Study 2. The results indicated that the data fit the revised model well in Study 1 and 2.

The first question examined the factors that determined willingness to work and their direct as well as indirect relationships. In the second research question, the construct validity of the measure willingness to work was examined. A valid and useful measure of work motivation should be closely related to different work-related behaviors (Pinder, 1998), and in order to investigate the construct validity of the measure, willingness to work was related to absenteeism, intention to quit, and number of hours worked (Study 1 and 2) and to subjective job performance as well as objective job performance (Study 3).

Moreover, the results showed that willingness to work was in both studies (Study 1 and 2) quite highly correlated to intention to quit and number of hours worked but weakly related to absenteeism. The relationship between willingness to work and job performance (subjective and objective) was examined (Study 3). The result showed a strong relationship between willingness to work and subjective as well as objective job performance measures (.57, and .39, respectively).

The new measure of work motivation, willingness to work, was also compared to two traditional work motivation measures (job satisfaction and organizational commitment) and the general conclusion to be drawn is that it was a more valid measure than the two traditional ones, especially compared to organizational commitment.

The correlations partly supported that willingness to work can be considered as a valid measure of work motivation. It should, however, be mentioned that the relationship between willingness to work and absenteeism was weak in Study 1 and 2. The findings as regards the internal consistency showed that Cronbach α appears to hold across different types of samples (different professions). The Cronbach α was around .80 in all of the studies.

To sum up, the variance in willingness to work was well explained in all of the studies. In fact, although the work groups were very different, similar variables explained the variance. Similar findings were presented by Sjöberg and Lind (1994), which makes the determinants of work motivation defined as willingness to work quite consistent across work groups. The variable that in all of the groups was shown to be important in explaining work motivation was work interest, which was also shown in the study of Sjöberg and Lind (1994). Work interest has not often been related to work motivation in prior studies, but much more attention should be paid to this factor because of its ability to predict work motivation.

The construct validity of willingness to work was also examined and it showed to be a valid and useful measure of work motivation, because the measure was closely related to work behaviors such as job performance, number of hours worked, and intention to quit. As the results showed, using volitional approach, willingness to work successfully predicted different job related behaviors and this strengthens the notion of using this approach instead of traditional ones.

A final remark, to understand work motivation is not an easy tasks as Locke (1991, p. 298) stated when he wrote about work motivation "we do not know everything, but we do know something!". Hopefully, the studies presented here have contributed to increasing the knowledge about work motivation and the results presented here can be used both in further research as well as among practitioners.

5.2 Limitations

In all of the studies there were limitations. A limitation of the study of employees working in pre-schools (Study 1) was the relatively small sample size and the fact that only pre-schools in the county of Stockholm were selected. This limitation was due to financial and practical constraints. Evidently, this limits the level to which the results can be generalized. Other factors, for example policies on how pre-schools should be run and the amount of money received for a child from the parents and the municipality might be different depending on where one lives. There are, of course, other possible factors that may affect the employee's motivational level. One important thing to consider is that the majority of the respondents in this study were women. This means that the results might be difficult to apply to other work groups than those within the child care sector.

In the second study, where employees at a Swedish insurance company were studied, generalizations can be drawn only to this specific company, as the particular organizational culture and structures are unique for every company, which may in term mirror people's motivational level. However, the method used here can be applied to other professions and work places.

To investigate the determinants of willingness to work, a stepwise regression analysis was used. Using stepwise procedures could involve limitations, if they are not used with precaution. Stepwise procedures are susceptible to sample-specific error because of a great potential for capitalization on chance (cf. Freedman, 1983). Also, as many of the decisions in selecting variables may be based on small differences in values of regression weights or partial correlations, stepwise procedures applied to two different samples from the same population are likely to identify different subsets of predictors as "best" (Bobko, 1990). Other errors can occur when using stepwise regression. One is that irrelevant variables could be included in the model and the second is that relevant variables could be excluded. This error is related to the fact that the final regression model fits too well to the empirical data used. Another potential error is related to the possibility that relevant variables are excluded and this could interfere with the final analysis. To clarify, if two independent variables are highly correlated, the first one of these independent variables that will be included in the model will also absorb a large part of the other variables' explanatory value and there is a risk that the second variable will not be included in the model and that the first variable will have too much impact on the dependent variable (Ruist, 1990).

In the study of construct validity the first limitation was that the work-related behaviors were self-reported, which can be a disadvantage because some participants might have been unsure of, for example, how many days they had been absent from work. It would have been desirable that both self-reported and objective data, such as personnel records, could have been compared. Secondly, absenteeism was not divided into involuntary and voluntary absenteeism, which might have influenced the results.

Additionally, Sagie (1998) found that the correlation between absence obtained from personnel records and absence obtained from self-reports was .91 for voluntary absence and .85 involuntary absence.

In Study 3, there were certain limitations, which might affect the generalizability of the findings. One major limitation is due to the sample size, 45 insurance salespeople, and another is due to the fact that the study was conducted only in one insurance company. It should also be mentioned that self-reports of behaviors in general are strongly influenced by features of the research instrument, including question wording, format, and context (Schwartz, 1999), which should be considered when the results are interpreted. Further, to use sales volume as an objective job performance is common. However, it should be recognized that sales volume measures are a function of both individual skill and effort and environmental factors beyond the control of the employee (Borman, 1991). Moreover, sales volume will often fail to measure important parts of the job, for example, how helpful an employee is to a colleague, how much service an employee gives to a client, etc (Borman, 1991). However, this problem might be somewhat minimized by also adding a subjective job performance measure.

5.3 Further research

The next step in the research process is to further study the measure of work motivation defined as willingness to work and use the measure in other work groups. Further to study factors such as work interest, perceived risks, organizational commitment and intrinsic motivation and their effects on willingness to work in other work groups and professions.

A further study of the construct validity of the work motivation measure is crucial. It would be preferable to use self-reported as well as objective measures of different work-related behaviors, such as personal records of absenteeism,

actual turnover rate, and actual number of hours worked and to divide absenteeism into involuntary and voluntary absenteeism. Also, the relationship between work motivation and job performance is important to study further.

New technology is creating new types of work and corporations, which also would be of great interest to study further.

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7. Appendix

7.1 Appendix A

Service industry

Services is the most rapidly growing economic sector in contemporary industrialized societies (Nelson, 1994) and the population that works in the manufacturing industry has been reduced during the recent decade. Previous studies on work motivation have been conducted mostly in the manufacturing industry. Since the number of people working in the service industry increases continuously, work motivation studies in this area are called for.

In this section, the service industry is first presented. Then, the services that have been studied in the thesis are child care services and insurance services separately introduced.

Research suggest that the shift to service employment has not uniformly benefited the work force. Service workers are more likely than manufacturing workers to have low incomes, fewer opportunities for full-time employment, and also greater inequality in earnings (Nelson & Lorence, 1988; Nelson, 1994). However, Aarnio (1999) stated that the service sector has generated disproportionately both good quality and well-paid jobs.

The conventional characteristics of manufacturing versus services are given as tangibility versus intangibility, transferability as opposed to non-transferability, storability versus non-storability and no direct contact versus direct contact between the producer and consumer (e.g., Aanio, 1999).

A more detailed description of service industries was presented by Fitzsimmons and Sullivan (1982). The characteristics of the service sector are:

- The consumer is a participant in the service process. This requires particular attention to the surroundings and characteristics of the service operations.
- Services cannot be stored, they are time perishable and if they are not used they are likely to be wasted. For example, the lost income from an unsold hotel room for one day is lost forever.
- Unlike physical products, services are less tangible and more difficult to explain or communicate. Benefits derived from services tend to be associated with feelings and emotions.
- In service operations work activities are people-oriented and the characteristics of the workforce are particularly important in determining organizational effectiveness.
- Measurement of output is difficult and there is unlikely to beone single, important criterion by which to measure effective performance.

The development of employment in Sweden has been divided into three types of industries; agriculture, manufacturing and services. They are compared in Figure A1.

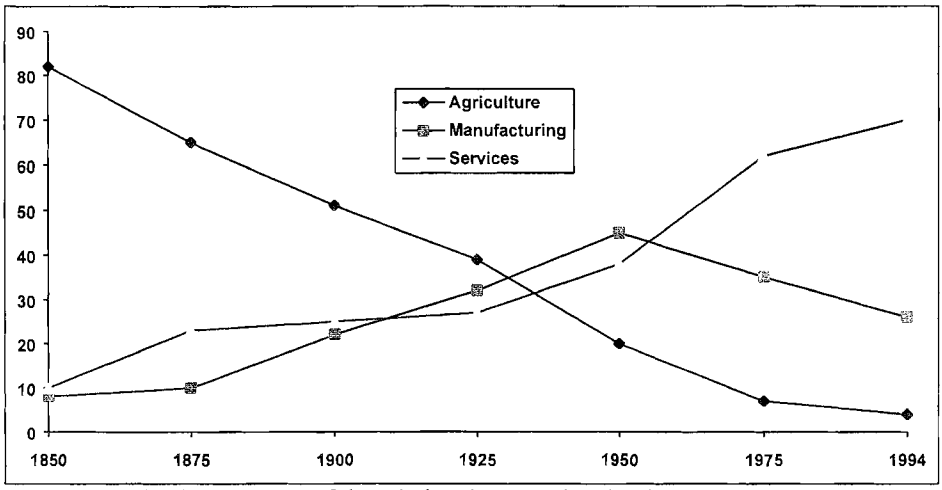

Figure A1. The development of three industries over time in %.
(Source: Swedish Coalition of Service industries, 1996)[13].

Figure A1 shows the increase of employees in the service sector. In 1850, the number of employed people in agriculture was approximately 82% and in 1994, only 4%. In manufacturing, the number of people employed in 1850 was 8% and in 1994 it was 26%. The number of employed persons in services in 1850 was 10%, and in 1994, it was 70%.

The total number of employed people in 1994 was 4 million. The division between different industries is presented in Table A1 and Figure A2.

[13] Information from Swedish Coalition of Service industries concerning the Swedish service sector.

Table A1

The division of employed people in Sweden in 1994, divided between different kinds of industries.

Industries	**Number of employed people in % (%)**
Private services	38
Public services	32
Construction	5
Agriculture	4
Manufacturing	21

(Source Swedish Coalition of Service industries, 1996).

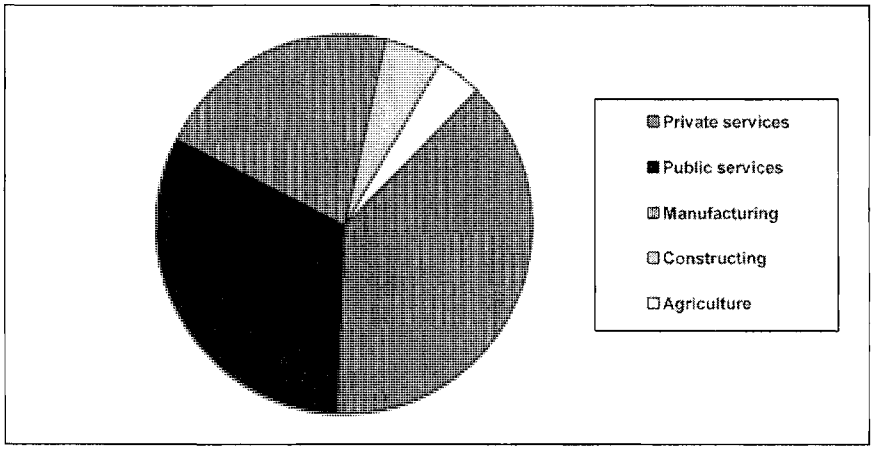

Figure A2. The division of the 4 million employees in Sweden, divided in different types of industries (Swedish Coalition of Service industries, 1996).

The internationalization process is another important aspect in service industries. The Swedish industry as a whole is one of the most internationalized in the world, and Swedish service industries are dependent upon foreign markets. The business world is getting increasingly global, and the processes of internationalization are even more important today, as a result of the Swedish membership in the ECC. This makes education in languages and properties of other cultures important.

It is not only the service industry in Sweden that has grown but the development and the shift from manufacturing industry to service industry look the same in

most countries in the world. Tables A2 and A3 give the general picture of the official service sector share of GDP and employment in a number of OECD countries, based on the traditional three-sector division (agriculture is not reported). The trend over the past 30 years in the OECD countries towards ever greater proportions of service-based income and employment is well documented.

Table A2
Sectoral shares of GDP (value-added of sector as a %- age of GDP).

	Industry				*Services*			
Country	*60-73*	*74-79*	*80-89*	*90-95*	*60-73*	*74-79*	*80-89*	*90-95*
OECD	*39*	*37*	*34*	*30*	*55*	*59*	*62*	*67*
USA	36	34	31	27[a]	60	63	67	71[a]
Japan	45	42	41	40	46	53	56	58
EU15	42	39	35	31	51	57	61	67
Nordic4[b]	35	33	32	28	57	62	64	69
France	39	36	31	28	53	59	65	70
Germany	51	44	41	36	45	53	58	63
Italy	41	41	36	32	49	53	60	65
The Netherlands	41	34	31	28	52	62	65	69
Sweden	38	35	30	28[a]	56	62	67	70[a]
UK	40	37	35	29[a]	57	60	64	70[a]
Korea	-	35	41	44	-	42	46	49
Mexico	-	34	32	25	-	56	60	69
Turkey	24	24	34	30	61	62	63	67

Notes: [a] 1990-1994; [b] Nordic4 = Denmark, Finland, Norway and Sweden. Source: OECD (1997).

Table A3
Sectoral employment shares.

Country	*Industry*				*Services*			
	60-73	*74-79*	*80-89*	*90-95*	*60-73*	*74-79*	*80-89*	*90-95*
OECD	*36*	*35*	*32*	*29*	*47*	*54*	*60*	*63*
USA	35	31	28	25	59	65	69	72
Japan	33	36	35	34	45	52	56	60
EU15	41	39	34	32	43	50	57	
Nordic4[b]	37	34	30	27	47	56	63	68
France	39	38	33	28	44	53	60	67
Germany	48	45	41	39	42	49	54	57
Italy	38	39	35	32	38	45	54	60
The Netherlands	40	34	28	24	47	58	65	71
Sweden	40	35	30	27	49	59	65	69
UK	46	40	33	27	51	57	65	71
Korea	-	26	30	34	-	32	43	59
Turkey	14	20	21	22	18	23	29	33

Notes. [a] 1990-1994; [b] Nordic4 = Denmark, Finland, Norway and Sweden. Source: OECD (1997).

7.1.1 Changes in work per se

Since the industrial revolution every decade has had its unique defining characteristics. Innovation and challenging the establishment characterized the 1960s; industrial strife and conflict between employer and employee, the 1970s; the enterprise culture, with its strategic alliances, privatizations and the like, the 1980s; and the short-term contract culture, with its outsourcing, "flexible" orkforce, and long working hours culture, the 1990s (Cooper, 1999). These dramatic changes in the UK, and in the European and North American workplaces have led to freelance, and to intrinsically job-insecure and less stable work environments which is partly responsible for certain industrial and social problems (Cooper, 1999). In fact, organizations today are facing more change than ever before (Conner, 1992). As they strive to retain their competitive edge, they are reorganizing, downsizing, and implementing new technology. The traditional notion of a "job" is becoming antiquated as work becomes more

project based and employees are required to work beyond fixed job descriptions (Howard, 1995). Employees today are facing greater changes, at a more rapid pace, than ever before. Moreover, in order to meet the changes, it is important to be aware of and understand them. It is possible that this will especially have an impact on the service industry, as investments here are in the human capital. New, specific competence is demanded. For a company to be able to be successful and productive, the employees have to improve their competence. Their roles have to be flexible since they have to act both as sellers and customers.

7.1.2 Work motivation and productivity in the service industry

Tollgerdt-Andersson and Sjöberg (1992) argued that interest and creativity are factors that influence work motivation among people working in the service sector. Sjöberg and Lind (1994) reported that work interest was the dimension that explained a large share of variance in work motivation in the private service sector.

Stymne (1989) stated that there are strong indications that there is less productivity growth in services than in the manufacturing industry. If we want to continue to improve our living standards, it might be necessary to find out whether improved motivation could raise productivity in the service sector, since this sector employs the majority of our human resources.

7.1.3 Two different kinds of service industries

7.1.3.1 Introduction

The present thesis deals with two, quite different kinds of services, child care and insurance. Both of the industries have gone through many changes and are still undergoing change, which makes the employees face new challenges and develop new kinds of competence. The number of people employed in child care was in 1999 approximately 115,500, and in the insurance services, 23,500 (Statistics Sweden, 2000)[14]. First in this section, child care is introduced and second, some facts on the insurance industry are presented.

7.1.3.2 Child care in Sweden

Child care services have developed rapidly, and the past few years have brought about a number of changes concerning ideology and practical activities. During the expansive years of the 80s, the control of child care in Sweden was strongly governmental. This control was exerted through state grants, with norms and guidelines issued by the supervisory authority; the National Board of Health and Welfare. Political developments have been generally characterized by the abolition of state controls, norms and restrictions in favor of greater decentralization in child care services from 1992 (The Swedish Institute, 1994).

7.1.3.2.1 Changes in child care

The Swedish child care tradition is built upon three components; nursing, pedagogy and service. Current changes, so far, have not had any effect on any of

[14] Statistics Sweden. Statistical yearbook of Sweden 2000.

these components. The changes have included larger groups of children, new organizations and a freer choice concerning the kind of child care service parents choose (Knutsson & Hjalmarsson, 1994).

Political developments in recent years have generally been characterized by the abolition of state control, norms and restrictions in favor of greater decentralization. Since January 1992 day care centers in Stockholm make their own decisions and take care of their own budget. A new role has been assigned to the employees: to market their specific day care center (Johansson, Kronvall, Jansson & Linström, 1994). Because of the changing circumstances, earlier guidelines and restrictions have been modified with regard to staffing ratios and the size of groups (Sjöberg, 1995).

A summary of the main changes is presented below:

- All child care services used to be municipal, but today co-operatives, foundations, limited companies and other bodies can also be provided with municipal funding support (Sundell, 1995).
- Municipal spending cuts have tended to result in larger groups and lower staffing ratios. Between 1990 and 1994, the number of enrolled children per employee has increased by approximately 40 % (Sundell, 1995).
- In January 1995, approximately 20 % of the day care services were within the private sector, the most common form being a parental co-operative (Ståhle, 1995).
- An increase has occurred in responsibilities of the managers (for example financial responsibly).
- The responsibility for six-year-old children has been transferred to schools, and younger children have taken their place (Sundell, 1995).
- Larger groups, younger children and the new three-hour per day option had a negative effect on child care centers. The available number of employees was reduced when an employee was ill, because substitute employees were not available (Sjöberg, 1995).

The consequences of the changes could be summarized as the following, according to Sundell (1995):

- The mangers do not have sufficient time to manage the group they are responsible for and there is not time for them to supervise staff members in pedagogy. A decrease in number of personnel may result in a decreased ability to support and stimulate all children.
- It is not possible to the same extent as earlier for the staff to participate in different training programs. These changes might result in larger turnover because of a lowered degree of job satisfaction and well-being of the personnel.
- Because of the changes in child care services, employees not only have to adjust to new demands but may also have to find new challenges within the changes (Lundström, 1995).
- The changes in day care services have brought forth protests both from parents and personnel (Lundström, 1995), because of a decrease in the quality of the existing child care service (Ståhle, 1995).

Thus, the present situation of day care centers is one of strongly increased demands on productivity and decentralized responsibility. Work motivation could, under such conditions, be affected in a negative or a positive manner, depending on the details. Challenges tend to be positive for motivation if they are not too demanding. It remains to be seen how the current situation should be characterized.

7.1.3.2.2 Work motivation and productivity in child care

Lundström (1995) found that employees working in day care centers were satisfied with their work situation. Most of them had good relationships with

their coworkers. The staff also felt that their contact with the children's parents was satisfying.
Job satisfaction had not been affected by the municipal spending cuts within the child care sector. The employees were as satisfied as they used to be, although the number of children per group had increased (Olsson, 1995).

The variables that explained job satisfaction were the work itself, the relationship between the personnel and the manager, and characteristics of a small variation of the age of the children in the groups (Lundström 1995). In a study of Australian directors of child care centers, survey respondents reported that intrinsic motivators such as "interesting and challenging work" and "feeling of achievement" were more important to their job satisfaction than "salary" (Savery & Wingham, 1991).

The child care sector and its productivity have often been discussed in the media. Nowadays, the municipal child care sector has to compete with private child care services. In 1994, 5% more children were enrolled in child care services as compared with 1993. This increase occurred in the private child care sector alone (Jällhage, 1995). The reductions in state grants have resulted in a need for increased efficiency of child care services. The cost of a child in child care services has drastically been reduced during the past years, and the sector's productivity has increased by 50% to the mid 1990's (Kjellander, 1995).

7.1.3.3 Insurance industry

Insurance and banking stand for 6% of the service industry's total employment of 1.5 million people (Swedish Coalition of Service Industries, 1996). The key to success in the insurance industry has been stated as "self-motivation" (Gaedeke, 1995). In most insurance agencies, owners, managers, and employees are more often rewarded equally rather than paid on the basis of their individual performances. Traditionally, salary raise has been practiced which increases total compensation expenses each year without necessarily changing

performance. The challenge for the agency system, and the insurance industry in general, is to design compensation programs that motivate without compensation costs escalating. Some agencies are replacing the straight salary raise with a salary/bonus arrangement in which the bonus is tied to performance. Employees who fail to meet goals receive no bonus (Cunningham, 1995).

There are approximately 500 insurance companies in Sweden out of which approximately 400 are small local businesses (Swedish Insurance Federation, 1995)[15]. Swedish insurance companies have 16 affiliated companies in other countries. Most of these are either situated in the other Nordic countries or in England.

7.1.3.3.1 New tasks for the insurance industry

The conditions in the industry have changed. The strict regulations that limited the insurance companies have lessened during the past years.

The exchange control was abolished in 1989 and a new insurance agency law was established in 1990. The following after, it was permitted to run both insurance and banking activities within the same business concern. With the EES agreement, it also became possible to run business activities in other European countries (Swedish Insurance Federation, 1995).

Since July 1, 1995, the insurance Business Act has been adapted to conform to the EU's third Non-Life and Life Assurance Directives. A large part of the Federation's activities during 1995 involved the question of whether the insurance industry can and should take on greater responsibility for some of the matters that burdened the national budget. This could be done by developing private alternatives to some of the National Insurance systems (Swedish Insurance Federation, 1995).

[15] Swedish Insurance Federation Annual Report 1995.

7.1.3.4 Summary

From 1992, both municipal and private child care services exist, which has resulted in an increase of competition between day care centers. This has resulted in new work tasks for employees in child care, and improved competence is more or less required. Each of the day care centers is a separate organization with its own budget. The insurance industry also faces new challenges mainly because the strict regulation that limited the insurance companies before has lessened during the years. Today it is possible for an insurance company to run insurance as well as banking activities in the same organization. It is also possible for them to run business activities in other European countries. The presented services are well known and used by the public and often, especially child care, discussed in the media, which makes these two services interesting to study. They are also quite different. If findings generalize across them, this would be an interesting finding.

7.2 Appendix B

Scales that were marked with **

Study 1= employees in pre-schools
Study 2= employees in an insurance company
Study 3= salespeople in an insurance company

Work motivation (Questions 12)

(Study 1, 2 and 3)

	Absolutely not	*Rarely*	*Uncertain*	*Maybe*	*Absolutely*	
Do you feel motivated by your job?	□	□	□	□	□	**(1)**
Do you feel stimulated by your work tasks?	□	□	□	□	□	**(2)**
Would you like your children to choose the same job as you?	□	□	□	□	□	**(3)**
Do you feel that your dedication to your job is so strong that it interferes with your family life, friends etc?	□	□	□	□	□	**(4)**
Do you perceive your job as challenging?	□	□	□	□	□	**(5)**
Would you like to devote some more time to your work?	□	□	□	□	□	**(6)**
Would you like to work fewer hours per week if it was economically possible? (R)	□	□	□	□	□	**(7)**

Note: (R)= Reversed scale

	Never	*Rarely*	*Uncertain*	*Sometimes*	*Often*	
Are there times when you take your work home voluntarily, even though it is not required?	□	□	□	□	□	**(8)**
Are there times when you do not take a lunch break because of your strong dedication to your work tasks?	□	□	□	□	□	**(9)**
Do you look forward to returning to work at the end your summer holiday?	□	□	□	□	□	**(10)**

	It passes very slowly	*It passes quite slowly*	*Neither quickly nor slowly*	*It passes quite quickly*	*It passes very quickly*
Do you feel that time at work goes quickly or slowly?	☐	☐	☐	☐	☐ **(11)**

	Less than 5 days	*5-9 days*	*10-14 days*	*15-20 days*	*More than 20 days*
During how many working days per month do you feel a strong will to work?	☐	☐	☐	☐	☐ **(12)**

Beliefs/opinion about one's job

(Study 1 and 2)

Presented below are some questions about how you perceive your job

	Not at all	*To some small degree*	*In some degree*	*Neither small nor high degree*	*To a quite high degree*	*To a high degree*	*To a very high degree*
A routine job	☐	☐	☐	☐	☐	☐	☐
A job that is well respected in society	☐	☐	☐	☐	☐	☐	☐
A popular job among young people	☐	☐	☐	☐	☐	☐	☐
An important job	☐	☐	☐	☐	☐	☐	☐
A job I can recommend	☐	☐	☐	☐	☐	☐	☐
A job with clear demands	☐	☐	☐	☐	☐	☐	☐
A job that demands female characteristics	☐	☐	☐	☐	☐	☐	☐
A job that demands male characteristics	☐	☐	☐	☐	☐	☐	☐
A job that allows me to develop	☐	☐	☐	☐	☐	☐	☐
A job I have never regretted that I have chosen	☐	☐	☐	☐	☐	☐	☐
A job with support from the top management	☐	☐	☐	☐	☐	☐	☐
A job with a high employment security	☐	☐	☐	☐	☐	☐	☐
A job that I myself shape to a high degree	☐	☐	☐	☐	☐	☐	☐
A job that unfortunately allows colleagues to "take it easy"	☐	☐	☐	☐	☐	☐	☐
A job to be proud of	☐	☐	☐	☐	☐	☐	☐

A job that gives meaning to life	☐	☐	☐	☐	☐	☐	☐
A job that one gets tired of after a while	☐	☐	☐	☐	☐	☐	☐
A job that gives me self-confidence	☐	☐	☐	☐	☐	☐	☐
A job that teaches me a lot about people and society	☐	☐	☐	☐	☐	☐	☐
A job that constantly gives me new experiences	☐	☐	☐	☐	☐	☐	☐
A job where I can openly and clearly communicate with my colleagues	☐	☐	☐	☐	☐	☐	☐
A job where you are treated fairly by managers	☐	☐	☐	☐	☐	☐	☐
A job where you are "irreplaceable"	☐	☐	☐	☐	☐	☐	☐
A prestigious job	☐	☐	☐	☐	☐	☐	☐

Evaluation of one's job

(Study 1)

To what degree does the statement below agree with your job

	Not at all	*To some small degree*	*In some degree*	*Neither small nor high degree*	*To a high degree*	*To a very high degree*
My job is nice	☐	☐	☐	☐	☐	☐
My job is bad	☐	☐	☐	☐	☐	☐
My job is ideal for me	☐	☐	☐	☐	☐	☐
My job is A waste of time	☐	☐	☐	☐	☐	☐
My job is good	☐	☐	☐	☐	☐	☐
My job is not suited for me	☐	☐	☐	☐	☐	☐
My job is valuable	☐	☐	☐	☐	☐	☐
My job is worse than most jobs	☐	☐	☐	☐	☐	☐
My job is fantastic	☐	☐	☐	☐	☐	☐
My job is acceptable	☐	☐	☐	☐	☐	☐
My job is better than most jobs	☐	☐	☐	☐	☐	☐
My job is not acceptable to me	☐	☐	☐	☐	☐	☐
I am satisfied with my job	☐	☐	☐	☐	☐	☐
My job does is not good enough for me	☐	☐	☐	☐	☐	☐
My job is excellent	☐	☐	☐	☐	☐	☐
My job is very bad	☐	☐	☐	☐	☐	☐
I am comfortable with my job	☐	☐	☐	☐	☐	☐
My job is worthless	☐	☐	☐	☐	☐	☐

Perceived risks

(Study 1 and 2)

The statements below, different negative events or conditions at work are presented. Are there times when you experience the following events or conditions?

	Never	*Almost never*	*Sometimes*	*Quite often*	*Often*
That I catch a serious illness or become physically injured	☐	☐	☐	☐	☐
That I catch a less serious infection	☐	☐	☐	☐	☐
That I am subjected to negative influences by colleagues and/or management	☐	☐	☐	☐	☐
I have to give negative information to others	☐	☐	☐	☐	☐
I perceive myself as incapable of handling demands the job requires	☐	☐	☐	☐	☐
I think that it is a disadvantage having to live where I do because the job demands it	☐	☐	☐	☐	☐
That I have to live in a special place or district because the job demands it	☐	☐	☐	☐	☐
That I regret my professional choice or work place	☐	☐	☐	☐	☐
That I feel strongly stressed	☐	☐	☐	☐	☐
That I perceive the work tasks as meaningless	☐	☐	☐	☐	☐
That my salary is not enough for myself and my family's needs	☐	☐	☐	☐	☐
That my family or/and friends have a negative image of my job	☐	☐	☐	☐	☐
That I will be unemployed	☐	☐	☐	☐	☐
That I do not feel committed to my job any longer	☐	☐	☐	☐	☐
That I cannot manage conflicts (between colleagues or managers)	☐	☐	☐	☐	☐
That the children lose respect for me[a]	☐	☐	☐	☐	☐

That I do not have any control over the child group[a]	☐	☐	☐	☐	☐
That I disagree with my colleagues	☐	☐	☐	☐	☐
That I lose my patience	☐	☐	☐	☐	☐
That a child "disappears" during a trip[a]	☐	☐	☐	☐	☐
That a parent insists on leaving his or her child at the day care centre, even though the child is ill[a]	☐	☐	☐	☐	☐
That a parent is critical of me[a]	☐	☐	☐	☐	☐
That the work is poorly planned	☐	☐	☐	☐	☐
That I am alone with a group of children[a]	☐	☐	☐	☐	☐
That I have or will have a conflict with a parent[a]	☐	☐	☐	☐	☐
That the number of working staff members is not enough compared to what is needed	☐	☐	☐	☐	☐
That the rest of the work team has different relationships and attitudes to the children than I have[a]	☐	☐	☐	☐	☐
That the children dislike me[a]	☐	☐	☐	☐	☐

Note. [a] those questions were only included in Study 1.

Work interest

(Study 1)

Here are some questions about how interesting you find different work tasks. Evaluate how interesting they are.

	Completely uninteresting	*Almost completely uninteresting*	*To some degree interesting*	*Quite interesting*	*Inter-esting*	*Very interesting*	*Extremely interesting*
Work tasks in general	☐	☐	☐	☐	☐	☐	☐
Parental meetings	☐	☐	☐	☐	☐	☐	☐
Read to the children	☐	☐	☐	☐	☐	☐	☐
To help the children to get dressed	☐	☐	☐	☐	☐	☐	☐
To lead creative games	☐	☐	☐	☐	☐	☐	☐
To lead creative playing (i.e., painting)	☐	☐	☐	☐	☐	☐	☐
Play theatre with children	☐	☐	☐	☐	☐	☐	☐
Make excursions with children	☐	☐	☐	☐	☐	☐	☐
Work with the oldest children	☐	☐	☐	☐	☐	☐	☐
Work with a mixed age group of children	☐	☐	☐	☐	☐	☐	☐
Get further advance training	☐	☐	☐	☐	☐	☐	☐
Read literature about pedagogy	☐	☐	☐	☐	☐	☐	☐
To lead sports	☐	☐	☐	☐	☐	☐	☐
To tell the children about society	☐	☐	☐	☐	☐	☐	☐
To arrange music	☐	☐	☐	☐	☐	☐	☐

events for the children							
To teach the children reading, counting and writing	□	□	□	□	□	□	□
Let the children take initiative	□	□	□	□	□	□	□
Meetings with children	□	□	□	□	□	□	□
To supervise trainees	□	□	□	□	□	□	□
To be outside playing with children	□	□	□	□	□	□	□
To prepare meals	□	□	□	□	□	□	□
Meetings with parents	□	□	□	□	□	□	□
To solve conflicts between the children	□	□	□	□	□	□	□
To work with handicapped children	□	□	□	□	□	□	□
To have contact with authorities	□	□	□	□	□	□	□
Accounting	□	□	□	□	□	□	□
Management	□	□	□	□	□	□	□
To market/ the child care center	□	□	□	□	□	□	□
To work with the youngest children	□	□	□	□	□	□	□
Meetings with colleagues	□	□	□	□	□	□	□
To eat with the children	□	□	□	□	□	□	□
Shopping for the child care center	□	□	□	□	□	□	□
Cooperate with							

other day care centers	☐	☐	☐	☐	☐	☐	☐
The contact with the children's parents	☐	☐	☐	☐	☐	☐	☐
To clean	☐	☐	☐	☐	☐	☐	☐

Work tasks for insurance employees

(Study 2)

Here are some questions about how interesting you find different work tasks. Evaluate how interesting they are.

	Completely uninteresting	*Almost completely uninteresting*	*To some degree interesting*	*Quite interesting*	*Inter-esting*	*Very interesting*	*Extremely interesting*
Work tasks in general	☐	☐	☐	☐	☐	☐	☐
Administrative work tasks	☐	☐	☐	☐	☐	☐	☐
To travel for business purposes	☐	☐	☐	☐	☐	☐	☐
Management	☐	☐	☐	☐	☐	☐	☐
To report	☐	☐	☐	☐	☐	☐	☐
Accounting	☐	☐	☐	☐	☐	☐	☐
To make money	☐	☐	☐	☐	☐	☐	☐
To develop new ideas and products	☐	☐	☐	☐	☐	☐	☐
To sell new ideas and products	☐	☐	☐	☐	☐	☐	☐
To give service and support clients	☐	☐	☐	☐	☐	☐	☐
To sell insurances	☐	☐	☐	☐	☐	☐	☐
To cooperate with others outside my own department	☐	☐	☐	☐	☐	☐	☐
To negotiate	☐	☐	☐	☐	☐	☐	☐
To market one's company	☐	☐	☐	☐	☐	☐	☐
Lo solve conflicts	☐	☐	☐	☐	☐	☐	☐
Further training	☐	☐	☐	☐	☐	☐	☐

To participate in development projects	☐	☐	☐	☐	☐	☐	☐
Meetings	☐	☐	☐	☐	☐	☐	☐
To use new techniques (e.g., computers)	☐	☐	☐	☐	☐	☐	☐
To write letters, reports etc	☐	☐	☐	☐	☐	☐	☐
To collect information	☐	☐	☐	☐	☐	☐	☐
International contact and cooperation	☐	☐	☐	☐	☐	☐	☐
To give service and support within one's department	☐	☐	☐	☐	☐	☐	☐
To do business	☐	☐	☐	☐	☐	☐	☐
To solve problems in groups	☐	☐	☐	☐	☐	☐	☐
To solve problems by myself	☐	☐	☐	☐	☐	☐	☐
To work with numbers	☐	☐	☐	☐	☐	☐	☐
To be responsible for different work tasks	☐	☐	☐	☐	☐	☐	☐
To teach others in the company	☐	☐	☐	☐	☐	☐	☐
To create and increase networks[a]	☐	☐	☐	☐	☐	☐	☐
To update handbooks and other materials	☐	☐	☐	☐	☐	☐	☐
To make decisions	☐	☐	☐	☐	☐	☐	☐
To participate at conferences	☐	☐	☐	☐	☐	☐	☐
Telephone contacts	☐	☐	☐	☐	☐	☐	☐

To educate others	☐	☐	☐	☐	☐	☐	☐
To be responsible for payments to clients	☐	☐	☐	☐	☐	☐	☐
To follow up work tasks	☐	☐	☐	☐	☐	☐	☐
To work with changes within the organization	☐	☐	☐	☐	☐	☐	☐
To introduce new colleagues	☐	☐	☐	☐	☐	☐	☐
Insurance claim	☐	☐	☐	☐	☐	☐	☐

Self-reported job performance
(Study 3)

Items included in the subjective job performance measure.

	Very poorly	*Poorly*	*Neither good nor poorly*	*Good*	*Very good*
Educate and inform the client service	☐	☐	☐	☐	☐
To support client service	☐	☐	☐	☐	☐
To gather information	☐	☐	☐	☐	☐
Knowledge about the products	☐	☐	☐	☐	☐
To contact the client	☐	☐	☐	☐	☐
To prepare oneself for a client meeting	☐	☐	☐	☐	☐
To adapt oneself to the client	☐	☐	☐	☐	☐
To use new technique	☐	☐	☐	☐	☐
To work with numbers	☐	☐	☐	☐	☐
To do reports	☐	☐	☐	☐	☐
To prepare a prospectus	☐	☐	☐	☐	☐
To solve problems	☐	☐	☐	☐	☐
To contact expertise	☐	☐	☐	☐	☐
To deliver a good proposal to the client	☐	☐	☐	☐	☐
To sell new products	☐	☐	☐	☐	☐
To close a deal (insurance)	☐	☐	☐	☐	☐
To sell other products than usual	☐	☐	☐	☐	☐
To advice the clients	☐	☐	☐	☐	☐
To inform the clients in agood way	☐	☐	☐	☐	☐

To follow up the clients	☐	☐	☐	☐	☐
Networking	☐	☐	☐	☐	☐
To keep clients	☐	☐	☐	☐	☐
To plan one's work	☐	☐	☐	☐	☐
To solve conflicts	☐	☐	☐	☐	☐
To delegate work	☐	☐	☐	☐	☐
My general performance	☐	☐	☐	☐	☐
To cooperate with others	☐	☐	☐	☐	☐
To be there for my colleagues	☐	☐	☐	☐	☐

7. 3 APPENDIX C

Table C1
Observed variables with their factor loadings on each latent variable(Study 1).

	Factor Loadings
Work motivation	
I fell motivated in my job	.68
I have stimulating work tasks	.60
I would like my children to choose the same job as myself	.53
I take my work home voluntarily	.42
My dedication to my job is so strong that I at times do not take lunch breaks	.45
I feel that my dedication to my job is so strong that it interferes with my family life, friends	.58
I perceive my job as challenging	.65
I feel that time at work goes quickly	.58
I look forward to returning to work at the end of my summer holiday	.60
I often feel a strong will to work	.64
I would like to devote some more time to my work	.46
I would like to work fewer hours per week if it was economically possible [a]	.52
Accepted risks	
That I could catch a less serious infection	.46
That I perceive myself as incapable of demands the job requires	.50
That the job takes too much of my spare time	.47
I regret my professional choice or work place	.60
That I feel strongly stressed	.66
That I perceive the work tasks as meaningless	.51
That my friends or/and family have a negative image of my job	.38
That I do not feel committed to my job any longer	.69
That I can not handle conflicts	.54
That the children lose respect for me	.43
That I do not have control over the children	.44
That I disagree with my colleagues	.53
That I lose my patience with the children	.56
That a child "disappears" during a trip	.43
That a parent insists on leaving his or her child at the pre-school, even though the child is ill	.67
That I am alone with a group of children	.47
That the number of personnel is not enough compared to what is needed	.50
That the rest of the working team has different relationships and attitudes to the children than I have	.59

Table C2
Observed variables with their factor loadings on each latent variable. (employees of an insurance company).

	Factor Loadings
Work motivation	
I feel motivated in my job	.84
I have stimulating work tasks	.80
I would like my children to choose the same job as myself	.58
I take my work home voluntarily	.49
My dedication to my job is so strong that I at times do not take lunch breaks	.48
I feel that my dedication to my job is so strong that it interferes with my family life, friends	.34
I perceive my job as challenging	.72
I feel that time at work goes quickly	.63
I look forward to returning to work at the end of my summer holiday	.62
I often feel a strong will to work	.64
I would like to devote some more time to my work	.36
I would like to work fewer hours per week if it was economically possible [a]	.48
Accepted risks	
I perceive myself as incapable of handling the demands the job requires	.52
That I am subjected to negative influence by colleagues	.64
I regret my professional choice or work place	.60
I feel strongly stressed	.61
That I perceive the work tasks as meaningless	.51
That my friends or/and family have a negative image of my job	.41
That I do not feel committed to my job	.78
That I can not manage conflicts (between colleagues or managers)	.69
That the number of working staff members is not enough compared to what is needed	.47
That my work is poorly planned	.72
That I do not get along with my colleagues	.54

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