Taking care of the energy of tomorrow

The influence of the work environment on the perceived work stress at the business unit 'Heat' of Essent

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Content

Preface

This thesis marks the end of my Business Administration studies at the Faculty of Management and Governance of the University of Twente. To finish my Masters program I completed a study about work stress at Essent, a company that delivers all kinds of energy to its customers. This thesis contains a report of this study about work stress, which has been carried out at a business unit of Essent.

Writing this thesis was a challenge for me and gave me the opportunity to execute a whole research project within an organization. It was an instructive and valuable process, which would not have been possible without the help and support of certain people. First, I would like to thank Berend Segers, the Human Resource Advisor of Essent ´Heat´ and initiator of this research, for the opportunity he gave me to carry out this research at Essent and the pleasant collaboration.

Second, I would like to thank my supervisors from the University of Twente, Dr. Ir. De Leede and Prof. Dr. Looise for their support during this project. At lastly, I would like to thank Yfke Ongena for guiding me through the statistical analysis that was performed during this project.

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Summary

Essent is a company that delivers all kinds of energy such as power, gas and heat to its customers. This research will focus on the business unit 'Heat' of Essent. This business unit takes care of environmentally friendly heating and cooling of households, buildings and cities. Results of the employee satisfaction survey of 2008 showed that 67% of these employees perceived their workload as being too high. This study provides a better understanding of the causes and effects of the perceived work stress. The concept 'work stress' can best be defined as an adaptive response, moderated by individual differences, that is a consequence of any action, situation, or event that places special demands upon a person in the work environment (Matteson & Ivancevich, 1987). These special demands are unusual, out of the ordinary, physically or psychologically threatening, or outside an individual's usual set of behaviours and may result in potential stressors (Matteson & Ivancevich, 1987). The main purpose of this study is to explain the perceived workload. Workload can best be defined as the expected or assigned amount of work to an employee within a specified time period (Delarue, 2003). When analysing the definition of work stress, workload can be characterized as a special demand to which an employee responds. Workload influences work stress. But it is not only workload that is an important indictor of work stress. As the definition of work stress already suggests, work stress can be analysed from three different perspectives; the work environmental perspective, the individual perspective and some mixture of the two (Cox, 1993). The focus of this study will be on the work environment in order to explain work stress. The central research question that is answered during the study is:

How do employees perceive the work environment at Essent 'Heat' and how does this influence the perceived work stress?

The model of Van Breukelen and Van Eijbergen (1995) is applied as an initial concept to explain the relationship between the work environment and work stress. Since the model does not totally cover the main purpose of this study, the model has been revised slightly. The most important indicators of the work environment are the organization characteristics, the characteristics of the work and leadership behaviour. Indicators of the organization characteristics are the level of formalization and centralization. The characteristics of the work consist of the job demands and job resources. Job demands negatively influence the energy level, while job resources positively influence employee motivation. Three different leadership styles are used to analyse leadership behaviour. First, the laissez-faire leadership style refers to a hands-off approach. Second, the transactional leadership style focuses on the exchange process between task accomplishment and rewarding. Third, the transformational leadership style focuses on motivating employees. This study will focus on intrinsic motivation and employee dedication as main indicators of work stress. Intrinsic motivation refers to the extent to which employees find the content of the job enjoyable and interesting. Employee dedication analysis the opposite of burnout and can be defined as a positive, affective-cognitive situation of uppermost satisfaction that is characterized by vitality, dedication and absorption. According to an analysis of literature about work stress five research questions and a conceptual research model are developed. A summary of the answers on each research questions will be given.

How do employees of Essent 'Heat' perceive the work environment?
Analysis of the organization characteristics suggests that employees perceive the organization as highly formalized and less centralized. When analysing the characteristics of the work, employees perceive both a lot of job demands and job resources while performing the job. Remarkable results are that not all employees think information is available to them and the daily supervisory is good. Besides, although employees do not perceive a high level of role conflict and ambiguity, four items suggest that the majority of employees perceive role ambiguity and role conflict. An analysis of the leadership behaviour suggests that most employees perceive their manager as a transformational leader. The

transactional leadership behaviour is not experienced very often, while this style is also important to reduce work stress. Managers of Essent 'Heat' do not provide a special reward in exchange for the effort required from of employees and do not provide feedback about mistakes.

Do the employees of Essent 'Heat' experience work stress?
Analysis of intrinsic motivation and employee dedication suggest that employees are intrinsically motivated and dedicated to a large extent. The results suggest employees are not aware of any work stress. While job demands are high, it does not negatively influence intrinsic motivation and employee dedication. The organization expected there to be a problem exists, while this study does not support this. The percentage of absence through illness was 2.58% in 2008 for the business unit 'Heat' of Essent. This low percentage supports this result.

How does the perception of the work environment influence the perceived work stress of employees?
Results suggest that organization characteristics do not determine the characteristics of the work and leadership behaviour. When analysing the characteristics of the work, it was expected that the job demands would be negatively related to intrinsic motivation. Only one negative relationship exists. Generally the results do not support this relationship. The results support the expectation that job resources would be positively related to intrinsic motivation. The results also showed that the transformational leadership style is positively related to the job resources but also to intrinsic motivation. The results suggest that the other two leadership styles do not have a large influence on the characteristics of work or intrinsic motivation. In the final analysis, intrinsic motivation and employee dedication are positively related. The results suggest that in order to increase intrinsic motivation and employee dedication, organizations have to focus on providing job resources and the transformational leadership style.

How do the characteristics of employees influence the original relationships between the work environment and work stress?
According to the literature it was expected that the needs and values employees have, according to their work environment, would have a moderating effect on the original relationships between the work environment and work stress. Since the majority of the results does not provide support for this expectation, it can be concluded that the needs and values of employees do not influence the relationships between the work environment and work stress.

Which suggestions can be given to reduce the perceived work stress of employees at Essent 'Heat'?
The suggestions that employees provided to reduce work stress, fit the areas of attention in the work environment. The most important suggestions are: improve project management; simplify, clarify and improve structure, work processes and procedures; hire more personnel; improve cooperation; improve leadership by focusing more on goals and a clear division of responsibilities; improve communication; perfect match between job and knowledge and skills; focus more on the customer; better facilitate flexible work places; focus more on outcomes and goals; work more bottom-up; improve software; strengthen the culture.

An initial conclusion of this study is that employees are not aware of work stress. The organization suggested that there might be a problem, but this problem is not supported by this study. Although job demands are high it does not result in a high level of perceived work stress. Second, although most results are positive some areas of attention occurred. Availability of information and daily supervisory can be improved. Roles can be better clarified. Also psychological effort, task requirements and the problems to arrange the work can be reduced. Managers have to focus more on the transactional leadership style. Third, the suggestions provided by employees fit these areas of attention and have to be implemented to improve these areas. At last, to further improve intrinsic motivation and employee dedication, the organization has to focus on providing job resources and the transformational leadership style. These two variables are very useful in reducing work stress.

1. Introduction

In this introductory chapter a brief description of Essent and Essent 'Heat' will be presented and a description of the problem will be given. To get a better understanding of the problem, more information will be given according to a first analysis of the literature. Based upon this first analysis it is possible to develop a central research question. At last, the relevance of this study will be discussed and the structure of this report will be explained.

1.1 Essent

Essent is a company that delivers all kinds of energy such as power, gas and heat to its customers. Customers can be business partners or customers of privately-owned households. The organization takes care of the production, merchandise, sales and the delivery of energy. Most of the production of energy takes place in power plants and waste processing installations, but sustainable sources like wind and bio-energy are also increasing sources of energy production. Essent delivers electricity to 2.6 million customers and gas to 2 million customers. Measured by turnover, they are leader on the energy market and their market share covers The Netherlands, Germany and Belgium. At the moment, they are in a merging process with RWE, a German energy service company to increase their market share. Essent has approximately 12.000 employees working for them.

The organization chart of the whole Essent organization is included in Appendix A and consists of the following parts:
- *The energy chain* mostly takes care of the production of energy and sustainable energy and is an important player on the international energy market. This chain is responsible for the delivery of energy to business partners, customers of privately owned-households and is responsible for the maintenance of their production equipment. Business units of the Essent energy chain are Production, Projects, Business Development, Essent Trading, Service and Sales and Value Added Services. Production is responsible for the production of energy for its customers. The business unit Projects, facilitates investment projects, which are identified, developed and realized through the whole energy chain. Business Development translates the business strategy into the operational business and is responsible for the development and acquirement of assets that can create value for Essent. Essent Trading is a dynamic, fast growing international energy trading company. Service and Sales takes care of the service delivery and sales of energy on the market. Essent's business unit Value Added Services , consists of several parts; Westland Energy Services, Essent Energy Services, Essent Retail Services and Essent Heat. These parts of Value Added Services are not the core activities of Essent, since it concerns a more environmentally friendly delivery of energy. They have to prove their added value to the core business.
- *Essent Environment* is a part of Essent that is responsible for the process of combustion of waste and waste processing.
- *Essent New Energy* covers several activities like wind energy, innovation and the introduction of the electric car.
- *Essent Germany and Belgium* are two business units that both cover all the activities on the energy market in Germany and Belgium.
- *IT* is a business unit that is responsible for facilitating all information technologies to its employees.
- At last, *the Essent headquarter* covers the whole Essent organization and consists of the board of directors and staff.

This research will focus on Essent's business unit 'Heat', which is part of Value Added Services of Essent. This business unit was founded in 2002 and takes care of environmentally friendly heating and cooling of households, buildings and cities. Their main objective is the development of installations that provide sustainable energy with less emission of carbon dioxide. Essent 'Heat' consists of 148 employees, who work together to deliver these services to its customers. The most important departments are development and sales, composition, exploitation and customer office. In Appendix B an organization chart is included. Development and sales takes care of the acquisition and development of new projects. Composition takes care of development of the projects and building them. Exploitation takes care of the maintenance of the projects that have been built. Finally, Customer Office takes care of service delivery to its customers. The business unit is able to perform independently of the larger Essent organization, since it has its own customer register and IT system to deliver services to them. For example, invoices to customers are dealt with at the business unit itself. Reason for this is the ability to have a closer relationship with its customers. When the customers were part of the whole Essent customer register, they were not the first priority for Essent since Value Added Services is not the core business of Essent. Now they have their own customer register, they are able to deliver high quality and are able to work more efficiently.

1.2 Problem description

Since Essent 'Heat' is a very young business unit of Essent, the organization is growing and developing itself a great deal. The organization changes continuously, is characterized by merging processes at the moment and an increasing number of new projects are being taken on. Of course, for the business unit it is a positive development, since its performance is good and it is able to show its added value to the whole Essent organization. A side effect is that more employees experience a high workload compared with other parts of the organization. This outcome is part of the outcome of the employee satisfaction survey of 2008. Of the whole Essent organization 44% of the employees feel that they have a high workload. Of the business unit Value Added Services 46% of the employees, and of the business unit 'Heat' 67% of the employees perceive a high workload. While a high number of employees of Essent 'Heat' perceive a high workload, the outcome shows that 88% of the employees are still satisfied with their work and 81% of the employees feels strongly committed to their work. Although it does not negatively influence satisfaction and commitment of employees, the organization takes the outcome on workload seriously. For the organisation it is very important to gain a better understanding of the causes and effects of the increased workload. It aims to reduce the perceived workload by providing adequate resources to their employees, since it is very important that the employees remain healthy and happy to go to work.

Because the literature about work stress is very broad and to gain a better understanding of this increased workload, there have been several interviews with employees of Essent 'Heat'. During these interviews, employees mentioned their work environment, with its organization characteristics, characteristics of the work and leadership behaviour, as the most important indicator of the increased workload. Detailed information about the interviews is summarized and included in Appendix C. These interviews suggest that it is important to focus on the work environment to explain the work stress and to provide adequate resources to reduce this work stress.

1.3 Work stress

The number of employees experiencing work stress has increased rapidly over the past decades in Western countries due to increased workloads (Van der Klink et. al., 2001). 'The Central Bureau for Statistics (CBS)' of the Netherlands showed that 40% of the Dutch labour force perceived their workload as being too high (Frenken, 2005). The Netherlands has an exceptional position, because research showed that it is one of the countries that fall into the group of countries where employees experience the highest workload (Merllié & Paolie, 2001). Besides this, the CBS of the Netherlands suggests that 10% of the whole working population face burnout complaints (2003). Reasons for this increasing workload or burnout symptoms experienced by employees include the changing society; organizations become increasingly complex because of technological developments, increased specialization of work processes and increased globalization (Delarue, 2003). Organizations need to adapt to this fast changing environment and deal with the needs of customers in more flexible and faster ways. All these changes have a large influence on the organizational structure, the job content, leadership behaviour, but also the extent to which employees are able to adapt to this changing work environment (Delarue, 2003). These organizational transformation processes of organizations do not only influence the perceived workload of employees and work stress risks, but also put forward the problem of the quality of work (Delarue, 2003). Society, organizations and employees may face problems resulting in increasing costs in terms of absenteeism, turnover, loss of productivity, and health care consumption (Van der Klink et. al., 2001).

The concept 'work stress' can best be defined as an adaptive response, moderated by individual differences, that is a consequence of any action, situation, or event that places special demands upon a person in the working environment (Matteson & Ivancevich, 1987). These special demands are unusual, out of the ordinary, physically or psychologically threatening, or outside an individual's usual set of behaviours and may result in potential stressors (Matteson & Ivancevich, 1987). The main purpose of this study is to explain the perceived workload. Workload can best be defined as the expected or assigned amount of work to an employee within a specified time period (Delarue, 2003). When analysing the definition of work stress, workload can be characterized as a special demand to which an employee responds. When employees perceive this amount of work within a specified time period as unusual, out of the ordinary, physically or psychologically threatening this may result in potential stressors. Based on these definitions, it can be suggested that workload influences work stress.

But not only workload is an important indicator of work stress. As the definition of work stress already suggests, work stress can be analysed from three different perspectives; the work environmental perspective, the individual perspective and partly mixture of the two (Cox, 1993). Not only because literature suggests that individual differences account for just a little variance in work stress reactions to a particular situation, but also because the outcomes of the interviews with employees of Essent 'Heat' expect that the work environment is a more important indicator of work stress (French & Caplan, 1972; Ivancevich & Matteson, 1980; Parker & DeCotiis, 1983). The focus of this study will be on the work environment to explain work stress. The characteristics of the organization, the characteristics of the work and the leadership behaviour of managers were mentioned during the interviews as important indicators of work stress at Essent 'Heat'. Workload is part of the characteristics of the work and influences work stress.

A model that contains relevant and valid variables to describe the work environment and relates it to employee motivation, satisfaction and performance is the model of Van Breukelen and Van Eijbergen (1995). This model initially focuses on the relationship between leadership behaviour and employee

motivation (Figure 1). Van Breukelen and Van Eijbergen (1995) suggest that this relationship is influenced by the broader work environment and has included organization characteristics, characteristics of the work and employee characteristics to explain this. These variables all have a direct influence on leadership behaviour and subsequently influence employee motivation. The variables characteristics of the work and employee characteristics also have a direct relationship with employee motivation. Together all these variables influence the extent to which employees are motivated. Subsequently the extent to which employees are motivated influences the extent to which employees perform and are satisfied. According to the literature, employee motivation, satisfaction and performance are all adaptive responses of employees and are often used to analyse work stress, which is the main focus of this study.
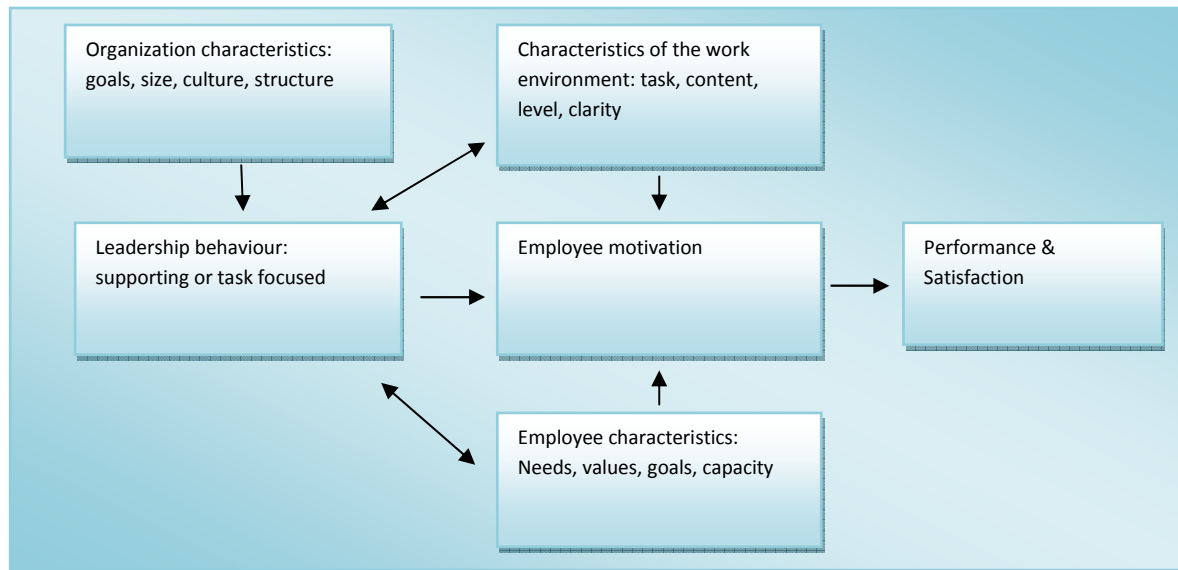
Figure 1: Four groups of factors that influence employee motivation (Van Breukelen and Van Eijbergen, 1995).

Although the focus of this model is to explain the relationship between leadership behaviour and intrinsic motivation, the model is applicable for this study to a large extent. Three reasons can be determined for using this model as an initial concept for this study. First, the variables used to analyse the work environment are also important variables to explain work stress. According to the literature about work stress, the variables used in this model are based upon almost the same theories to analyse the work environment. Second, all variables of the model to explain the work environment are mentioned during the interviews with employees of Essent 'Heat'. The organization characteristics, characteristics of the work and leadership behaviour were mentioned as important indicators of work stress. The model perfectly suits the focus of this study. Third, employee motivation, satisfaction and performance are variables that are often used to analyse work stress. The dependent variables of the model also suit the focus of this study. When comparing the different models to explain the relationship between the work environment and work stress, this model covers the focus of this study to a large extent.

The model covers the focus of this study to a large extent, however it does not totally cover all relationships to explain work stress. First, it is expected that not all sub variables, which together give an indication of a certain variable, are relevant for this study. Choices about these sub variables will be made based upon an analysis of the theory about work stress. Second, expected is that more relationships between variables exist than this model suggests. Third, it is expected that some variables will have a moderating effect on original relationships, instead of directly influencing a variable. At last, satisfaction and performance are sufficient variables to analyse work stress, but it is expected that a more adequate variable to analyse work stress exists. The deviations and additions to this model will be further described and explained according to the theory about work stress in

chapter 2. Based upon this first analysis of the literature, the model of Van Breukelen and Van Eijbergen (1995) will be applied as an initial concept to explain the relationship between the work environment and work stress.

1.4 Central research goal and questions

Based upon the problem description of the organization and a first analysis of the literature the central goal and research question can be developed. The central research goal of this study is to explain the increased perceived workload of employees working at the business unit 'Heat' of Essent by focusing on the concept work stress. The main focus of this study will be on the relationship between the work environment and work stress. Together the organization characteristics, characteristics of the work, leadership behaviour and employee characteristics will be analysed to explain work stress. Workload is an element of the characteristics of the work. Another important goal of this study is to give advice to the organization on how to reduce the work stress. This advice will be provided according to the results of this study.

The central research goal leads us to the following central research question:

How do employees perceive the work environment of Essent 'Heat' and how does this influence the perceived work stress of employees?

To answer this central research question and to achieve the central research goal of this study several steps have to be taken. Based upon an analysis of the literature, research questions and a conceptual research model will be developed to be able to answer this central research question (Chapter 2).

1.5 Relevance

This research study can be relevant for both science and for organizations, especially for Essent.
Many studies have tried to explain the causes and effects of work stress but this remains very difficult. According to Parker & Decotiis (1983) three factors make all these studies on work stress unusually complex, and difficult to interpret and generalize. These three factors are the lack of conceptual clarity on the meaning of stress, the choice of an appropriate research perspective, and methodological problems inherent in the study of stress phenomena (Parker & Decotiis, 1983). Although a lot of studies have been proven useful, not one study has provided integrated knowledge regarding the specific effects of numerous factors in the work environment and within the individual (Xie & Johns, 1995). On the other hand, when trying to provide this integrated knowledge, the focus of studies will be too broad and this may result in research evidence that may not be relevant for future research.

This study will also not focus on providing integrated knowledge regarding work stress, but will only focus on the perspective of the work environment to explain work stress. Main reason is that individual differences only account for just a little variance in stress reactions to a particular situation (Parker & Decotiis, 1983). Although this limited focus, this study still remains relevant for science. This study will provide a better understanding of the aspects in the work environment that are important to explain work stress. Based upon the literature, important relationships have already been discovered. This study makes it possible to confirm these theories or to provide new insights based upon research in practice. Besides, an analysis of the literature makes it possible to choose a valid variable to analyse work stress. This study makes it possible to evaluate the variable that is chosen to analyse work stress. It can contribute to the theory by concluding whether or not it is a valid variable

to analyse work stress. In the end this will lead to a better understanding of existing theories or provide new or additional information for future research.

For organizations, society and employees it is very important to carry out research on this topic, because the organization has to adapt to the environment in faster and more flexible ways. These changes in the broader environment of the organization influence the direct work environment of employees. As already mentioned during the introduction to the theory, all these changes influence the work stress experienced by employees. To take care of the quality of working life of employees and to reduce costs for Essent, and other organizations facing the same problems, it is very important to do research on this topic. Besides, according to Boxall and Purcell (2008), if organizations provide the opportunities to meet the needs of employees, when employees are able to perform the work and the work motivates them, they will also perform better. Investing in the quality of working life does not only meet the needs of employees but also the needs of organizations, because this will lead to better performance and less costs. Research on this topic makes it possible to implement interventions that will improve the quality of the work environment and reduce the perceived work stress of employees.

1.6 Structure of this report

A research structure is developed to answer the central research question and achieve the central goal of this study. In the first place, an analysis of the research literature is needed to gain a better understanding of the concepts that will be investigated. Based upon this analysis, hypotheses and research questions will be developed to be able to answer the central research question. An analysis of the literature, hypotheses and research questions make it is possible to develop a conceptual research model, to provide a better understanding of the relationships that will be studied. The analysis of the literature, hypothesis, research questions and research model will all be discussed in chapter 2. When these steps have been taken, a research instrument can be developed that makes it possible to gather the data in practice. This instrument makes it possible to answer the research questions. Chapter 3 will provide information about the methodology of this study. When the data has been gathered, it can then be analysed. Chapter 4 provides information about the most important results of this study and will provide the results of the tested hypotheses. Based upon this information the results can be discussed in chapter 5. Then conclusions can be drawn and recommendations for future research can be developed. Chapter 6 will provide this information.
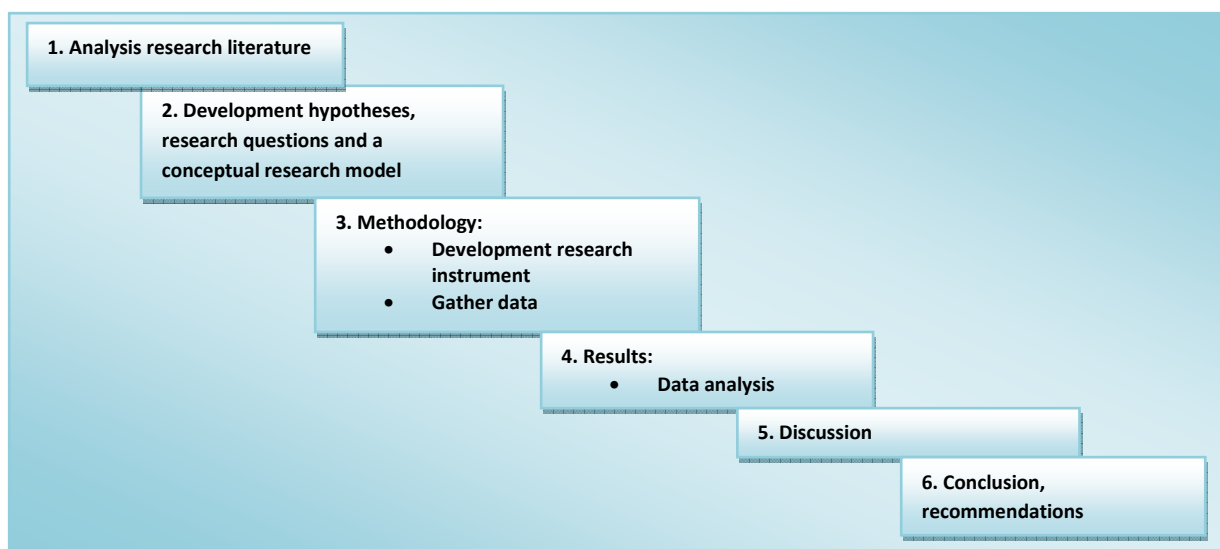

Figure 2: Research strategy

2. Theoretical framework

This chapter consists of an analysis of the literature in respect of work stress. As already mentioned in the introduction, the model of Van Breukelen and Van Eijbergen (1995) is used as an initial concept to study work stress. The most important reason is that this model almost perfectly suits the focus of this study. Because the model does not totally cover the focus of this study, it is discussed based upon several theories about work stress. First, the dependent variables of the model and second, the independent variables of the model are discussed. Based upon this analysis of the model and theories about work stress, explanations for phenomena are proposed, which are also called hypotheses. The hypotheses thus developed make it possible to test the phenomena in practice. After this analysis of the literature about work stress, more detailed research questions are developed, which together provide information to answer the central research question. Finally, a conceptual research model has been developed to describe and visualize the different relationships.

2.1 Work stress

When analysing work stress, it can best be defined as an adaptive response, moderated by individual differences, that is a consequence of any action, situation or event that places special demands upon a person in the work environment. These special demands are unusual, out of the ordinary, physically or psychologically threatening, or outside an individual's usual set of behaviours and may result in potential stressors. When analysing the model of Van Breukelen and Van Eijbergen (1995), it consists of the dependent variables, intrinsic motivation, satisfaction and performance to analyse the adaptive responses of employees according to the work environment. According to the literature in respect of work stress, intrinsic motivation, satisfaction and performance are variables often used to analyse work stress. This paragraph discusses the three variables and analysis the applicability for this study.

2.1.1 Intrinsic motivation

Employees within organizations are often called the most important assets of an organization to create value for their customers and to remain competitive in the market. This is only achievable when employees are able to perform so that they achieve the main goals of the organizations. In order for performance to occur, employees must choose to apply their capabilities with some level of effort and consistency (Boxall & Purcell, 2008). Employee motivation is very important, since it explains how employee behaviour gets started, energized, sustained, directed, stopped and what kind of subjective reaction is present in the organism (Jones, 1959). When organizations are able to influence employee motivation positively, this will result in an increasing employee performance. Motivated capability is the quality that organizations need the most from employees in order to adapt to the changing environment and create value for their customers (Boxall & Purcell, 2008). According to Boxall & Purcell (2008) the employee is motivated to enter an employment relationship, when the benefits outweigh the costs and when alternatives to that employment are less attractive. Kluytmans (2001) also suggests that motivation is a cause of employee behaviour, which is influenced by the needs and values of the employees (Figure 3). The process suggests that dependent of employee behaviour employees expect benefits, which can be both intrinsic and extrinsic. When the benefits meet the needs and values of employees this will lead to satisfied employees.
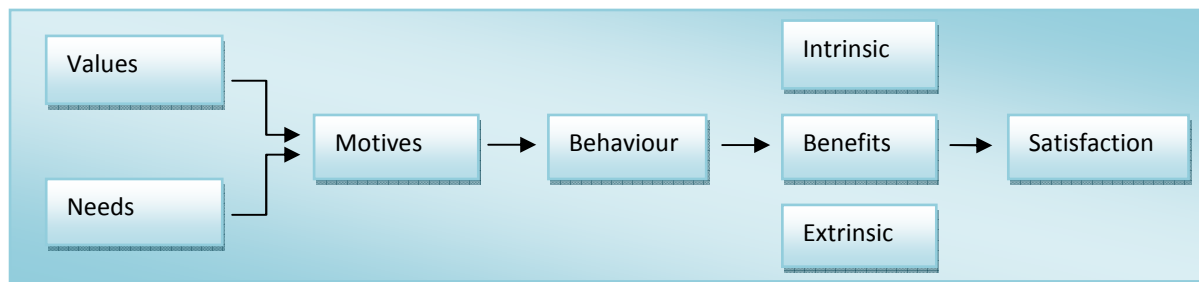
Figure 3: Motivation process (Kluytmans, 2001).

According to Boxall & Purcell (2008) intrinsic sources are to do with the nature of the work. This is the extent to which employees find the work enjoyable and interesting, they can use their knowledge and skills and how well they get on with supervisors and colleagues. Extrinsic sources are to do with more significant benefits the job brings with it. This concerns the level of pay, the prospect of promotion, the degree of security and the level of status. Research evidence suggests that intrinsic sources are better predictors of employee motivation than extrinsic sources (Alblas & Wijsman, 2001). Herzberg et. al. (1959) supports this evidence, since they suggest that contextual factors like payment, level of status, job security and physical work environment can lead to job dissatisfaction when these factors do not meet the needs of employees. When these factors do meet the needs of employees it does not automatically results in job satisfaction. Factors that influence employee motivation positively are challenge, recognition, responsibility and growth possibilities. It is the content of the job that really matters when influencing intrinsic motivation.

The intrinsic and extrinsic needs and values employees develop are caused by the broader work environment. Van Breukelen and Van Eijbergen (1995) support this by addressing motivation as an outcome of the exchange process between individual needs and values, which is defined as the employee characteristics, and the characteristics of the work environment. When the work environment meets the needs and values of employees, this positively influences both intrinsic and extrinsic motivation. Since intrinsic sources are a better predictor of employee motivation than extrinsic sources, the focus of this study will be only on the intrinsic sources to explain work stress. Besides, the focus of this study will be more on the characteristics of the work environment, which is more related to intrinsic motivation. The focus of this study will not be on the significant benefits employees receive, which is more related to extrinsic motivation. While the model of Van Breukelen and Van Eijbergen (1995) focuses on employee motivation, this study will only focus on intrinsic motivation. How the work environment will influence intrinsic motivation will be discussed in paragraph 2 and the influence of employee characteristics will be discussed in paragraph 3.

2.1.2 Satisfaction and Performance

Satisfaction and performance are two outcome variables of the model of Van Breukelen and Van Eijbergen (1995) that are influenced by employee motivation. The model suggests that a high level of motivation results in a high level of performance and satisfaction. As already mentioned, the theories of Boxall and Purcell (2008) and Kluytmans (2001) confirm this positive relationship between these variables (Paragraph 2.1.1). When analysing the literature about work stress, satisfaction is an important variable that measures the perception employees have about their jobs and is often used to analyse work stress. Employee satisfaction can be defined as the extent to which employees are satisfied and happy about their work (Hackman & Oldham, 1975). When the benefits employees receive meet the needs and values of employees, this will positively influence satisfaction (Figure 3). Performance can be defined as an assessment of the functioning of employees in relation to their work. The extent to which they achieve their goals and contribute to organization goals will be assessed. Although performance is used as indicator of work stress, it does not provide information about the subjective reaction present in the employee. Job satisfaction and performance are

important indicators of work stress and are negatively influenced when employees perceive work stress.

During the past decades a great deal of research has been done about work stress. Besides job satisfaction and performance, other indicators are used to analyse the concept of work stress. These other indicators are: commitment, turnover, health, burnout and employee dedication (Maslach, 2001; Cox, 1993; Bakker 2003; Dollard et.al., 2000; Kulik et. al., 1987; Parker & DeCotiis, 1983). Although satisfaction and performance are very important variables to explain work stress, the focus of this study will not be on these variables. The first reason to not include satisfaction is that the results of the satisfaction survey of Essent 'Heat' 2008 showed that 88% of the employees are satisfied with their work. The second reason is that satisfaction provides general information about the extent to which an employee is satisfied with a certain working condition, but does not provide information about the impact these working conditions have on individuals. For example, although employees are satisfied with the content of the job, the amount of work may be too much and cost them a lot of energy. The satisfaction variable does not provide the detailed information about the perceived work stress that is needed for this study. Third, performance is not included because, although it will have a significant relationship with the perception employees have about their jobs, performance does not directly affect this perception. Based upon an analysis of the theory about work stress, it is preferable to use a more adequate variable that reflects the direct adaptive responses of employees.

2.1.3 Employee dedication

Over the past decades, research to explain work stress was mainly focused on the negative effects of work. Many researchers used burnout to explain the effects of work stress. But recently, researchers in the field of the positive psychology increasingly studied the positive effects of work. One of the reasons for this is that there are still three times more Dutch employees who are dedicated to their work than employees who experience a burnout (Bakker, 2003). Not only because of this reason, but also because employee dedication is based upon a motivational process and it perfectly suits the purpose of this study, employee dedication will be applied to analyse work stress.

Employee dedication can be defined as a positive, affective-cognitive situation of uppermost satisfaction that is characterized by vitality, dedication and absorption (Schaufeli & Bakker, 2001, p.245). Maslach and Leiter (1997) suggest that dedication can be seen as the opposite of burnout. Their research on burnout suggests that even when employees had a high workload, had long working days and had to exert themselves, they were not facing burnout symptoms. While burnout is characterized by exhaustion, detachment from the job and a feeling of incompetence, employee dedication is characterized by energy, commitment and competence.
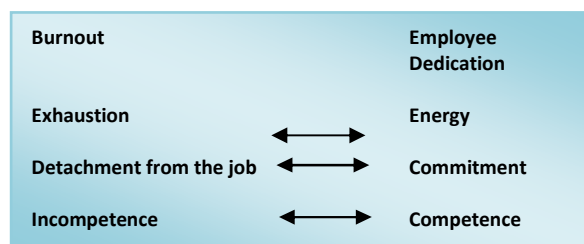
Figure 4: Burnout-perspective (Maslach & Leiter, 1997).

Schaufeli & Bakker (2001) did further research on the evidence of Maslach and Leiter but drew some other conclusions. Maslach and Leiter (1997) used the same scale to measure both burnout and employee dedication. This resulted in a negative formulated scale to measure employee dedication. Schaufeli & Bakker (2001) did not agree on this and suggest that both burnout and employee dedication have to be measured with two independent scales (Schaufeli et. al., 2002). Schaufeli & Bakker (2001) developed a scale which consists of three dimensions; vitality, dedication and

absorption. Vitality is characterized by being full of energy, feeling fit and strong, being able to work for a long time without feeling tired and having a huge mental elasticity and persistence. Dedication is characterized by strong feelings of commitment to work, seeing work as worthwhile and useful, seeing work as challenging and inspiring and calling up feelings of pride and enthusiasm. Absorption is characterized by a pleasant way of being ascended to the work. Feelings of time standing still arise and employees feel like they can hardly release from work. Theoretically this means that employee dedication and burnout do not measure the opposite of each other anymore. In practice negative scores on the burnout scale means positive scores on the employee dedication scale. For this reason, but also because vitality and dedication of the employee dedication scale show the same results as the dimensions energy and commitment of the burnout scale, the focus of this study will only be on employee dedication.

No burnout		Burnout
Low	Exhaustion	High
Low	Detachment From the job	High
High	Competence	Low

Not dedicated		Dedicated
Low	Vitality	High
Low	Dedication	High
Low	Absorption	High
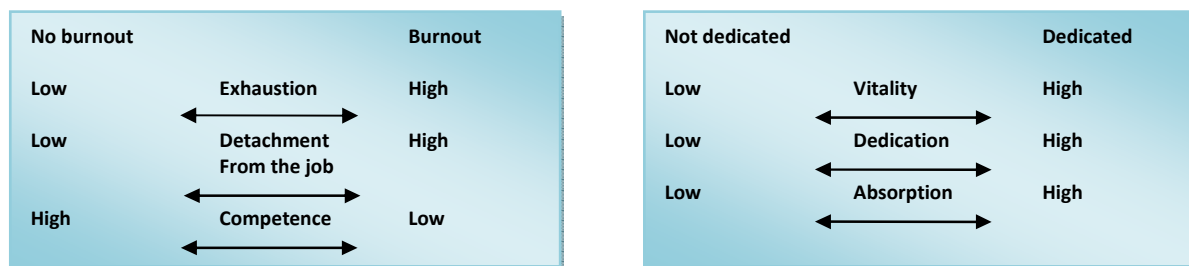
Figure 5: Employee dedication perspective (Schaufeli & Bakker, 2001).

2.1.4 Expected relationships intrinsic motivation and employee dedication

Intrinsic motivation and employee dedication are used for this study to explain work stress. Based upon the analysis of the concept of work stress, it is expected that intrinsic motivation is positively related to employee dedication. Hypothesis 1 is proposed to test this relationship in practice.

Hypothesis 1: Intrinsic motivation is positively related to employee dedication.

Work stress

Intrinsic Motivation → Employee dedication:
- Vitality
- Dedication
- Absorption
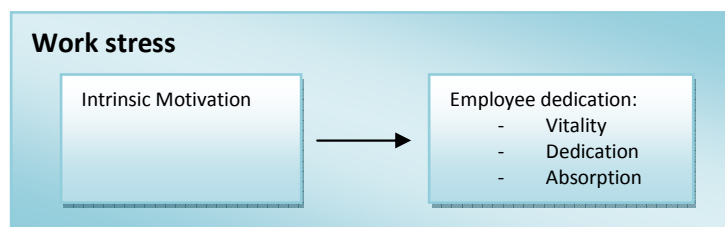
Figure 6: Relationship intrinsic motivation and employee dedication

This hypothesis suggests that employees who find the content of their job interesting and enjoyable will also perceive a high level of vitality, dedication and absorption. When employees are not intrinsically motivated to their work this will result in a low level of employee dedication. The characteristics of the work environment influence intrinsic motivation and subsequently employee dedication. Of importance is which factors in the work environment are important to determine the level of intrinsic motivation and employee dedication. Chapter 2.2 will provide more information about the characteristics of the work environment that are important in explaining work stress.

2.2 Work environment

Van Breukelen and Van Eijbergen (1995) suggest that three categories in the work environment influence employee motivation. The categories are organization characteristics, characteristics of the work and leadership behaviour. This paragraph discusses the three different categories of the model of Van Breukelen and Van Eijbergen (1995) and analysis this categories and sub categories according to the literature about work stress. According to this discussion, categories and sub categories will be

determined that are applicable for this study. An explanation will also be given about the relationship between the work environment and intrinsic motivation.

2.2.1 Organizational characteristics

Management literature continually emphasises that the complexity of organizations is increasing. Technological developments, increased specialization of work and increased globalization are causes of this increasing complexity (Delarue, 2003). Organizations have to adapt to the fast changing environment and changing needs of customers, and be very flexible in order to remain competitive in the market (Delarue, 2003). To be able to do this, organizations develop various main organization goals and develop a strategy to achieve them. An organization structure is implemented, which defines the roles and activities required of people, in order to meet the main objectives of the organization. According to Johnson et. al. (2008) the organization structure is crucial to the success of the strategy of an organization. It refers to an organization's internal pattern of relationships, authority, and communication (Thompson, 1967). When focusing on the organization structure, it does not only influence strategic decision making but it also influences characteristics of the work, leadership behaviour and employee reactions to their work and work context (Delarue, 2003; Oldham & Hackman, 1981; Parker & DeCotiis, 1983). Although the model of Van Breukelen and Van Eijbergen (1995) focuses on size, goals, structure, and culture, this study will only focus on the structure to describe the organization characteristics. Size is not important in this study, because this only matters for studies carried out at multiple organizations. The main reason to not include goals and culture is, as the above mentioned research evidence suggests, that structure is more related to the other variables in the work environment and employee reactions than these two variables.

Job modification framework

A framework that acknowledges the importance of organization structure and its relationship with the characteristics of work and the adaptive responses of employees is the job modification framework. It is remarkable that, while the model of Van Breukelen and Van Eijbergen (1995) suggests the organization structure and the characteristics of the work are not directly related, this model suggests a relationship exists. This model suggests that the organization structure (size, hierarchical levels, centralization and formalization) is viewed as significantly affecting the overall amount of challenge and complexity in the employees' jobs, which directly influences employees' reactions to the work and organization (Oldham & Hackman, 1981).

First, Oldham & Hackman (1981) examine the structure of the organizations by analysing the size of the organization. The size of the organization is measured by the number of full-time paid members (Oldham & Hackman, 1981). Second, the hierarchy of an organization can be identified by the total number of levels in the hierarchy of the organization (Oldham & Hackman, 1981). This vertical differentiation slows down the processes within organizations, because decisions made at the top of the organization have to be communicated to the lower levels in the hierarchy or vice versa. This means that when organizations grow and hierarchical levels increase, more coordination is needed to control the activities of the organization. Formalization is one way of controlling these activities and can be defined as the extent to which an organization uses rules and procedures to prescribe behaviour. Formalization is the third sub variable used to examine the structure of organizations. Frederickson (1986) argues that it has a large influence on employees, because it specifies how, where, and by whom tasks are to be performed. An advantage of a high level of formalization is that it safeguards coordination within organizations. It results in clearly defined jobs and situations are more predictable. A disadvantage of a high level of formalization is, that it provides less flexibility to adapt to situations and it results in less freedom in, for example, decision making. The last characteristic used to analyse the organization structure is centralization. This is the extent to which the right to make decisions and evaluate activities within the organization is concentrated (Oldham & Hackman, 1981). In general a positive relationship between all these characteristics should exist to analyse the organization structure. It is only possible to take the level of formalization and centralization into

account during this study, because size and hierarchical levels are only applicable for studies accomplished at multiple organizations. The framework suggests that the structural features of the organization influence the characteristics of the work. The characteristics of work consist of task autonomy, task variety, task identity, task significance and job feedback. The job characteristics taken together determine the quality of a job and a job is defined as complex and challenging when it scores high on all five characteristics. These characteristics will be explained in chapter 2.2.2.

The framework of Oldham & Hackman (1981) has received considerable attention and several of these relationships have received support from empirical studies (Oldham & Hackman, 1981). Research evidence showed that between organization structure and job characteristics a negative and significant relationship exists. Between the job characteristics and employee motivation or satisfaction a positive, substantial relationship exists (Oldham & Hackman, 1981). This suggests that when an organization is large, has many hierarchical levels, and a high level of centralization and formalization, this will lead to less challenging and complex jobs and will negatively influence job motivation and satisfaction. A disadvantage of this model is that it assesses the characteristics of the work, but does not take into account the needs and values employees have according to the characteristics of the work.

2.2.2 Characteristics of the work

A second important category in the work environment is the characteristics of the work. While discussing the job modification framework, the characteristics of work have already been discussed to a small extent. Although Van Breukelen and Van Eijbergen suggest that no relationship between the organization characteristics and the characteristics of the work exists, the job modification framework makes it clear that a relationship does exist. Because of this research evidence, it is expected that the characteristics of the work will be influenced by the organization characteristics. Although Van Breukelen and Van Eijbergen (1995) do not suggest that a direct relationship between the organization characteristics and the characteristics of work exists, they did analyse the latter as an influence on leadership behaviour and employee motivation. To analyse the characteristics of the work they used the five job characteristics identified by Hackman & Oldham (1975).

Job characteristics model

One theory that safeguards the disadvantage of the job modification model of Oldham & Hackman, because it does take the individual needs into account, is the job characteristics theory of Hackman & Oldham (1975). The job characteristics theory is conceptualized as a model of person-environment fit, which focuses on matching the characteristics of jobs to the abilities and needs of jobholders (Kulik et. al., 1987, p. 278). Two forms of fit can be considered according to French, Rodgers & Cobb (1974). The first perspective emphasises on the fit between the needs and values of the person and the opportunities provided by the work environment. The second perspective focuses on the fit between the demands of the work environment and the abilities of the person to meet those demands. Caplan (1983) points out that these two types of person-environment fit are not necessarily compatible. One form of fit may exist while the other form of fit does not exist. The developers emphasize the importance of the model because, when a match is present between the person and environment, the job characteristics theory predicts desirable outcomes for both the employee and the organization (Kulik, et. al., 1987).

The model suggests that five core job characteristics influence the critical psychological states of individuals and in turn leads to a number of beneficial personal and work outcomes (Kulik, et. al., 1987). *Task autonomy,* is defined by Hackman & Oldham (1975) as the degree of freedom, independence and discretion allowed to the individual in scheduling the work and in determining the procedures to be used to carry the work out. *Task variety,* is the degree to which a job requires a variety of different activities in carrying out the work, and involves the use of a number of different skills of the person concerned. *Task identity,* is defined as the degree to which the job requires

completion of a whole, identifiable piece of work – that is, doing the job from beginning to the end with a visible outcome. *Task significance* is the degree to which the job has a substantial impact on the lives of other people. *Job feedback* is the degree to which carrying out the work activities required by the job, provides the individual with direct and clear information about the effectiveness of his or her performance. A job that scores high on all five job characteristics can be defined as a job high in motivating potential. A job high in motivating potential will positively influence the three critical psychological states. First, the person will experience his or her own work as meaningful and important. Second, the individual will experience personal responsibility for work outcomes. And finally, the person will have knowledge and understanding about the results of his or her job. When these three psychological states are experienced by individuals, it will positively influence the outcome factors; intrinsic motivation, growth satisfaction, general job satisfaction, and work effectiveness. Since individuals have different needs, values and abilities, the characteristics of employees will also influence the above-mentioned relationships. Individuals must have sufficient knowledge and skills to perform a job high in motivating potential, they must have a need for personal growth and self-direction at work, and individuals have to be satisfied with their work context. The employee characteristics variable can be defined as a moderating variable because it influences the original relationships of the model. It does not have a direct influence on other variables of the model.

Refinement of the characteristics of the work variable

The above mentioned theories and models present the relationships between the organization characteristics, characteristics of the work and employee characteristics, which together are important in explaining the perceived work stress. When analysing theory about work stress, it became significant that these theories miss some important characteristics of the work to explain the concept work stress. While the model of Van Breukelen and Van Eijbergen (1995) make a distinction between the five job characteristics, literature about work stress often makes a distinction between job resources and job demands to characterize the work of employees. Job demands refer to those physical, psychological, social or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort and therefore associated with certain physiological or psychological costs (Bakker, Demerouti, De Boer & Schaufeli, 2003, p. 344). Job resources refer to those physical, psychological, social or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands at the associated physiological and psychological costs; (c) stimulate personal growth and development (Bakker, Demerouti, De Boer & Schaufeli, 2003, p. 501). Two different models are described to explain the job demands and job resources and their relationship with work stress.

Job demands and decision latitude model

A lot of researchers who studied the influences of the organization of work on the perceived work stress used the job demands and decisions latitude model created by Karasek (1979). The model postulates that job strain is caused by multiple aspects in the work environment, also called job demands, and the range of decision making freedom available to the worker facing those demands (Karasek, 1979). Job demands are characterized by high pressure of time, high work pace, difficult and mentally exacting work (De Jonge et. al., 2000; Karasek, 1979). Decision latitude is described as the ability of employees to control their own activities and skill usage (Karasek, 1979). Decision latitude can be defined as a job resource that is important to meet the job demands. Figure 7 describes the different types of jobs that result from the different combinations of the above mentioned factors. A consistent finding is that the combination of a low decision latitude and high job demands is associated with high strain (Karasek, 1979). Research evidence suggests that high job demands and high job control lead to a higher intrinsic employee motivation (Houkes et. al., 2001).
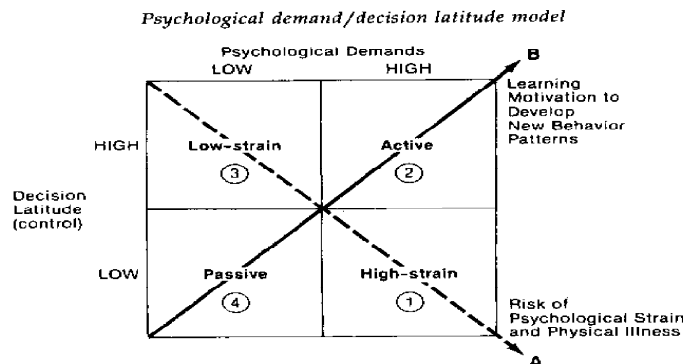
Figure 7: Job demands / decision latitude model of Karasek (1979)

Johnson & hall (1988) extended the model by including support from supervisors and co-workers, which forms another job resource, to the model. They provided evidence that employees with jobs combining high demands, low control and low support from supervisors or co-workers are at the highest risk of psychological strain. Xie and Johns (1995) also suggest that studies exist that do not support this model, because more confounding factors exist that might explain the results mentioned above. Still the model remains appropriate, not only because it focuses on work environmental factors as main causes of strain, but also because it has been proven useful in practice.

Also De Sitter (1998) emphasizes the interaction between the problems employees face during their work and the opportunities to solve these problems. De Sitter defined this as workload and control capacity. Workload can be defined as the amount of work that is expected from or assigned to an employee in a specified time period (Delarue, 2003). The employee experiences many expectations within a short time period. 'Many' refers to the amount of work, the complexity of tasks and the responsibilities employees have. De Sitter (1998) suggests that one way of avoiding work stress, would be for the employees to have a balance between workload and control capacity (De Sitter, 1981). Like Karasek, De Sitter (1998) suggests that employees with a high workload and a low control capacity are most likely to experience work stress. A high workload and a high control capacity challenges employees and a high control capacity results in a high level of commitment. It gives employees space to develop themselves and to remain committed to the whole process and the organization (De Sitter, 1998). Based upon an analysis of these theories, workload can be defined as a job demand and control capacity can be defined as a job resource.

Job Demands-Resources model

The job demands-resources model is a more extended version of Karasek's job demands-decision latitude model. The theory behind the model suggests that not only autonomy can have a buffering effect on the perceived strain, but a lot of resources can interact and influence the perceived strain or employee dedication (Bakker, 2003). The model is based upon three assumptions. The first one suggests that many different jobs exist within organizations and most jobs consist of job demands and job resources. The second assumption is that work experiences are the result of two different processes; the energy process and the motivational process. The energy process suggests that high job demands influence the energy reserves negatively and may eventually result in a perceived strain. For an employee who experiences overload, his or her body may continually face problems of exhaustion, poor health and feelings of incompetence (Bakker, 2001). The motivational process suggests that a lack of job resources burdens the accomplishment of job related goals and this will lead to frustration and failure. The availability of sufficient job resources will result in more motivated and dedicated employees and they will be willing to help colleagues (Bakker et. al., 2003; Schaufeli & Bakker, 2003).
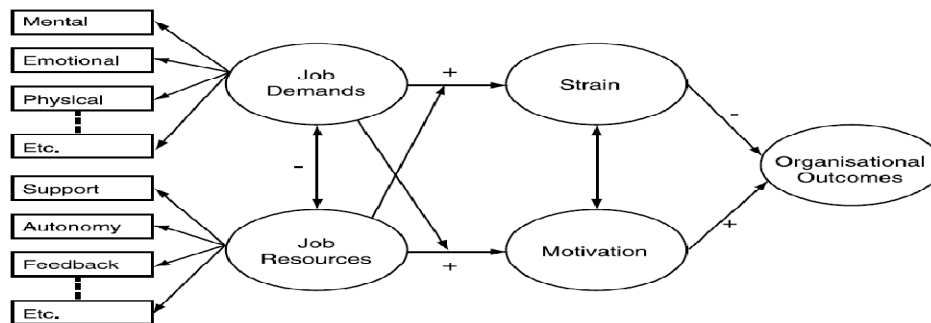
Figure 8: The job demands-resources model (Bakker et. al., 2007)

The third and last assumption is that job resources are able to absorb the negative effects of job demands on work stress and high job demands can undermine the positive effect of job resources on employee dedication (Bakker, 2003). To summarize, high job demands and too few job resources will result in strain, while a perfect match between job demands and job resources will result in employee dedication. This model perfectly shows the influences of job demands and job resources on the adaptive responses of employees.

Role stressors

When analysing theory about work stress it became significant that earlier studies have primarily focused on the different roles that employees fulfil within an organization (Maslach, 2001). French, Caplan and van Harrison (1982) have concluded that these variables are among the most powerful predictors of psychological health. A study of Bhalla, Jones and Flynn (1991) suggests that role overload, role ambiguity, role conflict, role insufficiency and responsibility for other people were related to employees' reports of strain, job satisfaction and organizational commitment. Data suggests that role ambiguity and role conflict are important indicators of work stress and have been studied the most. Because of this evidence, the focus will only be on these two role stressors. According to Cox (1993), role ambiguity occurs when an employee does not have adequate information about his or her work role. This can result from a general confusion about appropriate objectives, a lack of clarity regarding expectations, and a general uncertainty about the scope and responsibilities of the job. When the organization structure does not provide clear boundaries of responsibilities and autonomy this will negatively influence role ambiguity. When organizations change a lot, this may result in role ambiguity because appropriate objectives, expectations, scope and responsibilities change and may be more uncertain. Spreitzer (1996) and Margolis et. al. (1974) suggest that role ambiguity is related to a low intrinsic employee motivation. The second role stressor, role conflict, occurs when individuals are required to play a role which conflicts with their values, or when the various roles that they play are incompatible with one another (Cox, 1993). Greater role conflict results in lower job satisfaction and has a negative influence on employee health (Kahn, et. al., 1964; French & Caplan, 1970). When various roles conflict the values of employees, or when these roles are incompatible with one another, this will influence work stress positively and that is why these can be determined as job demands.

Conclusion according to the characteristics of the work variable

After analysing all major theories and models about the characteristics of work, a distinction between job demands and job resources will be made to study the characteristics of work and its influence on work stress. When analysing the job characteristics of Hackman & Oldham, these characteristics can be determined as job resources. When these are experienced by employees, it will negatively influence the perceived work stress. While the model of Van Breukelen and Van Eijbergen (1995) focuses more on the job characteristics (or job resources), this study will also include job demands in order to explain work stress. This will provide a more extended analysis of the characteristics of the work and its influence on work stress, since not only a lack of job resources will result in a high level of work stress; a high level of job demands will also positively influence the perceived work stress.

2.2.3 Expected relationships with the variable characteristics of the work

Now that the different theories and models about the organization characteristics and characteristics of work have been discussed, it is possible to propose some expected relationships that can be tested in practice. According to the theory, it is expected that the organization characteristics are related to the characteristics of the work. It is expected that the organization characteristics are related to the job resources employees experience, but the organization characteristics are not related to the job demands employees experience. It does not matter whether or not an organization is highly formalized or centralized, a job can still be very demanding or not demanding. For example, the amount of work or its complexity is not determined to a large extent by the level of formalization or centralization.

Based upon the theory, it is expected that the level of formalization and centralization will negatively influence the job resources employees perceive. For example, the more an organization is formalized and centralized the less autonomy employees have, because they have to follow the rules and procedures, and decisions will be made on top of the organization. Hypothesis 2 is proposed to test this relationship.

Hypothesis 2: The organization characteristics are negatively related to the job resources employees' experience.

Subsequently, the characteristics of work, which consists of job demands and job resources, are related to intrinsic motivation. In turn, intrinsic motivation is related to employee dedication and both variables are indicators of the perceived work stress. Just as the theories about the characteristics of work emphasize, it is to be expected that job resources will positively influence work stress, while job demands will negatively influence the perceived work stress. Hypothesis 3 and 4 are proposed to test if a significant relationship exists. Figure 9 presents these relationships.

Hypothesis 3: The job resources employees perceive will positively influence the intrinsic motivation perceived by employees.

Hypothesis 4: The job demands employees perceive will negatively influence the intrinsic motivation perceived by employees.
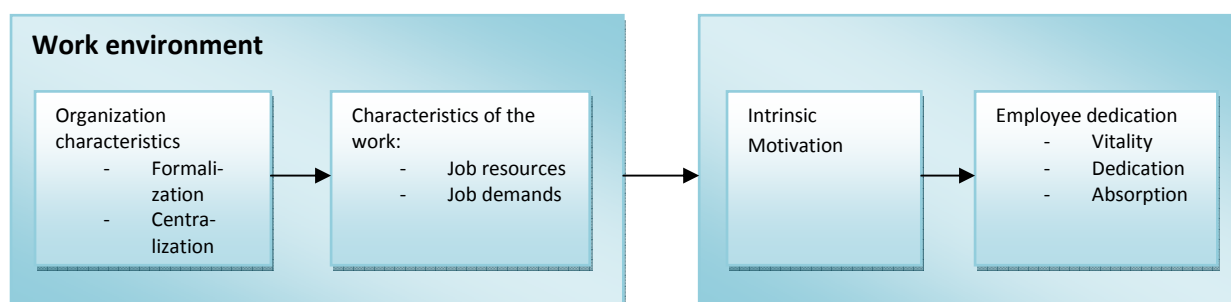
Figure 9: Relationships characteristics of the work

2.2.4 Leadership behaviour

The third category of the work environment that will be discussed according to the model of Van Breukelen and Van Eijbergen (1995) and theories about work stress, is leadership behaviour. Leadership behaviour is part of the work environment and is also an important indicator of work stress. Leadership is mainly concerned with the coordination of work activities with each other and with the organization goals (Alblas & Wijsman, 2001). Leaders try to influence their subordinates to achieve the organizational goals. According to Keuning and Eppink (1985) three different management functions exist:

- Development of policies; this function is concerned with the development of goals and policies to adjust the organization to its environment.

- Structuring; this function is characterized by focusing on the organization of work within the organization.
- Operational management; this function is concerned with the daily leadership that focuses on giving content to, accomplish and control processes within the organization.

These three functions are brought into practice at three different levels in the organization. The development of policies is accomplished by the board of directors at the top of the organization. Structuring is accomplished by the middle management. They translate the organization goals into goals of their department, and decide how work can be organised to accomplish these goals. The last one, operational management, is accomplished by the direct supervisors or operational managers. They are directly responsible for informing, motivating, supporting, coordinating tasks, controlling and adjusting of employees (Alblas & Wijsman, 2001). At all three levels of management within organizations, managers are responsible for goal achievement, group maintenance and future effectiveness (Cartwright & Zander, 1960).

The model of Van Breukelen and Van Eijbergen (1995) applies the three ideas of laissez-faire, transformational and transactional leadership, which are introduced by Burns (1978) and Bass (1985), to explain leadership behaviour. Burns (1978) and Bass (1985) defined the laissez-faire leadership style as a hands-off approach. Managers who apply this style ignore the needs of others, do not respond to problems and do not monitor performance. Research evidence confirms that employees respond negatively to this leadership style (Pollock, 1998). The transactional leadership style, is defined as transactional behaviour, and focuses on the accomplishment of task and good worker relationships in exchange for desirable rewards (Nyberg et. al., 2005). Transactional leaders seek to motivate subordinates by appealing their own self-interest and by the exchange process. They influence their subordinates by setting specific target goals (Berson et. al. 2000). The transformational leadership style can be defined in terms of the leader's motivational effect on his/her subordinates. They feel loyalty, trust, admiration and respect towards the manager. The subordinates of these transformational leaders are motivated to serve and achieve more than they are originally expected to. Subordinates are inspired to achieve higher-order needs and are made more aware of the organization's needs for their unique skills and talents. The managers influence their subordinates to work towards long-term ideals and strategic objectives (Berson, et. al., 2000). Bass and Avolio (1994) introduced four main characteristics of transformational leadership: individualized consideration, giving personal attention to subordinates to promote their development and achievement; intellectual stimulation, enabling subordinates to think of old problems in new ways; inspirational motivation, communicating high performance expectations through the projection of a powerful, confident, dynamic presence; and idealized influence, displaying a role model behaviours for subordinates through exemplary personal achievements, character and behaviour.

According to Bass (1985) managers can use both styles at the same time, because they are complementary rather than contrary to one another. Besides, research evidence shows that both transactional and particularly transformational leadership decrease stress reactions among subordinates (Nyberg, et. al., 2005). But Daft (2005) suggests that especially transformational leadership positively influences employee's emotional reactions and their behaviour. A higher commitment, satisfaction, motivation and improvement of performance, are the most important outcomes of these studies. Many organizations today focus more on this transformational leadership style, instead of the transactional or task focused leadership style, because of all these positive effects.

Because of this significant relationship between these leadership styles and employee motivation, performance and satisfaction, Van Breukelen and Van Eijbergen used the theory proposed by Burns and Bass to explain this relationship. Besides, a positive relationship also exists between the transformational leadership style and employee dedication. Research evidence suggests that the transformational leadership style results in a higher level of employee dedication (Den Hartog, 1997). A possible explanation for this evidence is that this leadership style takes into account the amount of

job resources that employees experience in order to be able to meet the job demands (Bakker, 2003). These job resources have a motivational effect and result in a higher level of employee dedication.

2.2.5 Expected relationships with the variable leadership behaviour

For the purpose of this study, leadership behaviour will be analysed according to the theory of Bass (1985), to explain the relationship between leadership behaviour and work stress. Van Breukelen and Van Eijbergen (1995) suggest that leadership behaviour was not only influenced by personality of managers, but also by the broader work environment. They suggest that the organization characteristics, characteristics of the work and employee characteristics influence this leadership behaviour. Other researchers support this influence of the broader work environment, although sometimes their focus is a little bit different. None of the studies suggests that the employee characteristics are directly related to this leadership behaviour (Delarue, 2003; Oldham & Hackman, 1981; Parker & DeCotiis, 1983). Although this relationship exists according to Van Breukelen and Van Eijbergen's model, this study will not analyse this relationship. This study will analyse the influence of the organization characteristics on work characteristics and leadership behaviour, which both subsequently influence work stress. Besides, a direct relationship also exists between the characteristics of the work and leadership behaviour. Figure 10 shows the possible relationships with leadership behaviour. Next, each of these relationships will be discussed and hypotheses are proposed to test these relationships.

First, based upon the theory it is expected that a relationship exists between the organization characteristics and leadership behaviour. It is expected that only the transactional leadership style can be influenced by the organization characteristics. The more rules and procedures that exist and the more decisions that are made on top of the organization, the more a manager will focus on the exchange process between accomplishment of the task and a desirable reward. Because of the rules and procedures that exist and decisions that are already made, tasks and activities are clearer and managers are better able to focus on their accomplishment. Since laissez-faire leadership behaviour is not a leadership style at all, it is expected that this will not be related to the organization characteristics. This style can be applied independently from the level of formalization or centralization. Because the transformational leadership style is more focused on the relationship with subordinates, it is expected that this style is not influenced by the organization characteristics. The relationship of managers with subordinates is not determined by organization characteristics. This discussion leads to the proposal of hypothesis 5.

Hypothesis 5: The organization characteristics are positively related to the transactional leadership style

Second, a relationship can be predicted between leadership behaviour and the characteristics of work. Based upon theory it is expected that when a manager applies a laissez-faire leadership style, the employees will perceive more job demands and less job resources. It is expected that a leadership style cannot influence the job demands in a certain direction. However, because of the hands-off approach of these managers, employees may perceive their job demands as more demanding than they officially are. They will also perceive less job resources since the manager is not able to provide them to employees. The work will cost employees energy and the manager is unable to motivate them. Hypothesis 6 and 7 are proposed to test these expectations in practice.

Hypothesis 6: The job resources employees perceive are negatively related to the laissez-faire leadership style

Hypothesis 7: The job demands employees perceive are positively related to the laissez-faire leadership style

When analysing the relationships between the transactional leadership style and the job demands and job resources it is expected that a significant relationship will exist between this style and job resources. No relationship will exist between the transactional leadership style and job demands. A job can be very demanding or not, regardless of the fact that a manager is applying a transactional leadership style. This style will not specifically influence the job demands perceived by employees. When analysing the relationship between the transactional leadership style and the job resources it is expected that managers who focus on task accomplishment will be unable to provide job resources. Hypothesis 8 is proposed to test this relationship.

Hypothesis 8: The job resources employees perceive are negatively related to the transactional leadership style

When analysing the relationship between the transformational leadership style and job resources and job demands, it is also expected that this style is related to the job resources and not related to the job demands. A job can be demanding or not, regardless of the fact that a manager is applying a transformational leadership style. However, managers who apply this style are able to provide more job resources. Hypothesis 9 will test this relationship in practice.

Hypothesis 9: The job resources employees perceive are positively related to the transformational leadership style

Third, a relationship between leadership behaviour and intrinsic motivation is expected, based upon the theory. Since the theory suggests that the laissez-faire leadership style cannot be considered to be a leadership style at all, it is expected that this style will influence intrinsic motivation negatively. The transactional leadership style is more focused on tasks accomplishment in exchange for rewards, and will result in more extrinsically motivated employees. Since this is not the focus of this study, it is expected that this style will not positively influence intrinsic motivation. Both styles will have a negative influence on intrinsic motivation. To the contrary, since the transformational leadership style is characterized by intrinsically motivating employees a positive relationship is expected. Hypotheses 10 till 12 are proposed to test these relationships.

Hypothesis 10: The laissez-faire leadership style will negatively influence intrinsic motivation of employees

Hypothesis 11: The transactional leadership style will negatively influence intrinsic motivation of employees

Hypothesis 12: The transformational leadership style will positively influence intrinsic motivation of employees
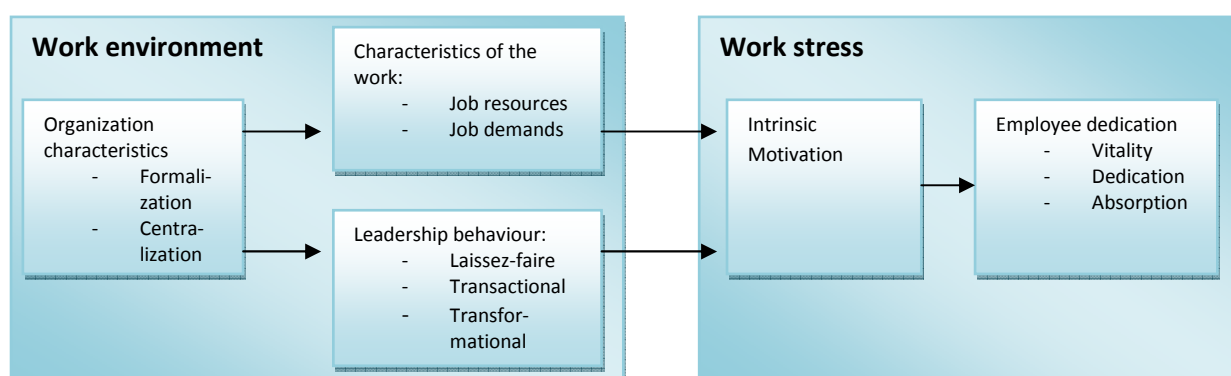

Figure 10: Relationships leadership behaviour

2.3 Employee characteristics

During this theoretical analysis about work stress, the needs and values employees have according to their work environment have been continuously discussed. When discussing the variable employee motivation, it is suggested that employees can only be motivated when the benefits meet the needs and values of employees (Kluytmans, 2001). Also the job characteristics model of Hackman & Oldham (1975) suggests that the characteristics of employees are important in explaining the relationship between the work environment and the adaptive responses of employees. It can be concluded that in order for intrinsic motivation and employee dedication to occur, the work environment has to meet the needs and values of employees. Based upon the theory about the job characteristics model (Hackman & Oldham, 1975), it is expected that the needs of employees will have a moderating effect on the relationship between the characteristics of work and intrinsic motivation. Second, the needs of employees will have a moderating effect on the relationship between leadership behaviour and intrinsic motivation. Finally the needs of employees will have a moderating effect on the relationship between intrinsic motivation and employee dedication. Employees can be intrinsically motivated and this can only influence employee dedication positively, when the intrinsic benefits meet the needs of employees (Kluytmans, 2001). Figure 11 shows this relationships. Based upon this analysis, hypotheses 13 to 15 are proposed to test this.

Hypothesis 13: The needs of employees will influence the original relationship between the characteristics of work and intrinsic motivation

Hypothesis 14: The needs of employees will influence the original relationship between leadership behaviour and intrinsic motivation

Hypothesis 15: The needs of employees will influence the original relationship between intrinsic motivation and employee dedication

2.4 Research questions

During the introduction the following central research question is developed:

How do employees perceive the work environment at Essent 'Heat' and how does this influence the work stress employees perceive?

To be able to answer this central research question several steps have to be taken. According to an analysis of the literature, research questions have been developed in order to take these steps. These research questions make it possible to finally answer the central research question. Table 1 briefly summarizes the developed research questions. The first two questions will provide information about the perception employees have about the work environment, and will explain the perceived intrinsic motivation and employee dedication. The third question will explain the relationship between the work environment and the perceived work stress of employees. Research question four will analyse how the characteristics of employees will influence the original relationships between the work environment and work stress. The proposed hypotheses will be tested to answer research question three and four. One of the main goals of this study is, to provide the organization an advice report to reduce the perceived work stress of employees. The last question will analyse the suggestions provided by employees to reduce the perceived work stress.

In brief the following research questions need to be addressed to answer the central question	
1	How do employees of Essent 'Heat' perceive their work environment?
2	Do employees of Essent 'Heat' experience work stress?
3	How does the perception of the work environment influence the perceived work stress of employees?
4	How do the characteristics of employees influence the relationships between the work environment and work stress?
5	Which suggestions can be given to reduce the perceived work stress of employees at Essent 'Heat'?

Table 1: Research questions

2.5 Conceptual research model

The model created by Van Breukelen and Van Eijbergen (1995) is used as an initial concept for this study. After reviewing their model and the theory about work stress, it became significant that although the model is applicable to a large extent, it also deviates from the focus of this study. The model needed some modifications to be able to answer the central research question and above mentioned research questions of this study. Analysis of the literature and the research questions led to the following conceptual research model:
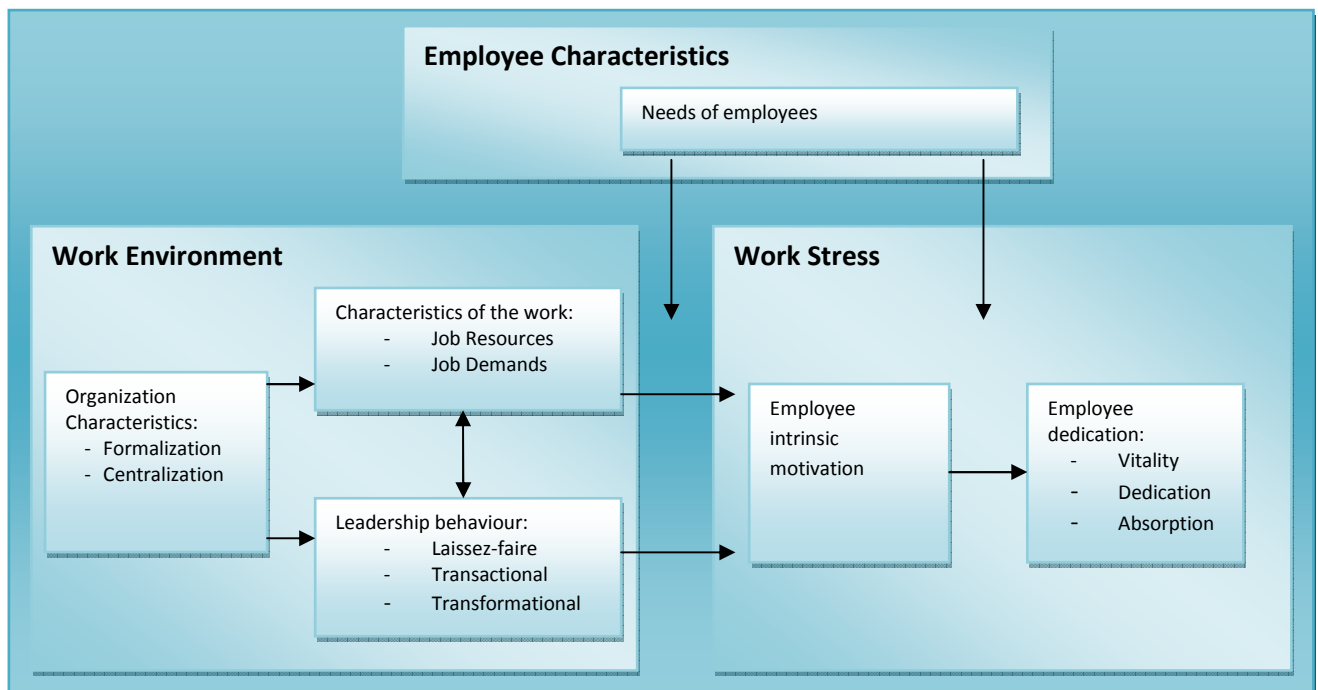

Figure 11: Conceptual Research Model

3. Methodology

Now that the concepts that will be studied are clear, hypotheses have been proposed and the conceptual research model has been developed, the next step is 'operationalization'. Operationalization is the development of specific research procedures, which will result in empirical observations representing the concepts that are discussed in the theoretical framework. First, the research design and instruments are explained to analyse all the concepts. Second, information is given about the sample, procedure and how data is analysed after gathering.

3.1 Research design and instruments

To analyse the organizational characteristics, characteristics of the work, leadership behaviour, employee dedication, intrinsic work motivation and employee characteristics existing questionnaires are used. Questionnaires are less time consuming and make it possible to study a larger group of employees. Two other reasons are also of importance. First, since the theory already suggests that many variables and sub variables are important in explaining all relationships, a questionnaire makes it more flexible to ask many questions. A second reason is that a questionnaire makes it possible to define concepts more precisely and enforce uniform definitions upon the participants. This results in a strong reliability. Although this is one advantage of questionnaires, the questions have to be regarded as approximate indicators of what is intended to measure when framing the questions. The questions may be operationalized very well, but participants may interpret the questions differently and a valid answer on the research question will never be found. This study uses existing scales to answer research questions one to four. Because of the existing scales, the reliability and validity are more safeguarded, since variables are already operationalized and often used in practice. To be sure that the scales are approximate indicators of what is intended to measure, there have been interviews with HR and some managers and a pilot study is implemented to get feedback on the questionnaire. This creates a better chance of extrapolating the appropriate information out of the questionnaires. Research question five is answered by adding an open-ended question to the questionnaire. Every employee has the opportunity to suggest what intervention they need to reduce the experienced work stress. This stimulates creativity of employees. Plus, employees performing their jobs in this work context can think of solutions better than the researcher who is an objective person.

3.1.1 Organization characteristics

To analyse the organization characteristics, the research method of the job modification model is used. The job modification model, developed by Hackman & Oldham (1981), analyses formalization and centralization subjectively by questioning employees. The reason for choosing this research instrument is because the framework analyses the relationship between the organization characteristics, the characteristics of work and the way employees perceive them. These relationships are also analysed during this study. The items have been originally written in English. They are translated for this study. Examples of items that are included in the questionnaire are:

- The organization has a lot of written rules and policies (formalization).
- The organization can be described as highly centralized (centralization).

3.1.2 Characteristics of the work

To analyse the characteristics of the work, several research methods are developed. A wide used and relevant instrument is the NOVA/WEBA survey, which is developed by TNO (2000). The instrument makes it possible to analyse both the job demands and job resources, which together characterize the work. It is a self-administered survey, which contains subjective measurements of the variables. Reason for choosing this instrument is, that it is a reliable and valid instrument and it has an adequate

connection with the theory about the characteristics of work and work stress. The instrument is developed based upon the theories of Karasek (1979), De Sitter (1981) and Hacker (1983; 1989). Another important reason is that the instrument analysis the characteristics of the work broadly. This is preferred because, based upon a broad starting point, more chance exists that all important indicators in the work environment to explain work stress are captured. The different scales to analyse the job resources are skill possibilities, time autonomy, availability of information, support, autonomy, contact possibilities and organizing tasks. The different scales to analyse job demands are psychological effort, education and work experience fits the job, task requirements, problems arranging the work, responsibilities. All items are originally written in Dutch. Examples of questions to analyse the characteristics of the work are:

- My job consists of a lot of variety (Skill Possibilities).
- My work requires continuously intense consideration (Psychological Effort).
- I receive sufficient information to be able to perform my job (Availability of Information).
- I have to work very quickly (Task Requirements).

The NOVA/WEBA does not analyse role ambiguity and role conflict as indicators of the job demands, so another scale to analyse these two role stressors is added to the questionnaire. The items that analyse the role ambiguity and conflict proposed by Rizzo, House and Lirtzman (1970) have been chosen for this study. The reason for choosing these items is that it includes multiple factors to measure the two role stressors. The items include intrarole, interrole, intrasender conflict, as well as ambiguity due to the lack of role predictability, role clarity and role uncertainty (Fields, 2002). These items are well known, because they are used by many researchers to analyse the relationship between these role stressors and work stress (Kelloway & Barling, 1990). Although questions existed about the validity and psychometric adequacy of these two subscales, recent research using structural equation modelling supported their validity (Kelloway & Barling, 1990; Netemeyer, Johnston & Button, 1990). The items are originally written in English. Examples of the items included to the questionnaire are:

- I receive incompatible requests from two or more people (Role Conflict)
- I know exactly what is expected of me (Role Ambiguity)

Since Essent 'Heat' has recently undergone a lot of organizational changes, this can also influence the perceived work stress of employees. The added scale is part of a survey that analyses the work experiences of employees, which has been developed by the A&O-desk (www.satisfakt.nl). The organization developed a survey based upon the scales of the NOVA/WEBA and the Vragenlijst Beoordeling en Beleving van de Arbeid (VBBA), in cooperation with the Erasmus University of Rotterdam. They used the scale because of its acknowledged reliability and validity (www.satisfakt.nl). This scale is added not only because it analyses the way in which employees perceive the organizational changes, but also because the scale directly relates it to the perceived workload. The items are originally written in Dutch. Examples of the items that are added to the questionnaire are:

- Were you confronted with one ore more reorganizations the last two years?
- Did the original departments remain unchanged after these reorganizations?
- Is the total workload of your department decreased proportionate?

3.1.3 Leadership behaviour

As the theory already suggests, the main focus of analyse leadership behaviour has recently been on the laissez-faire, transactional and transformational leadership styles, which were developed by Burns (1978) and Bass (1985). Bass and Avolio (1990) developed a Full Range Leadership Theory, which can be applied in practice using the Multifactor Leadership Questionnaire. The scales will be used for this study. It is a highly validated and reliable questionnaire to test the three leadership styles (Den Hartog, 1997). All items were originally written in Dutch. Examples of items added to the questionnaire are:

- Takes action when things are going wrong (Laissez-Faire Leadership style).
- Focuses attention on the mistakes I make and deviations (Transactional Leadership style).

- Creates the feeling that we work together on an important mission or assignment (Transformational Leadership style).

3.1.4 Intrinsic work motivation

To analyse the extent to which employees find their jobs interesting and enjoyable, items used by Hackman & Oldham (1974) are added to the questionnaire. Although this variable is analysed with four items, it scores high in respect of internal consistency reliability. These items are also more preferred because, the theory of Hackman & Oldham is related to the focus of this study and, the other research methods that will be applied are developed based upon their model. The items were originally written in English. Examples of the items added to the questionnaire are:

- I feel a large amount of personal satisfaction when doing the job well.
- My opinion about myself increases when I am doing the job very well.

3.1.5 Employee dedication

The Utrechtse Employee Dedication scale is used to analyse employee dedication (Bakker, 2001). The scale consists of three subscales; vitality, dedication and absorption. One reason for choosing this scale is its high reliability score. Another reason is that the variable employee dedication could be measured both one-dimensionally and three-dimensionally. All items are written in Dutch. Examples of the items added to the questionnaire are:

- At my work I am full of energy (Vitality).
- I am enthusiastic about my job (Dedication).
- When I work intensely I feel happy (Absorption).

3.1.6 Employee characteristics

To analyse the employee characteristics, the scale developed by Hackman & Oldham (1974) is applied. The reasons for choosing this scale are that the researchers defined the needs of employees as a moderating variable. They suggest that the needs of employees will have a moderating effect on the relationship between the work environment and work stress. Another reason is that they focus more on items to analyse intrinsic needs, which is more preferred since it is the focus of this study. All items are translated into Dutch. Examples of items to analyse employee characteristics are:

- I need a challenging and stimulating job.
- I need job security to a large extent.

3.1.7 Levels of measurement

Since existing scales are used to analyse the different variables, the range of variation is determined by the researchers who developed the scales. The existing scales differed in variations between the extremes. Some scales made use of a two-, four- or a five-point Likert scale. Because this will be very confusing for the participants of this study, and to make the analysis of the data easier, it is preferable to choose one or two of them. For the scales that measure the organization characteristics, characteristics of the work and leadership behaviour, two answer possibilities are used (yes and no). The reason for providing only two answer possibilities is that an employee can perceive that a characteristic is present or absent and not something in between. The dependent variables are measured with more variation between the extremes. Because employees can be motivated or dedicated to a certain extent, a four-point Likert scale is used. Answer possibilities to intrinsic work motivation are totally disagree, disagree, agree, totally agree. Answer possibilities to employee dedication are never, sometimes, regularly and always. Employee characteristics also analysed the extent to which an employee has a certain need, and cannot be captured by a simple yes or a no. The answer possibilities are: would not like having this, would like having this slightly, would like having this, and would like having this extremely.

Altogether the questionnaire consists of 11 general questions, 7 questions that analyse the organization characteristics, 97 questions that analyse the characteristics of the work, 28 questions about the leadership style, 11 questions that indicate the needs of employees, 17 questions that analyse employee dedication and 4 questions about intrinsic work motivation. The questionnaire is added to Appendix D.

3.2 Research sample and procedure

The research sample consists of all 148 employees of the business unit 'Heat' of Essent. Only employees of Essent have been asked to fill in the questionnaire. External people are not part of this study, because they only work on a temporary basis and cannot make use of the other benefits Essent 'Heat' provides to its own employees.

After developing the questionnaire, managers, HR and an employee gave feedback on it and some changes have been made. Together with the Management Team it has been decided to send a hardcopy of the questionnaires to the private homes of the employees. Most employees of Essent 'Heat' are dealing with a high workload. When employees are disturbed during working hours to fill in a questionnaire, it was expected that the response rate would be lower. The business manager of Essent 'Heat' also decided to send a personal letter together with the questionnaire, to stimulate all employees to fill in the questionnaire. All managers received an email asking them to stimulate employees to fill in the questionnaire during the work meetings. To safeguard the response rate, employees could hand in their questionnaires at three different locations. It was expected that when employees had to send the questionnaires back, it would result in a lower response rate. After 1.5 weeks, the response rate was 50%, so employees were given an extra 1.5 week to fill in the questionnaire. In addition to this stress balls were distributed among all employees to stimulate them to fill in the questionnaire.

3.3 Data-analysis

For the analysis of the data, gathered by distributing the questionnaires, the statistical software program SPSS is used. This program makes it possible to use a broad range of statistical methods. For this study different statistical methods are used to describe the results and to test the hypotheses. First, the Cronbach Alpha is measured for each scale to analyse the internal reliability coefficient. This coefficient makes it possible to examine whether or not all items of each scale measure the same concept. Second, frequency tables are developed and mean and standard deviations are measured for each scale. Since the purpose of this study is not only to describe the data, but also to explain the different relationships of the conceptual research model, more explanatory statistical analyses are used. Regression analyses and multiple regression analyses are used to examine a causal relationship between an independent and dependent variable. These analyses make it possible to test the hypotheses. A regression analysis is used to explain the causal relationships between one independent variable and one dependent variable. A multiple regression analysis is used to explain the influence of multiple independent variables, together, on one dependent variable. Third, because the model also suggests that the employee characteristics influence the relationships between the work environment and work stress, partial correlations are used to test this. A partial correlation test first analyses the extent to which an independent and dependent variable are correlated and second analyses if the correlation coefficient changes by adding a third variable or controlling variable.

4. Results

During this chapter the results of the questionnaires filled in by the employees of the business unit 'Heat' of Essent are presented. First, an overview of the response rates is given. Second, the construct reliability is tested, to analyse if all items measure the same variable. Third, the most important results of all variables are described. Fourth, the different relationships of the conceptual research model are explained by testing the proposed hypotheses. Together all these results provide answers to the research questions that have been developed according to theoretical framework.

4.1 Response

For this study 148 questionnaires were distributed among the employees of Essent 'Heat' and 87 questionnaires were filled in by the employees. According to Saunders et. al. (2003) when distributing around 150 questionnaires, the response rate has to be 108 to ensure that the sample is representative for the whole population. With a response rate of 108 the margin of error is 5%. This margin of error describes the precision of the estimates of the population. This study did not get a response rate of 108 but a response rate of 87, which is 58.8% of the total population. It can be concluded that this response rate is too small to represent the population with 95% certainty. Since the response rate is not large enough to guarantee a representative sample, a comparison with the whole population is made to test the attendance of selective non-response, and to check if strange proportions in the number of response in comparison with the official population exist. Table 2 presents the most important outcomes of this comparison and a table with all outcomes is included in Appendix A.

Variable		Response	Official Population
Gender	Man	66	125
	Woman	19	23
Age	20-29	16	29
	30-39	20	36
	40-49	27	40
	50-59	24	42
	≥ 60	0	1
Managerial Position	Yes	22	24
	No	65	124
Department	Development and Sales	13	16
	Construction	11	19
	Exploitation	34	57
	Customer Office	23	52
	Staff	3	4
Contract hours	16-23	1	2
	24-31	1	3
	32-39	36	15
	40	48	128
Number of years working at Essent	0-9	46	86
	10-19	11	12
	20-29	17	33
	30-39	12	17

Table 2: Comparison number of responses with the official population

According to these results it can be suggested that the proportions of the responses do not differ that much from the proportions of the official population. Only more employees with a contract of 32-39 hours responded to the questionnaire than the official population suggests. An explanation could be that the contract hours differ from the hours they really work a week because of leave arrangements. It can be concluded that no important indication for selective non-response exists. Although the

response rate is not high enough, the sample can be assessed as representative based upon the comparison with the official population.

Another important result presents the percentages of employees working over on average. Of all employees 92% works over and 8% does not. Table 3 shows the hours employees work over.

Hours of overwork	Percentage employees
0-2	36,5%
3-5	29,7%
6-8	17,6%
9-11	9,5%
12-14	1,4%
15-17	2,7%
18-20	1,4%
=> 21	1,4%

Table 3: Hours of overwork a week

4.2 Construct Reliability

The questionnaire that is used for this study contains several scales which proved to be reliable in earlier publications. Since this is dependent on the sample size it is necessary to also analyse the internal consistency or homogeneity of these scales. The Cronbach Alpha is used to analyse if all items of each scale measure the same construct. According to Bowling (1997) a Cronbach Alpha of 0.50 is an indication of good internal consistency, whereas an Alpha of 0.70 or above is considered as satisfactory by Howitt and Cramer (2003). For this reason, the Cronbach Alpha of all scales has to be above 0.70 if this is possible. When this is not possible a Cronbach Alpha of 0.50 and higher is also accepted for this study. By deleting items of some scales it is sometimes possible to increase the Alpha until an acceptable or satisfactory level. The table with the Cronbach Alpha of each scale is included in Appendix F. The table also contains the included items for the analyses and shows which items are deleted to increase the score.

4.3 Descriptive results

Before trying to explain the different relationships and test the conceptual research model a description of the results is given. This descriptive data provides information which answers research questions one and two. The mean scores and standard deviations of all scales are analysed in order to describe the organization characteristics, characteristics of the work, leadership behaviour, intrinsic motivation and employee dedication.

The mean score gives an indication of the average score of employees on the items of a scale. The standard deviation analyses the dispersion of a population. A low standard deviation means that the data points tend to be very close to the mean, while a high standard deviation means that the data is spread out over a large range of values. The table with the means and standard deviations of each scale is included in Appendix G.

4.3.1 Work environment

The first research question is developed to describe the work environment of employees and is defined as follows:

How do employees of Essent 'Heat' perceive the work environment?

According to the theory, the work environment consists of the organization characteristics, the characteristics of the work and leadership behaviour. For each variable a description of the most important results is given.

Organization characteristics

The organization characteristics are measured by two scales; formalization and centralization, which together give an indication of the organization structure. A score of one suggests that employees experience the organization as highly formalized and centralized, while a score of two suggests that employees think the organization is not formalized or centralized. On average the employees perceive the organization structure as formalized (mean = 1.23) and less centralized (mean = 1.54). Of all employees 74.4% think that the organization has a lot of written rules and policies, 83.5% suggests that a manual is available with all rules and process descriptions, 82.6% suggests that written functional descriptions are available and at last 68.6% feel that their performance is kept up by letter. When asking employees if they experience a high level of centralization 54.3% do not experience this. The result of centralization has to be interpreted with care, since the dispersion of answers around the mean score is high (standard deviation = 0.50). The result of the variable centralization is ambiguous, since employees of the same business unit perceive the level of centralization differently. An explanation for this result could be that not all employees exactly understand the meaning of centralization and is interpreted differently. According to the theory, it is expected that when employees perceive the organization as highly formalized, they will also perceive the organization as highly centralized. Although this relationship is not the core focus of this study this relationship is analysed and included in Appendix H.

Characteristics of the work

When analysing the characteristics of work, the different scales can be divided into job resources and job demands. As already mentioned, skill opportunities, time autonomy, availability of information, support, autonomy, contact possibilities and organizing tasks are job resources, since the theory suggests they will have a positive influence on work stress. A score of one means that employees experience them and a score of two means employees do not experience them.

In general, most employees of the business unit 'Heat' of Essent experience almost all of the above mentioned job resources. First, most employees perceive that the organization provides opportunities to develop or improve skills (mean = 1.03). More than 90% of the employees say that their job requires a lot of capacities and creativity, and offers variety. The standard deviation is low (0.14). Second, when analysing time autonomy (mean 1.26 and standard deviation 0.39), 75.6% of the employees perceive that they have the opportunity to decide when to start and stop working and 74.1% perceive that they can decide when to take a day off. Third, an important outcome is the mean of the availability of information (1.43). The majority of employees' feel that information is available, but also a large group of employees suggest that information is not available. In particular employees perceive that information is not provided on time (62.1%), and that they have to wait till the information they need is available (62.1%), and information is not always correct (44.7%) and clear (44.2%). The standard deviation is 0.26. Fourth, most employees feel that they have the support of colleagues and supervisors while performing the job (mean = 1.25 and standard deviation = 0.24). Although all results on this scale suggest that the majority experience support in their work, 44.5% of the employees suggest that the daily supervision is not sufficient. Fifth, most employees have a sufficient level of

autonomy to perform the job (mean = 1.24 and standard deviation = 0.25). Employees feel that they have the opportunity to interrupt work if that is necessary (90.8%), the employee has the chance to decide how to perform the job (87.4%) and the employee is able to determine the sequence of task accomplishment (85.1%). In the sixth place, most employees perceive a lot of contact possibilities, since the mean score is 1.13 and the standard deviation is 0.19. Employees are able to discuss work with colleagues in their own department (98.9%); employees are able to fall back on colleagues (89.7%) and they are able to discuss their work with their manager (88.5%). At last, most employees feel that they have the opportunity to organize tasks (mean = 1.32 and standard deviation = 0.38). Employees are able to influence decisions of their work group or department (72.4%); they are able to discuss with other employees how the work can best be divided (66.7%) and they can discuss with other employees how tasks can best be scheduled (65.5%).

It can be concluded that most employees experience job resources in practice while performing their job. According to the theory, the job consists of physical, psychological, social and organizational aspects that will help employees to achieve job related goals, reduce job demands and stimulate personal growth and development.

When analysing the job demands, which are; job is appropriate to education and work experience, psychological effort, role conflict, role ambiguity, task requirements, problems arranging the work and responsibilities, some remarkable results occurred. First, employees felt that both education and work experience were appropriate to the job to a large extent (mean = 2.64 and 2.51). 79.3% Of the employees experience education fits the job and 67,4% of the employee experience work experience fits the job. The scores have to be interpreted with care, since the standard deviations are high (standard deviation = 0.73 and 0.76). These results suggest that when education and work experience fit the job, it will not cost the employees extra energy. Second, most employees feel that the job costs them psychological effort (mean = 1.24). Especially, on two items; the work requires to continually keep up with the commemorate of employees and the work requires a lot of attention, most employees agree (84%). The standard deviation is relatively high (0.33).

Third, the means of role ambiguity (1.67) and role conflict (1.59) suggest that most employees do not experience this in practice. Although the majority of employees does not experience role ambiguity and role conflict, the results suggest that not all employees agree with this. When analysing the answers to all of the items, most employees feel that they work on tasks that should be done differently (51.7%), many employees suggest that they have to cross a rule of a policy in order to carry out an assignment (48.3%) and employees receive incompatible requests from two or more people (44.8%). Although it is not the majority, it is still a large number of employees who experience this in practice. Another 50.6% of the employees think that no clear, planned goals and objectives exist for their job. According to the theory, role conflict and ambiguity occur when employees do not have adequate information about their job and role. This results in a general confusion about the appropriate objectives, a lack of clarity regarding expectations and a general uncertainty about the scope and responsibilities of the job. When relating the availability of information to role conflict and ambiguity, indeed a negative and significant relationship occurs (See Appendix H). Both standard deviations are high (0.28 and 0.30).

Fourth, most employees experience many requirements when performing tasks (mean = 1.3). Employees suggest they have to do a lot of work (79.3%) and they perceive their work as hectic (74.7%). The standard deviation is high (0.35). Fifth, employees experience problems in arranging their work (mean = 1.3). Most employees suggest that the work often goes in a different way than planned (79.3%) and during work often unexpected situations occur (75.9%). The standard deviation is high (0.30). The last job demand suggests employees experience responsibilities to a lower extent (mean 1.5). Employees feel that they take on the responsibilities for the work of other people (55.2%), the

work process (68.6%) and the performance of the department (56.3%). These responsibilities immediately influence the employees own work.

Based upon these descriptive results, it can be suggested most employees experience almost every job demand in practice. The jobs of employees contains physical, psychological, social and organization aspects that require sustained physical, and or psychological effort and are therefore associated with certain physiological or psychological costs.

The question used to analyse the relationship between organizational change and workload only applied to employees who experienced this. When a question was not applicable for an employee, he or she could go to the next question. When analysing the data, it became significant that most employees experienced a reorganization in the last two years (mean = 1.14). For some employees the department changed and for some this remained the same, because the mean score is 1.49. For most employees these changes did not lead to a decreasing number of jobs (mean =1.76) and all employees suggested that this did not lead to a decreasing workload (mean = 2.00). Most employees suggest that the workload increased (mean = 1,32), while the number of jobs did not increase (mean = 1.87). Most were not given another function as a result of the reorganization (mean = 1.59) and did not get different tasks (mean = 1.60). Most employees perceive that the extent to which they are able to work independently did not change due to the reorganization (mean = 2.50), but most employees did perceive that their responsibilities decreased (mean = 2.10). Finally, most employees think that they got more of the same tasks (mean = 1.26). The work became more standardized. All results have to be interpreted with care because all standard deviations are high. Besides, most questions were only filled in by half of the employees, since they were not applicable to them. These employees could go to the next question. According to these results it can be suggested that the organizational changes do not have a large influence on the perceived workload of employees. A group of employees exists who perceive a higher workload, no increasing number of jobs and a change in function due to these changes, but it is not the majority of employees.

Leadership Behaviour

Employees are asked, by filling in a yes or a no on 28 statements, which leadership behaviour applies to their manager. Most employees do not feel that their manager applies a laissez-faire leadership style (mean = 1.77). More than 70% of the employees do not agree on all items that indicate a laissez-faire leadership style. Managers of Essent 'Heat' do not apply a hands-off approach in practice. Since the standard deviation is 0.97, the dispersion of answers around the mean is high. Besides, most employees do not perceive their manager as a transactional leader (mean = 1.72). Most employees do not feel that their manager agrees on special benefits when employees perform well or that they are rewarded for their effort (65% – 85%). A possible explanation could be that managers feel that they cannot provide these rewards to employees, because the organization has implemented a standardized rewarding system for its employees. Also most employees do not receive any feedback about the mistakes made during accomplishing a task (64.7%). A possible explanation could be that managers do not have the time to analyse the work of employees into detail, because they are too busy themselves. In general, managers do not focus on task accomplishment in exchange for desirable rewards. The standard deviation of the transactional leadership style is relatively high (0.28).

Most employees think of their manager as a transformational leader (mean 1.44). Especially scores on the following items; the manager is someone who shows power and trust (52.9%), creates the feeling of working on an important mission or assignment (57.5%), keeps the morale high (59.5%), stimulates employees to solve problems on their own (81.4%), stimulates employees to think about the way he or she is doing things (63.2%) and asks employees to develop solutions when there are problems (80%) are high. Also scores on the last two items; a manager is someone who is honestly interested in the development of employees (71.1%) and takes into account personal well being (81.2%) are high. The standard deviation of the transformational leadership style is relatively high (0.30). Although the

results of the items are ambiguous, they suggest that the leaders of Essent 'Heat' are more focused on a transformational leadership style than on a laissez-faire and transactional leadership style.

4.3.2 Work stress

The second research question is developed to analyse to what extent employees experience work stress. The question is as follows:

Do employees of Essent 'Heat' experience work stress?

According to the theory, the variables intrinsic motivation and employee dedication together provide information about the perceived work stress. The results of both variables are described.

Intrinsic Motivation

Most employees of the business unit 'Heat' feel that they are intrinsically motivated (mean = 3.57 and standard deviation = 0.49). Most employees have the feeling of personal satisfaction when doing the job well (96,5%) and their opinion about themselves improves when doing the job well (98.8%). The standard deviation is high, but when taking this standard deviation into account employees remain motivated. It does not greatly change the mean score for intrinsic motivation . Employees find the content of the job interesting and enjoyable and it meets the needs and values of employees.

Employee Dedication

Employee dedication can be analysed one-dimensionally and three-dimensionally, by dividing employee dedication into vitality, dedication and absorption. Employees regularly perceive a positive, affective-cognitive feeling of uppermost satisfaction (mean = 2.99).

When analysing the three different dimensions, most employees perceive they are vital (mean = 3.10) and dedicated (mean = 3.19) more regularly than they perceive absorption regularly (mean = 2.70). Important results that give an indication of the vitality employees perceive are; 89.6% of the employees has a large mental elasticity at work and 94.2% of the employees always persist even when things are not working the way they planned. Notable results that reflect dedication are; 91.9% of the employees perceives his or her work as useful and worthwhile and 88.5% is enthusiastic about his or her job. When analysing absorption, 86.3% suggest that time flies while performing the job. Of the three dimensions, absorption has the lowest mean score (2.70). This result still suggests that employees perceive feelings of absorption almost regularly. It suggests that a larger group of employees filled in 'never' or 'sometimes' as answer possibility. Important outcomes which reflect absorption are; 58.1% of the employees never or sometimes has the feeling that work brings him/her into ecstasy and 58.6% do not or sometimes think it is difficult to release from work. The standard deviations of vitality (0.50) and dedication (0.60) are high, but do not change the mean score on both scales in a way that employees are not vital or dedicated anymore when taking these into account. The standard deviation of absorption is high (0.50) and has to be interpreted with care.

According to the theory, employee dedication is used to analyse the contrary of burnout. When scores would be very low on employee dedication, it could be suggested that employees face burnout complaints and perceive work stress. However, the descriptive results suggest that employees are both intrinsically motivated and dedicated to their job. Concluded can be that employees of Essent 'Heat' do not perceive work stress while performing the job.

4.4 Results on the hypotheses

The purpose of this study is to explain the relationship between the work environment and work stress. Research question three will be answered during this part of the chapter. The research question is defined as follows:

How does the perception of the work environment influence the perceived work stress of employees?

According to the theory, hypotheses are proposed to test the different relationships between the work environment and work stress. This part of the chapter provides the results on the proposed hypotheses and together provides answers to research question three.

The hypotheses will be tested by using a regression analysis or a multiple regression analysis method. A regression analysis is used to test a causal relationship between one independent variable and the dependent variable. Because the relationships of the model consist of multiple independent variables a multiple regression analysis is also used to explain these relationships. The stepwise method is used to test, according to statistical levels, which independent variables together explain the dependent variable. The R^2, Beta value and the p-value are important statistical levels that make an assessment of a causal relationship between the independent and dependent variable possible. The degree of explanation is reflected by this regression coefficient (R^2) and can take any value between 0 and +1. It measures the proportion of the variation in a dependent variable that can be explained statistically by the independent variable(s) (Saunders et. al., 2003). The Beta value provides information about the strength of the relationship between the independent and dependent variable. It also suggests whether the relationship is positive or negative. The Beta values lie between -1, 0 and +1, where a Beta of -1 is assessed as a perfect negative relationship, 0 as a perfect independence and +1 as a perfect positive relationship. All this information is only useful when the relationship is significant. A significance test will be done for each independent variable that will be added to the test. A p-value of 0.05 or lower suggests that the coefficient is unlikely to have occurred by chance alone. A higher value than 0.05 suggest that the regression coefficient could have occurred by chance alone.

4.4.1 Hypothesis 1

Hypothesis 1 suggests that intrinsic motivation is positively related to employee dedication. This relationship between intrinsic motivation and employee dedication is tested with a regression analysis, since only one independent variable exists. Employee dedication is analysed one- dimensionally and three-dimensionally, by dividing employee dedication into vitality, dedication and absorption. The regression analysis provided general support for hypothesis 1 (Table 4). Intrinsic motivation is positively related to the one-dimensionally measured employee dedication (B = 0.50). Employee dedication can be explained by intrinsic motivation for 24.5%. Intrinsic motivation is also positively related to the three dimensions of employee dedication; vitality (B = 0.35), dedication (B = 0.43) and absorption (B = 0.51). Vitality can be explained by intrinsic motivation for 12%, dedication can be explained by intrinsic motivation for 18.3% and absorption can be explained by intrinsic motivation for 25.6%. These results suggest that the content of the job meets the needs and values of employees, since the employees of Essent 'Heat' perceive both a high level of intrinsic motivation and dedication.

Indicator	Beta	R²
Employee Dedication		
Intrinsic Motivation	0.495**	0.245**
Vitality		
Intrinsic Motivation	0.347**	0.120**
Dedication		
Intrinsic Motivation	0.427**	0.183**
Absorption		
Intrinsic motivation	0.506**	0.256**

Table 4: Regression analysis of the relationship between intrinsic motivation and employee dedication
** p < 0.01

4.4.2 Hypothesis 2

Hypothesis 2 proposed that a negative relationship exists between the organization characteristics and the job resources employees experience in practice. Because the organization characteristics consist of two independent variables (formalization and centralization), both a regression analysis per variable is used and a multiple regression analysis is used to explain the causal relationships.

Predictors	Beta	R²
Skill Opportunities		
Formalization	0.698**	0.487**
Contact Possibilities		
Centralization	-0.249*	0.062*

Table 5: Regression analysis relationship between organization characteristics and characteristics of the work
* p < 0.05 ** p < 0.01

The regression analysis suggests that a significant positive relationship exists between formalization and the skill opportunities employees perceive (B = 0.70). The more rules and procedures the organization has, the more opportunities to develop or improve skills are experienced by employees. The skill opportunities employees perceive can be explained for 48.7% by the level of formalization. The second important outcome is the significant negative relationship between centralization and contact possibilities (B = -0.25). The contact possibilities employees perceive can be explained for 6.2% by the level of centralization. The regression analysis shows that formalization and centralization are not significantly related to the other job resources; time autonomy, availability of information, support, autonomy and organizing tasks, although most relationships were negative.

Since the regression analysis only analyses the relationship between one independent variable and the dependent variable, it is necessary to test whether this relationship also holds when both independent variables formalization and centralization are added to a multiple regression analysis. Results of the multiple regression analysis show that only the relationship between formalization and skill opportunities remained significant (Table 6).

Predictors	Beta	R²
Skill opportunities		
Formalization	0.697**	0.486**
Centralization	0.000	

Table 6: Multiple regression analysis relationship between organization characteristics of characteristics of the work
* p < 0.05 ** p < 0.01

According to the theory, it was expected that the more an organization is formalized and centralized the less job resources an employee experiences. The results do not support this. While employees perceive the organization as formalized, they also perceive opportunities to develop and improve their skills. Only centralization and contact possibilities are negatively related, but this relationship does not hold when using a multiple regression analysis. Of all job resources only one of them is significantly related to one of the organization characteristics. However, this relationship is positive instead of negative. These results do not provide general support for hypothesis 2.

4.4.3 Hypothesis 3

Hypothesis 3 suggests that a positive relationship exists between the job resources and intrinsic motivation. To explain the relationship between the job resources and intrinsic motivation, both a regression analysis and a multiple regression analysis is used. Table 7 presents the results of the regression analysis.

Indicator	Beta	R²
Intrinsic Motivation		
Time Autonomy	0.301**	0.091**
Availability of Information	0.249*	0.062*
Support	0.332**	0.110**
Contact Possibilities	0.218*	0.047*
Organizing Tasks	0.442**	0.195**

Table 7: Regression Analysis relationship between job resources and intrinsic motivation
* p < 0.05 ** p < 0.01

The regression analysis demonstrates that five job resources have a significant positive relationship with intrinsic motivation. The more these job resources are experienced by employees, the more intrinsically motivated they are. Of these relationships, support and organizing tasks are the job resources that explain most of the intrinsic motivation perceived by employees. The results present that 11% of the intrinsic motivation can be explained by support and 19.5% of the intrinsic motivation can be explained by the organizing tasks employees experience. Because multiple job resources exist, a multiple regression analysis is used to examine which independent variables together explain the dependent variable. The most important results are presented in table 8.

Indicator	Beta	R²
Intrinsic Motivation		
Support	0.387**	0.190**
Organizing Tasks	0.268**	0.259**

Table 8: Multiple Regression Analysis relationship between job resources and intrinsic motivation
** p < 0.01

The multiple regression analysis shows that support and organizing tasks, together explain 25.9% of the perceived intrinsic motivation of employees. These results suggest that hypothesis 3 can be partly supported. The regression analysis demonstrated that time autonomy, availability of information, support, contact possibilities and organizing tasks are all important in explaining the perceived intrinsic motivation of employees. When adding all job resources to a multiple regression analysis only the relationships between support, organizing tasks and intrinsic motivation remained. These two job resources explain 25.9% of the intrinsic motivation. That is more than adding each job resource to the regression analysis independently. The results suggest that both the level of support and organizing tasks are most important in explaining intrinsic motivation.

4.4.4 Hypothesis 4

Hypothesis 4 proposed that the job demands are negatively related to intrinsic motivation. When a job was too demanding this would negatively influence intrinsic motivation. Both the regression analysis and multiple regression analysis suggested that one negative and significant relationship exists between the two variables. The more role conflict is perceived the less intrinsically motivated employees are. No other negative and significant relationships occurred. Therefore hypothesis 4 cannot be supported. The majority of job demands is not related to intrinsic motivation. The results suggest that the level of intrinsic motivation is not determined by the job demands.

Indicator	Beta	R²
Intrinsic Motivation		
Role Conflict	-0.240*	0.058*

Table 9: Multiple Regression Analysis relationship between job demands and intrinsic motivation
* p < 0.05

4.4.5 Hypothesis 5

According to the theory it is expected that the organization characteristics are not only related to the characteristics of the work, but also influence leadership behaviour. Of all leadership behaviours it is expected that only the transactional leadership style is positively and significantly related to formalization and centralization. Hypothesis 5 is proposed to test this relationship. Both a regression analysis and multiple regression analysis are used to test this relationship. The regression analysis suggests that a positive relationship exists between centralization and the transactional leadership style. The significant relationship suggests the more decisions made at the top of the organization, the more the employees perceive their managers as transactional leaders (B = 0.27). The relationship between formalization and the transactional leadership style is not supported, because of its insignificant and negative relationship (Table 10). According to the means of both variables, centralization and transactional leadership style, employees experience the organization not as highly centralized and do not perceive their managers as transactional leaders. The transactional leadership style can be explained for 7% by the level of centralization. The results suggest that hypothesis 5 can be partly supported.

Predictors	Beta	R^2
Transactional leadership style		
Formalization	-0.028	
Centralization	0.265*	0.070*

Table 10: Multiple Regression Analysis relationship between characteristics of the work and leadership behaviour
* $p < 0.05$

4.4.6 Hypotheses 6 and 7

Hypotheses 6 and 7 are proposed to test the relationship between job resources or job demands and the laissez-faire leadership style. These relationships are tested with a multiple regression analysis. First, hypothesis 6 suggests that a negative relationship exists between job resources and the laissez-faire leadership style. Between the job resources, support (B = -0.37) and contact possibilities (B = -0.24) and the laissez-faire leadership style, a negative and significant relationships exist. Table 11 summarizes the results. Together the job resources explain 22.9% of the perceived laissez-faire leadership style. Since both job resources are negatively related to the laissez faire leadership style hypothesis 6 is supported to a small extent. Main reason for supporting the hypothesis to a small extent is that not all job resources are negatively related to the laissez-faire leadership style.

Indicator	Beta	R^2
Laissez Faire Leadership Style		
Support	-0.373**	0.171**
Contact Possibilities	-0.244*	0.229*

Table 11: Multiple Regression Analysis relationship between job resources and laissez faire leadership style
* $p < 0.05$ ** $p < 0.01$

According to the theory, it is suggested that employees will experience more job demands when a manager applies a laissez-faire leadership style. Hypothesis 7 is proposed to test this positive relationship. Table 12 presents the results. This result suggest that a positive relationship between role conflict and the laissez faire leadership style exists (B = 0.34). The more employees experience role conflict in practice, the more a laissez-faire leadership style is perceived. The laissez-faire leadership style can be explained for 11.7% by the perceived role conflict of employees. Because role conflict is the only job resource that is significantly and positively related to the laissez-faire leadership style, hypothesis 7 is supported to a small extent.

Indicator	Beta	R^2
Laissez Faire Leadership Style		
Role Conflict	0.342**	0.117**

Table 12: Multiple Regression Analysis relationship between job demands and laissez faire leadership style
* $p < 0.05$ ** $p < 0.01$

4.4.7 Hypothesis 8

The theory also suggested that the job resources would be negatively related to the transactional leadership style. Hypothesis 8 is proposed to test this relationship. Results do not support this hypothesis, since no significant and negative relationship occurred. The result suggests that the transactional leadership style is no important determinant of the perceived job resources. The results are included in Appendix I.

4.4.8 Hypothesis 9

Hypothesis 9 proposed that a positive relationship exists between the job resources and the transformational leadership style. Managers who apply this style are able to provide job resources to employees. Results of the multiple regression analysis suggest the more support (B = 0.30), organizing tasks (B = 0.35) and information is available (B = 0.25), the more employees perceive their manager as a transformational leader. A positive and significant relationship exists between these job resources and the transformational leadership style (Table 13). Together, the transformational leadership style can be explained for 41.4% by these job resources. Hypothesis 9 is partly supported since three of all job resources support the hypothesis.

Indicator	Beta	R^2
Transformational Leadership Style		
Support	0.302**	0.249**
Organizing Tasks	0.348**	0.371**
Availability of Information	0.248*	0.414*

Table 13: Multiple Regression Analysis relationship between job resources and the transformational leadership style
* $p < 0.05$ ** $p < 0.01$

4.4.9 Hypotheses 10, 11 and 12

When analysing the relationship between leadership behaviour and intrinsic motivation, three different hypotheses are developed according to the theory. Hypotheses 10 and 11 suggest that the laissez-faire leadership style and the transactional leadership style are both negatively related to intrinsic motivation. Both styles are unable to positively influence intrinsic motivation. The results of the regression analysis and multiple regression analysis do not provide support for hypothesis 10 and 11. The results are included in Appendix I.

To the contrary, hypothesis 12 suggests that a positive relationship exists between the transformational leadership style and intrinsic motivation. The result supports this relationship, since the relationship is significant and positive (Table 14). When employees perceive their manager as applying a transformational leadership style, it will positively influence their intrinsic motivation towards the job (B = 0.38). The intrinsic motivation employees perceive is explained for 14,8% by the transformational leadership style a manager applies.

Indicator	Beta	R^2
Intrinsic Motivation		
Transformational Leadership Style	0.384**	0.148**

Table 14: Multiple Regression Analysis of the relationship between leadership behaviour and intrinsic motivation
** $p < 0.01$

4.4.10 Hypotheses 13, 14 and 15

According to the conceptual research model it is expected that the needs employees have according to their work environment will influence the relationship between the work environment and intrinsic motivation. As well as this, the needs of employees will influence the relationship between intrinsic motivation and employee dedication. The partial correlation test is used, to test this influence of the third or controlling variable on the original relationship. The proposed hypotheses make it possible to answer research question four, which is defined as follows:

How do the characteristics of employees influence the original relationships between the work environment and work stress?

Hypothesis 13 is proposed to test to what extent the needs of employees influence the relationship between the characteristics of work and intrinsic motivation. Hypothesis 14 is proposed to test to what extent the needs of employees influence the relationship between leadership behaviour and intrinsic motivation. Hypotheses 13 and 14 cannot be supported, since the needs of employees do not interfere the original relationship to a large extent, or the interference is not significant.

Hypothesis 15 is proposed to test to what extent the needs of employees, influence the relationship between intrinsic motivation and employee dedication. When analysing the interference of needs on the original relationship between intrinsic motivation and employee dedication, some remarkable results occurred. Table 15 presents the correlation coefficient of the relationship between the original variables, and presents how this correlation coefficient changed when adding the third variable. In all cases, the needs employees have weaken the original relationship between intrinsic motivation and employee dedication.

Relationship	Correlation Coefficient
Intrinsic Motivation – Employee Dedication	0.495**
Controlled for Needs	0.445**
Intrinsic Motivation – Vitality	0.347**
Controlled for Needs	0.282**
Intrinsic Motivation – Absorption	0.506**
Controlled for Needs	0.456**

Table 15: Partial Correlations of the influence of needs on the relationship between intrinsic motivation and employee dedication
** $p < 0.01$

When analysing the relationship between intrinsic motivation and employee dedication, 4.8% can be explained by the influence of the needs that employees perceive. The needs of employees explain 4.4% of the relationship between intrinsic motivation and vitality, and 4.9% of the relationship between intrinsic motivation and absorption. The influence of the needs of employees on the original relationships is significant and weakens the original relationships. Only the interference of the needs of employees on the original relationship between intrinsic motivation and dedication is too small. Since the majority suggest the needs of employees influence the original relationships, hypothesis 15 is supported.

Other moderating variables

The questionnaire also consisted of some personal questions that made an analysis of the characteristics of employees and characteristics of their employment relationship/contract possible. These characteristics can be used as a third variable influencing the original relationships. Although no hypotheses are proposed to test this, some interesting results occurred. All questions providing general information about employees are added to the partial correlation test (See Appendix D).

Employees are asked to which management level they report. When adding this characteristic as a control variable to the original relationship between job resources and intrinsic motivation, interesting results occurred.

Relationship	Correlation Coefficient
Time Autonomy – Intrinsic Motivation	0.309*
Controlling for Management Level Reporting	0.262*
Support – Intrinsic Motivation	0.338*
Controlling for Management Level Reporting	0.268*
Organizing Tasks – Intrinsic Motivation	0.436**
Controlling for Management Level Reporting	0.356**

Table 16: Partial Correlations of the influence of management level reporting on the relationship between job resources and intrinsic motivation * $p < 0.05$ ** $p < 0.01$

When analysing the data it suggests that the management level to which an employee reports, explains 2.9% of the original relationship between time autonomy and intrinsic motivation. The management level to which an employee reports explains 4.3% of the original relationship between support and intrinsic motivation. And at last, the management level to which an employee reports explains 6.4% of the original relationship between organizing tasks and intrinsic motivation. In all cases, the management level to which an employee reports weakens the original relationship.

The management level to which an employee reports also influences the original relationships between intrinsic motivation and employee dedication.

Relationship	Correlation Coefficient
Intrinsic Motivation – Employee Dedication	0.499**
Controlling for Management Level Reporting	0.433**
Intrinsic Motivation – Vitality	0.350**
Controlling for Management Level Reporting	0.280**
Intrinsic Motivation – Dedication	0.445**
Controlling for Management Level Reporting	0.388**
Intrinsic Motivation – Absorption	0.503**
Controlling for Management Level Reporting	0.438**

Table 17: Partial Correlations of the influence of management level reporting on the relationship between intrinsic motivation and employee dedication. $* p < 0.05$ $** p < 0.01$

The management level to which an employee reports, explains 6.5% of the relationship between intrinsic motivation and employee dedication. The original relationship between intrinsic motivation and vitality, dedication and absorption, can be explained by the management level to which an employee reports for 4.4%, 5% and 5.6%. In all cases the management level to which an employee reports weakens the original relationship.

It is not only the management level to which an employee reports that weakens original relationships, but also the highest finished education influences the original relationships. First, the relationship between the job resource organizing tasks and intrinsic motivation is influenced by the highest finished education. The highest finished education weakens the original relationship. Of the relationship between organizing tasks and intrinsic motivation, 7.1% can be explained by the highest finished education of employees.

Finally, the highest finished education also influenced the original relationships between intrinsic motivation and employee dedication.

Relationship	Correlation Coefficient
Intrinsic Motivation – Employee Dedication	0.495**
Controlling for Highest Finished Education	0.424**
Intrinsic Motivation – Vitality	0.347*
Controlling for Highest Finished Education	0.274*
Intrinsic Motivation – Dedication	0.427**
Controlling for Highest Finished Education	0.359**
Intrinsic Motivation – Absorption	0.506**
Controlling for Highest Finished Education	0.442**

Table 18: Partial Correlations of the influence of highest finished education on the relationship between intrinsic motivation and employee dedication. $* p < 0.05$ $** p < 0.01$

The results suggest that the relationship between intrinsic motivation and employee dedication can be explained by the highest finished education for 7.4%. The original relationships between intrinsic motivation and vitality, dedication and absorption, can be explained by the highest finished education for 5%, 5.5% and 6.7%. The highest finished education weakens the relationships.

In general, the results suggest that the original relationships can be different for the different groups of employees within the organization. Especially when employees are divided by the management level they report to and the highest finished education.

4.5 Suggestions developed by the employees of Essent 'Heat'

Employees had the chance to think of some interventions, which can be implemented at the business unit 'Heat' of Essent to reduce the perceived work stress. All of these suggestions are included in Appendix J. The interventions provide an answer to research question five:

Which suggestions can be given to reduce the perceived work stress of employees at Essent 'Heat'?

The suggestions are ranked from most to less often mentioned by employees.

1. Many employees suggest that project management within the business unit has to be improved. Employees strive for improving quality instead of quantity. Less ambitious goals have to be developed and management has to improve priority setting. Besides, when working on a project the preparation and implementation have to be improved.

2. Employees suggest that structure, work processes and procedures can be simplified, clarified and improved.

3. Many employees suggest that the business unit has to hire more personnel because of the organizational changes. When hiring personnel it is preferred not to hire temporary employees because they cost too much time and leave before the work is finished.

4. Employees suggest that cooperation can be improved. It is not necessary for everybody to become involved in decision-making and working on projects. More efficiency is needed. Both cooperation with other- and within departments has to be improved. Goals of the different departments have to be coordinated.

5. Leadership has to be improved. Managers have to coordinate their activities and strive for the same goals. They have to create more clarity and take their own responsibilities. The Management Team has to present more consensus.

6. Roles within the organization have to be clarified. Of importance is that employees do not report to multiple people, one employee is responsible for one task instead of multiple employees, a better division of responsibilities exists and expectations have to be communicated.

7. Employees suggest that communication has to be improved. Communication has to be more effective and efficient. Reduce the level of information but improve the relevance of information that is needed to perform the job. Besides, meetings have to be organized more efficiently and effectively.

8. Employees suggest that the business unit has to strive for a perfect match between the function and knowledge and skills of employees. The outflow of employees has to be reduced (especially that of temporary employees).

9. The business unit has to focus more on the customer and the market instead of the organization. Too much time is spent on taking decisions and formalities. A more efficient and effective way of working is needed to meet the needs of customers.

10. The business unit has to better facilitate working at flexible locations. Employees suggest that less time could be spent on travelling, meetings could be organized through videoconferences. Working at home has to be better facilitated.

11. Employees suggest focus has to be more on outcomes and goals instead of the work methods. Employees prefer to coordinate them with the other departments.

12. The business unit has to work more bottom-up instead of top-down because employees think management should listen more to personnel at the operational levels.

13. Employees suggest that the business unit's software could be improved to support employees to perform their job.

14. Employees suggest that the culture of the business unit can be strengthened. Trust between colleagues and supervisors, and consensus have to be improved.

5. Discussion

The main purpose of this study is to analyse the influence of the work environment on the perceived work stress. Based upon the theory, hypotheses, research questions and a conceptual research model have been developed. In the previous chapter, answers are given to the research questions and the hypotheses are tested. Together the results provided an explanation of the conceptual research model. It is important is to analyse to what extent these results are comparable with the theory about work stress. This chapter will provide information about this comparison and explains the results that are not consistent with the theory.

5.1 Relationships with the organization characteristics

According to the conceptual research model it was expected that the organization characteristics would both influence the characteristics of the work and leadership behaviour.

A negative relationship was expected, between the organization characteristics and the job resources provided to employees (hypothesis 2). Although the theory suggested that the more an organization is formalized and centralized, the less job resources were perceived by employees, the results of this study did not support this. On the contrary, a positive relationship occurred between formalization and skill opportunities. No other negative and significant relationships existed. Since these results did not support the hypothesis, it can be suggested that the organization characteristics do not determine the perception of the job resources.

According to the theory, it was expected that one significant positive relationship would exist between the organization characteristics and the transactional leadership style (hypothesis 5). The results of this study partly confirmed this relationship, since a positive relationship between centralization and the transactional leadership style occurred. No positive and significant relationship existed between formalization and the transactional leadership style. The results suggest that the organization characteristics are not of significant importance in explaining the transactional leadership style.

Both results suggest that organization characteristics do not determine the characteristics of the work and leadership behaviour. One explanation for these conflicting results is the sample size of this study. Other studies used a larger sample size and multiple organizations to study the influence of the organization characteristics on the characteristics of the work and leadership behaviour. Besides, this study only focused on formalization and centralization to study the organization characteristics. It could be that other studies used more indicators of the organization characteristics. For example, the theory about the job modification framework of Oldham & Hackman (1981) also included size and hierarchical levels as important indicators and the model of Van Breukelen and Van Eijbergen (1995) also included goals, size and culture to explain the organization characteristics. Together all the indicators could result in a more reliable and significant relationship between the organization characteristics and the characteristics of the work and leadership behaviour. When including more indicators of the organization characteristics, more hypotheses could be proposed according to the theory and could be tested in practice.

5.2 Relationships characteristics of work and leadership behaviour

According to the theory it was expected that four different relationships would exist between the characteristics of the work and leadership behaviour. First, it was expected that the laissez-faire leadership style would be negatively related to the job resources (hypothesis 6). The results did not provide support for the hypothesis to a large extent and suggest that the perception of job resources is not influenced by the laissez-faire leadership style. Although a manager applies a laissez-faire leadership style, employees may still perceive job resources.

Second, it was expected that the laissez-faire leadership style would be positively related to the job demands (hypothesis 7). The more a hands-off approach was applied by managers, the more job demands would be perceived by employees. However, the results suggest that the majority of the job demands are not positively and significantly related to the laissez-faire leadership style.

Third, based upon the theory it was expected that a negative relationship would exist between the transactional leadership style and the job resources (hypothesis 8). The results did not support this, since no significant and negative relationship occurred. This leadership style does not determine the extent to which employees perceive job resources in practice.

Fourth, the theory suggested that a positive relationship exists between the transformational leadership style and the perceived job resources (hypothesis 9). The results of this study partly supported this, since several job resources were positively related to the transformational leadership style.

When explaining these results it can be suggested that the leadership style does not determine the extent to which employees perceive job demands. Regardless of the leadership style applied by a manager, a job can be demanding or not. The results also suggest that the perceived job resources are not determined to a large extent by applying a certain leadership style. However, managers who apply a transformational leadership style are able to influence the perception of job resources positively. This is supported by Bakker (2003); he suggests that only this leadership style is effective and important in explaining employee dedication, because this style takes care of providing a sufficient level of job resources to employees to meet the job demands (Bakker, 2003). Other styles are not able to significantly influence the job demands or job resources. An explanation for the fact that only three job resources are positively related to the transformational leadership style is the sample size. It is expected that a larger sample size would result in more job resources that are positively related to this leadership style.

5.3 Relationships characteristics of the work and intrinsic motivation

According to the theory it was expected that the job resources would be positively related to intrinsic motivation (hypothesis 3) and the job demands would be negatively related to intrinsic motivation (hypothesis 4).

The former relationship is confirmed by the results of this study and support the theory about this relationship. The more job resources employees perceive, the more intrinsically motivated they are to perform the job. According to Bakker et. al. (2003) and Schaufeli & Bakker (2003), the availability of sufficient job resources results in more motivated and dedicated employees and they are willing to help colleagues.

The latter relationship is not confirmed by the results of this study. It was expected that when employees perceive a lot of job demands, this would result in less intrinsically motivated employees. However, the results suggest that the extent to which employees are intrinsically motivated is not determined by the perceived job demands. Only one significant negative relationship between role conflict and intrinsic motivation occurred. Since this is not the majority it can be suggested that job demands are not related to intrinsic motivation. An explanation for this result could be that the perception of work is a consequence of two different processes; the energy process and the motivational process. Bakker (2003) suggests that high job demands influence the energy reserves negatively and may eventually result in a perceived strain. When employees experience overload, their body may continually face problems of exhaustion, poor health and feelings of incompetence (Bakker, 2001). The motivational process suggests that a lack of job resources the accomplishment of job related goals and this will lead to frustration and failure. The assumptions of the job resources and job demands model of Bakker (2003) support this. Based upon this comparison with the theory, the results can be explained by the fact that job resources and job demands do not influence the same dependent variables.

5.4 Relationship leadership behaviour and intrinsic motivation

According to the theory, it was expected that three different relationships would exist between leadership behaviour and intrinsic motivation. First, it was expected that the laissez faire leadership style would be negatively related to intrinsic motivation (hypothesis 10). However, the results of this study did not provide support for this expectation. Second, it was expected that the transactional leadership style would also be negatively related to intrinsic motivation (hypothesis 11). Results again did not provide support for this expectation. Finally, a positive relationship was expected between the transformational leadership style and intrinsic motivation (hypothesis 12). Results support the existence of a positive relationship between these two variables. An explanation for these results is that intrinsic motivation is not influenced by leadership behaviour, except for the transformational leadership style. Only the transformational leadership style is able to influence intrinsic motivation. Bass (1985) & Burns (1978) support this by defining transformational leadership in terms of the leader's motivational effect on followers. These researchers suggest employees respond negatively to a laissez-faire leadership style and transactional leaders seek to motivate subordinates by appealing to their own self-interest and focusing on the exchange process. These researchers support that the laissez-faire and transactional leadership style are not able to influence intrinsic motivation. An explanation could be that these two styles have an influence on other indictors of work stress or employee reactions.

5.5 Relationship intrinsic motivation and employee dedication

Two variables that are important indicators of work stress are intrinsic motivation and employee dedication. According to the theory it was expected that intrinsic motivation and employee dedication are positively related to each other. The results of this study support this expectation. The results suggest that the content of the job meets the needs and values of employees, since most employees are intrinsically motivated. This feeling of intrinsic motivation positively influences employee dedication. Employees perceive a positive, affective-cognitive situation of uppermost satisfaction that is characterized by vitality, dedication and absorption (Schaufeli & Bakker, 2001). The results suggest employees do not perceive any work stress. This is supported by the absence registration of 2008. The percentage of absence through illness is 2,58% in 2008. On average employees report illness 1.19 times a year. When comparing this with other business units of Essent the numbers are very low. The covering business unit Value Added Services presents a percentage of 4.4%. It is expected that when

employees perceive a high level of work stress, the percentage of absence through illness would also be higher.

5.6 Influence of the employee characteristics

According to the theory the different needs and values of employees are expected to be important in explaining the relationships between the work environment and work stress. It was expected that the needs and values of employees would interfere two different relationships of the conceptual research model. First, it was expected that the needs and values of employees would interfere with the relationship between the characteristics of the work, leadership behaviour and intrinsic motivation. However, results of this study did not support this expectation. Moreover, the needs and values of employees are not of importance in explaining the relationship between the work environment and intrinsic motivation.

Second, it was expected that the needs and values of employees would interfere the original relationship between intrinsic motivation and employee dedication. The results of this study did provide support for this expectation. The results suggest that the needs and values employees have according to their work environment are of little importance in explaining the relationship between intrinsic motivation and employee dedication.

An explanation could be the scales used to analyse the different needs and values of employees. The scales used for this study analysed which needs and values employees have according to their work environment. They did not analyse to what extent several needs and values are satisfied. When analysing the theory about motivation, it suggests that when the benefits meet the needs and values of employees this will result in an increased employee satisfaction (Kluytmans, 2001). This study makes it possible to suggest that the work environment meets the needs and values of employees, since it results in high intrinsically motivated and dedicated employees. The results make it also possible to suggest which needs and values are important to employees. It is not possible to analyse to what extent different needs and values are satisfied and how this interferes the original relationships. Otherwise, better advice could be given about the needs and values of employees, which have to be satisfied in order for intrinsic motivation and employee dedication to occur. The scales used do not provide this information and this could explain why they do not seem to matter in explaining the original relationships.

6. Conclusion

The central research goal of this study is explaining the increased perceived workload of employees working at the business unit 'Heat' of Essent by focusing on the concept of work stress. Based upon a first analysis of the literature and interviews with employees of Essent 'Heat', the central research goal of this study is to explain the relationship between the work environment and work stress. The organization characteristics, the characteristics of the work, leadership behaviour and employee characteristics are analysed to explain work stress. Intrinsic motivation and employee dedication are used as indicators of work stress. This chapter will provide the main conclusions based upon the central research question and evaluate the extent to which the central research goal is achieved. Finally, information about the weaknesses of this study and recommendations for future will be provided. This chapter will provide the most important conclusions of this study.

6.1 Evaluation of the central research question

The main reasons for doing research about work stress at the business unit 'Heat' of Essent, were the results of the employee satisfaction survey carried out in 2008. These results showed that 67% of the employees were facing an increased workload. To gain a better understanding of the causes and effects and implement interventions to solve the problem, it was necessary to study this. An analysis of the literature and interviews with employees of Essent 'Heat' suggested that it was important to focus on the relationship between the work environment and work stress. The perceived workload is an indicator of this work environment and influences the perceived work stress. An initial analysis of the literature resulted in the following central research question:

How do employees perceive the work environment at Essent 'Heat' and how does this influence the perceived work stress of employees?

While the answer to this research question has already been given in chapters four and five, a short summary of this answer will be provided in this chapter. This study provided a clear picture of the perception employees have about their work environment. Analysis of the organization characteristics suggested that employees perceive their organization as highly formalized and less centralized. A lot of written rules and procedures exist to coordinate the different activities. However, employees do not perceive that decisions are only made at the top of the organization. While the theory suggests that when an organization is highly formalized it is also highly centralized, the results did not support this (Hackman & Oldham, 1981). When analysing the characteristics of the work, employees perceive both a lot of job demands and job resources while performing their tasks. When analysing the job demands, employees suggest that education and work experience fit the job, the job costs them psychological effort, consists of a large amount of work and the tasks require a lot of effort of employees and employees have problems organising their tasks. Finally, employees perceive responsibilities to a smaller extent. While most employees do not perceive role conflict or role ambiguity while performing the job, some results are remarkable. A large group of employees suggest that they work on tasks that should be done differently, have to break policy rules in order to carry out an assignment and receive incompatible requests from two or more people. The majority of employees suggest that no clear, planned goals and objectives exist for their job. When analysing the job resources, employees suggest that they perceive the opportunity to develop and improve skills, experience time autonomy, autonomy, the opportunities to contact colleagues or managers to perform their job or solve problems and they experience when organizing tasks. While employees also suggest that they perceive a sufficient level of support and suggest that information is available, some remarkable results exist. First, a large group of employees suggests that the daily support is not good. Second, employees

perceive that information is not always on time and is not always correct and clear. The theory suggests that when information is not adequate this may result in a higher level of role ambiguity and conflict (Cox, 1993). This study supports this relationship. The results suggest that the job requires sustained physical and or psychological effort and is therefore associated with certain physiological or psychological costs. However, the large amount of perceived job resources is functional in achieving job related goals, stimulating personal growth and development and reducing job demands. Together, these job resources are able to reduce the associated psychological and physiological costs of the job demands. An analysis of the organizational changes and its influence on workload suggests that these changes did not have a major influence on the perceived workload, especially because most questions were not applicable to 50% of the employees. Finally, when analysing leadership behaviour, most employees suggest that their manager applies a transformational leadership style. Employees do not perceive that their manager applies a laissez-fair or transactional leadership style. Managers do not provide a special benefit or a reward for good performance and do not provide feedback about the mistakes made by employees.

An analysis of the perceived work stress suggests that most employees perceive a high level of intrinsic motivation and employee dedication. Since employee dedication measures the contrary of burnout, it can be suggested that employees do not perceive work stress. Although employees perceive high job demands this does not negatively influence the level of perceived work stress. The results can be supported by the absence registration of employees in 2008. On average employees announced absence through illness 1.19 times a year and the percentage of absence through illness in 2008 was 2.58%. This suggests that not many employees take time off because of illness. Plus not all of these cases of absence are because of the perceived work stress. It can be concluded that while Essent 'Heat' suggested that their employees perceive a high level of work stress, this study does not support this.

This descriptive analysis of the results does not provide information about the different relationships. Chapters four and five already explained these relationships in more detail, but a short summary will be given before the main conclusions of this study are provided. First, it was expected that intrinsic motivation would be positively related to employee dedication (hypothesis 1). This study provides support for this relationship. The more employees are intrinsically motivated, the more they are dedicated to their work. Both are indicators of work stress, since a high score suggests employees do not perceive work stress and a low score suggests employees do perceive work stress. Second, the results examined that the organization characteristics are not important in determining the characteristics of the work and leadership behaviour (hypothesis 2 & 5). Third, an analysis of the relationship between the characteristics of the work and intrinsic motivation suggested that only a positive relationship between the job resources and intrinsic motivation exists (hypothesis 3). In particular, the job resources, support and organizing tasks remain very important when explaining intrinsic motivation. However, time autonomy, availability of information and contact possibilities were also assessed as important to explain intrinsic motivation. Only one negative and significant relationship between a job demand and intrinsic motivation exists. The more role conflict exists, the less employees are intrinsically motivated. To increase intrinsic motivation organizations have to reduce the level of role conflict. But of more importance, the majority of job demands is not significantly and negatively related to intrinsic motivation (hypothesis 4). Fourth, only one positive and significant relationship exists between the job resources and the transformational leadership style (hypothesis 9). In particular, it are the job resources support, organizing tasks and the availability of information that are positively related to the transformational leadership style. Analysis of the relationship between the characteristics of the work and the laissez-faire leadership style resulted in slightly supported hypotheses. The more a manager applies a laissez fair leadership style the less support and contact possibilities an employee experiences (hypothesis 6). Besides, the more a manager applies a laissez faire leadership style the more role conflict an employee perceives (hypothesis 7). Still the majority of the characteristics of the work are not significantly related to this leadership style. No negative and significant relationship between the transactional leadership style

and the job resources exists. Fifth, when analysing the relationships between leadership behaviour and intrinsic motivation, only the transformational leadership style was positively related to intrinsic motivation (hypothesis 12). No relationships exist between the laissez-faire/transactional leadership style and intrinsic motivation (hypotheses 10 & 11). Finally, it is expected that the needs and values of employees would have a moderating effect on the original relationships between the work environment and work stress. Only a moderating effect occurred between the intrinsic motivation and employee dedication (hypothesis 15). The needs and values of employees weaken the original relationships. These needs and values do not interfere the original relationships between the characteristics of the work/leadership behaviour and intrinsic motivation (hypothesis 13 & 14).

6.2 Main conclusions

Based upon the most important results of this study four main conclusions could be developed.

First, the descriptive analyses of work stress provide some important information. When analysing the descriptive results of this study, it can be concluded that employees of Essent 'Heat' do not perceive work stress. An analysis of the intrinsic motivation and employee dedication suggest most employees perceive a high level of intrinsic motivation and employee dedication. While the employee satisfaction survey carried out in 2008 suggested that most employees perceived a high level of work stress, this study does not support this. Also the percentage of absence through illness, which was 2.58% in 2008, supports this conclusion. A small number of employees reported an absence through illness in 2008. Plus not all of these absences were an effect of a high level of work stress. The covering business unit Value Added Services presents a percentage of 4.4%. While Essent expected that there would be a problem, this study did not support this. It can be concluded that it is an unfounded perception of employees, since it is not supported by the most important indicators of work stress.

Second, according to both the descriptive and explanatory results of this study, several areas of attention can be defined. These areas of attention are based upon the results of the variables; job resources, job demands and leadership behaviour. When analysing the job resources, the results showed that employees' perceived information is not always available to them. In particular, the timing of information and the clarity and adequacy of information could be improved. Employees also suggest that the daily supervision is not good. Improving the daily supervision is another area of attention that occurred. When analysing the job demands, the majority of employees perceived the job demands in practice. Although it does not negatively influence intrinsic motivation or employee dedication it is important to pay attention to these job demands. At this moment it does not result in a perception of work stress, but when the perception of job demands persists it may result in an increased level of perceived work stress in the future. The organization has to pay attention to reducing the psychological effort, task requirements and the problems arranging the work. The organization can reduce those job demands to safeguard the fact that it might lead to an increased perceived work stress in the future. Another area of attention is to reduce the level of role conflict and role ambiguity. Especially, the extent to which clear, planned goals and objectives exist for the jobs, working on tasks that should be done differently, crossing a rule of a policy in order to carry out an assignment and receiving incompatible requests from two or more people, can be improved. Most employees perceived that their manager does not apply a transactional leadership style. Since the transactional leadership style and transformational style are rather complementary than contrary to one another, and are both important to reduce the perceived work stress, it is necessary to focus more on this former leadership style.

Third, employees are also asked to think of ways of reducing the perceived work stress. Remarkably these solutions fit the areas of attention that arose from the descriptive results. The suggestions employees made are mainly focussed on developing more clarity about structure, work process and

procedures, improving project management, focusing more on goals and results and improving cooperation with and within departments. Employees also suggest that managers should focus more on these goals and provide more clarity about responsibilities and expectations. Roles could be better clarified. It can be concluded that the suggestions perfectly suit the areas of attention that were mentioned based upon the descriptive results.

A fourth important conclusion of this study is based upon the explanation of the conceptual research model. The results suggest that both job resources and the transformational leadership style are important in explaining the perceived work stress. Job resources positively influence intrinsic motivation. Besides, the transformational leadership style positively influences the job resources and intrinsic motivation employees perceive. When Essent wishes to positively influence intrinsic motivation and dedication of employees, the organization must pay attention to the extent to which job resources are provided and managers should focus more on a transformational leadership style. Although employees perceived a high level of job demands, the results showed that this is not of major importance when explaining work stress. When the organization wish to reduce the perceived work stress, it would be more effective to focus on the perceived job resources. To the contrary of what the theory suggests, this study showed that the transactional leadership is also not of importance in reducing work stress. Only the transformational leadership style is really effective in reducing the perceived work stress.

6.3 Limitations and recommendations for future research

The work stress of employees at Essent 'Heat' is explained and some main conclusions could be developed. During the evaluation of this study some limitations became apparent. Based upon the discussion, some limitations and recommendations for future research have been developed. Three different recommendations have been developed to improve studies on work stress in the future.

6.3.1 Organization characteristics

The results of this study suggest that the organization characteristics are not of importance when determining the characteristics of the work and leadership behaviour. Both hypotheses 3 and 5 are not supported. An explanation that has already been mentioned, is the fact that this study used too few indicators of the organization characteristics. Other studies, such as the framework of Hackman & Oldham (1981) and the model of Van Breukelen and Van Eijbergen (1995) used more indicators to study the organization characteristics. For example, besides formalization and centralization, the organization structure could be analysed by using the indicators, the number of hierarchical levels and horizontal differentiation (or specialization). Other indicators of the organization characteristics could be organization goals and culture. For future research it is recommended that more indicators of the organization characteristics should be used. Together these indicators could result in more reliable and significant relationships between the organization characteristics and the characteristics of the work/leadership behaviour. Now only two hypotheses could be developed based upon the theory. When using more indicators it could also be that more hypotheses could be proposed and tested in practice.

6.3.2 Employee motivation

Based upon the results of this study it can be concluded that the content of the job meets the needs and values of employees, since employees are intrinsically motivated. But it is not possible to analyse the extent to which specific needs and values are satisfied and of importance in explaining the relationships between the work environment and work stress.

When analysing the theory about motivation, it suggests that when the benefits meet the needs and values of employees this will result in an increased employee satisfaction (Kluytmans, 2001). This study makes it possible to suggest that the work environment meets the needs and values of employees, since it results in high intrinsically motivated employees. And this study makes it possible to suggest which needs and values according to the work environment are important to employees. This study does not provide the opportunity to analyse to what extent different needs and values are satisfied and how this interferes the relationships between the work environment and work stress. Otherwise a better advice could be provided about the needs and values of employees, which have to be satisfied in order for intrinsic motivation and employee dedication to occur. The applied scales do not provide this information and could be an explanation for the fact that they do not seem to matter in explaining the relationships between the work environment and work stress. For future research it would be better to analyse the extent to which different intrinsic needs and values of employees are satisfied. This variable can also serve as a moderating variable, which was also the case for this study. Dependent of the extent to which needs are satisfied or not it will influence the original relationships between the work environment and work stress.

6.3.3 Relationship job demands and intrinsic motivation

Results suggest that only one negative relationship between the job demands and intrinsic motivation exist. The majority of the job demands is not significantly and negatively related to intrinsic motivation. One of the explanations according to the theory was, that it is expected that the job demands do not influence the same dependent variable as job resources do. As the job resources – job demands model already suggested, job demands do not influence a motivation process but an energy process (Bakker, 2003). Also Schaufeli and Bakker (2001) suggested that two different scales have to be used to analyse employee dedication and burnout. Where job demands positively influence the energy process and burnout, job resources will positively influence the motivational process and employee dedication. For future research it is recommended that two different scales should be used to analyse work stress. It could be that this might result in a more reliable and valid conclusion about work stress, since both the positive and negative effects of the work environment are analysed.

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Appendix A: Organigram Essent

```
                        Raad van Bestuur

  Essent Support Groep                    Hoofdkantoor
       (shared)

     New Energy                          Service &
                                         Verkoop

      Business                          Toegevoegde
    Development                        Waardediensten

      Projects                              IT

      Productie                          Deutsche
                                          Essent

       Essent                             Essent
      Trading                             Milieu
```
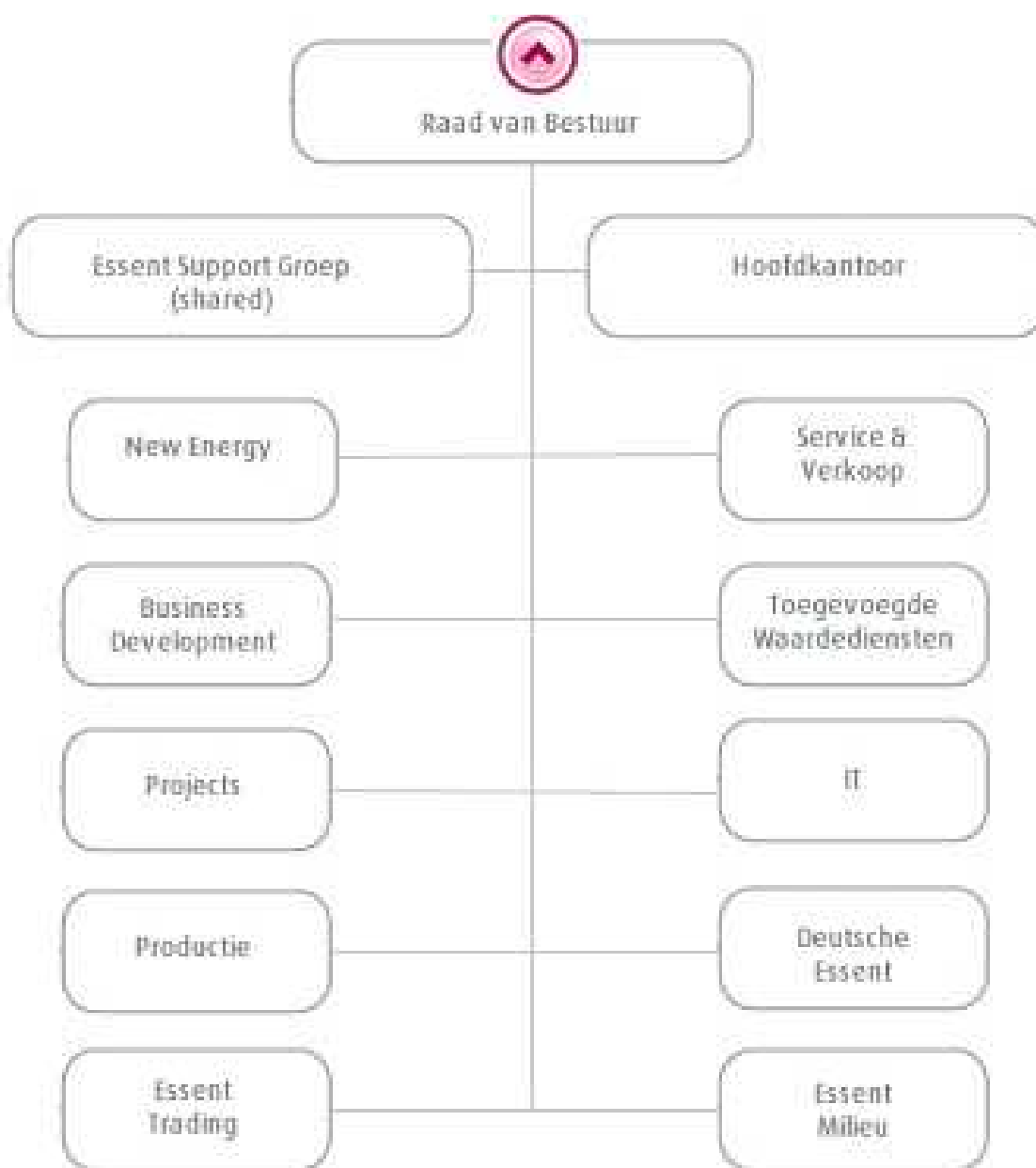
Appendix B: Organigram Business Unit Essent 'Heat'

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                          Manager
                          Essent
                          'Heat'

          Management                  HSE (1)
          Assistant
          (2)


          HR (1)                      Controller
                                      (1)


Department    Department          Department              Customer
Sales &       Composition         Exploitation            Office (5)
Development                       (2)
(18)


Composition   Support (14)   Exploitation  Exploitation  Analyse &   Service &    Back Office   Customer
(10)                         management    management    Risk        Maintenance  (2)           Service (1)
                             North (6)     South (10)    Management
                                                         (6)

                                                         Service &        Invoices &      Customer
                                                         Maintenance      Collection      Service 1 (8)
                                                         Support          (10)
                                                         (11)

                                                         Brabant (22)     BDM (7)         Customer
                                                                                          Service 2
                                                                                          (10)

                                                         South/West       Object          Customer
                                                         (3)              support (6)     Service 3 (8)

                                                         North/East                       Coordination
                                                         (4)                               & Support
                                                                                          (8)
```

Appendix C: Outcomes of the small interviews

The interviews were with two operational managers, several employees and an external consultant, who advises the organizations in respect of organizational change projects. The main purpose of these interviews was to gain more insight into the activities of the different departments and to analyse the main causes of work stress. The outcomes of the interviews were comparable and it was therefore possible to set the boarders for this study. The most important outcomes of these small interviews are summarized:

Work stress is caused by the organizational structure. At the moment it is a complex organization with highly specialized tasks, while a more simple structure with less specialized jobs is needed, not only to adapt to a changing environment but also to reduce work stress.

The structure is functionally organized and there are many hierarchical levels. Top management makes strategic decisions and delegates tasks to lower levels. They do not delegate the full responsibility and autonomy for the task, but only the responsibility for finishing the task. Thinking and doing processes are separated, so the vertical dependency is high. But employees and departments are also horizontally dependent on each other when making decisions about projects. Employees and managers perceive that everybody always wants to be involved, especially in decision making, even in respect of the small tasks. This is very time consuming.

This also results in confusing situations about roles and expectations of employees and departments within the organization. Sometimes the same task is accomplished by more than one employee or department. This is not communicated very well and managers are afraid to delegate the full responsibility to only one person.

The business unit is very young and ambitious. Top management within the business unit wants to achieve the highest goals and wants to serve every customer. This results in many projects that have to be finished with the existing capacity. Management is not very good at prioritizing projects and employees are not very good at giving feedback, when they think they cannot manage all projects at the same time.

Work stress is also dependent on the knowledge and skills of employees. At the lower levels, they do not have the capacity to plan their tasks when it is busy. They feel that all tasks have to be finished immediately.

At lower levels, employees are increasingly being given more responsibilities and autonomy. Because these employees have never had these responsibilities, it takes time to get used to it. These employees are not always able to meet these demands of the environment.

Essent has a culture of stimulating commitment among employees. So for all kinds of projects everybody is involved in finishing the project. This is not always effective and efficient, since employees suggest that already making some decisions and setting borders is more effective and efficient. Besides, often when employees are involved and explain their ideas, higher management will often change its mind and change its ideas again.

Appendix D: Questionnaire work perception research

Vragenlijst Werkbelevingsonderzoek

Voor u ligt de vragenlijst werkbeleving. Deze vragenlijst wordt gebruikt om inzicht te krijgen in de bepalende factoren voor de ervaren werkdruk en werkbeleving van de medewerkers van Essent Warmte. Dit is van belang omdat uit het EMO van de afgelopen drie jaar is gekomen dat een toenemend aantal medewerkers van Essent Warmte werkdruk ervaart. De resultaten van het EMO 2008 laten zien dat 67% van de medewerkers werkdruk ervaart. Omdat dit een zorg is voor Essent worden de resultaten serieus genomen en is het van belang dat er inzicht wordt verkregen in de oorzaken van de verhoogde werkdruk. Wanneer de oorzaken inzichtelijk zijn is het mogelijk om in de toekomst adequate middelen in te kunnen zetten. Het onderzoek wordt uitgevoerd in het kader van een project van de Universiteit Twente.

De vragenlijst bestaat uit vijf delen:
Deel 1: Algemene vragen;
Deel 2: Organisatie van het werk;
Deel 3: Leiderschap;
Deel 4: Werknemersbehoefte;
Deel 5: Werkbeleving.

Het invullen van de vragenlijst zal ongeveer *20 minuten* in beslag nemen. De afhandeling van de vragenlijst is strikt anoniem. Alle antwoorden op de vragen zullen vertrouwelijk behandeld worden. Niemand van uw organisatie krijgt de ingevulde vragenlijst onder ogen. Deze gegevens zijn alleen inzichtelijk voor de projectgroep van de Universiteit Twente. Er zal alleen worden gerapporteerd over groepen medewerkers. Individuele werknemers zullen nooit herkenbaar zijn in de rapportages.

Terugsturen van de ingevulde vragenlijst
We willen u vragen de ingevulde vragenlijst voor *30 juni* aanstaande inleveren op de daarvoor aangewezen verzamelpunten op uw locatie. Informatie over de verzamelpunten vindt u hieronder.

Verzamelpunten
Locatie Den Bosch: secretariaat met Wilma van Dartel en Dijana Isabegovic
Locatie Zwolle: werkplek van Gert-Jan van Poppel
Locatie Geertruidenberg: vergadertafel tegenover kamer 1.45

Om een volledig en betrouwbaar beeld te krijgen van de oorzaken van werkdruk bij Essent Warmte is het zeer belangrijk dat elke medewerker deze vragenlijst invult en opstuurt.
De belangrijkste resultaten van dit onderzoek zullen aan alle medewerkers teruggekoppeld worden in de werkoverleggen.

Hartelijk dank voor uw inbreng en medewerking!

Met vriendelijke groet,

Wendy Koster
Student Bedrijfswetenschappen – Human Resource Management

Deel 1: Algemene vragen

In dit eerste deel van de vragenlijst worden enkele persoonlijke vragen gesteld. Bij deze wil ik u er nogmaals op wijzen dat alle gegevens vertrouwelijk worden behandeld. Het is van groot belang voor het onderzoek dat u de vragen zo goed mogelijk beantwoordt. Aan het einde van de vragenlijst heeft u de mogelijkheid om eventuele opmerkingen te noteren.

1. **Wat is uw geslacht?** ☐ **Man** ☐ **Vrouw**

2. **Wat is uw leeftijd?** ☐ **20 – 29**
    ☐ **30 – 39**
    ☐ **40 – 49**
    ☐ **50 – 59**
    ☐ **60 - …**

3. **Vervult u een leidinggevende rol binnen de Essent Warmte organisatie?**
    ☐ **JA** ☐ **NEE**

4. **Op welke afdeling bent u werkzaam?**
    ☐ **Ontwikkeling en Verkoop**
    ☐ **Bouw**
    ☐ **Exploitatie**
    ☐ **Customer Office**
    ☐ **Staff**

5. **Aan welk management niveau rapporteert u binnen de Essent Warmte organisatie?**
    ☐ **Management Team lid Essent Warmte**
    ☐ **Afdelingsmanager**
    ☐ **Teammanager / Teamleider**

6. **Aantal contracturen per week:** ☐ **8 – 15 uur per week**
    ☐ **16 – 23 uur per week**
    ☐ **24 – 31 uur per week**
    ☐ **32 – 39 uur per week**
    ☐ **40 uur per week**

7. **Hoeveel jaren vervult u de huidige functie?**
    ……………………………………………………………………
8. **Hoeveel jaren bent u werkzaam bij Essent?**
    ……………………………………………………………………
9. **Hoeveel jaren bent u werkzaam bij Essent Warmte?**
    ……………………………………………………………………
10. **Wat is de hoogste opleiding die u heeft afgerond?**
    ☐ **Geen**
    ☐ **Lagere school**
    ☐ **Lager algemeen vormend of lager beroepsonderwijs**
    ☐ **Middelbaar onderwijs of middelbaar beroepsonderwijs**
    ☐ **Hoger beroepsonderwijs**
    ☐ **(Post-)Academisch onderwijs**
    ☐ **Andere opleiding**

11. **A. Komt het voor dat u moet overwerken of werk mee naar huis neemt?**
☐ **NEE (ga naar deel 2)**   ☐ **JA**

B. Kunt u een schatting maken van het aantal uren dat u gemiddeld per week overwerkt?
...... Uur en ..... Minuten per week

Deel 2: Organisatie van het werk

Organisatiestructuur
De structuur van de organisatie kan invloed hebben op de inhoud van uw werk en speelt dus ook een belangrijke rol bij het bepalen van de kwaliteit van de arbeid. De meeste vragen van deel 2 hebben twee antwoordmogelijkheden

		NEE	JA
1.	De organisatie heeft een groot aantal geschreven regels en beleidsstukken	☐	☐
2.	Een handleiding met procesbeschrijvingen is aanwezig binnen de organisatie	☐	☐
3.	Er zijn complete functiebeschrijvingen beschikbaar voor de meeste functies binnen de organisatie	☐	☐
4.	De organisatie houdt schriftelijk de prestaties van iedere medewerker bij	☐	☐
5.	Er is een formeel introductieprogramma voor iedereen binnen de organisatie	☐	☐
6.	De organisatie kan worden beschreven als in hoge mate gecentraliseerd	☐	☐
7.	Slechts enkele organisatieleden werkzaam op hogere niveaus zijn betrokken bij beslissingen over de samenwerkingsrelaties met andere organisatieonderdelen	☐	☐

Kwaliteit van het werk
De volgende vragen gaan over de inhoud van uw werk. Verschillende inhoudelijke factoren van het werk spelen een belangrijke rol in het bepalen van de kwaliteit van de arbeid.

Vaardigheidsmogelijkheden
Prettig werk is bijvoorbeeld werk waarin u op uw eigen manier kunt werken of waarin u nieuwe dingen leert. De volgende vragen gaan daarover.

		NEE	JA
8.	Mijn werk is gevarieerd	☐	☐
9.	Voor de uitvoering van het werk is vakbekwaamheid vereist	☐	☐
10.	Mijn baan vereist dat ik nieuwe dingen leer	☐	☐
11.	Mijn baan vereist creativiteit	☐	☐
12.	Mijn baan vereist veel bekwaamheden	☐	☐
13.	Ik heb de gelegenheid om mijn vakbekwaamheid verder te ontwikkelen	☐	☐

Kwalificatiegebruik
De volgende vragen zullen gaan over de mate waarin uw opleiding en werkervaring aansluiten op de huidige functie. Dit kan van invloed zijn op de mate waarin u uw werk als prettig ervaart.

14. Heeft u voor uw werk een te hoge, te lage of juist een goede opleiding?
☐ Te hoge opleiding
☐ Te lage opleiding
☐ Juist een goede opleiding

15. Heeft u voor uw werk te veel, te weinig of juist voldoende werkervaring?
- ☐ Te veel ervaring
- ☐ Te weinig ervaring
- ☐ Juist voldoende ervaring

Moeilijkheidsgraad

Als het werk te moeilijk is, dan is dat onprettig. Maar het omgekeerde is ook waar, te makkelijk werk kan ook onprettig zijn. Het werk moet kortom goed bij u passen.

	NEE	JA
16. Mijn werk vereist voortdurend intensief nadenken	☐	☐
17. Ik moet veel informatie gedurende langere tijd onthouden	☐	☐
18. Mijn werk vereist dat ik er voortdurend mijn gedachten bij houdt	☐	☐
19. Het werk vergt voortdurend veel aandacht van mij	☐	☐
20. Ik moet in mijn werk veel dingen tegelijk in de gaten houden	☐	☐
21. Mijn werk vraagt voortdurend oplettendheid	☐	☐

Tijdsindeling

Het is prettig als u zelf uw tijd kunt indelen en zelf kunt bepalen wanneer u welke taken doet.

	NEE	JA	
22. Kunt u het tijdstip waarop u begint en stopt met werken zelf kiezen?	☐	☐	
23. Kunt u zelf kiezen wanneer u pauzeert?	☐	☐	
24. Kunt u verlofdagen opnemen wanneer u dat zelf wilt?	☐	☐	

	NEE	JA	N.V.T*
25. Kent u uw werkrooster langer dan een maand van te voren?	☐	☐	☐

   * N.V.T staat voor Niet Van Toepassing

Informatievoorziening

Het is prettig om als werknemer mee te kunnen praten over de manier waarop het werk moet worden uitgevoerd.

	NEE	JA
26. Ik hoor van mijn leidinggevende hoe goed mijn werk is	☐	☐
27. Ik hoor van mijn collega's hoe goed mijn werk is	☐	☐
28. Ik krijg informatie over de prestaties van Essent Warmte	☐	☐
29. Ik krijg voldoende informatie over het doel van mijn bijdrage aan mijn afdeling	☐	☐
30. Ik krijg voldoende informatie om mee te werken	☐	☐
31. De informatie die ik nodig heb komt meestal op tijd	☐	☐
32. Ik moet vaak wachten op informatie die ik nodig heb	☐	☐
33. De gegevens die ik krijg zijn meestal juist	☐	☐
34. De opdrachten die ik krijg zijn meestal duidelijk	☐	☐
35. Ik krijg tegenstrijdige opdrachten in mijn werk	☐	☐
36. Ik word geconfronteerd met tegenstrijdige verwachtingen in mijn werk	☐	☐

Leiding en collega's

In een gespannen sfeer kan niemand goed werken, een prettige sfeer op het werk is vaak belangrijk.

	NEE	JA
37. Ik vind de onderlinge sfeer op mijn werk goed	☐	☐
38. Ik erger me vaak aan anderen op het werk	☐	☐
39. Ik kan als dat nodig is beroep doen op een of meerdere collega's	☐	☐
40. Ik werk onder goede dagelijkse leiding	☐	☐
41. De dagelijkse leiding houdt voldoende rekening met wat ik zeg	☐	☐
42. De dagelijkse leiding heeft een goed beeld van mij in mijn werk	☐	☐

	NEE	JA
43. Ik word door de directe leiding voldoende ondersteund in mijn werk	☐	☐
44. Ik word voldoende op de hoogte gehouden van wat er zich binnen de organisatie waar ik werk afspeelt	☐	☐
45. Er zijn conflicten geweest in de laatste 12 maanden tussen mij en mijn leidinggevende	☐	☐
46. Er zijn conflicten geweest in de laatste 12 maanden tussen mij en één of meerdere collega's	☐	☐

Rol in de organisatie

De volgende vragen gaan over uw rol binnen de organisatie en afdeling. De mate waarin deze rol duidelijk is en overeenstemt met eigen waarden en verwachtingen heeft invloed op de mate waarin u uw werk als prettig ervaart.

	NEE	JA
47. Ik moet werkzaamheden uitvoeren die anders uitgevoerd zouden moeten worden	☐	☐
48. Ik moet soms een beleidsregel negeren om werkzaamheden uit te kunnen voeren	☐	☐
49. Ik ontvang tegenstrijdige vragen van twee of meer mensen	☐	☐
50. Ik voer werkzaamheden uit die door de ene persoon wel geaccepteerd worden maar door een andere persoon niet	☐	☐
51. Ik voer vaak niet noodzakelijke werkzaamheden uit	☐	☐
52. Ik werk samen in twee of meer groepen die de werkzaamheden ten opzichte van elkaar totaal anders uitvoeren	☐	☐
53. Er worden mij werkzaamheden opgelegd zonder dat ik over de capaciteit beschik om deze goed uit te voeren	☐	☐
54. Er worden mij werkzaamheden opgelegd zonder dat ik over de middelen en materialen beschik om deze goed uit te voeren	☐	☐
55. Ik weet precies wat er van mij wordt verwacht	☐	☐
56. Ik weet dat ik mijn tijd op een juiste wijze en adequaat verdeel	☐	☐
57. De uitleg over de werkzaamheden die uitgevoerd moeten worden is helder	☐	☐
58. Ik voel me zeker over de hoeveelheid bevoegdheden die ik heb	☐	☐
59. Ik weet wat mijn verantwoordelijkheden zijn	☐	☐
60. Heldere, geplande doelen bestaan er voor mijn baan	☐	☐

Werkdruk

Deze vragen gaan over de hoeveelheid werk, de mogelijke problemen die u in het werk tegenkomt en de hoeveelheid verantwoordelijkheid. Dit kan van invloed zijn op de werkdruk die u ervaart.

Taakbelasting	NEE	JA
61. Ik moet erg snel werken	☐	☐
62. Ik moet heel veel werk doen	☐	☐
63. Ik heb over het algemeen genoeg tijd om mijn werk af te krijgen	☐	☐
64. Mijn werk is hectisch	☐	☐
65. Ik moet extra hard werken	☐	☐

Regelproblemen	NEE	JA
66. Het wachten op werk van andere mensen of afdelingen vertraagt vaak mijn eigen werk	☐	☐
67. De snelheid waarmee ik werk beïnvloed het tempo van andermans werk	☐	☐
68. Ik word op het werk vaak voor onverwachte gebeurtenissen geplaatst	☐	☐
69. Het werk verloopt vaak anders dan gepland	☐	☐
70. Ik heb regelmatig met storingen in mijn werk te maken	☐	☐
71. Ik moet vaak improviseren om mijn werk uit te kunnen voeren	☐	☐

Verantwoordelijkheden

	NEE	JA
72. Ik moet vaak beslissingen nemen, waarbij een vergissing kostbare of ernstige gevolgen kan hebben	☐	☐
73. Ik draag veel verantwoordelijkheid voor het werk van anderen	☐	☐
74. Ik draag veel verantwoordelijkheid voor de veiligheid van anderen	☐	☐
75. Ik draag veel verantwoordelijkheid voor de toekomst van anderen	☐	☐
76. Ik draag veel verantwoordelijkheid voor een werkproces	☐	☐
77. Ik draag veel verantwoordelijkheid voor het functioneren van mijn afdeling	☐	☐

Autonomie

In sommige functies kunt u het werk op uw eigen manier indelen en uitvoeren, in andere niet.
De volgende vragen gaan hierover.

	NEE	JA
78. Ik kan mijn werk, als ik dat nodig vind, zelf onderbreken	☐	☐
79. Ik kan zelf het werktempo regelen	☐	☐
80. Ik kan, indien nodig, het tijdstip waarop iets klaar moet zijn, uitstellen	☐	☐
81. Ik kan gemakkelijk even weg van de plaats waar ik werk	☐	☐
82. Ik beslis zelf wanneer ik een taak uitvoer	☐	☐
83. Ik bepaal zelf de volgorde van mijn werkzaamheden	☐	☐
84. Mijn werkwijze wordt in grote mate voorgeschreven	☐	☐
85. Ik heb de mogelijkheid om zelf te beslissen hoe ik mijn werk uitvoer	☐	☐
86. Ik kan een eigen werkwijze kiezen	☐	☐

Contactmogelijkheden

Bijna niemand is helemaal alleen in het werk. Contact met collega's en leidinggevenden is vaak
nodig om het werk goed uit te voeren en om problemen op te lossen.

	NEE	JA
87. Ik ben in het werk altijd op mezelf aangewezen	☐	☐
88. Als ik er niet uitkom kan een collega werk van mij overnemen	☐	☐
89. Mijn collega's helpen me bij het afwerken van een opdracht als dat nodig is	☐	☐
90. Ik praat op het werk met mijn collega's uit de eigen afdeling over het werk	☐	☐
91. Ik praat op het werk met mijn leidinggevende over het werk	☐	☐
92. Ik ben vaak alleen op mijn werkplek	☐	☐

Organiserende taken

Het is prettig om als werknemer mee te kunnen praten over de manier waarop het werk moet
worden uitgevoerd.

	NEE	JA
93. Ik heb invloed op de beslissingen vanuit mijn werkteam/taakgroep/afdeling	☐	☐
94. Bij eventuele problemen kan ik mensen uit andere afdelingen inschakelen	☐	☐
95. Ik bespreek met anderen hoe de taken worden verdeeld	☐	☐
96. Ik bespreek met anderen hoe de taken gepland moeten worden	☐	☐

97. Hoe vaak heeft u werkoverleg?
   - ☐ Eens per week of vaker
   - ☐ Eens per 2 weken
   - ☐ Eens per maand
   - ☐ Minder vaak dan eens per maand
   - ☐ Nooit

Organisatieverandering
Organisatieveranderingen kunnen van invloed zijn op de inhoud van het werk van een medewerker en de ervaren werkdruk.

98. Bent u of is uw afdeling in de afgelopen twee jaar betrokken geweest bij een of meerdere reorganisaties?
☐ Ja (ga door naar vraag 92)
☐ Nee (ga door naar Deel 3)

92. Is bij deze reorganisatie(s) de oorspronkelijke afdeling blijven bestaan?
☐ Ja (ga door naar vraag 93)
☐ Nee (ga door met vraag 97)

93. Heeft deze reorganisatie geleid tot een vermindering van het aantal arbeidsplaatsen op uw afdeling?
☐ Ja (ga door met vraag 94)
☐ Nee (ga door met vraag 95)

94. Is de totale werklast van de afdeling evenredig gedaald?
☐ Ja
☐ Nee

95. Heeft deze reorganisatie geleid tot een hogere totale werklast van de afdeling?
☐ Ja (ga door met vraag 96)
☐ Nee (ga door met vraag 97)

96. Is de bezetting van de afdeling evenredig verhoogd?
☐ Ja
☐ Nee

97. Heeft u ten gevolge van de reorganisatie een andere functie gekregen?
☐ Ja (ga door naar Deel 3)
☐ Nee (ga door met vraag 98)

98. Heeft deze reorganisatie gevolgen gehad voor het takenpakket waaruit uw functie bestaat?
☐ Ja (ga door met vraag 99)
☐ Nee (ga door naar Deel 3)

99. Is de zelfstandigheid in uw werkzaamheden ten gevolge van de reorganisatie veranderd?
☐ Ja, meer zelfstandigheid
☐ Ja, minder zelfstandigheid
☐ Nee, niet veranderd

100. Heeft u ten gevolge van de reorganisatie meer of minder verantwoordelijkheid in uw functie?
☐ Ja, meer verantwoordelijkheid
☐ Ja, minder verantwoordelijkheid
☐ Nee, niet veranderd

101. Heeft u ten gevolge van de reorganisatie meer gelijksoortige taken in uw werk gekregen?
☐ Ja
☐ Nee

essent

Deel 3: Leiderschap

Dit onderdeel van de vragenlijst gaat over de stijl van leiderschap. Een leidinggevende kan een medewerker stimuleren zich te ontwikkelen. Dit kan invloed hebben op de bevlogenheid en motivatie van medewerkers.

Mijn leidinggevende …	NEE	JA
1. valt mij niet lastig als ik hem/haar niet lastig val	☐	☐
2. komt pas in actie als het fout gaat	☐	☐
3. weerhoudt zich van pogingen tot verbeteringen, zolang het werk beantwoordt aan de minimale eisen	☐	☐
4. vermijdt betrokken te raken bij belangrijke kwesties	☐	☐
5. komt met mij overeen welke beloning ik tegemoet kan zien als ik doe wat er gedaan moet worden	☐	☐
6. stelt een speciale beloning voor goed werk in het vooruitzicht	☐	☐
7. vertelt wat ik moet doen om voor mijn inspanningen beloond te worden	☐	☐
8. vestigt de aandacht op vergissingen en afwijkingen die ik bega	☐	☐
9. zou afkeuring laten blijken als ik op een te laag niveau zou presteren	☐	☐
10. wijst mij erop wanneer mijn werk onder de maat is	☐	☐
11. wijst mij pas achteraf op fouten	☐	☐
12. stelt mij op de hoogte van mogelijk te maken fouten	☐	☐
13. grijpt pas in als problemen chronisch zijn	☐	☐
14. straalt kracht en vertrouwen uit	☐	☐
15. in mijn ogen is hij/zij een symbool van succes en prestatie	☐	☐
16. dient als een rolmodel voor mij	☐	☐
17. creëert het gevoel dat we samen aan een belangrijke missie/opdracht werken	☐	☐
18. krijgt mensen zover dat ze de belangen van de eenheid boven hun eigen belangen stellen	☐	☐
19. houdt de moraal op de afdeling hoog	☐	☐
20. zorgt dat ik trots ben om met hem/haar samen te werken	☐	☐
21. maakt mij enthousiast voor mijn werkopdrachten	☐	☐
22. inspireert mij om veel meer voor elkaar te krijgen dan ik zonder hem/haar zou hebben gekund	☐	☐
23. stimuleert mij problemen zelf op te lossen	☐	☐
24. stelt mij vragen die mij aansporen na te denken over de manier waarop ik dingen doe	☐	☐
25. vraagt mij bij problemen om hiervoor een oplossing te vinden	☐	☐
26. luistert naar zaken die voor mij van belang zijn	☐	☐
27. is oprecht geïnteresseerd in de ontwikkeling van zijn/haar medewerkers	☐	☐
28. houdt rekening met mijn persoonlijk welzijn	☐	☐

Deel 4: Werknemersbehoefte

Onderstaand wordt gevraagd naar uw eigen behoeften in het werk. Deze vragen worden beantwoord door middel van vier antwoordmogelijkheden. In mijn werk heb ik behoefte aan:

	1 Geen Behoefte	2 Weinig Behoefte	3 Behoefte	4 Grote Behoefte
1. Veel respect en een eerlijke behandeling door mijn leidinggevende	☐	☐	☐	☐
2. Stimulerend en uitdagend werk	☐	☐	☐	☐
3. Kansen om onafhankelijke gedachten en actie in mijn werk	☐	☐	☐	☐
4. Grote mate van werkzekerheid	☐	☐	☐	☐
5. Vriendelijke collega's	☐	☐	☐	☐
6. Kansen om nieuwe dingen te leren in mijn werk	☐	☐	☐	☐
7. Hoog salaris en goede beloningen	☐	☐	☐	☐
8. Kansen om creatief te zijn in mijn werk	☐	☐	☐	☐
9. Snelle promoties	☐	☐	☐	☐
10. Kans op persoonlijke groei en ontwikkeling in mijn werk	☐	☐	☐	☐
11. Een gevoel van waardevolle prestaties leveren in mijn werk	☐	☐	☐	☐

Deel 5: Werkbeleving

Het onderdeel werkbeleving gaat in op hoe u uw huidige werk beleeft. De onderdelen bevlogenheid en intrinsieke motivatie komen aan bod.

Bevlogenheid

Onderstaand wordt gevraagd naar uw bevlogenheid ten aanzien van het werk en meet de werkdrukbeleving op een positieve manier door de vitaliteit, betrokkenheid en absorptie ten aanzien van het werk te ondervragen.

	1 Nooit	2 Soms	3 Regel-matig	4 Altijd
1. Op mijn werk bruis ik van de energie	☐	☐	☐	☐
2. Als ik werk, voel ik me fit en sterk	☐	☐	☐	☐
3. Als ik 's morgens opsta, heb ik zin om aan het werk te gaan	☐	☐	☐	☐
4. Als ik aan het werk ben, dan kan ik heel lang doorgaan	☐	☐	☐	☐
5. Op mijn werk beschik ik over een grote mentale (geestelijke) veerkracht	☐	☐	☐	☐
6. Op mijn werk zet ik altijd door, ook als het tegenzit	☐	☐	☐	☐
7. Ik vind het werk dat ik doe nuttig en zinvol	☐	☐	☐	☐
8. Ik ben enthousiast over mijn baan	☐	☐	☐	☐
9. Mijn werk inspireert mij	☐	☐	☐	☐
10. Ik ben trots op het werk dat ik doe	☐	☐	☐	☐
11. Mijn werk is voor mij een uitdaging	☐	☐	☐	☐
12. Als ik aan het werk ben, dan vliegt de tijd voorbij	☐	☐	☐	☐
13. Als ik werk vergeet ik alle andere dingen om me heen	☐	☐	☐	☐
14. Wanneer ik heel intensief aan het werk ben, voel ik me gelukkig	☐	☐	☐	☐
15. Ik ga helemaal op in mijn werk	☐	☐	☐	☐
16. Mijn werk brengt mij in vervoering	☐	☐	☐	☐

17. Ik kan me moeilijk van mijn werk losmaken   ☐ ☐ ☐ ☐

Werknemers motivatie

De mate waarin u uw werk uitdagend en interessant vindt bepaald of u intrinsiek gemotiveerd bent om uw werk uit te voeren. Hierbij gaat het om de inhoud van het werk. U kunt kiezen uit vier antwoordmogelijkheden:

	1 Erg mee Oneens	2 Mee Oneens	3 Mee Eens	4 Erg mee Eens
1. Ik voel een grote mate van persoonlijke tevredenheid wanneer ik mijn werk goed uitvoer	☐	☐	☐	☐
2. Mijn gevoel van eigenwaarde stijgt wanneer ik mijn werk goed uitvoer	☐	☐	☐	☐
3. Ik voel me slecht en niet blij wanneer ik slechte prestaties lever	☐	☐	☐	☐
4. Mijn eigen gevoelens worden over het algemeen niet beïnvloedt door hoe goed ik het werk uitvoer	☐	☐	☐	☐

Heeft u suggesties om de werkdruk te verminderen, zo ja welke?

………
………
………
………
………
………

Mocht u nog eventuele aanvullingen of opmerkingen hebben dan kunt u deze hieronder kwijt:

………
………
………
………
………
………
………

Hartelijk dank voor uw medewerking!

U kunt de vragenlijst inleverend op de volgende verzamelpunten
Locatie Den Bosch: secretariaat met Wilma van Dartel en Dijana Isabegovic
Locatie Zwolle: werkplek van Gert-Jan van Poppel
Locatie Geertruidenberg: vergadertafel tegenover kamer 1.45

Appendix E: Comparison responses - official population

Variable		Response	Official Population
Gender	Man	66	125
	Woman	19	23
Age	20-29	16	29
	30-39	20	36
	40-49	27	40
	50-59	24	42
	≥ 60	0	1
Managerial Position	Yes	22	24
	No	65	124
Department	Development and Sales	13	16
	Construction	11	19
	Exploitation	34	57
	Customer Office	23	52
	Staff	3	4
Management level reporting	Management Team Member	19	-
	Manager Department	15	-
	Team Manager	52	-
Contract hours	16-23	1	2
	24-31	1	3
	32-39	36	15
	40	48	128
Number of years in the same function	0-2	56	-
	3-5	19	-
	6-8	4	-
	9-11	1	-
	≥ 12	7	-
Number of years working at Essent	0-9	46	86
	10-19	11	12
	20-29	17	33
	30-39	12	17
Number of years working at Essent Heat	0-2	40	-
	3-5	26	-
	6-8	6	-
	9-11	4	-
Highest Finished Education	Lager Algemeen Vormend or Lager Beroepsonderwijs	3	-
	Middelbaar Onderwijs or Middelbaar Beroepsonderwijs	28	-
	Hoger Beroepsonderwijs	33	-
	(Post)-Academisch Onderwijs	22	-
	Andere Opleiding	1	-

Table 17: Descriptive information general part questionnaire.

Appendix F: Cronbach Alpha

Variable	Cronbach Alpha	Items Included	Deleted Items
Organization characteristics			
Formalization	0.537	1 – 4	5
Centralization**		6	7
Characteristics of the work			
Skill Opportunities	0.695	8, 11, 12	9, 10, 13
Education Fits Job**		14	
Work Experience Fits Job**		15	
Psychological Effort	0.670	16, 18, 19	17, 20, 21
Time Autonomy	0.717	22, 24	23, 25
Availability of Information	0.774	26 – 36*	
Support	0.773	37 – 46*	
Role Conflict	0.620	47 – 51, 54	52, 53
Role Ambiguity	0.700	55 – 60*	
Task Requirements	0.807	61 – 65 *	
Problems Arranging work	0.719	66, 68 – 71	67
Responsibilities	0.711	72 – 77	
Autonomy	0.733	78 – 80, 82 – 86*	81
Contact Possibilities	0.529	87, 89 – 92*	88
Organizing Tasks	0.757	93, 95, 96	94, 97
Organizational Change	0.870	98 - 108	
Leadership Behaviour			
Laissez Faire Leadership Style	0.652	2 – 4	1
Transactional Leadership Style	0.542	5 – 7, 11, 13	8, 9, 10, 12
Transformational Leadership Style	0.894	14 – 28	
Needs	0.788	1 – 11	
Employee dedication	0.924	1 – 17	
Vitality	0.829	1 – 6	
Dedication	0.902	7 – 11	
Absorption	0.837	12 – 17	
Employee Intrinsic Motivation	0.829	1,2	3, 4*

Table 19: Cronbach Alpha's
* Recoded Items part two of the questionnaire: 32, 35, 36, 38, 45, 46, 55 56, 57, 58, 59, 60, 63, 84, 87, 92 and part five item 3.
** Only one question so Cronbach Alpha couldn't be measured.

Appendix G: Means and Standard Deviations

Variable	Mean	Standard Deviation
Organization Characteristics		
Formalization	1.23	0.27
Centralization	1.54	0.51
Characteristics of the Work		
Job resources		
Skill Opportunities	1.03	0.14
Time Autonomy	1.26	0.39
Availability of Information	1.43	0.26
Support	1.25	0.24
Autonomy	1.24	0.25
Contact Possibilities	1.13	0.19
Organizing Tasks	1.32	0.38
Job demands		
Education Fits Job	2.64	0.73
Work Experience Fits Job	2.51	0.76
Psychological Effort	1.24	0.33
Role Conflict	1.59	0.28
Role Ambiguity	1.67	0.30
Task Requirements	1.32	0.35
Problems Arranging The Work	1.27	0.30
Responsibilities	1.51	0.31
Organizational Change		
Reorganization	1.14	0.35
Maintenance of official department	1.49	0.50
Decreasing number of jobs	1.76	0.43
Decreasing workload	2.00	0.00
Increasing workload	1.32	0.47
Increasing number of jobs	1.87	0.34
Other function	1.59	0.49
Different tasks	1.60	0.50
Independence	2.50	0.72
Responsibilities	2.13	0.99
More of the same tasks	1.26	0.45
Leadership Behaviour		
Laissez Faire Leadership Style	1.77	0.97
Transactional Leadership Style	1.72	0.28
Transformational Leadership Style	1.44	0.30
Needs	3.24	0.34
Employee Dedication	2.99	0.49
Vitality	3.10	0.50
Dedication	3.19	0.60
Absorption	2.70	0.50
Intrinsic Motivation	3.36	0.49

Table 20: Means and Standard Deviations

Appendix H: Relationships between the different sub variables

Because the theory also suggests that the different sub variables that together reflect a variable are related to each other, hypotheses are proposed to test whether this is the case for this study.
A regression analysis is used as a method to explain the relationships between the sub variables.

Hypothesis 16: The level of formalization is positively related to the level of centralization
Although the means of both variables suggest that when employees perceive a high level of formalization and a lower level of centralization these two variables are positively related to each other ($R^2 = 0,345$). Hypothesis 16 is supported. The more rules and procedures within the organization the more decisions made on top of the organization.

Hypothesis 17: The job resources are positively related to each other
When analysing the relationships, eight significant positive relationships between job resources occurred. First, the opportunity to develop and improve skills is positively related to autonomy ($R^2 = 0,300$). Second, time autonomy is positively related to the availability of information ($R^2 = 0,26$), the level of support ($R^2 = 0,33$), autonomy ($R^2 = 0,48$) and the level of organizing tasks ($R^2 = 0,39$). Third, the availability of information is positively related to support ($R^2 = 54$) and autonomy ($R^2 = 0,27$). Fourth, the extent to which an employee perceives it is possible to contact other employees within the organization is positively related to the extent to which an employee perceives he or she is able to organize tasks($R^2 = 0,33$). Hypothesis 17 can be partly supported.

Hypothesis 18: The job demands are positively related to each other
When analysing the relationships seven significant and positive relationships occurred. First, the more psychological effort a job costs the more task requirements and problems arranging the work are perceived ($R^2 = 0,35$). Second, the more role conflict is perceived, the more role ambiguity ($R^2 = 0,22$) and problems to arrange the work ($R^2 = 0,24$) are perceived. Third, the task requirements are positively related to problems arranging the work ($R^2 = 0,39$). Concluded can be that hypothesis 18 is partly supported.

Hypothesis 19: The job resources are negative related to the job demands
Of all possible relationships nine were significant and negative. First, a negative relationship existed between the skill opportunities and the role conflict ($R^2 = -0,25$). Second, the more employees perceived time autonomy the less role conflict is perceived ($R^2 = -0,21$). Third, when information is available for employees they perceive less role ambiguity ($R^2 = -0,54$) and less role conflict ($R^2 = -0,36$). This result is very important since the means and standard deviations suggest, a group of employees exist who do not perceive information is available for them and perceive both role ambiguity and role conflict. According to the theory, when employees do not have the adequate information to perform the job, role ambiguity and role conflict occurs. These results support the theory. Fourth, when information is available for employees, they perceive less problems to arrange their work ($R^2 = -0,29$). Fifth, employees who perceive that they are supported experience less role conflict ($R^2 = -0,54$), role ambiguity ($R^2 = -0,27$) and have less problems arranging their work ($R^2 = -0,24$). Hypothesis 19 is supported to a small extent.

Hypothesis 20: Vitality, dedication and absorption which together give an indication of employee dedication are positively related to each other.
When analysing employee dedication a positive and significant relationship exists between vitality and dedication ($R^2 = 0,60$) and between vitality and absorption ($R^2 = 0,63$). Also between dedication and absorption a positive and significant relationship exists ($R^2 = 0,68$). Because of these strong positive and significant relationships hypothesis 20 is supported.

Appendix I: Results of not supported hypotheses

This appendix shows the results of the regression and multiple regression analysis, which resulted in non supported hypotheses.

Results hypothesis 8

Indicator	Beta	P-value
Transactional leadership style		
Skill opportunities	0.076	0.519
Time autonomy	0.159	0.251
Availability of information	0.049	0.716
Support	-0.36	0.788
Autonomy	-0.34	0.802
Contact possibilities	-0.215	0.077
Organizing tasks	0.097	0.449

Table 21: Multiple Regression Analysis of the relationship between the job resources and the transactional leadership style

Results hypothesis 10

Indicator	Beta	P-value
Intrinsic motivation		
Laissez faire leadership style	-0.083	0.443

Table 22: Regression Analysis of the relationship between the laissez faire leadership style and intrinsic motivation

Results hypothesis 11

Indicator	Beta	P-value
Intrinsic motivation		
Transactional leadership style	0.034	0.757

Table 23: Regression Analysis of the relationship between the transactional leadership style and intrinsic motivation

Appendix J: Suggestions provided by employees of Essent 'Heat'

Intervention	Explanation
Improving project management (23x)	- Better preparation of the projects - More quality instead of quantity (so also lessen the number of projects per employees) - Setting priorities - Not work on everything at the same time - Goal setting can be improved (not to ambitious)
Improve, clarify and simplify structure, work processes and procedures (13x)	
Hiring more personnel (12x)	- Less temporary personnel
Improve cooperation (11x)	- More efficiency (not everyone has to get involved) - Improve cooperation within departments but also between different departments - Coordinate goals between the different departments
Leadership (9x)	- Supervisors have to coordinate activities and strive for the same purposes. More consensus. - More consensus MT - Supervisors have to create more clarity and take their responsibilities.
Clarify roles within the organization (8x)	- Not reporting to multiple people - Make one employee responsible for one task and not more employees - Better division of responsibilities - Communicate expectations
Effective and efficient communication (7x)	- Organize meetings more efficiently and effectively - Reduce the level of information but provide more relevant information
Human Resources (5x)	- The right person on the right function (education / work experience/ knowledge) - Less outflow
Focus more on the customer (4x)	- Take decisions more quickly (Lessen the formality of signatures this delays work processes) - Focus more market driven
Better facilitate working at flexible work places (4x)	- More videoconferences to lessen the time spend to travel - Facilitate working at home (Tokan)
More focus on meeting goals and certain outcomes instead of the method of working (3x)	
Working more bottom up instead of top down (3x)	- Listen to personnel
Improve software (3x)	- One effective administration system
Strengthen the culture (2x)	- More consensus - More trust between colleagues and supervisors and less distrust

Table 24: Suggestions of employees to reduce the perceived work stress