Job motivation and stress factors

What is the relationship between job motivation and stress factors and how do they contribute to overall job satisfaction?
Preface

After finishing my bachelor degree in the summer of 2008, I started a pre-master program at Tilburg University. Writing this thesis is the final assignment that has to be completed, in order to proceed to the master Strategic Management in the next academic year. I would like to thank Mr. D.P. Kroon and my group members for giving feedback and guiding me during this assignment.
Executive summary

This paper examines the relationships between job motivation, stress and satisfaction based on former literature. In general motivation is positively related to satisfaction and stress is negatively related to satisfaction. According to Herzberg (1987) job motivation is determined by motivators and hygiene factors. Motivators lead to satisfaction, absence of hygiene factors leads to dissatisfaction. Important motivators are achievement, recognition, work itself, responsibility and growth or advancement. The main hygiene factors are company policy and administration, supervision, interpersonal relationships, working conditions, salary, status and security. When trying to increase motivational potential of jobs, managers have to increase the motivators on the job, this is called job enrichment. This study found a certain relationship between motivation and the perceived stress level of employees. Stress is determined by job demands and the amount of decision latitude over the job (Karasek, 1978). Implementation of job enrichment in general leads to a decrease of stress, due to a higher level of decision latitude. But on the other hand, for some employees, more decision latitude and responsibility will increase (decision) stress. Little is known about which factors exactly determine this positive or negative influence of motivators on stress, how it changes depends on the specific job and person involved. So the positive effects of job motivation on satisfaction are either supported by a decrease in stress, or partly counter affected by an increase of stress. Therefore managers have to be aware of individual differences of employees when implementing job enrichment. Each employee will respond differently to job enrichment, therefore communication and feedback is crucial.
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Chapter 1: Introduction

In this section the main problem statement and research questions are presented. Further the definitions of the variables are explained and the structure, relevance and research design of the paper are described.

1.1. Problem indication

Motivation plays an important role in the field of management, because it has a strong positive relationship with the performance and commitment of an employee. Employees with a lack of motivation will have a negative effect on a firm’s performance and efficiency. Besides, employees in low-motivational jobs will become unsatisfied and eventually often leave the organization. Ramlall (2004, p.52) cited Fitz-enz (1997) who states “an average company loses approximately one million dollar with every ten managerial and professional employees who leave the company, due to the knowledge that leaves with them”. This clearly shows the impact and importance of employee satisfaction. Motivation plays an important role when it comes to employee satisfaction and retention (Ramlall, 2004). Therefore several theories have been developed about how to achieve a high level of employee motivation. A popular way of increasing employee motivation is job enrichment, which means an employee gets more tasks and/or a larger responsibility. The underlying thought of job enrichment is that by giving employees more opportunities for personal growth, they will get internally motivated to perform well on the job, which will increase their satisfaction. This paper assumes that although job enrichment is a successful motivational method, it is likely that in some cases it also has negative effects for certain employees. Some employees might not be able to live up to the increased job demands and responsibilities, which can lead to a higher level of work related stress. This could lead to a decrease in overall job satisfaction. Job stress is a subject which is mostly researched in the medical and psychological field. If we look at the job stress factors described by Parker and Decotiis (1983), it is clear that there are a lot of similarities in factors which increase motivation and job stress. By relating motivation factors and stress factors, an overview of the relationship between motivational efforts and job stress can be given. This paper assumes that if motivational efforts are too high, the job stress for an employee will increase, which will over time have a negative effect on the overall job satisfaction of this person. Until now the relationship between job motivation factors and job stress has not been studied. In this paper the literature about these topics will be critically analyzed in order to describe the possible relationship between motivation factors and job stress, and their influence on overall job satisfaction.
1.2. Problem statement
- What is the relationship between job motivators and job stress factors and how do they contribute to overall job satisfaction?

1.3. Research questions
- What are the most important job motivators?
- What are the most important factors which lead to job stress?
- How do motivators and stress factors relate to each other?
- What is the influence of motivators and stress factors on overall job satisfaction?

1.4. Relevance
A lot of research is done about job motivation and job stress. Several models are developed, but up until now the relationship between job motivation factors and job stress factors is not examined. The main goal of this paper is to describe how job motivation factors and job stress factors relate to each other and in which way they influence overall job satisfaction. The outcomes of this paper can be used by managers to get awareness about the relationship between job motivation and job stress. When applying job enrichment or other forms of employee motivation, the possible increase of job stress has to be taken into account. This paper gives more awareness and can help managers to find the best level of job motivation, for both the firm and its employees.

1.5. Demarcation and definitions
The focus of this paper is on the relationship between job motivation, job stress and overall job satisfaction. The definitions of these variables and their relevance for this study are explained in the sections below.

1.5.1. Job motivation
Motivation is the reason or reasons for humans to engage in particular behavior. These reasons may include basic needs such as food or a desired object, goal, state of being or ideal. Motivation theory can be linked to job design, when trying to create satisfying jobs. This paper chooses job motivation as an important variable, because former studies have shown that it has a strong linear relationship with job satisfaction (Herzberg, 1987; Hackman & Oldham, 1976). Besides, this paper will examine the relationship between managerial motivators such as job enrichment and job stress factors. The theories of Herzberg and
Hackman & Oldham are chosen, because they are the leading theories regarding job motivation.

1.5.2. Job stress
Job stress can be defined as the physical and psychological reactions an individual experiences, resulting from a poor fit between the job demands and the individual’s capabilities (Jamal, 1985). A high level of stress can lead to poor work performance or even injury. In this paper the factors which can lead to job stress are analyzed. The variable job stress is chosen because it may influence the job satisfaction and performance of an employee. Further this paper will search for similarities in stress factors and motivational factors. This study does not examine the medical perspective of job stress.

1.5.3. Job satisfaction
“Job satisfaction is the pleasurable emotional state resulting from the appraisal of one’s job as achieving or facilitating the achievement of one’s job values” (Locke, 1969, p. 316). Most often job satisfaction is studied in general, but research is also done measuring different facets of job satisfaction (Weiss, 2002). Studying these facets can help finding critical job factors which are the most important for job satisfaction. Some examples of job satisfaction facets are: co-workers, salary, job conditions, supervision, nature of the work and benefits.

Job satisfaction is the main dependent variable in this thesis. As presented in the conceptual model (figure 1), this paper assumes that motivation and job stress influence the overall job satisfaction of an employee. The conceptual model assumes that motivation has an important influence on job satisfaction, which can be negatively affected by the amount of job stress.

No empirical data will be used. This study is purely an implementation of former scientific research on this subject. Future research could use an empirical or theoretical study to test and verify the findings in this paper.
1.6. Research design
This paper is based on a literature study. Several scientific articles relating to the subjects are compared and criticised. No empirical data is used. The literature used in this paper is found using the University of Tilburg (UvT) online search engine and the website http://scholar.google.com. The articles are found using key word searching, the main search terms are: job satisfaction, job motivation and job stress. From the results the most relevant titles and summaries are chosen. All articles are from respected academic journals. The amount of citations an article has is taken in to account, in order to find the leading articles within this subject. The results of this paper are based on findings of former research.

1.7. Structure
The goal of this paper is to present an overview of and describe the relationships between job motivation, job stress and job satisfaction factors which have been identified as the most important in the literature. The second chapter describes and reviews the different theories about job motivation. The third chapter will review and give an outlay of the most important theories regarding job stress. In the fourth chapter the relationship between the variables job motivation and job stress will be examined. The fifth section will try to relate theories and facts from the earlier chapters with each other, in order to describe the relationships between the variables. Finally, there is a discussion and conclusion section, in which the main conclusions are given, including recommendations for future research.

1.8. Conceptual model
The conceptual model that is used for this thesis is presented below in figure 1. The determinants of job motivation are based on the two factor model of Herzberg (1987). This model describes overall job motivation as a combination of motivators and hygiene factors. Motivators are intrinsic to the job and relate to the desire of humans to achieve things, and through these achievements experience psychological growth. Hygiene factors are extrinsic to the job and are based on the basic need to avoid unpleasant things in the environment. This theory is further clarified in chapter 2. The determinants of job stress are based on the job stress model of Karasek (1979). According to this model job stress is determined by the level of job demands and decision latitude an employee experiences. This theory is further explained in chapter 3.
Figure 1: Conceptual model
Chapter 2: Job motivation

The psychology of motivation is a complex subject that has been studied widely by scientists and managers. Still only a relatively small amount of findings can be proven with any degree of assurance. In this chapter common used theories concerning job motivation are critically analyzed and reviewed.

2.1. Motivators vs. hygiene factors

In Herzberg’s (1987) article “One more time: How to motivate employees”, he recognizes common mistakes made by managers, when trying to motivate their personnel. According to Herzberg, most organizations ‘force’ employees to move, instead of motivating them to move themselves. Offering raises and setting out rewards or promotions is not motivating, it will only encourage employees to move for a short time. Managers can use all sorts of things to get employees moving, but unless the desire to move comes from the employees themselves, it is not motivation. This perception of job motivation is further developed in Herzberg’s two factor model, which concluded that satisfaction factors are not opposites of dissatisfaction factors. This model describes overall job motivation as a combination of motivators and hygiene factors. Motivators are intrinsic to the job and relate to the desire of humans to achieve things, and through these achievements experience psychological growth. Hygiene factors are extrinsic to the job and are based on the basic need to avoid unpleasant things in the environment. The two factor theory was tested on 1,685 employees in 12 different investigations. Based on these results it can be concluded that motivators are the main driver for job satisfaction. Hygiene factors do not lead to satisfaction, but if absent or insufficiently available they lead to dissatisfaction. The results show that the most important motivators are: achievement, recognition, work itself, responsibility and growth or advancement. The main hygiene factors which can lead to dissatisfaction are: company policy and administration, supervision, interpersonal relationships, working conditions, salary, status and security. The findings of Herzberg (1987) are confirmed by several researchers, including a recent study of Parsons and Broadbridge (2006). They studied the role of job characteristics and communication in relation to job motivation and satisfaction among charity shop managers in the UK. The results show that factors such as pay and working conditions have a negative effect on satisfaction. These negative factors are compensated by the fulfillment they get from working for a charitable cause and having close relationships with other staff members. These findings confirm the satisfaction and dissatisfaction factors described by the theory of Herzberg (1987). The discoveries of Herzberg were the beginning of management strategies
such as job enrichment, that try to increase the amount of motivators on the job.

2.2. Job enrichment

Herzberg stated that job enrichment is the key to designing work that motivates employees. Job enrichment, also called vertical job enlargement, provides opportunities for psychological growth of employees. By giving employees more responsibility and more alternation on the job, their overall satisfaction increases. In attachment 1 you can find a schedule made by Herzberg, that relates principles of vertical job loading to motivators.

2.2.1. Analyzing motivating potential

Hackman, Oldham, Janson and Purdy (1975) criticized the practical explanation of former job enrichment theories and developed a new approach to applying job enrichment and redesigning work, based on the earlier discussed two factor theory of Herzberg. The theory of Hackman et al. (1975) provides a tool for diagnosing the motivational aspects of existing jobs and translates this into specific steps for change. According to Hackman et al. (1975) an employee needs to experience three critical psychological states in order to get internally motivated. These psychological states include experiencing responsibility, meaningfulness and having knowledge of the results.

Hackman et al. (1975) developed a diagnostic tool to measure these three critical states. This tool uses five factors to analyze a job: autonomy, skill variety, task identity, task significance and feedback. The outcomes provide a motivating potential score (MPS). Responsibility is measured by the amount of autonomy a job provides, this is the degree to which the employee has substantial freedom and independence on the job. Hackman et al. (1975) concluded that the perception of meaningfulness can be measured by three core factors: skill variety, task identity and task significance. Skill variety is the amount of different skills that are needed to do the job. Task identity has to do with knowledge of the result. If an employee can oversee the process and see the end result, the experienced meaningfulness is higher. Task significance is the overall perception of usefulness of the employee. This depends on the degree to which the specific job or the entire company has impact on the lives of other people or on the world at large. Knowledge of the result is not just about being able to see the visible end result. It also includes getting feedback from other people. Getting feedback improves the overall perception of the job and influences knowledge of the results, meaningfulness and responsibility.
By using this five factor analysis, managers can find the origin of motivation and satisfaction problems. If some of these factors are significantly low, implementation of job enrichment can help to increase employee motivation. Hackman et al. (1975) describe five implementing concepts which each influence different core dimensions of job enrichment. These concepts are: forming natural work units; combining tasks; establishing client relationships; vertical loading and opening feedback channels. An overview of the relationships between the implementation concepts and the core dimensions can be found in attachment 2.

Job enrichment can improve the relationship between the employee and the organization. Organizations have to recognize the commitment individuals make to them and need to create jobs with growth potential in which employees are willing to stay. This is not only important for the well being of employees, it also has a positive long term effect for the organization. If they succeed to create challenging jobs, it will be easier to retain their best employees. The knowledge of certain employees is what creates and sustains competitive advantage (Alavi, 2001).

**2.2.2. Implementing difficulties**

Unfortunately every individual is different and therefore the motivational effect of job enrichment depends on a person’s psychological needs. This means that even when the motivating potential of a job is high, not everyone is able to get internally motivated. Furnham, Petrides, Jackson and Cotter (2002) examined if personality factors explain variance in perceived job satisfaction of workers. This empirical research based on the hygiene-motivator theory of Herzberg (1987) shows that only a small percentage of the variance in satisfaction can be explained by personality differences. In general individuals perceive the same things as important in their work environment. This strengthens the theory of Herzberg (1987). Although personality factors in general do not have a significant effect on satisfaction, the results of Hackman et al. (1975) show that an individual’s growth-need strength can influence the motivating effect of job enrichment. Job enrichment will have the most effect on people with a strong need for personal accomplishment. Organizations have to be aware of the fact that job enrichment will not have the same effect on all individuals. And even if they succeed to increase the overall motivation of the workers on a particular job, this does not mean it has a positive effect on the organization in general. The empirical research of Lawler, Hackman and Kaufman (1973) shows the effects job enrichment can have on an organization. In their study they applied job enrichment to redesign the jobs of operators in a
call center. According to Hackman et al. (1975) job enrichment can be successful if the four core dimension are improved: variety, autonomy, task identity and feedback. Therefore the study of Lawler et al. (1973) is not a good test of the theory, because only variety and autonomy were improved, but it does show some interesting results. One of the most interesting results was the effect that changes had on the interpersonal relationship between the operators and their superiors. When the autonomy and task variety of operators increased, the job demands of supervisors decreased. Supervisors who suddenly had more ‘free’ time, began to oversupervise the operators. This had a negative effect on the relationship between operators and supervisors. As a result, the possible positive effects of the redesign, were counteracted by the negative effect the changes had on the behavior of the supervisors. This study outlines the complexity of successfully implementing job enrichment. A more recent study of Monson and Boss (2009) shows comparable differences between manager and staff reactions to strategic behavior such as job enrichment.

2.3. Future of work motivation
The working environment has changed over time and since the most job motivation theories were developed during the 1960’s and 70’s, their relevance may be outdated. Therefore Academic Management Review held a special seminar in 2001 on the topic: future of work motivation. In response to this, they received fifty-six papers of several researchers. Steers (2004) reviewed the main contributed papers and concludes that the thing these papers have in common is that they build on existing theories of work motivation and try to extend and adapt them to the working environment of today. Future research on work motivation will have to focus on the influence of increasing short-term focus, time pressure and interdependence among employees. Furthermore, the changed perception of the working environment has to be taken in to account.

2.4. Conclusion
The purpose of this chapter was to describe the most important job motivation factors. Based on the theory of Herzberg (1987), factors that influence motivation can be categorized in two groups: motivators and hygiene factors. Motivators lead to satisfaction, absence of hygiene factors leads to dissatisfaction. Important motivators are achievement, recognition, work itself, responsibility and growth or advancement. The main hygiene factors are company policy and administration, supervision, interpersonal relationships, working conditions, salary,
status and security. Further this chapter has presented and critically reviewed job enrichment as a method to improve motivational factors on the job.
Chapter 3: Job stress

Job stress can be related to several different aspects in an organization. It can affect the well-being and satisfaction of employees or it can even influence the overall performance of an organization. This chapter will analyze theories regarding determinants of job stress and describes the different views on the relationships of stress with an employee’s satisfaction and performance.

3.1. The job strain model

Karasek (1979) developed a model that predicts the mental strain of a job, based on the work demands and the decision latitude. The model clarifies contradictory findings of former studies on the separate effects of decision latitude and job demands (Hackman & Lawler, 1971). Karasek defines job decision latitude as the potential control a worker has over his tasks and his conduct during the day. The variable job demands relates to the psychological stressors involved in accomplishing the work load, unexpected tasks and job-related personal conflicts. The main finding from the study of Karasek is that a combination of low decision latitude and high job demands results in heavy mental strain. Over time this leads to job dissatisfaction. The model shows that mental strain can be reduced by increasing decision latitude, without decreasing job demands. These findings are confirmed by Kawakami (1995), who tested the job strain model on employees of telecommunication and electric companies in Japan. The job strain model can be useful for managers when applying job enrichment or other forms of job (re)design.

An interesting paradox that was discovered in the study of Karasek (1979) is the fact that people in higher status occupations reported a higher level of satisfaction than others and were more mentally healthy, but at the same time they experienced more work related emotional strain. On the other hand, people who did not experience any work related strain, were not always the most satisfied. Their jobs often provided no opportunity for self-development, which appears to be an important determinant of high job satisfaction (Karasek, 1979). This paradox shows the diversity of jobs and differences in personal needs. According to the study of Yang, Che and Spector (2008) perceived job stress depends on the fit between preferred and actual job conditions. The general result of this study is that actual and preferred work conditions, measured by career advancement and relationships at work, jointly influenced the perceived work stress. Inequality between preferred and actual conditions leads to more job related strain.
Parker and Decotiis (1983) developed another model in which they distinct two dimensions of job stress: time stress and anxiety. They studied the influence of several job stressors on these two dimensions. The job stressors were divided into six groups: the first group contains conditions and characteristics of the work itself, second are the conditions which can be related to the organizational structure. Group three covers factors related to the specific role of the job and the fourth group includes the personal relationships an employee has at work. Group five contains the perception of career development and finally the sixth group deals with the external responsibilities and commitments of the individual. This last group cannot be influenced by the organization, therefore only five organizational stressor categories are recognized. The empirical study of Parker and Decotiis (1983) concluded that the five organizational stressor categories were significantly related to both job stress dimensions. In their paper Parker and Decotiis (1983) do not refer to the job strain model of Karasek (1979), this is remarkable because in general the stressor categories can be interpreted to specific aspects that influence the job demands and decision latitude of a job.

3.2. Relationship of stress with satisfaction and performance

Scientific research has related occupational stress with job satisfaction and performance. In this paragraph the main findings of former studies on these relationships will be described. Although this thesis only focuses on the relationship with satisfaction, reviewing the main findings on both relationships, helps to create a good view of the influences stress can have in the working environment.

3.2.1. Stress-satisfaction

Several studies on the relationship between job stress and job satisfaction have concluded that these variables are inversely related (Sullivan, 1992; Barsky, Thoresen, Warren and Kaplan, 2004). This means a higher level of stress will cause a lower level of satisfaction. The empirical study of Hollon and Chesser (1976) that was based on questionnaires of 321 employees of public community colleges in the United States, found that stress is caused by an individual experiencing a difference in the desired and the actual level of influence on the job situation. This confirms the relevance of the variable decision latitude in the job strain model of Karasek (1979). According to the results of Hollon et al. (1976), stress will decrease a person’s job satisfaction and feeling of involvement.
Miles and Petty (1975) proposed another predictive variable for job satisfaction and stress. They found that role clarity is a predictor of job stress, and therefore job satisfaction. According to their study role clarity is a determinant of job stress, with an individual’s personal need for clarity as a moderator. Role clarity is most often insufficient for high placed managers or low educated production line staff. This can be explained by the very high and differentiated job demands for managers and jobs that became too difficult for low educated staff due to job enrichment (Miles & Petty, 1975). This finding is confirmed by Sullivan (1992), who adds the statement that work is perceived stressful if it is imposed by others instead of self-generated.

An interpretation of the findings of Miles and Petty (1975) could be that job enrichment has a negative effect on job stress and satisfaction. But the study of Abdel Halim (1978) shows contradictory results. In his study he used job enrichment characteristics as moderators for responses to organizational stress. The results show a larger negative relation between role clarity and satisfaction for low enriched jobs. So based upon these results it can be concluded that job enrichment indeed has a positive effect on satisfaction. This is confirmed by the findings of Beehr (1976) who recognized the moderating effect of autonomy on satisfaction.  

### 3.2.2. Stress-performance

The relationship between job stress and individual performance is studied by several researchers, with strong varying hypotheses. Former studies have treated four different views on the stress-performance relationship: positive related, negative related, curve shaped related and not related at all. The vision of the positive relationship is that stress equals challenge. Challenge pushes people to the limit of their skills and therefore this view suggests that stress has a positive relationship with performance (Meglino, 1977). There is no relevant empirical evidence that supports this vision. The perspective of the negative relationship between stress and performance is more commonly accepted. This perception believes that stress is essentially a feeling that leads to dysfunctionality for an organization and its employees (Gupta & Beehr, 1979). The underlying thought of this view is that if employees experience a high level of stress, they will try to reduce this by spending more time on not work related activities, which naturally leads to less performance. This is confirmed by the findings of Barsky, Thoresen, Warren and Kaplan (2004) who found that negative affect from job stress is indirectly related to an employee’s performance.

The curve shaped view on the stress-performance relationship meets in the middle of the negative and positive view. Supporters of this orientation believe that a moderate level of
stress is optimal for the performance of employees. According to these findings a certain amount of stress is needed to get people moving and the energy that evolves from stress can be directed to performing better on the job. But if the stress level is too high employees will spend more time coping with stress then performing (Allen, Hitt and Greer, 1982). This hypothesis was supported by a study of Anderson (1976). Anderson collected data from entrepreneurs, which have a different work motivation than regular employees. Therefore it is likely that these findings will not occur with regular employees.

The fourth view believes that there is no relationship between the level of stress an employee experiences and his performance. This vision is based on the believe that humans are rational at all time. This means that employees want to perform because they get paid for it, or because they want a promotion. They do not let other circumstances such as stress get in the way of that. Jamal (1985) tested the four hypothesis described above in an empirical study, the data was collected from middle managers and blue-collar workers in a large Canadian organization. The results supported the negative relationship and gave limited support for the curve shaped relationship and the no relationship view. The hypothesis of a linear positive relationship was rejected.

3.3. Conclusion
The purpose of this chapter was to describe the most important factors which can lead to job stress. Based on the theory of Karasek (1979) these factors can be divided into two categories: stressors that arise from the work demands and stressors caused by the level of decision latitude. The main finding from the study of Karasek is that a combination of low decision latitude and high job demands results in heavy mental strain. Parker and Decotiis (1983) distinct two dimensions of job stress: time stress and anxiety. Their model divides organizational stressors that influence these dimensions into five groups: work itself, organizational structure, job role, work relationships and career development. Further this chapter has provided an overview of the effect job stress can have on employee satisfaction and performance.
Chapter 4: Relationship between motivators and stress factors

By analyzing the earlier described theories on job motivation and job stress, this chapter will look for a relationship between these two variables. The results and interpretations of several studies on job motivation and job stress will be critically reviewed in order to find indications of a possible relationship.

4.1. Stress in low motivational jobs

Herzberg (1987) noticed that motivation is often a little known subject for managers. Many managers think they can motivate their employees by offering raises or other benefits. The study of Herzberg (1987) has shown that these kind of offerings only have a short term positive effect, because employees do not get internally motivated from it. An assumption based on this finding could be that employees who work in an environment with a low level of internal motivation, experience a higher level of stress. Due to the fact that they get ‘pushed’ to perform a job for which they are not internally motivated. This indicates a difference between the actual and preferred level of influence on the job. Such a low level of decision latitude is defined by Karasek (1979) as one of the factors resulting in job stress. The results of the study of Abdel Halim (1978) show that the way employees cope with stress depends on the enrichment level of the jobs they have. Individuals on high-enriched jobs are able to direct stress into performance. Stress causes them to become more involved in planning and understanding the work itself, their personal role in it and the role of others. On the other hand, individuals on low-enriched jobs have less options to direct stress in a positive way. An incomplete view of the work process makes it more difficult for employees to understand the importance of demands and high dependence on external sources makes it more difficult to change the outcome. This low decision latitude is a stress factor by itself (Karasek, 1979) and in combination with high demands it will results in a very high level of stress that is likely to have a negative effect on the workers performance and satisfaction. This shows that implementation of job enrichment as a motivational tool can influence the effect of stress on employees. In general, high enriched jobs have more decision latitude which decreases the stress level caused by job demands.

4.2. Stress in high motivational jobs

If managers succeed to create high motivational jobs by implementing job enrichment, the level of perceived stress still stays an important factor that has to be taken in to account. Until now this chapter has only speculated on the relationship between job enrichment and
increased stress levels, by interpreting results of studies in related areas of research. But a direct study on the subject was done by Wallgren and Hanse (2007), who did empirical research on the relationship between motivators and stressors. In their study a model was tested of the relationship between job characteristics (job demand, decision latitude) and perceived stress, with motivators (responsibility, recognition, achievement, possibility of growth) as the mediating variable. The results show that job demand was directly positively related to perceived stress. The relationship between decision latitude and perceived stress was partly mediated by motivators. A high level of decision latitude was significantly related to a high level of motivators on the job. For this paper the most interesting result from the study of Wallgren and Hanse (2007) is the finding that motivators were negatively related to the level of perceived stress. The work of Wallgren and Hanse (2007) shows that although increasing motivators on the job (job enrichment) has a positive effect on the motivation of workers, it can also affect the level of perceived stress. Wallgren and Hanse (2007) point out that it is difficult to tell when ‘decision stress’, caused by increased responsibilities, changes from something positive to something negative. The theory of Hackman et al. (1975) concluded that the effect of job enrichment depends on the employees personal growth need. By interpreting and relating this to the findings of Wallgren and Hanse (2007), an assumption may be that when job enrichment exceeds the personal need for growth it leads to a higher level of stress. This is purely a hypothetic statement, further research has to be done to test this relationship.

4.3. Conclusion

The purpose of this chapter was to study the relationship between job motivation and job stress. Both dimensions of the two-factor model of Herzberg (1987) do not only contribute to the level of motivation, but can also be related to the perceived stress of employees. Trying to motivate people with hygiene factors, for example pushing people to goals by promising bonuses, will result in a high level of stress. Due to the difference between the actual and preferred control over the job in combination with high job demands. If job enrichment is successfully implemented and employees are able to get internally motivated, it still can affect their perceived stress level. This result is not surprising, because by comparing motivation and stress theories it is noticeable that some factors are mentioned as both motivators and stressors, for example responsibility (Herzberg, 1987; Parker and Decotiis, 1983). Unfortunately it is difficult to tell when the relationship between a high level of motivators and perceived stress changes from negative to positive.
Chapter 5: Contribution of job motivators and stress factors to overall job satisfaction

This chapter will describe the influence of job motivation and stress on overall job satisfaction, by combining and interpreting results from several studies. The motivation-satisfaction and stress-satisfaction relationships will be reviewed. Further this chapter will try to test if job stress partly serves as a mediator between motivation and satisfaction. Each relationship of the conceptual model is briefly described, deeper theoretical backgrounds on the variables are already discussed in the previous chapters.

5.1. Motivation-satisfaction

Thesories on job motivation are generally based on the relationship with satisfaction, therefore there is many evidence that motivational factors are positively related to job satisfaction. Herzberg (1987) concluded, based on his two factor theory, that motivators are the main driver for job satisfaction. Important motivating factors that have a strong influence on satisfaction are: having responsibilities, opportunities for growth, working towards achievements and getting recognition for it. Hygiene factors such as salary have no motivational purpose, but if absent or insufficiently available they lead to dissatisfaction (Herzberg, 1987; Parsons and Broadbridge, 2006).

5.2. Stress-satisfaction

Job stress is caused by a high level of job demands and/or a low level of decision latitude (Karasek, 1978). Most of the research done on job stress has focused on the relationship between stress and job satisfaction. Generally the findings of these studies indicate that there is a negative relationship between perceived job stress and overall job satisfaction (Karasek, 1978; Sullivan, 1992; Barsky, Thoresen, Warren and Kaplan, 2004; Hollon et al., 1976).

5.3. Job stress as a mediator between motivation-satisfaction

As described in the paragraphs above, job motivation is positively related and job stress is negatively related to satisfaction. This paper assumed that the relationship between motivation and satisfaction is partly mediated by the level of perceived job stress. Job motivation and stress are close related areas of research. Factors such as autonomy have a strong relationship with both job motivation and job stress. More autonomy on the job significantly relates to high motivation, but it also decreases the level of perceived stress (Miles et al., 1975; Beehr, 1976; Abdel Halim, 1978). The effect of motivators on perceived stress depends on the type of stress the employee is experiencing. Job demand related stress can be partly decreased by
giving employees more autonomy on the job. But giving employees more responsibilities and decision latitude can result in a different kind of stress, which Wallgren (2006) calls ‘decision stress’. Decision stress can be related to some discoveries of the study of Karasek (1978). He found that people in higher status occupations reported a higher level of satisfaction than others and were more mentally healthy, but at the same time they experienced more work related stress. On the other hand, people who did not experience any work related stress, were not always the most satisfied. This paradox can be seen as evidence for the relationships presented in the conceptual model of this paper. It shows that high motivation correlates with high satisfaction, but it also shows that there is a relationship between motivational efforts and perceived stress. Based on these findings, it can be concluded that the motivation-satisfaction relationship is indeed partly mediated by job stress. There is a positive relationship between job motivation and satisfaction and a negative relationship between job stress and satisfaction. Essentially a high level of motivation has a negative effect on perceived job stress, but it is possible that due to decision stress this relationship becomes positive. Whether this relationship is positive or negative depends on the specific job and person involved. If the relationship is negative, the decrease in stress will strengthen the positive effect of motivators on satisfaction. But if the relationship is positive, due to an increase of decision stress, it is possible that motivators have contradictory influences on overall job satisfaction.

5.4. Conclusion
This chapter has described the relationships between job motivation, stress and satisfaction, as presented in the conceptual model. Based on the literature it can be concluded that motivation is positively related to job satisfaction and stress has a negative influence on job satisfaction. The literature provides no clear one sided view on the relationship between motivators and perceived stress. Motivators can decrease the amount of perceived stress, by giving employees more autonomy on the job. On the other hand, this autonomy can lead to an increase of ‘decision stress’. This can lead to a contradictory influence on the motivation-satisfaction relationship. In general, job stress can be seen as a mediator between motivation and satisfaction, but the exact relationship depends on the specific work and person involved.
Chapter 6: Conclusions and recommendations for future research

6.1. Conclusions

This paper has presented an overview of the most important factors that lead to motivation and stress, and related them to job satisfaction. The results point out that there is a certain relationship between motivators and stress, in which stress can be seen as a mediator of the motivation-satisfaction relationship. Although increasing motivators in general results in a lower level of stress, in some cases the stress level increases due to decision stress resulting from job enrichment. This means that the positive effects of job motivation on satisfaction are either supported by a decrease in stress, or partly counter affected by an increase of stress. Unfortunately, it is difficult to tell when the relationship between motivators and stress changes from negative to positive. Figure 2 shows the relationships between the variables of the conceptual model.

Figure 2: Relationships between the variables

6.2. Managerial recommendations

Managers have to be aware of the relationship between motivational potential of jobs, perceived stress and overall job satisfaction of employees. Job enrichment, if implemented correctly, is a good way to increase the motivational potential of jobs. But the individual growth need strengths of employees have to be taken into account. Be careful not to over enrich jobs, because job enrichment that exceeds the individual growth needs of employees will cause stress. Communication is the key to successfully implementing job enrichment. Communicate with your employees about their personal growth needs before applying job enrichment and provide a feedback channel, so employees have the opportunity to inform you if the changes do not work out for them.
6.3. Limitations and recommendations for future research

Job motivation and stress can be related to satisfaction and performance of employees. For managerial decision making both relations are important. Due to time restrictions this study only focuses on the relationship with satisfaction. This paper is purely an interpretation of former studies in this area of research, no empirical data is used to support the hypothesis. An empirical study could be done to test the relationships presented in this paper. Further, it is not clear which factors exactly determine the positive or negative relationship between motivation and stress, future research could be done on this subject.
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Attachments

Attachment 1: Principles of vertical job loading (Herzberg, 1987)

<table>
<thead>
<tr>
<th>Principle</th>
<th>Motivators involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>A  Removing some controls while retaining accountability</td>
<td>Responsibility and personal achievement</td>
</tr>
<tr>
<td>B  Increasing the accountability of individuals for own work</td>
<td>Responsibility and recognition</td>
</tr>
<tr>
<td>C  Giving a person a complete natural unit of work (module, division, area, and so on)</td>
<td>Responsibility, achievement, and recognition</td>
</tr>
<tr>
<td>D  Granting additional authority to employees in their activity; job freedom</td>
<td>Responsibility, achievement, and recognition</td>
</tr>
<tr>
<td>E  Making periodic reports directly available to the workers themselves rather than to supervisors</td>
<td>Internal recognition</td>
</tr>
<tr>
<td>F  Introducing new and more difficult tasks not previously handled</td>
<td>Growth and learning</td>
</tr>
<tr>
<td>G  Assigning individuals specific or specialized tasks, enabling them to become experts</td>
<td>Responsibility, growth, and advancement</td>
</tr>
</tbody>
</table>
Attachment 2: Implementing concepts and core dimensions of job enrichment
(Hackman et al., 1975)