

Like Plants need Water - Antecedents of Work Engagement at Sodexo`s.

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MANAGEMENT SUMMARY

As the world leader in Quality of Life Services, one of the missions of SODEXO is to engage their talents to achieve their business strategy. Like many other organizations, SODEXO is aware of the benefits of engaged employees. By reason of that, every two years, SODEXO charges an external institute to question its employees about their engagement. For Germany, the results of the last survey (April 2012) showed critical decreased engagement values, especially at the level of the highest executive managers the values declined. Therefore, the aim of this study was to identify possible antecedents of the employees' work engagement and to provide SODEXO with practical recommendations of how to facilitate the work engagement in its employees.

In this study, work engagement was defined as a positive work related state of mind which is characterized by three dimensions; *vigor*, *dedication* and *absorption* (Schaufeli, Salanova, Gonzàlez-Romà & Bakker, 2002b). People who score high on vigor feel fit, strong, and full of energy and have power and desire for their work. High scorers of dedication experience their work as challenging and are pride and satisfied with it. People who score high on absorption often loose themselves (in a positive way) in their work because they enjoy it that much. Relying on the theoretical assumptions of the Job Demands-Resources model, people's job characteristics differ and can be divided into two categories: job demands and job resources. As job demands, *work-home interaction* (negative load reactions developed at work hamper functioning at home; Geurts et al., 2005) and *quantitative workload* (having a lot to do in a limited amount of time; Spector & Jex, 1998) were included; as job resources the basic psychological needs (*autonomy*, *competence* and *relatedness*) were measured. Thereby, autonomy refers to the subjective experience of psychological freedom and choice during activities, competence refers to the current and general feeling of effectiveness of oneself, and relatedness refers to the desire to be part of a communion (Deci & Ryan, 2000).

The first research question regarding which variables affect the work engagement of Sodexo's employees was: *What are the relationships between job demands, job resources and work engagement (vigor, dedication and absorption)?* Thereby, job demands (work-home interaction and quantitative workload) were expected to relate negatively to work engagement. Job resources (autonomy, competence and relatedness) were expected to relate positively to work engagement.

The second research question, of relevance for practical recommendations, was:

Are the job resources more important as antecedents of work engagement than the job demands? Job resources are known to have intrinsic motivational qualities and were therefore expected to be of more relevance for work engagement than job demands.

A total of 84 executive managers (61% men and 39% women) filled out the given questionnaire. With regard to *work-home interaction*, the results indicated that an increase in negative work-home interaction results in employees having less energy, power and desire (vigor) for their work. *Quantitative workload* did not show to be related with work engagement. Referring to the basic psychological needs; when experiencing ownership of the behavior and acting with a sense of volition (*autonomy*), feeling capable of mastering the environment and being valued for it (*competence*), and when achieving a sense of communion and belongingness (*relatedness*); the work engagement seems to be enhanced. In addition, *age* emerged to affect work engagement as well – it appears that the older employees get, the more engaged they are. Concerning the importance of the measured variables, the findings revealed the basic psychological needs (autonomy, competence and relatedness) to be the most important as antecedents of work engagement under Sodexo's highest executive managers.

In sum, this study revealed that like plants need water, employees need facilitating conditions which support their needs satisfaction in order to stay engaged. To foster need satisfaction, SODEXO is recommended to develop and offer a new training course in which the supervisors are trained in adopting a transformational leadership style. Transformational leaders are said to be able to meet the satisfaction of all basic psychological needs through encouraging self-initiation, helping subordinates to develop their full potential and through enhancing commitment to the group. In addition, need satisfaction can be enhanced by the trainer during the training sessions. Through creating an autonomy supportive context and by providing the trainees with positive feedback and the feeling of self-confidence, the satisfaction of the needs for autonomy and competence can be facilitated. Regarding the need for relatedness, including teambuilding activities and offering more opportunities to network with each other can be one way to satisfy this need.

PREAMBLE

This paper was written for the certificate of the Master of Psychology, Work-, Organizational-, & Health Psychology at the Radboud University in Nijmegen.

At this point, I would like to express my gratitude.

First, I would like to thank SODEXO for adopting me as a trainee and for enabling me to conduct this research for my master's degree. During the 6 months of my internship I gained deep insight into how an organization, like SODEXO, works.

From the beginning all my colleagues were very kind to me and for my research I was fully supported from Martin Sasse and my external tutor, Susanne Auer. I would like to thank her in particular. She kindly assists me to gain as much participants for my study as possible and provided me with new insights in how a Human Resource Developer works in practice. In addition, she showed me how to implement my university knowledge into the organizational context. I really enjoyed this internship!

Second, I would like to thank my internal tutor at the University of Nijmegen, Pepijn K.C. van de Pol. Although I was around 350km away from Nijmegen, I experienced our cooperation as very pleasant. I could always rely on his constructive feedback and I appreciated the new ideas he brought into my awareness. Thank you!

Finally, I would like to thank my father. He always supported me and my decisions and without his assistance my academic study would not have been possible. He is the best!

I hope you will enjoy reading this paper – so as I did when writing it.

Samira Bormann

August, 2013

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ABSTRACT

The present study tried to investigate, relying on the Job Demands-Resources model, antecedents of work engagement (vigor, dedication and absorption) among the highest executive managers of SODEXO (N=84). Data were collected using a questionnaire, handed out during different training courses of the HR-department. For job demands, work-home interaction and quantitative workload; and for job resources, the basic psychological needs (autonomy, competence and relatedness) were investigated. Results of the Partial Correlation Analysis showed the basic psychological needs to be positively related to work engagement. Of the job demands, work-home interaction was negatively related to vigor. Canonical Correlation Analysis revealed job resources to be of more importance than job demands when forecasting work engagement. Moreover, age showed to positively affect work engagement: the older employees get, the more engaged they are. The organization is recommended to create a work climate in which the basic psychological needs can further be satisfied. Recommendations address leadership style and trainer behavior.

Like Plants need Water - Antecedents of Work Engagement at Sodexo`s.

*We know the worth of water
when the well is dry. (Chinese proverb)*

1.1 Background and Problem Indication

In my search of an internship for the applied section of my master`s degree, I spent a lot time reading one job advertisement after another. During this, one phrase – appearing in nearly each offering attracted my attention. “We are looking for engaged employees!” or similar “Are you engaged? Come and join us!”- seemed to be the most wanted things companies admired...

By searching why engaged employees are so popular, it became clear that work engagement is assumed to produce a broad spectrum of positive outcomes. For example, at the individual level like development and personal growth, or at the organizational level like performance quality (Kahn, 1990). Engaged employees are more satisfied with their job, feel more committed to the organization, perform better, enjoy good mental and physical health, show less burnout, have a strong motivation to learn and are willing “to go the extra mile”, compared to less engaged employees (Halbesleben, 2010; Schaufeli, 2012; Schaufeli & Bakker, 2004; Schaufeli & Salanova, 2007; Sonnentag, 2003). Nevertheless, research is sparse about the drive of engaged employees, whereas this could lead to a better understanding of their needs, which in turn could support the development of intervention- programs to stimulate engagement within the organization (Nijhuis, Van Beek, Taris & Schaufeli, 2012).

One organization, displaying the mission to engage their best talents to achieve their business strategy, is “SODEXO”. The company is the world leader of Quality of Life Services with around 17.100 employees reclusive in Germany (www.sodexo.de). Because of their great interest in engaged employees, every two years they charge an external institute to analyze their employees work engagement. Actually, the results of the last survey (April 2012) were not satisfying. They showed critically decreased engagement

values for nearly all employees and especially at the level of the highest executive managers of the businesses a serve decline was recognized. Therefore, SODEXO wants to know which factors affect the work engagement of its employees, so that actions can be taken to improve the engagement.

The aim of this study is to help the organization to identify possible antecedents of their employees' work engagement and to provide SODEXO with practical recommendations of how to facilitate the work engagement in its employees.

1.2 Theoretical Framework

1.2.1 Work Engagement – The Three Dimensions

The definition of work engagement, used in this paper, reads as follows: "...a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption" (Schaufeli, Salanova, González-Romá & Bakker, 2002b, p. 74).

The first dimension, *vigor*, has been proven to have conceptual similarity of work motivation (Mauno, Kinnunen & Ruokolainen, 2007). People who score high on vigor indicate themselves as having a lot of energy, power and desire for work. They feel fit and strong, are not exhausted and have the ability to assert them (Schaufeli & Bakker, 2004). *Dedication*, as the second dimension, has some similarity with the concept of job involvement, which focuses on the psychological importance of the job in an employee's life (Mauno et al., 2007). High scorers of dedication identify themselves strong with their work through it is experienced as useful, challenging and inspiring. They are pride and satisfied with their work (Schaufeli & Bakker, 2004). The last dimension, *absorption*, comes close to the concept of „flow“, which can be described as the state of optimal experience when one is fully concentrated and can block out everything else from their awareness (Csikszentmihalyi, 1990; Schaufeli, Salanova, González-Romá & Bakker, 2002a). High scorers of absorption often loose themselves (in a positive way) in their work and have difficulties to get away from it -because they enjoy it that much (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004).

Some researchers claim that work engagement is the direct opposite of 'burnout', which can be defined in terms of exhaustion, cynicism and reduced professional efficacy (Maslach & Leiter, 1997). For work engagement, *vigor* and *dedication* are indicated as the core aspects, since those two represent the opposites of the core aspects of burnout, namely exhaustion and cynicism. However, *absorption* is seen as an independent

dimension of engagement, and not as the contrary to reduced professional efficacy (Schaufeli & Bakker, 2004).

1.2.2 Job Demands-Resources Model

In line with the concept of “positive psychology”, the Job Demands-Resources (JD-R) model is used as the underlying model of this study. It does not only examine the negative aspects of work, but also considers the positive job characteristics and their health enhancing effects. The JD-R states that while people's work environments differ, the characteristics of those environments (job characteristics) also differ and can be divided into two categories: job demands and job resources (Demerouti, Bakker, Nachreiner & Schaufeli, 2001).

Job demands are psychological, physical, social or organizational features of a job that require effort of the employee (e.g. work stress, work-home interaction, or quantitative workload). If there is no possibility for recovery and job demands will hold on, work stressors cumulate and can lead to burnout (Demerouti et al., 2001).

Job resources, on the other hand, are psychological, physical, social or organizational features of a job that offer possibilities to reduce job demands and to function optimally. They can be found at different levels, like organizational (e.g. training possibilities), interpersonal (e.g. colleague support) and at the task level (e.g. autonomy).

Concerning work engagement, the JD-R model expects job demands to give rise to burnout, while job resources are maintained to reduce burnout and to enhance work engagement due to their intrinsic motivational qualities (Bakker & Demerouti, 2007; Demerouti et al., 2001). This assumption is supported by several studies which found job demands to be negatively and job resources to be positively related with work engagement (Hakanen, Bakker & Schaufeli, 2006; Mauno et al., 2007). In line with this, Mauno and colleagues (2007) found job demands to be of less importance in predicting work engagement than job resources. Because of that, most studies that have been done in relation with work engagement concentrated more on job resources than on job demands. To back up previous research results and to receive a complete picture of the relations between job demands, job resources and work engagement, in this study both, demands and resources, will be included and in addition tested of their importance for work engagement.

1.2.3 Job Demands: Work-Home Interaction and Quantitative Workload

The first job demand included in this study is *work-home interaction*. It can be

defined as “a process in which a worker’s functioning in one domain (e.g. home) is influenced by (negative or positive) load reactions that have built up in the other domain (e.g. work)” (Geurts & Demerouti, 2003; Geurts, Kompier, Roxburgh, & Houtman, 2003). Work-home interaction is seldom studied as antecedent of work engagement (Mauno et al., 2007) and because previous studies found employees reporting more work-home than home-work interaction, this paper merely considers the influence of load reactions developed at work hamper functioning at home (negative work-home interaction) (Geurts et al., 2005; Kinnunen & Mauno, 1998). Negative work-home interaction is found to account for less job satisfaction, less organizational commitment, more turnover intentions and higher levels of burnout (Kelly et al., 2008). Referring to work engagement, studies found less negative spillover from work to home when workers were engaged and had more job resources (Bakker & Geurts, 2004; Rothbard, 2001). One study also revealed that negative work-home interaction decreased especially one dimension of work engagement, namely *vigor* (Mauno et al., 2007).

The second included job demand is *quantitative workload*. It can be defined as having too much to do in a limited amount of time (Spector & Jex, 1998). It is selected for this study because, in contrary to work-home interaction, it rather concerns tasks than people (Spector & Jex, 1998). Bakker and Demerouti (2008) confirm high quantitative workload to be a job demand since they found it to cause mental and physical health problems. In addition, more quantitative workload is associated with less job satisfaction, more negative work-home interaction and more burnout (Bakker et al., 2013; Geurts et al., 2005). Referring to work engagement, researchers found quantitative workload to be negatively associated with it – higher scores of workload decreased especially the scores of *vigor* and *dedication* (Tomic & Tomic, 2010).

1.2.4 Job Resources: Basic Psychological Needs

As a part of self-determination theory (SDT), one of the most used motivational theories, Deci and Ryan (1985) developed their own basic needs theory. They stated that the satisfaction of the three basic psychological needs (*autonomy*, *competence* and *relatedness*) will lead to intrinsic motivation and is positively associated with individuals optimal functioning in terms of well-being (Deci & Ryan, 2000). In addition, they consider the basic psychological needs as innate and fundamental propensities, all individuals try to satisfy (Deci & Ryan, 2000). Therefore, in this paper the basic psychological needs are regarded as the most important job resources which have to be studied under

consideration.

The need for *autonomy* refers to the subjective experience of psychological freedom and choice during activities. Individuals want to act with a sense of volition to have activities concordant with one's sense of self. The need for *competence* refers to the propensity to have an effect on the environment, to bring out desired outcomes, to be valued for those and to extend one's skills. It represents the current and more general feeling of effectiveness. The need for *relatedness* refers to the desire to be connected with others and to achieve a sense of communion and belongingness (Deci & Ryan, 2000; Van den Broek, Vansteenkiste, De Witte & Lens, 2008). For optimal well-being, all three needs have to be satisfied, not only one or two. However, with reference to intrinsic motivation, it has to be noted that there are situations in which *relatedness* showed to be less central than *autonomy* or *competence* (Deci & Ryan, 2000).

With respect to organizations, Gagné and Deci (2005) state that work climates which promote the satisfaction of the three basic psychological needs will lead to a wide spectrum of positive outcomes; e.g. job satisfaction, effective performance, psychological adjustment and well-being, positive work-related attitudes, and persistence and maintained behavior change. Humans then, require facilitating conditions which support need satisfaction for optimal development and well-being - just as plants need water (Deci & Ryan, 2000). Referring to work engagement, studies found the satisfaction of the basic psychological needs to be positively related with two dimensions of work engagement, namely *vigor* and *dedication* (Vansteenkiste et al., 2007).

1.3 Research Questions and Hypotheses

To contribute to the sparse research of the drive of engaged employees and to give SODEXO an indication which factors affect the work engagement of its employees, the first research question reads as follows: *What are the relationships between job demands, job resources and work engagement (vigor, dedication and absorption)?*

The hypotheses derived from the theoretical framework to answer the first research question (see Figure 1 below) are the following:

Hypothesis 1: Work-home interaction will be negatively related with work engagement.

Hypothesis 2: Quantitative workload will be negatively related with work engagement.

Hypothesis 3a: The basic psychological need for autonomy will be positively related with work engagement.

Hypothesis 3b: The basic psychological need for competence will be positively related with work engagement.

Hypothesis 3c: The basic psychological need for relatedness will be positively related with work engagement.

The second research question which arises from the theoretical framework of the JD-R model and which is especially of relevance when coming forward with a proposal how to facilitate the work engagement reads as follows: *Are the job resources more important as antecedents of work engagement than the job demands?*

The hypothesis derived from the theoretical framework to answer the second research question is the following:

Hypothesis 4: Job resources (autonomy, competence, relatedness) will be more of importance for work engagement than job demands (work-home interaction, quantitative workload).

1.4 Research Model

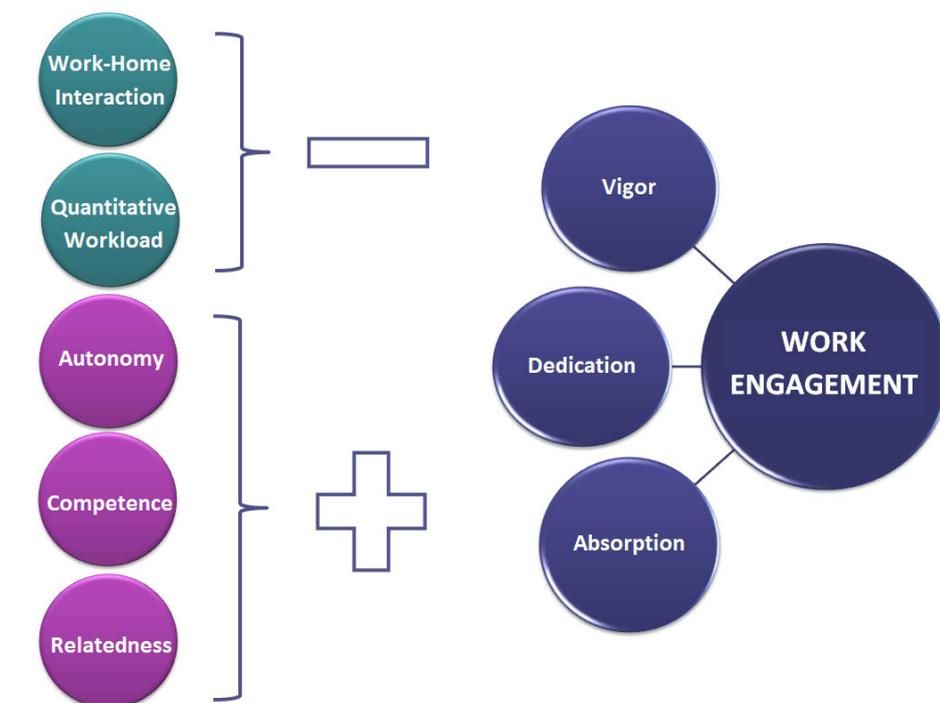


Figure 1. The research model. Possible antecedents and their expected relationship with work engagement (vigor, dedication and absorption).

2 METHOD

2.1 Participants

A total of 85 higher executive managers took part in this study, all attending one of the different training opportunities offered by the HR-department. Of those, 61% were men, compared to 39% women. More than half of the participants (54%) were between 30 to 39 years old and worked between two till five years in the company (46%). For the majority of the participant's, the highest completed education was vocational education (41%) or secondary modern school (29%). For all sample demographics see Table 1 in *Appendix A*.

2.2 Procedure

Questionnaires were handed out during different training courses. First, the author was shortly introduced by the trainer. Thereafter, she defined her background (as a university student) and introduced the questionnaire, which included a title page and an information letter, stating the purposes of the survey with the assurance that responses will be kept confidential and that participation was voluntary (see *Appendix D*). The estimated completed time was mentioned and to encourage participation, as well to thank the participants, chocolates served as a token of appreciation for completing the survey. Each time, all training participants filled out the given questionnaire (response rate: 100%).

2.3 Translation of instruments

The Utrecht Work Engagement Scale (UWES), parts of the Survey Work-Home Interaction – Nijmegen (SWING), the Quantitative Workload Inventory (QWI) and the Basic Psychological Needs at Work Scale (BPNWS) were used as measures in this study. For the UWES, as well as for the SWING, German versions were available. The QWI and the BPNWS were only available in English and had to be translated before use.

Each measure of the QWI and the BPNWS was translated into German by two German speaking colleagues, who lived in America and have native English skills. The reversed translation (of the already translated questionnaires) to German was done by a professional translator. Finally, this (reversed) translation was compared and corrected by the professional translator as well as by the author (for validation of this procedure see: Harkness, 2003).

2.4 Measures

Work engagement was measured by the Utrecht Work Engagement Scale (UWES), developed by Schaufeli and colleagues (2002a, 2002b). The scale is available in German and was downloaded by the personal website of W. Schaufeli (www.wilmarschaufeli.nl). The short-version was used, consisting of nine items which were rated on a six-point frequency-based scale (0=never, 6=daily). The scale comprises three subscales; vigor (e.g. "At my work, I feel bursting with energy."), dedication (e.g. "I am enthusiastic about my job."), and absorption (e.g. "I am immersed in my work."). Internal reliabilities of vigor ($\alpha = .84$), dedication ($\alpha = .88$) and absorption ($\alpha = .79$) have been reported (Schaufeli & Bakker, 2004).

Job Demands were firstly measured by the Survey Work-Home Interaction - Nijmegen (SWING), developed by Geurts and colleagues (2005). This scale is also available in German and was provided by the developer (Sabine Geurts) herself. The SWING consists of 22 items covering the four types of work-home interaction (negative work-home-interaction, negative home-work interaction, positive work-home interaction, and positive work-home interaction). For this study, only negative work-home interaction was measured. This component consists of eight items, scored on a four-point-scale (1=never, 4= always). An example of the used items is: "You do not have the energy to engage in leisure activities with your spouse/family/friends because of your job?". The internal reliability for the scale is generally found around $\alpha = .85$ (Geurts et al., 2005).

Secondly, job demands were measured by the Quantitative Workload Inventory (QWI), developed by Spector and Jex (1998). The scale consists of five items, to be rated on a five-point scale (ranging from 1=less than once per month or never, to 5= several times per day). An example of the used items is: "How often do you have more to work than you can do well?". High scores on this scale indicate more perceived workload. The internal reliability for the English version of the scale is generally found around $\alpha = .82$ (Spector & Jex, 1998).

Job Resources were measured by the Basic Psychological Needs Scale (BPNS), developed by Deci and Ryan (2000). The BPNS is a family of scales. For this study, the one which addressed the need satisfaction in working life (BPNWS= Basic Psychological Needs at Work Scale) was used. The scale was rated on a seven-point truth-scale (1= not at all true, 7=very true) and has 21 items concerning the three basic needs. Competence is measured by six items (e.g. "People at work tell me that I am good at what I do."), autonomy by seven items (e.g. "I am free to express my ideas and opinions at work."), and

relatedness by eight items (e.g. "I really like the people I work with."). Good internal reliabilities for autonomy ($\alpha = .84$), competence ($\alpha = .88$), and relatedness ($\alpha = .90$) have been reported for the English version of the scale (Brien et al., 2012).

Of the general background factors, gender, age, highest completed education and amount of working life within the company were taken into account as *control variables* in the analyses. All of them were measured qualitative.

2.5 Statistical Analyses

2.5.1 Preliminary Analyses

First, reliability analyses (coefficient alpha) were performed on the identified scales. Second, descriptive data and bivariate correlation analysis were calculated for the whole group of participants on each variable.

2.5.2 Main Analyses

The present study was a quantitative, non-experimental study with a cross-sectional design, conducted to find out about the relationships and importance of job demands (*work-home interaction* and *quantitative workload*) and job resources (*autonomy, competence* and *relatedness*) with work engagement (*vigor, dedication* and *absorption*).

Using SPSS 19.0, first a partial correlation analysis was carried out to test Hypotheses 1 till 3c. The variables used were *work-home interaction, quantitative workload, autonomy, competence, relatedness, vigor, dedication, and absorption* whilst controlling for the influence of *age*. It was chosen to hold the effect of *age* constant because the bivariate correlation analysis showed age to be the only control variable which correlated significantly with the dimensions of work engagement (Field, 2009). Second, a canonical correlation analysis (CCA) was carried out to generally support the results of the partial correlation analysis and to indicate which of the variables can be regarded to be of more importance as antecedent of work engagement (H4). The chosen job demands and job resources, as well as the control variable *age* were computed as predictors of work engagement whereas the dimensions of work engagement were conducted as criterions. Interpretations of the CCA are based on the recommendations of Sherry and Henson (2005).

3 RESULTS

3.1 Outliers

By using z-scores, the data was controlled for possible outliers. By checking the z-scores in a normal distribution, the scores should not exceed a value greater than about 3.29 (Field, 2009). One outlier showed a value of more than 3.29 and was therefore deleted, leaving the total number at 84 participants.

3.2 Reliability Analyses

Value (α) interpretations and the recommendation to delete an item when therefore achieving a higher value of α , rely on Hair and colleagues (2006). For work engagement, reliability analyses showed strong internal reliability scores for vigor $\alpha = .79$, dedication $\alpha = .88$ and absorption $\alpha = .91$. For work-home interaction, reliability analyses showed an excellent internal reliability of $\alpha = .91$ and quantitative workload had a strong internal reliability of $\alpha = .85$. For the basic psychological needs, reliability analyses showed an acceptable internal consistency of $\alpha = .74$ for autonomy, and poor to questionable internal consistencies of $\alpha = .54$ (when one item was deleted, leaving the scale with 5 items) for competence, and $\alpha = .62$ (when one item was deleted, leaving the scale with 7 items) for relatedness. Based on the recommendations of Schmitt (1996), a measure, also one with low reliability can be used for research if it has desirable properties such as a meaningful content. In addition, Hair and colleagues (2006) regard it as feasible to accept values near .60, especially if the scale only has a few items. Therefore both scales, competence and relatedness, were included in this study. For detailed results see Table 2 in *Appendix B*.

3.3 Descriptive Results and Bivariate Correlations

Means and standard deviations are displayed in Table 3. Of the control variables, only *age* correlated significantly with all dimensions of work engagement. For all bivariate correlations see Table 3.

3.4 Partial Correlation Analysis

Hypothesis 1 stated, there would be a negative relationship between work-home interaction and work engagement. Pearson's Correlations showed work-home interaction to be significantly negative related only with vigor ($r = -.26, p < .001$). It appears that

when work-home interaction increases, employees lose energy, power and desire for their work (vigor). No significant correlations between work-home interaction and the other dimensions of work engagement (dedication and absorption) were found.

Hypothesis 1 is partially confirmed.

Hypothesis 2 stated, there would be a negative relationship between quantitative workload and work engagement. No significant correlation between quantitative workload and work engagement was found. Hypothesis 2 is not confirmed.

Hypothesis 3a stated, there would be a positive relationship between the need for autonomy and work engagement. Pearson's Correlations showed autonomy to be significantly positive related with vigor ($r = .43, p < .001$), dedication ($r = .49, p < .001$), and absorption ($r = .39, p < .001$). This indicates that work engagement is increased when employees experience psychological freedom and the feeling of ownership of their behavior during activities. Hypothesis 3a is confirmed.

Hypothesis 3b stated, there would be a positive relationship between the need for competence and work engagement. Competence showed to be significantly positively related with vigor ($r = .39, p < .001$), dedication ($r = .46, p < .001$) and absorption ($r = .39, p < .001$). It seems that the employees' work engagement is increased in those who feel that they can master their tasks and are valued for their effort. Hypothesis 3b is confirmed.

Finally, hypothesis 3c stated, there would be a positive relationship between the need for relatedness and work engagement. Relatedness was significantly related with vigor ($r = .32, p < .001$), dedication ($r = .35, p < .001$) and absorption ($r = .43, p < .001$), too. This indicates that work engagement is increased when employees feel as a part of the communion within the company. Hypothesis 3c is confirmed. For all partial correlations see Table 4 in *Appendix C*.

3.5 Canonical Correlation Analysis

Before conducting the analysis, data was controlled for the assumptions of normality, linearity, homoscedasticity, and multicollinearity. This was done using the "Graph" and "Explore" function (for normality, linearity, and homoscedasticity) in SPSS 19.0. Thereby, no violation of these assumptions could be recognized (Field, 2009; Hair, Black, Babin & Anderson, 2010). Following the rule of Field (2009) correlations of above .80 indicating multicollinearity, partial correlations of the variable sets were checked.

Table 3

Means, standard deviations and bivariate correlations among control variables, job demands, job resources and work engagement (alphas within parentheses on the diagonal) (N=84).

Variable	Means	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10	11.	12.
1. Sex	1,39	0,49	(-)											
2. Age	2,11	0,79	-.23*	(-)										
3. Highest completed education	3,15	1,10	.38**	-.00	(-)									
4. Duration of employment	2,23	0,91	-.01	.23*	.07	(-)								
5. Quantitative Workload	18,88	3,90	.14	-.01	.19	.17	(.85)							
6. Work-Home Interaction	1,30	0,64	.11	-.30**	-.10	-.01		(.91)						
7. Autonomy	5,07	0,89	-.09	.23*	-.16	-.08	-.30**	-.35**	(.74)					
8. Competence	5,63	0,78	-.15	.10	-.12	.06	-.01	-.10	.62**	(.54)				
9. Relatedness	5,09	0,78	-.04	-.11	-.00	-.13	-.06	-.11	.60**	.47**	(.62)			
10. Vigor	4,28	0,96	-.15	.36**	.08	.11	-.15	-.34**	.48**	.40**	.26**	(.79)		
11. Dedication	4,50	1,03	-.00	.24*	-.01	.02	-.11	-.19	.52**	.47**	.31**	.73**	(.88)	
12. Absorption	4,30	1,17	-.05	.27*	.02	-.04	-.04	-.16	.42**	.40**	.39**	.72**	.85**	(.91)

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

Thereby, a violation of this assumption was detected. *Absorption* was found to correlate high ($r = .84, p < .001$) with *dedication*, making it more difficult to assess the individual importance of the criterions (Field, 2009). The acceptable number of participants, 10 cases per measured variable, was with a total of 84 participants achieved (Hair, Black, Babin & Anderson, 2010).

Collectively, the full model across all functions was statistically significant using the Wilkins $\lambda = .492$ criterion, $F(18, 212.62) = 3.368, p < .001$. The r^2 -type effect size was .508, which indicates that the full model explained 50,8% of the variance shared between the variables sets and which can be regarded as a “medium” effect size (Cohen, 1988). The analysis yielded three functions with squared canonical correlations (R_c^2) of .368, .157, and .078 for each successive function. Given the R_c^2 effects for each function, only the first two functions (36,8% and 15,7% of shared variance, respectively) were considered noteworthy in the context of this study (Sherry & Henson, 2005) (see Table 5). The dimension reduction analysis supported that the full model (functions 1 to 3), was statistically significant, as well as function 2 to 3 ($F(10, 152.00) = 2.04, p < .05$). Function 3 (the only one tested in isolation) did not explain a significant amount of shared variance between the set of variables.

Table 5

Canonical Correlation Analysis relating job demands/job resources/age to work engagement.

Measures of overall Model Fit for Canonical Correlation Analysis				
Canonical Function	Canonical Correlation	Squared Correlation	F-Statistics	Probability
1	.606	.368	3.368	.000
2	.396	.157	2.036	.033
3	.278	.078	1.623	.177

Table 6 presents the standardized canonical function coefficients and structure coefficients for functions 1 and 2. On recommendation of Sherry and Henson (2005), both will be used for interpreting variable importance. The squared structure coefficients are also given, as well as the communalities (h^2) across the two functions for each variable. According to Comrey and Lee (1992), values of .71 or higher can be considered “excellent”, .63 is “very good”, .55 is “good”, .45 is “fair”, and .32 is “poor”.

Therefore, for the structure and communality coefficients, only the values of .45 or above are underlined and regarded as important for the model.

Table 6

Canonical Solution for job demands/job resources/age predicting work engagement for functions 1 and 2.

	Variable	Function 1			Function 2			
		Coef	r_s	r_s^2 (%)	Coef	r_s	r_s^2 (%)	h^2 (%)
Criteria	Vigor	-.617	<u>-.943</u>	88.92	.236	-.099	00.98	<u>89.90</u>
	Dedication	-.562	<u>-.912</u>	83.17	1.488	-.008	00.00	<u>83.17</u>
	Absorption	.177	<u>-.805</u>	64.80	-1.962	<u>-.527</u>	27.77	<u>92.57</u>
	R_c^2			36.76			15.67	
Predictors	Work-home interference	.161	<u>.489</u>	23.91	-.042	-.105	1.10	25.01
	Quantitative workload	.048	.254	6.45	-.129	-.325	10.56	17.01
	Autonomy	-.462	<u>-.879</u>	77.26	.887	.119	1.41	<u>78.67</u>
	Competence	-.406	<u>-.761</u>	57.91	.078	-.001	00.00	<u>57.91</u>
	Relatedness	-.027	<u>-.477</u>	22.75	-1.235	<u>-.590</u>	34.81	<u>57.56</u>
	Age	-.339	<u>-.532</u>	28.30	-.572	-.209	4.37	32.67

Note: Structure coefficients (r_s) greater than .45 are underlined. Communality coefficients (h^2), greater than 45%, are underlined. Coef = standardized canonical function coefficient; r_s = structure coefficient; r_s^2 = squared structure coefficient; h^2 = communality coefficient.

Looking at the function 1 squared structure coefficients, the relevant criterion variables were primarily *vigor* and *dedication*, with *absorption* having made a secondary contribution to the synthetic criterion variable. This is supported by the canonical function coefficients and the standardized canonical function coefficients where *vigor* and *dedication* tended to have larger coefficients than *absorption*. To note, *absorption* shows to have a large structure coefficient but a small function coefficient. This result is due to multicollinearity of this variable in respect to another criterion variable (*dedication*). The linear equation that used the standardized coefficients to combine the criterion variables is influenced by this multicollinearity. Therefore, in this study both, standardized coefficients and structure coefficients are used for interpretation. As

shown by r_s and r_s^2 , *absorption* contributes substantially to the criterion variable. In addition, all of the variables were positively related with each other.

Function 1 also shows the predictor set. Because the structure coefficient of *work-home interaction* was positive, it was negatively related to work engagement. *Quantitative workload* had a value beneath .32 and was therefore considered not to be important for the model. The variables *autonomy*, *competence* and *relatedness* are positively related to work engagement, as well as to the predictor variable *age*.

These results are generally supporting the partial correlation analysis by that only one job demand was negatively, but all three job resources positively related to work engagement. Regarding the positive relationship found with age and work engagement, it seems that the older employees get, the more engaged they are.

Moving to function 2, the coefficients in Table 1 suggest that the only criterion variable of relevance is *absorption* which was positively related to the other criterion variables. Of the predictor variables, *relatedness* was the predominant predictor which was positively related to *absorption*. This indicates a unique contribution of *relatedness* on *absorption* for the whole canonical solution.

Hypothesis 4 stated that job resources would be of more importance for work engagement than job demands. The squared structure coefficients of the predictor set in function 1 inform us that *autonomy* and *competence* were the primary contributors to the predictor synthetic variable with secondary contributions of *age*, *work-home interaction* and *relatedness*. This is also supported by the structure coefficients. The communality coefficients (h^2) indicate which variables were not (or only moderately) contributing in defining the complete canonical solution (Sherry & Henson, 2005). For the entire analysis, *quantitative workload* showed not to be related with work engagement. *Work-home interaction* and *age* did represent a bit more of variance across the functions but because not reaching a value of .45 it seems that they may not have been strongly related to work engagement. *Autonomy*, *competence* and *relatedness*, thus the job resources, seem to be of most value for work engagement. Hypothesis 4 is confirmed.

4 DISCUSSION

With the results of this study, SODEXO received an indication which factors affect the work engagement of its employees and what actions can be taken to improve the

work engagement. In addition, this study contributes to a better knowledge of the antecedents of work engagement in the academic and organizational world. It confirms and supports some established results and gives new input for future research.

4.1 General Conclusions

The first research question focused on the relationship between job demands, job resources and work engagement (vigor, dedication and absorption). The results revealed work-home interaction, autonomy, competence, relatedness and age to affect the work engagement of Sodexo's employees. The second research question focused on the importance of the chosen job demands and resources for work engagement. As expected, the results revealed job resources to be of most value as antecedents of work engagement.

Partially in line with *Hypothesis 1*, which stated that work-home interaction would be negatively related with work engagement, results supported the study of Mauno and colleagues (2007). Work-home interaction was significantly negative related with only one dimension of work engagement, namely vigor. Employees appear to still find their work challenging and inspiring (dedication) and can block out other things of their awareness whilst working (absorption), but it seems that especially one's feeling of being fit, full of energy and having mental resilience (vigor) can be depleted by negative work-home interaction. A possible explanation for why only vigor is affected by work-home interaction could be the missing recovery time at home due to the influence of negative load reactions developed from work. The home domain is an important place to recover after work and the lack of recovery was found to result in negative outcomes for health, well-being and work engagement (Geurts et al., 2005; Meijman & Mulder, 1998; Sonnentag, 2003). Referring to vigor, past literature found employees investing less effort on subsequent tasks when not being sufficiently recovered (Schellekens, Sijtsma, Vegter & Meijman, 2000). Less is known about the relationship between recovery, dedication and absorption but it can be assumed that even when not being sufficiently recovered, employees can still identify themselves with their work (dedication) and can block out other things of their awareness whilst working (absorption). Future studies should investigate "recovery" as a mediator in relation to work-home interaction and the dimensions of work engagement.

Hypothesis 2, which stated that quantitative workload would be negatively related with work engagement, was not confirmed. Quantitative workload was included as a job demand because it concerns tasks more than people and earlier research found it to be negatively related with vigor and dedication (Spector & Jex, 1998; Tomic & Tomic, 2010). However, it could be assumed that quantitative workload does not necessarily lead to distress in the same way as personal conflict, e.g. work-home interaction might (Spector & Jex, 1998). This would explain why only work-home interaction was found to be negatively related with work engagement. Moreover, most studies found essentially high scores of workload to have a negative impact on work engagement (Bakker & Demerouti, 2008; Tomic & Tomic, 2010). In this study, quantitative workload had a mean value of 18,88 (see Table 3). Recently published standard values indicate this score (18,88) as average (values range from 13,12 till 19,95 are regarded as average; values range from 19,96 –till 23,37 are regarded as high; see Bakker et al., 2013). Therefore, it can be assumed that the amount of quantitative workload was not high enough to have a negative influence on the work engagement of Sodexo's employees.

Turning now to the job resources used in this study, *hypothesis 3a, b and c*, supposed the basic psychological needs (autonomy, competence and relatedness) to be positively related with work engagement. All three hypotheses were confirmed, which is in line with previous literature. The satisfaction of the basic psychological needs within the organization, especially autonomy and competence, has a lot of positive outcomes of which work engagement is one (Gangné & Deci, 2005; Vansteenkiste et al., 2007).

Additionally, the results revealed another variable affecting work engagement, namely age. It correlated significantly positive with all dimensions of work engagement, so it appears that the older employees get, the more engaged they are. Several studies confirm older employees (above the age of 50) to be slightly more engaged than their younger colleagues (around the age of 30) (Arnett, 2004; James, McKechine & Swamberg, 2011; Shimazu, Miyanaka & Schaufeli, 2010). However, age was found to only make a secondary contribution as antecedent of work engagement and to be of less value in affecting work engagement, compared to the studied job resources.

Finally, *hypothesis 4* expected the job resources to be of more importance than the chosen job demands for work engagement. The hypothesis was confirmed. The job demands (work-home interaction and quantitative workload) used in this study, showed to affect work engagement to a lesser extent than the job resources (autonomy,

competence and relatedness). This result is in line with previous research which found job demands to have less predictive power regarding work engagement than job resources (Hakanen et al., 2006; Mauno et al., 2007). In addition, this finding clearly supports the JD-R model according to which job resources are most likely to result in motivational outcomes, e.g. work engagement (Bakker & Demerouti, 2007).

Interestingly, the findings showed autonomy and competence to be of more relevance than relatedness as antecedents for work engagement. Nevertheless, the results indicate a unique contribution of relatedness. It appears to affect especially one dimension of work engagement, namely absorption. Actually, also absorption is often regarded as an independent dimension of work engagement whereas vigor and dedication are regarded as the core aspects (Schaufeli & Bakker, 2004). Yet, it seems a logical sequence forecasting absorption out of the need for relatedness. Employees, who have a good relationship with their colleagues may enjoy their work more and possibly have more difficulties to get away from it. Future research should focus on the relation between those two variables which are often considered to be less important for the whole concepts of work engagement and basic psychological needs.

In sum, the needs for autonomy, competence and relatedness appear to be positively related with the work engagement of Sodexo's employees. As it happens, the job resources seem to affect the work engagement stronger than the job demands included in this study. The results of this study are in line with Deci and Ryan's statement by that humans require facilitating conditions which support needs satisfaction, for optimal development and well-being - just as plants needs water (Deci & Ryan, 2000).

4.2 Study Strengths and Limitations

Despite some limitations of this study there are nevertheless strong points which will be addressed primarily. First, the response rate was 100%. All people to whom the questionnaire was introduced were willing to fill it out. Second, one of the main analyses was a Canonical Correlation Analysis (CCA). This analysis was chosen, because the interest in this study lied not on only one but on three dependent variables (vigor, dedication and absorption). With CCA, as a multivariate technique, it is possible to assess the relationship between two sets of multiple variables. Thereby, the probability of committing a Type 1 error, finding a statistically significant result when one should

not have, is limited. The analysis is said to be the most appropriate and powerful multivariate technique and one can use both metric and nonmetric data for all variables (Hair, Anderson, Tatham & Black, 1998). Finally, this study has the advantage to delve into a particular aspect of an organization in a live context and has highlighted certain key relationships that will inform SODEXO and will possibly guide further research.

Besides the before mentioned strong points, this study is also subject to some methodological limitations addressed in the following. The first limitation to address refers to the design. Due to the inflicted time limit of six months to conduct this research, the current study is based on a cross-sectional design, meaning that all data were collected on one single point in time. Also speaking about forecasting and antecedents of work engagement, it is not possible to clearly identify a causal relationship between the different factors and work engagement due to this cross-sectional design. By using a powerful technique as CCA, possible antecedents were tried to be identified. Nevertheless, results regarding causality should be interpreted with caution. In addition, because some studies claim work engagement as fluctuating within persons from day to day (Sonnetag, Dormann & Demerouti, 2010), future research should use a longitudinal design.

The second limitation addresses the low reliabilities of the BPNWS scales, competence and relatedness. In contrast to published reliabilities of the scales (see Brien et al., 2012), both scales used in this study displayed low till questionable reliabilities, also after deleting one item of each. However, because both variables were important ones with a meaningful content they were included in this study. Nevertheless, low reliabilities (below .70) are said to reduce the generalization of the results (Field, 2009). One possible explanation for the low reliabilities could be the use of self-reports. At the moment the organization resides in an organizational change with a new C.E.O, a new culture and a lot of pressure for better profit. Positions can change or be omitted and employees are anxious and skeptical about what will happen with their jobs. These circumstances could have influenced the self-perceptions and self-reports of the employees, especially regarding the scale of competence, resulting in biased data. A second measure within the organization (longitudinal design) would be necessary when generalization of the results is intended.

Finally, the last limitation, also addressing the generalization of the results, regards the homogeneous sample. Although the executive managers worked in different objects, all of them took part in one of the training courses offered by the HR-

department. Therefore, it cannot be claimed that the sample is representative for all executive managers of Sodexo's. If the organization wants to generalize the results to all its employees, employees not attending any training program have to be included in further studies as well.

5 PRACTICAL IMPLICATIONS

Deriving conclusions from the discussion, the following section concludes this paper by providing SODEXO with the practical implications of the results found in this study. As already noted above, the sample of this study consisted of higher executive managers which took part in one of the trainings offered by the HR-department. The organization should therefore keep in mind that the following recommendations are most useful for employees which have the function as a high executive manager, taking part in one of the offered training possibilities.

In line with the JD-R model, literature states that there exist two possibilities how organizations can improve the work engagement of their employees. The first option is to reduce employee's exposure to job demands and the second option is to provide employees with more job resources (Schaufeli, Bakker & Rhenen, 2009). Regarding the findings of this study, the second possibility seems to be more fruitful with reference to work engagement. Thereby, the three basic psychological needs (autonomy, competence and relatedness) were indicated as main antecedents of work engagement. SODEXO should therefore facilitate a work climate in which the basic needs can further be satisfied.

One way need satisfaction could be promoted is through leadership style. Research recognizes it as a powerful tool to facilitate the satisfaction of the basic needs (Baard, Deci & Ryan, 2004). Especially, transformational leaders seem to be able to meet the satisfaction of all basic psychological needs (Bass & Avolio, 2004). Transformational leadership implies the leader to act as a positive role model who uses inspirational motivation and influences the followers through visions. The transformational leader intellectually stimulates his followers and shows individual consideration to them (Bass & Avolio, 1995). Referring to autonomy, transformational leaders meet this need by providing employees with opportunities to make free choices and by encouraging self-initiation (Hetland, Andreassen & Notelaers, 2011). The need for competence is met by

encouraging employees and helping them to develop their full potential. The need for relatedness is met by taking individual care for the employee and enhancing commitment to the group (Hetland, Andreassen & Notelaers, 2011). Therefore, offering the supervisors of the study participants a course how to adopt a transformational leadership style seems to be an appropriate manner to stimulate the satisfaction of the basic psychological needs in their subordinates.

Another way the satisfaction of the basic needs could be stimulated is through trainer behavior. To meet the need for autonomy, during the training an autonomy supportive context should be created. This would require the trainers to create an interpersonal climate with their trainees, in which they try to understand and acknowledge the perspective of the executive managers, providing meaningful information, and offering opportunities for choice (Baard, Deci & Ryan, 2004). To meet the need for competence, the trainers should provide their trainees with the feeling of confidence in their ability to accomplish their work. This could be supported by positive feedback which signifies the appreciation of the trainee's effort. Referring to the need for relatedness, the trainers should foster the trainees feeling of being connected with each other. This could be achieved by starting each training session with a teambuilding activity. To further foster the trainees feeling of being connected with each other, more opportunities for networking outside the training should be facilitated. This could be achieved by providing the participants with the numbers and e-mails of their colleagues. Thereby, they get the chance to stay in contact and to possibly build work groups beyond the training sessions.

Following those recommendations, the work engagement of Sodexo's employees is expected to be improved. The effectiveness of the suggested modifications of leadership style and trainer behavior should be visible in the next engagement measure.

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APPENDIX A
Sample Demographics

Table 1

Background characteristics of study participants: frequencies and percentages (N=84).

Variable	<i>n</i>	<i>%</i>
<i>Gender</i>		
Men	51	60,7
Women	33	39,3
<i>Age</i>		
Below 30	17	20,2
30 till 39	46	54,8
40 till 49	16	19,0
50 till 59	5	6,0
Above 60	0	0
<i>Highest completed education</i>		
Secondary school	5	6,0
Secondary modern school	24	28,6
Grammar school	14	16,7
Vocational education	35	41,7
University degree	6	7,1
<i>Amount of working life within the company</i>		
Less than 2 years	18	21,4
2 to 5 years	38	45,2
6 to 10 years	19	22,6
More than 10 years	9	10,7

APPENDIX B
Reliability Analyses

Table 2

The results of the self-conducted reliability analyses for each scale.

<i>Scale</i>	Chronbach`s α	Number of items
Work-Home Interaction (SWING)	0,85	5
Quantitative Workload (QWI)	0,91	8
Basic Psychological Needs (BPNS):		
Autonomy	0,74	7
Competence	0,54	5 ¹
Relatedness	0,62	7 ²
Work Engagement (UWES):		
Vigor	0,79	3
Dedication	0,88	3
Absorption	0,91	3

¹ 6 – but 1 item (Question No. 3 of BPNS) deleted: 5 items left

² 8 – but 1 item (Question No. 18 of BPNS) deleted: 7 items left

APPENDIX C
Partial Correlation Analysis

Table 4

Means, standard deviations and correlations of the job demands, job resources and work engagement while controlling for the influence of age (N=84).

Variable	Means	SD	1.	2.	3.	4.	5.	6.	7.	8.
1. Quantitative Workload	18,88	3,90	(-)							
2. Work-Home Interaction	1,30	0,64	.37	(-)						
3. Autonomy	5,07	0,89	-.30**	-.30**	(-)					
4. Competence	5,63	0,78	-.02	-.08	.62**	(-)				
5. Relatedness	5,09	0,78	-.06	-.15	.65**	.49**	(-)			
6. Vigor	4,28	0,96	-.16	-.26**	.43**	.39**	.32**	(-)		
7. Dedication	4,50	1,03	-.12	-.13	.49**	.46**	.35**	.71**	(-)	
8. Absorption	4,30	1,17	-.04	-.09	.39**	.39**	.43**	.70**	.84**	(-)

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

APPENDIX D
Research- Questionnaire



Befragung im Rahmen einer Master-Arbeit

Durchgeführt von Samira Bormann

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Nederland

Sehr geehrte Damen und Herren,

vielen Dank für Ihre Teilnahme an der Befragung für meine Masterarbeit.

Die folgende Fragenliste bezieht sich auf Ihre Wahrnehmung und Ihre Meinung über die Arbeit bei Sodexo.

Insgesamt besteht die vollständige Fragenliste aus vier Teilfragenlisten.

Bitte lesen Sie jede Frage sorgfältig. Es gibt keine richtigen oder falschen Antworten in dieser Befragung. Wählen Sie die Antwort aus, die Ihrer Meinung am besten entspricht – ich bin an Ihrer ehrlichen Meinung interessiert. Bitte versuchen Sie möglichst alle Fragen zu bearbeiten.

Ich versichere Ihnen, dass Ihre Antworten **vertraulich** behandelt und einzelne Fragebögen oder Antworten nicht an Dritte weitergegeben werden.

Niemand von Sodexo, Zehnacker oder GA-tec wird Ihre persönlichen Antworten sehen.

Sie benötigen weniger als 20 Minuten, um die Fragenliste auszufüllen.

Sollte Ihnen etwas nicht deutlich sein, bitte sprechen Sie mich noch während des Ausfüllens darauf an. Des Weiteren stehe ich Ihnen danach gerne für andere Fragen bezüglich dieser Befragung zur Verfügung. Sollten Sie Interesse an den Ergebnissen meiner Masterarbeit haben, können Sie nach Abschluss der Fragenliste Ihre E-Mail Adresse bei mir hinterlassen.

Herzlichen Dank im Voraus für Ihren Beitrag an meiner Master-Arbeit.

Samira Bormann

Allgemeine Angaben zu Ihrer Person

Geschlecht :

- Mann
- Frau

Alter :

- Unter 30 Jahre
- 30 bis 39 Jahre
- 40 bis 49 Jahre
- 50 bis 59 Jahre
- Über 60 Jahre

Höchste abgeschlossene Ausbildung :

- Hauptschule
- Realschule
- Abitur
- Berufsausbildung
- Hochschulabschluss

Wie lange sind Sie im Unternehmen beschäftigt?

- Weniger als 2 Jahre
- 2 bis 5 Jahre
- 6 bis 10 Jahre
- Mehr als 10 Jahre

Teilfragenliste 2

In der folgenden Liste finden Sie Aussagen über Ihre quantitative Arbeitsbelastung. Kreuzen Sie bitte das für Sie Zutreffende an. Bitte beachten Sie, dass Sie hier fünf Antwortmöglichkeiten haben.

Kreuzen Sie bitte nur **eine Antwort** pro Frage an!

	weniger als einmal im Monat oder nie	1-2 Mal pro Monat	1-2 Mal pro Woche	1-2 Mal pro Tag	mehrere Male pro Tag
1. Wie oft erfordert es Ihre Arbeit, dass Sie sehr schnell arbeiten müssen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Wie oft erfordert es Ihre Arbeit, dass Sie sehr hart arbeiten müssen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Wie oft lässt Ihre Arbeit Ihnen wenig Zeit, Dinge zu erledigen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Wie oft ist sehr viel zu tun?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Wie oft kommt es vor, dass Sie mehr zu tun haben, als Sie erledigen können?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Teilfragenliste 3

In der folgenden Liste finden Sie Aussagen dazu, wie die Arbeit Ihr Privatleben beeinflussen kann. Kreuzen Sie bitte das für Sie Zutreffende an. Bitte beachten Sie, dass Sie hier vier Antwortmöglichkeiten haben.

Kreuzen Sie bitte nur **eine Antwort** pro Frage an!

Wie häufig passiert es, dass...	nie	manchmal	oft	häufig
1. ... Sie zu Hause gereizt sind, weil Ihre Arbeit Sie anstrengt?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. ... es Ihnen schwierig erscheint, Ihren häuslichen Verpflichtungen nachzukommen, weil Sie andauernd an Ihre Arbeit denken?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. ... Sie Verabredungen mit Ihrem Partner/ Ihrer Familie/ Ihren Freunden aufgrund arbeitsbezogener Verpflichtungen absagen müssen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. ... Ihre Arbeitszeiten es Ihnen erschweren Ihren häuslichen Verpflichtungen nachzukommen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. ... Sie aufgrund Ihrer Arbeit keine Energie für Freizeitaktivitäten mit Ihrem Partner/ Ihrer Familie/ Ihren Freunden haben?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. ... Sie so viel arbeiten müssen, dass Sie keine Zeit mehr für Ihre Hobbies haben?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. ... es Ihnen aufgrund Ihrer Arbeit nur schwer gelingt, sich zu Hause zu entspannen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. ... Ihre Arbeit Zeit beansprucht, die Sie gerne mit Ihrem Partner/ Ihrer Familie/ Ihren Freunden verbracht hätten?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Teilfragenliste 4

In der folgenden Liste finden Sie Aussagen dazu, wie man die Arbeit erleben kann. Kreuzen Sie bitte das für Sie Zutreffende an. Bitte beachten Sie, dass Sie hier sieben Antwortmöglichkeiten haben.

Kreuzen Sie bitte nur **eine Antwort** pro Stellung an!

	nie	fast nie (ein paar Mal im Jahr oder weniger)	ab und zu (einmal im Monat oder weniger)	regelmäßig (ein paar Mal im Monat)	häufig (einmal in der Woche)	sehr häufig (ein paar Mal in der Woche)	immer (jeden Tag)
1. Bei meiner Arbeit bin ich voll überschäumender Energie.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Beim Arbeiten fühle ich mich fit und tatkräftig.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Ich bin von meiner Arbeit begeistert.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Meine Arbeit inspiriert mich.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Wenn ich morgens aufstehe, freue ich mich auf meine Arbeit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Ich fühle mich glücklich, wenn ich intensiv arbeite.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Ich bin stolz auf meine Arbeit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Ich gehe völlig in meiner Arbeit auf.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Meine Arbeit reißt mich mit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

--- Ende der Fragenliste ---