

You only had one task:

the influence of task variety on job satisfaction among call center employees



Daniëlla Meijer
Snr 2063825

Master thesis
Communication and Information Sciences
Specialization Business Communication and Digital Media
School of Humanities and Digital Sciences
Tilburg University, Tilburg

Supervisor: J.W.M Verhoeven
Second reader: C. de Vos

January 2022

Abstract

Customer services are important for organizations to keep their competitive advantage. However, call center employees frequently deal with many issues, such as emotional exhaustion and stress. Due to the demanding working conditions, call centers face a high turnover intention. The current research aimed to investigate whether task variety can influence job satisfaction and whether this relationship is mediated through underlying processes, such as boredom and workload. In addition, it was tested whether job satisfaction can predict turnover intention. A total of 105 Dutch call center employees filled in the survey online. Task variety is measured in three ways, two objective measures and one subjective task variety measure. The results show that objective task variety did not influence job satisfaction. However, subjective task variety demonstrates a significant positive relationship with job satisfaction. Subjective task variety also significantly influences boredom, showing that perceived task variety leads to less boredom. Nonetheless, boredom does not influence job satisfaction. Workload is not influenced by task variety, but does show a significant relationship with job satisfaction. Therefore, organizations should mainly focus on the perceptions of task variety by emphasizing the variety of the job and offer more tasks which are varied in nature. This investigation shows the relevance of subjective task variety and that task variety is much more than just having more tasks.

Keywords: task variety, job satisfaction, boredom, workload, turnover intention, call center

Introduction

Call centers are important for organizations in order to offer customer-oriented services, but also to maintain their competitive advantages (Brady & Cronin Jr, 2001). Customer service employees, including call center employees, are often seen as the ‘face of the company’ and are called the frontline employees (Groth & Grandey, 2012). They are in charge of building relationships between the organization and customers (Holman et al., 2007). Because of this, the work of a call center employee is not always easy, as the job comes with stress and a great deal of pressure due to several reasons.

For instance, most call centers have strict performance targets and call center employees are monitored whether these targets are being fulfilled while still serving high-quality interactions with the customers (Dean & Rainnie, 2009). The main duty of call center employees is to communicate with customers on the phone and these conversations are not always as pleasant (Zapf et al., 2003; Groth & Grandey, 2012). They have to deal with the high expectations from customers, as they are expected to solve the issues that customers might have (Jack et al., 2006). Furthermore, the work is seen as quite repetitive (Budhwar et al., 2009). These issues show some of the difficult conditions that call center employees have to work in.

Call center employees deal with a variety of customers and because of dissatisfied customers that want their issue to be solved, a conversation with a customer might change rapidly in a negative way (Groth & Grandey, 2012). Dissatisfied customers sometimes show verbal aggressive behaviour towards call center employees. Research has shown that call center employees experience approximately ten aggressive conversations with customers a day (Grandey et al., 2004). Verbal aggression is positively related to emotional exhaustion, which is seen as one of the most critical dimensions of job burnout (Grandey et al., 2004; Goussinsky, 2012).

Not only emotional exhaustion is common among call center employees, but stress also plays a significant role in the working life of these employees (Witt et al., 2004). Call center employees deal with customers on a daily basis that might not always be as friendly. There is often no other option than to take the abuse, but on the other hand still have to mitigate the situation with the customer, which eventually increases the stress levels. Research revealed that 20% of call center employees experience a medium level of stress and 40% of call center employees experience a less severe level of stress (Khalid et al., 2013). Furthermore, the research showed that these levels of stress can be caused by targets as well, which makes the job more stressful besides dealing with hostile customers. Stress can lead to health issues, but can also increase the intention to quit (Lin et al., 2010; Arshadi & Damiri, 2013).

Besides stressful working conditions, call centers have to deal with high turnover rates, which is currently a pressing matter for most call centers and causes financial losses (Kraemer & Gouthier, 2014). The average quit rate of call center employees is 25% a year, which is higher than the average turnover rate of 15% (Flint et al., 2013; Zojceska, 2018). The cause might be that the call center industry generally has high job demands, which can even lead to health problems and cause employees to be absent for a longer period of time. However, when call center employees have higher job resources (e.g., social support or performance feedback), they are more dedicated to their jobs, show more organizational commitment and are therefore less likely to quit (Bakker et al., 2003).

Despite the fact that there is much research about call centers, the main focus is on emotional exhaustion, stress, high turnover rate and other disadvantages that are caused by the high demands of working at a call center. Currently, there is little scientific knowledge about possible solutions to the high job demands in call centers. Previous research has shown interest in theories about recovery and restoration at work (Kaplan, 1995; Meijman & Mulder, 1998; Rydstedt et al., 2019). During recovery individuals have the opportunity to regain their mental

and psychological resources which are often needed after a demanding exposure (Meijman & Mulder, 1998). Restoration focuses on increasing mental well-being and concentration by aiming attention to certain aspects of the environment that can decrease stress (Kaplan, 1998). Task variety can give the possibility for employees to switch between different tasks and thus recover from previous stressful tasks. For call center employees this means that they can create physical distance between themselves and the source of the stress, which can be for example a complaining customer, by switching to a different task. In addition, task variety has been shown to positively influence job satisfaction, but previous research has not focused on the call center industry (Roelen et al., 2008). Therefore, research on expanding tasks variety for call center employees is needed.

The results can be beneficial as well for companies that have (internal or external) call centers, as call centers are important assets of competitive advantage and they also maintain customer relationships (Brady & Cronin Jr, 2001; Cheong et al., 2008). The results might help call centers change their strategy by introducing new tasks to their employees with the aim of keeping their employees satisfied and not having the intention to leave the organization. Because without call center employees, there are fewer customers that can be helped and the relationship between company and customer might be jeopardized.

To investigate the current research the following research question has been formulated:

“What is the effect of task variety for call center employees on their job satisfaction and turnover intention, and which processes explain this relationship?”

Theoretical framework

The following section is divided into six parts and will dive deeper into the relevant theories and models that explain how the proposed hypotheses came about. Firstly, the topic

of job satisfaction will be discussed. Secondly, job design will be explained. Afterwards, task variety will be further examined. In order to explain the underlying processes, boredom and workload will be discussed. Lastly, the conceptual model will be presented.

Job satisfaction

The importance of job satisfaction has gained a lot of attention over time, but remains for many managers a complex issue in order to lead their employees (Aziri, 2011). In addition, many organizations do not prioritize job satisfaction (Bhatti & Qureshi, 2007). Job satisfaction is seen as a gratifying or positive emotion that results from the assessment of one's job or the experience of the job (Locke, 1969). For the majority of the people, working is an important part of the day. If the job is not providing enough satisfaction, employees are more likely to feel unfulfilled or sad, which eventually also has an influence on the employees' mood and has an additional effect on self-worth (Roelen et al., 2008).

Job satisfaction can have many consequences on personal life, as low job satisfaction can influence life satisfaction (Aydogu & Asikgil, 2011). There is a positive relationship between job satisfaction and life satisfaction, meaning that employees with higher job satisfaction are happier in their personal life (Filiz, 2014). Furthermore, both job satisfaction and life satisfaction are associated with mental health (Filiz, 2014).

The influence of job satisfaction on employees' well-being is clear, but investing in job satisfaction can also be beneficial for organizations (Böckerman & Ilmakunnas, 2012). Job satisfaction has been associated with productivity and organizational commitment (Halkos & Bousinakis, 2010; Aydogu & Asikgil, 2011). An employee with an increased level of job satisfaction will show more organizational commitment and also be more productive within the organization. Furthermore, job satisfaction negatively influences turnover intention

(Aydogu & Asikgil, 2011). Employees that are more satisfied with their job, tend to be more loyal towards the organization by staying longer in the organization.

Turnover of employees has been a problem for call centers for a long time (Kraemer & Gouthier, 2014). Call center employees experience a lot of stress due to the working conditions and stress has a negative influence on job satisfaction (Dean & Rainnie, 2009; De Ruyter et al., 2001). On the other hand, job satisfaction is seen as an antecedent of turnover intention (De Ruyter et al., 2001). Thus, it is important for call centers to keep their employees satisfied in order to keep these employees. Because of this, the following hypotheses has been formulated:

H1: Job satisfaction negatively influences turnover intention

Job design

A great deal of research has been done about the influence of employees' job design on their attitudes and well-being (Gerhart, 1987; Morrison et al., 2005; Humphrey et al., 2007). Job design explains the way jobs are structured and defined (Moorhead & Griffin, 2008). It is seen as an influential factor of employee well-being and is a powerful tool to gratify the interest of the organization as well (Van den Broeck et al., 2013; Belias & Sklikas, 2013). Some employees may not tolerate unacceptable job designs (Morf et al., 2017). As a consequence, this can influence the organization (Balducci et al., 2011). Job design is seen as significant, because of the influence it can have on employees' motivation and knowledge-sharing (Foss et al., 2009).

An important job design model about job satisfaction is the Job Demands-Resources model. This model explains how a variety of workplace characteristics can influence organizational outcomes, one being job satisfaction (Kaiser et al., 2020; Hu et al., 2011). Other examples of organizational outcomes are employees' well-being and performance (Hu et al.,

2011). The model is divided into two categories, the first category is job demands and refers to “the physical, psychological, or organizational aspects of the job that require sustained physical and/or psychological effort” (Bakker & Demerouti, 2007, p. 312). Job demands do not necessarily need to be negative, however, they can become job stressors when the employee has not sufficiently recovered from the high efforts that are needed to meet these job demands. Examples of job demands can be high workload, time pressure, and a physical environment that is unfavorable (Bakker & Demerouti, 2007).

Call center employees also experience job demands, as they encounter high levels of work pressure and emotionally demanding conversations with customers (Dean & Rainnie, 2009; Grandey et al., 2004). This is because they have to give high-quality services to the customers while at the same time handling the calls rapidly, following a script and expressing emotions at the same time (Witt et al., 2004). Because of the targets that call center employees have to meet, they often feel the need to cut short a conversation in order to make their targets (Jordan & Putz, 2004). Furthermore, handling emotionally demanding conversations with customers is not something new for call center employees. Research shows that customer hostility can increase exhaustion, but can also lead to more errors made during the conversation (Goldberg & Grandey, 2007). The same results were found for call center employees that need to hide their frustration and be enthusiastic during conversations with customers (Goldberg & Grandey, 2007). Therefore, the job of an employee who works at a call center can be considered quite demanding and these demands are seen as undesirable to call center employees and would cause overall lower job performance, which is seen as an organizational outcome in the Job Demands-Resources Model (Dwyer & Fox, 2006; Kaiser et al., 2020).

The second category of the Job Demands-Resources Model is job resources, which refers to the physical, psychological, or organizational aspects of the job that are (1) practical in accomplishing work goals, (2) lessen the job demands, and (3) encourage personal growth

(Bakker & Demerouti, 2007). Job resources can be found, for example, in career opportunities, wages, role clarity, feedback, skill variety, task variety, etc. (Dwyer & Fox, 2006).

Research has shown that supervisor support and job autonomy contribute to the call center employees' well-being (Molino et al., 2016). The results demonstrated that call center employees who perceived higher levels of job autonomy were more adequate in dealing with emotional dissonance. This is the result of avoiding bad feelings and negative reactions from the customers, as these employees have greater discretion on how to manage the calls and difficult situations (Molino et al., 2016). In addition, job resources are perceived as desirable for call center employees and can result in overall higher job performance (Dwyer & Fox, 2006).

A job design that is well-defined has the possibility to improve employees' motivation, performance, and satisfaction (Garg & Rastogi, 2006). Every job resource has the potential to decrease the negative consequences of job demands (Dwyer & Fox, 2006). A lot of research has been done on the influence of job autonomy or the different job characteristics on call center employees. However, not a lot of research has been done on the influence of task variety and whether this can be used as a job resource or is seen as a job demand.

Task variety

Being a call center employee usually involves hours of repetitive and monotonous work, as the work mainly consists of handling telephone conversations (Budhwar et al., 2009). Call center employees had the highest level of repetitive work and indicated a lower potential for development compared to other employees from other departments, such as employees that focus on programming, data-retrieval, graphics etc. (Jensen et al., 2002). They experience both the tasks at work and the physical movements made when working as repetitive. Repetitiveness, monotony and the absence of new things have been linked to boredom (Smith,

1981). Furthermore, research showed that monotonous work leads to physical problems, as there is a correlation between monotony and back and shoulder pain (Linton, 1990).

Budhwar et al. (2009) suggest several solutions to the issue of having monotonous work as a call center employee. One of these solutions is to have more fun in the workplace and managers should encourage stress-relieving activities like parties. On the other hand, in order to solve monotonous work, it is important to investigate the possibility of making work less monotonous for call center employees. The use of task variety has been linked to increased job satisfaction and performance (Humphrey et al., 2007). Task variety refers to “the degree to which a job requires employees to perform a wide range of tasks on the job” (Morgeson & Humphrey, 2006, p. 1323).

Some companies try to create task variety by differentiating inbound call from outbound calls. Inbound call centers are more passive, as these call centers focus on receiving phone calls by customers that might have any questions or complaints. Outbound call centers are considered more active, as the employees call the customers. There are call centers that have a combination of inbound and outbound (Zapf et al., 2003). Nonetheless, both inbound and outbound calls are still focused on talking to customers. The conversations with customers are especially seen as exhausting for call center employees (Grandey et al., 2004). Some call center employees also focus on handling emails, webcare, and questions that show up through the organization’s social media channels (Ro & Lee, 2017). These examples of other tasks might give the call center employee some time to recover from the sometimes aggressive conversations from customers. However, it could be possible that other call centers give their employees other tasks than those mentioned above. This research could also give some more insight into the work of call center employees.

Continuing on the topic of job design, Humphrey et al. (2007) expanded the work design model by including task variety as a motivational characteristic. Within the attitudinal

outcomes, task variety did relate to four satisfaction outcomes, which are job satisfaction, supervisor satisfaction, compensation satisfaction, and promotion satisfaction. Task variety is seen as a motivational characteristic and gives employees the possibility to gather new work skills and also gain more experience, therefore, job satisfaction increases (Zaniboni et al., 2014).

Morf et al. (2017) investigated the influence of task variety on counterproductive work behaviour (CWB). CWB is seen as an outlet for employees to show their displeasure for the lack of task variety and can be seen as harmful for the organization. Examples of CWB are coming in late for work or cursing out a coworker (Spector et al, 2006). Low levels of task variety can (unintendedly) harm an organization, as employees might use CWB in order to cope with unsatisfactory job conditions (Morf et al., 2017). Therefore, higher levels of task variety can be beneficial for organizations, as long they have the right opportunities and information to acquire the skills that are necessary to complete the work tasks (Parker, 1998; Morf et al., 2017). In addition, it was found that low levels of task variety and higher levels of CWB are more common among employees that have a lower education level (Morf et al., 2017).

CWB can be decreased by task variety, but sufficient task variety can also motivate employees and even encourage employees to participate in decision making (Scott-Ladd et al., 2006). Furthermore, task variety has been linked to overall job satisfaction and is seen as an important determinant of job satisfaction (Humphrey et al., 2007; Roelen et al., 2008). Still, little research is done about task variety and especially the influence of task variety on call center employees is scarce on the basis of the little existing research. However, the expectation is that when call center employees have more tasks that this has a positive influence on job satisfaction. The following hypothesis has been formulated:

H2: Task variety positively influences job satisfaction

Boredom

Monotonous work has been linked to boredom and especially call center employees might experience under-stimulation and boredom, as their jobs are quite repetitive (Smith, 1981; Jensen et al., 2002). Boredom is described as a case of low arousal and dissatisfaction, which is the result of an uninteresting environment and attentional constraint (Todman, 2007; Abdolahi et al., 2011). The topic of boredom at work is important, as it can cause negative outcomes for employees and organizations as well (Van Hooff & Van Hooff, 2014). For instance, boredom is correlated with job performance and the rate of accidents made at work. However, boredom at work has been often neglected in research (Game, 2007).

Not only job performance and accident rate, but boredom has been also linked to job satisfaction and general well-being (Zakay, 2014). Research showed that higher levels of boredom lead to lower levels of job satisfaction (Kass et al., 2001; Reijseger, 2013; Zakay, 2014). In addition, boredom has been linked to absence and the time that employees spend working for the organization (Kass et al., 2001). These results demonstrate that organizations should spend more time reducing boredom. In order to achieve this, organizations should invest in enriched job designs and reduce monotony (Kass et al., 2001). It has been suggested that job characteristics as variety can lead to employees having greater satisfaction levels (Game, 2007).

The absence of sufficient tasks can lead to high levels of workplace boredom (Van der Heijden et al., 2012). Therefore, boredom can be decreased for tasks that are normally seen as repetitive by the introduction of task variety (Haager et al., 2018). The implementation of more task variety might lead to less boredom for call center employees, as the job becomes less repetitive. This leads to the following hypothesis:

H3: Boredom mediates the relationship between task variety and job satisfaction, such that, when call center employees have more tasks, this decreases boredom in the workplace and this underlying process leads to higher job satisfaction.

Workload

Task variety might have the possibility to reduce boredom and increase satisfaction. Nonetheless, task variety can also have a disadvantage, as the workload might increase due to the variety of tasks employees have to do. Workload can be defined as a term that reflects the amount, but also includes the difficulty of one's work (Bowling & Kirkendall, 2012). Many workplaces do not effectively manage workload, which causes many problems (Bowling et al., 2015).

Employees' well-being can be a negative consequence of workload. Excessive workload might give difficulties for employees to maintain their existing resources and hinder the attainment of new resources. In addition, when the workload is too high it might impact one's physical and emotional energies. This is because excessive workload costs more time and can prevent someone from acquiring additional resources and new skills. Excessive workload can even influence employees' relationships with colleagues, as there is little time left to socialize (Bowling et al., 2015). Moreover, workload determines the employees' job satisfaction (Roelen et al., 2008).

When employees are introduced to new tasks, this might lead to problems and information that employees have not encountered before, which means they need to learn new skills as well (Zhou et al., 2012). Tasks that are too difficult for employees, as a lack of the correct skill in order to complete these tasks can generate anxiety, which eventually prevents a state of flow (Sherry, 2004). Flow is "the experience of full absorption in the present moment"

(Nakamura & Csikszentmihalyi, 2009, p. 195). It is also referred to as “a state in which people are so involved in an activity that nothing else seems to matter” (Csikszentmihalyi, 1990, p. 4). A lot of research focuses on the concept of flow, as it is seen as an important factor of employee well-being. Flow often occurs when employees manage to create a balance between the challenge of different circumstances and the skills necessary to deal with these challenges. Clarity of goals, high levels of concentration, the feeling of control over your actions and environment are some examples of the characteristics of flow (Ceja & Navarro, 2011). Employees that need to switch between tasks, also need to switch their attention when changing tasks (Leroy, 2009). This could mean that that task variety leads to call center employees needing to switch attention more often, this which in the end affect the employees’ flow, as there is more time needed to get back in the flow (Abad et al., 2018). Because employees have more trouble getting back in the flow, they might experience an increase in workload when there is more variety in tasks. Workload can in turn affect job satisfaction (Roelen et al., 2008).

Workload is not only correlated with the well-being and flow of employees but can affect an organization’s well-being as well. An excessive workload can influence employees’ performance, as depletion of one’s resources occurs when there is a higher workload and these resources are needed to complete the task(s) effectively as an employee. Furthermore, workload is also correlated to employee withdrawal. This is the result of employees avoiding unpleasant working conditions (e.g., high workload) and might trigger withdrawal. Lastly, workload can have an impact on affective commitment towards the organization. Affective commitment explains the employees’ emotional attachment towards an organization. From the employees’ point of view, excessive workload can be seen as insufficient consideration on part of the organization. These negative perceptions towards the organization, therefore, lead to lower levels of affective commitment. However, there can be a positive side for organizations,

as a higher workload might also lead to a higher completion of work that is done by employees (Bowling et al., 2015).

Due to previous research, it is expected that call center employees that have more tasks, experience a higher workload, which lowers job satisfaction. The following hypotheses has been formulated:

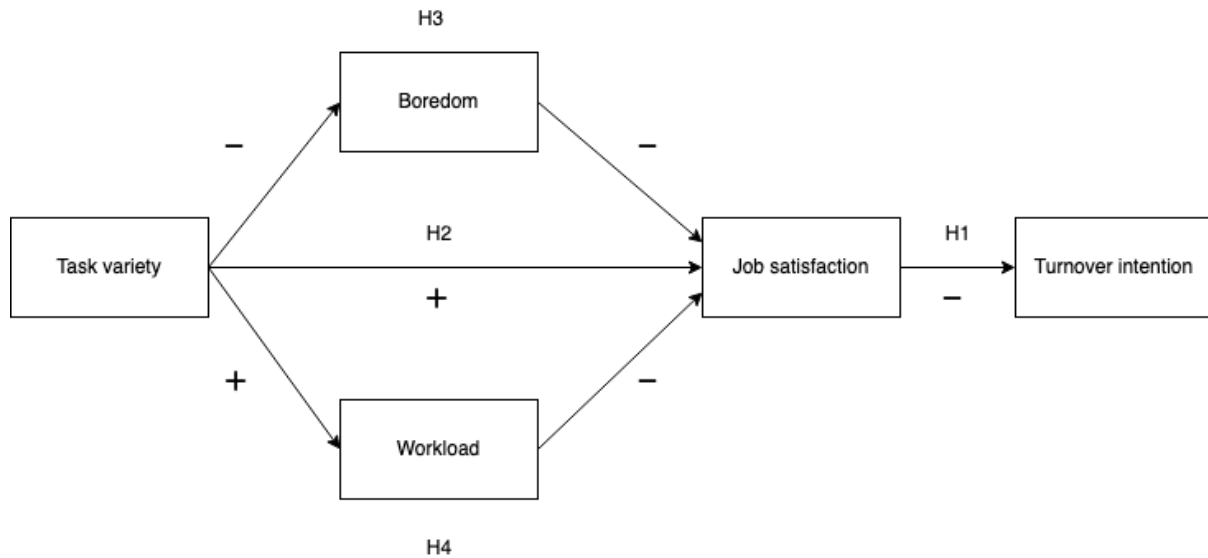
H4: Workload mediates the relationship between task variety and job satisfaction, such that, when call center employees have more tasks, this increases perceived workload and this underlying process leads to lower job satisfaction.

Conceptual model

Figure 1 demonstrates the conceptual model that is used for this research. Firstly, it is expected that job satisfaction negatively influences turnover intention, meaning that call center employees that have higher job satisfaction levels are less likely to quit (H1). Secondly, call center employees that have the opportunity to switch between tasks, as they have more than one task, are more likely to have higher job satisfaction levels (H2). The effect between task variety and job satisfaction will be mediated by two underlying processes, which are boredom and workload (H3, H4). It is expected that task variety leads to lower levels of boredom and these lower levels of boredom lead to more satisfied employees. Additionally, task variety can lead to more workload, which will affect job satisfaction.

Figure 1

Proposed conceptual model to assess whether and how task variety influences job satisfaction and if this relationship is mediated by boredom and workload.



Methodology

Research design

In order to answer the research question “*What is the effect of task variety for call center employees on their job satisfaction and turnover intention, and which processes explain this relationship?*”, an online survey was distributed. To investigate the underlying processes that influence the variable *job satisfaction*, two mediator variables are included in the study. Firstly, the mediator *boredom* is included to investigate the process that underlies the relationship between task variety and job satisfaction. Secondly, the mediator *workload* is used to test the process underlying the relationship between task variety and job satisfaction. Another variable is included, which is the *turnover intention*, to investigate the relationship between job satisfaction and turnover intention.

Participants

The participants approached for this study were employees that are currently working in a call center in the Netherlands. The only requirements were for the participants to speak Dutch, as the survey was in Dutch, and talking to customers on the phone. The questionnaire was distributed online. Therefore, participants could fill in the survey at their work or at home. Recruitment lasted from the 15th of November till the 11th of December. Participants were recruited in three ways. Firstly, some call center employees were accessed through the researcher's connection from work at the contact center of Sint Maartenskliniek in Nijmegen. Sint Maartenskliniek is a specialized hospital and the contact center is responsible for providing help for the patients. Secondly, through a collaboration with the Klantenservice Federatie, which is a Dutch knowledge center in customer services, several organizations with call centers were approached to participate in this study. Thirdly, through LinkedIn several call center employees were approached by sharing the link to the author's connections and sending personal messages to call center employees as well. There was no distinction between specific organizations in order to make the results more generalizable.

In total, 171 participants filled in the online survey. However, 66 participants did not complete the survey or filled in the survey without being a call center employee. There were a couple of participants that completed the survey, nevertheless, when asked to answer how much per cent of their working time they spend answering phone calls, they filled in 0%. This indicates that they were not employed as a call center employee. These 66 participants were removed, which left 105 participants. Most participants were female, as 68.6% (N=72) of the participants identified as female, 29.5% (N=31) identified as male, 1% (N=1) identified as other, and one participant did not fill in this particular question. The average age of the participants was 30.54 years (SD=11.66 years). Furthermore, 38.1% (N=40) of the participants has a university degree, 19.1% (N=20) has completed HBO, 19% (N=20) has completed MBO,

and 19% (N=20) has completed secondary school. The majority of the participants work in an organization that focuses on the service of energy, 30.5% (N=32). The second-largest group, 27.6% (N=29), are call center employees that work in an organization that provides healthcare services, and the third-largest group works in financial services, 22.9% (N=24). The participants work an average of 24.18 hours a week (SD=9.82 hours) and has an average experience of working in a call center of five years and five months (SD=74.95 months). The majority of the participants, 86.4% (N=89), works in an internal call center, meaning that the location where the participants work is the same location as the organization. Lastly, because of the Covid-19 pandemic, a question about hybrid working was included in the survey. Of the participants, 31.4% (N=33) always work in the office and never at home, 21% (N=22) often work in the office and sometimes at home, 20% (N=21) sometimes work in the office and sometimes at home, 7.6% (N=8) always works at home, and one participant did not fill in this specific question. Additional information about the demographics of the participants can be found in Appendix A.

Procedure

The survey used for this research was conducted through Qualtrics. At the beginning of the survey, participants were thanked for participating in the study and were explained the aim of the study. Furthermore, participants could read about the layout of the survey, therefore, knowing beforehand what kind of questions the participants could expect. Lastly, the introduction stated that the answers are completely anonymous and that the data will be treated confidentially. If the participants wanted to participate and agreed with the terms and conditions, they could start with the questionnaire.

The first part of the survey asked several questions about task variety. The next part consisted of questions about workload, boredom, job satisfaction and turnover intention.

Lastly, demographic questions about age, gender, working hours per week, experience, type of call center (internal/external), and type of organization were asked. Per request by the Klantenservice Federatie, questions about hybrid working were included as well, meaning that participants were asked whether they mainly work in the office or at home. After filling in the survey, participants were thanked again for their participation and the e-mail of the author was mentioned in case the participants wanted to ask questions or send remarks. The complete survey can be found in Appendix B.

Measures

All the items used for the online questionnaire can be found in Appendix C.

Task variety

Task variety was measured in three ways, consisting of objective and subjective task variety. For the first objective task variety measurement, two groups were created by the researcher after all the data was collected. One group will consist of call center employees with one task and the second group will consist of employees with more than one task. Participants were asked to describe their tasks. The group with one task were the participants that described only one task and were put in group one. Even if participants described multiple tasks, but these tasks were seen as part of answering the phone call (e.g., logging a phone call, writing down a clients'/patients' information) by the researcher, the participants were still put in group one. This is because the main task is still answering phone calls and some of the other described tasks are part of this process. If participants described multiple tasks, which are answering phone calls and other tasks such as e-mailing, answering questions on social media, and the onboarding of new colleagues, they were put in group two by the researcher.

In conclusion, for the objective task variety, two open questions were designed. Firstly, participants were asked to describe their tasks as call center employee. Secondly, participants were asked to indicate which proportion of their working time they spend answering the phone. Lastly, for the subjective task variety, participants were asked to answer four items based on Morgeson and Humphrey (2006) using a 5-point Likert scale from *strongly disagree* to *agree*. The scale's reliability is excellent (M=3.24, SD=1.06), as the Cronbach's Alpha is $\alpha = .90$.

Boredom

Boredom was measured using the Dutch Boredom Scale based on Reijseger et al. (2013). This measurement consisted of seven items and these items were measured with a 6-point frequency scale from *never* to *always*. The Cronbach's Alpha for these items is $\alpha = .83$, meaning that the scale's reliability is good (M=2.31, SD=.92).

Workload

Workload consisted of two items based on Roelen et al. (2007). The items were measured by using a 7-point Likert scale from *strongly disagree* to *strongly agree*. According to Eisinga et al. (2013), the Spearman-Brown coefficient is in general less biased when measuring reliability consisting of two item scales, particularly when the correlation between the items is strong. Therefore, the Spearman-Brown coefficient was used when measuring reliability for workload instead of Cronbach's Alpha. The Spearman-Brown coefficient is $\rho = .45$, meaning that the scale is not acceptable (M=3.54, SD=1.37). Because of this, it was decided to continue with the one item about mental workload (M=5.11, SD=1.61).

Job satisfaction

Job satisfaction consisted of six items that were based on Schriesheim and Tsui (1980). The items were measured with a 5-point Likert scale from *strongly disagree* to *strongly agree*. The scale's reliability is good (M=3.42, SD=1.01), as Cronbach's Alpha is $\alpha = .86$.

Turnover intention

The items used for turnover intention were based on Mobley et al. (1978) and had a total of three items with a 5-point Likert scale from *strongly disagree* to *strongly agree*. Cronbach's alpha of these items is $\alpha = .77$ and therefore the reliability is acceptable (M=2.70, SD=1.20).

Statistical analyses

To answer the proposed research question, the data were analyzed using IBM SPSS Statistics 27. For the first hypothesis: "*job satisfaction negatively influences job satisfaction*", a simple regression model was used.

In order to test the second hypothesis: "*task variety influences job satisfaction*", an independent t-test and a simple regression model was performed for the objective task variety where participants had the possibility to describe their tasks. Before analysis, participants were divided into two groups (single-task and multiple task employees), and these two groups were compared with the independent t-test. In addition, to test the relationship between the subjective task variety (H2), a simple regression model was used. To test whether this relationship can be explained by a double mediation of boredom and workload (H3 and H4), PROCESS model 4 by Andrew F. Hayes was used.

Results

Job satisfaction and turnover intention

To test whether job satisfaction negatively influences turnover intention, a simple regression model was used. The model is statistically significant, $F(1, 103) = 73.609, p < .001, R^2 = .417, R^2_{\text{adjusted}} = .411$. The regression coefficient is negative and high ($B = -.818, 95\% \text{ CI}[-1.01, -.63]$). Thus, for every unit increase in job satisfaction, turnover intention will decrease by .818 points. Therefore, the first hypothesis is accepted: dissatisfaction does motivate people to leave the company.

Task variety and job satisfaction

The level of task variety was measured in three ways. For the first measurement, an independent t-test was conducted to compare job satisfaction for the group with one task with the group with multiple tasks. There was no significant difference found in the job satisfaction scores of the group with one task ($M=3.47, SD=.79$) and the group with multiple tasks ($M=3.34, SD=.79$), conditions; $t(100)=.85, p = .399$. These results show that hypothesis 2 is not supported by this analysis. In this case, the use of more tasks does not have an effect on job satisfaction.

A simple regression model was used to test whether employees that generally spend more time answering phone calls have lower job satisfaction and vice versa. The model is not statistically significant, $F(1, 99) = 2.87, p = .094, R^2 = .028, R^2_{\text{adjusted}} = .018$. The regression coefficient ($B = -.005, 95\% \text{ CI}[-.01, -.00]$). Therefore, the second hypothesis is again not supported by this analysis: spending more time answering phone calls does not lead to lower levels of job satisfaction.

To analyze the direct effect of the subjective task variety on job satisfaction, a simple regression model was used. The model is statistically significant, $F(1, 103) = 44.87, p < .001,$

$R^2 = .303$, $R^2_{\text{adjusted}} = .297$. The regression coefficient ($B = .456$, 95% $CI[.32, .59]$). Thus, for every unit increase in task variety, job satisfaction will increase by .456 points. Therefore, the second hypothesis is accepted: perceived task variety does lead to higher levels of job satisfaction. Since the first two objective measures are not significant, the mediation analysis below will continue using the subjective task variety and not the other measures for (objective) task variety.

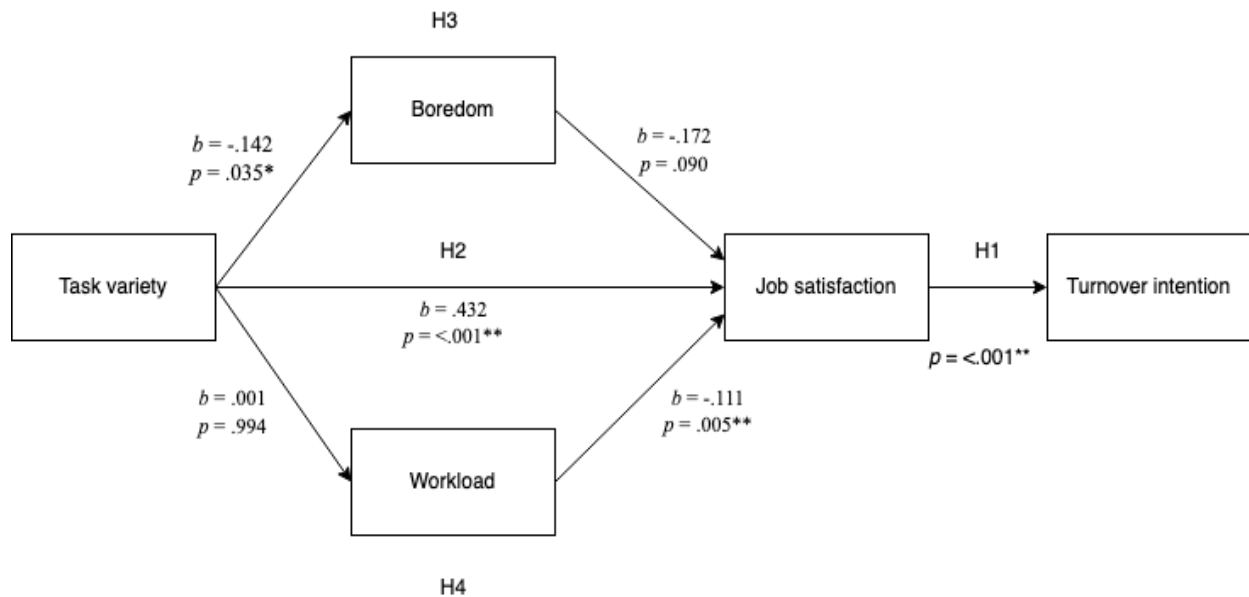
Underlying processes/mediation

To investigate whether the relationship between task variety and job satisfaction can be explained through boredom, a mediation analysis was performed using PROCESS, model 4. The relationship between (subjective) task variety and job satisfaction is significant, as mentioned previously. The PROCESS model shows these results again, as there is a significant direct relationship between task variety on job satisfaction, $b = .432$, $SE = .07$, $p = <.001$, 95% $CI[.30, .57]$. The relationship between task variety and boredom shows that there was a significant indirect effect, $b = -.142$, $SE = .07$, $p = .035$, 95% $CI[-.27, -.01]$. However, there was no significant relationship between boredom and job satisfaction, $b = -.172$, $SE = .10$, $p = .090$, 95% $CI[-.37, -.03]$. Meaning that a variation in tasks leads to less boredom, but boredom does not lead to significant differences in job satisfaction.

The relationship between task variety and job satisfaction might be explained through the mediator workload. In order to investigate this relationship, the same mediation analysis of PROCESS was used. There was no significant indirect relationship of task variety on workload, $b = .001$, $SE = .17$, $p = .994$, 95% $CI[-.33, .33]$. Nonetheless, there was a significant relationship between workload on job satisfaction, $b = -.111$, $SE = .04$, $p = .005$, 95% $CI[-.19, -.03]$ These results demonstrate that the use of more tasks does not lead to a higher perceived workload for call center employees, but a higher perceived workload does lead to lower job satisfaction.

Figure 2

Relationships between variables.



Discussion

The goal of this research is to assess whether and how task variety influences job satisfaction and if job satisfaction can indicate turnover intention. In particular, the study assessed if the relationship between task variety and job satisfaction can be explained through boredom and workload. For this study, a total of 105 participants completely filled in the online survey. The results showed a significant relationship between job satisfaction and turnover intention (H1). Call center employees that are less satisfied with their jobs are also more likely to leave the organization. Previous research supports these results, as job satisfaction can have several outcomes including turnover intention (De Ruyter et al., 2001). However, the main finding from this study is that perceived task variety influences job satisfaction (H2). Call center employees that perceive their tasks to be less repetitive and more varied are more satisfied with their jobs. The other way around, job satisfaction suffers when call center

employees perceive their jobs to have less task variety. These results are consistent with previous research on the influence of task variation. Task variety has been mentioned as an important determinant of job satisfaction and can influence overall job satisfaction (Humphrey et al., 2007; Roelen et al., 2008).

The results did indicate a significant relationship between task variety and job satisfaction. Subsequently, it was investigated whether this relationship was mediated by boredom and workload. The expected outcome was that boredom mediates the relationship between task variety and job satisfaction. Contrary to the hypothesis, the results found no mediation of boredom, as there was no significant effect of boredom on job satisfaction (H3). Therefore, call center employees are not less satisfied with their jobs when they perceive their work to be more boring. The relationship between task variety and job satisfaction cannot be explained through boredom. A possible explanation is that call center employees have higher workplace boredom coping mechanisms. These mechanisms depend on a person's capacity of attention, as individuals that have the possibility to focus and control their attention also have the power of changing a boring situation (Hamilton et al., 1984). Employees that score higher on boredom coping mechanisms are relatively less depressed and anxious at work (Game, 2007). Furthermore, higher boredom copers are generally more satisfied with their job (Game, 2007). This could possibly explain why boredom did not influence job satisfaction in the current study. Boredom coping mechanisms can be learned by training the use of certain engagement strategies, such as increasing innovativeness and task involvement (Game, 2007). However, the results did in fact show a significant negative relationship between task variety and boredom. This means that call center employees who perceive their tasks to be more varied, also experience less boredom. These results build on existing research, as repetitiveness has already been linked to boredom, not having sufficient tasks can lead to higher levels of boredom (Smith, 1981; Van der Heijden et al., 2012; Haager et al., 2018). It was therefore expected in

this study that also call center employees are less bored at work they perceived to have more tasks.

Not only boredom, but the results also demonstrated that workload does not mediate the relationship between task variety and job satisfaction (H4). In this case, the relationship between task variety and workload was not significant, as call center employees that perceive themselves to have more task variety do not necessarily experience a higher workload. There is a possibility that call center employees that have more task variety, also have more time to recover from the stressful conversations they have and therefore do not experience a higher workload. The opportunity to recover at work is important and can be created through control and variety at someone's work (Geurts & Sonnentag, 2006). Variety can help with providing mini-breaks at work, as employees need to switch tasks and also have the opportunity to switch their work strategy in order to recover. For example, if recovery is needed because someone is tired or stressed due to the previous task, an employee can decide to change to a task that is less demanding or slow down with the next task. Task variety can therefore help with recovery, however, the tasks need to be able to give the employees relaxation, psychological detachment, mastery experiences or control or autonomy. These four processes are necessary for recovery (Derks et al., 2014). For example, psychological detachment refers to being able to dissociate yourself mentally from work, whereas mastery experiences explains the possibility of learning and success when having experiences in other areas of expertise (Derks et al., 2014; Sonnentag et al., 2008). Task variety can help to dissociate for a short period of time, as switching between tasks creates mini-breaks and can assist in having expertise in other areas, as more tasks leads to learning other important skills (Geurts & Sonnentag, 2006; Imran et al., 2014).

Workload does not only reflect the amount of work that an employee has to do, but also the difficulty (Bowling & Kirkendall, 2012). Call center employees might not see their tasks as difficult and for that reason not perceive a high workload. Nonetheless, there was a

significant effect found of workload on job satisfaction. Call center employees who experience a higher workload are also less satisfied with their jobs. This was expected, as previous research shows that workload affects job dissatisfaction (Roelen et al., 2008). A possible explanation for this is that employees have less time for other things, such as socializing with co-workers, which is also important for job satisfaction (Bowling et al., 2015). Furthermore, employees have less time to acquire new skills due to the excessive workload and are possibly less satisfied because of this (Bowling et al., 2015). Even though there was no significant relationship between task variety and workload, mental workload was seen as an issue for most call center employees in this sample, as the average score of mental workload was high. This could be an effect of emotional exhaustion or stress, as call center employees indicate to be emotionally drained in previous research (Goldberg & Grandey, 2007)

Contrary to the proposed hypotheses, the underlying processes of task variety and job satisfaction cannot be explained through boredom and workload. As a consequence, it is important to investigate other underlying processes in the future. Call center employees experience stress and emotional exhaustion and these are topics that are often investigated. They deal with aggressive verbal behaviour and strict targets that have to be met in order to handle conversations fast and efficient (Witt et al., 2004). The introduction of more task variety could lead to more stress recovery time for call center employees. Task variety gives the opportunity to switch to another task that does not involve direct contact with customers, this could lead to less verbally aggressive moments for call center employees and less stress to find an immediate solution for the customer on the phone. Emotional exhaustion and stress have also been linked to job satisfaction, as previous research showed an effect of emotional exhaustion and stress on job satisfaction (Khan et al., 2019). Thus, emotional exhaustion and stress could mediate the relation between task variety and job satisfaction.

Another example of a possible underlying process can be intellectual stimulation. In order to encourage employees to problem-solving activities at work, intellectual stimulation has been suggested (Zhou et al., 2012). This involves the creation of new procedures of completing tasks, the adaptation of a problem-solving approach and is also seen as an important motivating factor for job satisfaction (Anjali & Anand, 2015). Different job characteristics such as skill variety, task significance and task identity contribute to intellectual stimulation and can lead to employees experiencing feelings of meaningfulness at work (Hackman & Oldman, 1980). Task variety might also have the possibility to influence intellectual stimulation, as a different approach is needed to complete the different tasks and in order to do so, different problem-solving methods are required (Lehr, 2013). Furthermore, intellectual stimulation is found to influence employees' decisions to remain within the organization (Anjali & Anand, 2015). Future research needs to investigate whether intellectual stimulation might mediate the relation between task variety and job satisfaction.

Empowerment might also have a mediating effect between task variety and job satisfaction. Previous research has shown that employees that are more empowered are also more probable to change their behaviour towards customers in order to match the organizational goals (Chebat & Kollias, 2000). Introducing empowerment at the workplace can have beneficial outcomes, such as an increase in job satisfaction and a decrease in turnover intention. Call center employees feel significantly less empowered than other more traditional office workers and because of this also reported lower levels of job satisfaction (Holdsworth & Cartwright, 2003). An example of empowerment for call center employees can be more responsibility at making decisions. Task variety might lead to call center employees experiencing more empowerment as they are given more responsibilities and have the authority to make more decisions within the company.

In conclusion, this research showed that task variety does influence job satisfaction, and job satisfaction influences turnover intention. However, the underlying processes cannot be explained by current research and more research is needed to investigate the influence of other factors.

Strengths, limitations and suggestions

This study has many strengths, but also some limitations. This study focuses on a specific target group, namely, call center employees. Valuable insights are obtained on a very specific group that are certainly useful. Furthermore, no previous research has been done on task variety among call center employees. Another strength is that task variety has been measured in three ways. The participants were asked to describe their tasks and indicate the percentage of their time at work was spent answering phone calls, this measured objective task variety. To also measure subjective task variety, participants were asked whether they perceive their tasks to be varied. Current research showed that objective task variety had no influence on job satisfaction, however, the subjective task variety did. This shows that task variety is much more than countably having more tasks, but that the employees especially need to perceive a variety in tasks. In addition, this study found a significant relation between subjective task variety and job satisfaction and gives more insight on the importance of task variety, especially for call center employees.

There are some limitations to this study. Firstly, the total of participants that eventually completed the survey is 105 and this small sample size could have affected the research findings. Suitable population size is important for internal and external validity (Faber & Fonseca, 2014). While approaching call center employees it became clear that this is not an easy target group to access. Many contact centers did not find the necessary time to cooperate, as the nature of the work does not leave much room for participation in research during work hours.

Secondly, the items for workload were not reliable for the current study. A total of two items were included for the measurement of workload and previous research argues about the efficiency of two-item measures (Eisinga et al., 2012). The two items for workload consisted of one question asking call center employees whether they find their job physically challenging. However, call center employees often do not participate in physical activities during work, as call center employees are known to sit behind a computer most of their working time (Poster, 2007). The second item for workload measured whether they found their job mentally challenging, which was often the case for the participants, as this item was answered relatively high compared to the other workload item. Therefore, these two items were not applicable for call center employees and resulted in diverging averages

Thirdly, a snowball effect could have occurred while recruiting participants. Colleagues of the researcher in the Sint Maartenskliniek and also the connections on LinkedIn were asked to share the questionnaire with other employees who may also work in a call center. This could mean that most of the participants who participated are from the researcher's network. In addition, due to the snowball effect, many participants may have participated who work from the same companies and therefore many participants come from similar sectors. An advantage was that the snowball sampling did lead to a higher number of difficult to reach participants. Nonetheless, this could have led to a more homogenous sample.

Future research should consider these limitations and focus on creating a larger sample size. In general, the average score of job satisfaction among call center employees was not low. Future investigation could also make a sample out of call center employees that are not satisfied with their job and investigate the conceptual model again. Furthermore, it is important to look for other items that measure workload. Other items possible for workload are, for example, flow or find other better examples of previous research that investigated workload. In the section of the discussion it has been mentioned that boredom and workload do not mediate the

relation between task variety and job satisfaction. Nonetheless, there could be other underlying processes that could explain this relationship. Therefore, future research should focus on the other underlying processes. Emotional exhaustion, stress recovery, intellectual stimulation and empowerment have been mentioned as alternative explanations and could be mediators that lead to significant results in the future.

Implications

The aim of this study was to provide understanding of the influence of task variety on job satisfaction among call center employees. Additionally, it was tested which underlying processes can explain this effect. The results demonstrated that boredom and workload do not mediate the relation between task variety and workload. However, it was found that perceived task variety positively influences job satisfaction. Furthermore, task variety negatively influences boredom, as more tasks lead to less boredom and workload positively influences job satisfaction.

Because of the results of this study, it is recommended to organizations, that also have a call center, to put more emphasis on the perceptions of task variety of their employees. This can have a positive effect on job satisfaction. Besides, higher job satisfaction leads to a lower turnover rate, as call center employees indicate that they are less likely to leave the organization when they are more satisfied with their job. Turnover intention has been an issue at call centers and this also entails financial losses, as every employee needs to be trained (Kraemer & Gouthier, 2014). Therefore, organizations could benefit from emphasizing task variety to their employees, as they are more satisfied with their job and perhaps less likely to resign, which can ultimately save costs for the organization.

There are two approaches that organization can apply in order to deal with the current issues of repetitiveness. Firstly, the objective measures of task variety showed no relationship

with job satisfaction, however, the subjective task variety did. This could indicate that call center employees do not necessarily perceive their jobs to be varied. Organizations can work on the perceptions of task variety by making employees aware that there is indeed task variation. Secondly, the tasks that call center employees are engaged in are often similar in nature and focus on contact with customers. Thus, it is important to offer tasks that are actually different in nature and demand more of the employees' set of skills. Furthermore, it was expected that the workload would increase when call center employees had more tasks. However, this is not the case in this study, which is positive as they do not experience an increase in workload when having more tasks, which makes the introduction of task variety only more positive.

When introducing more tasks, it is also important to take into account the circumstances of every employee. The leader-member exchange (LMX) theory explains that leaders do not treat every employee the same. Employees differ in their levels of motivation, competence and willingness at work and that is why it is important to take this into account when assigning different tasks (Erdogan & Bauer, 2013). Therefore, it is advised to vary the range of tasks per person and also take into account the employees' perceptions of their own task variety. Moreover, there was no relation found between boredom and job satisfaction. Nonetheless, boredom could influence other important organizational outcomes, such as organizational commitment (Reijseger et al., 2012). Call center employees are often seen as frontline employees and because they have direct contact with customers, they have a lot of knowledge about the opinion of customers and processes that could be improved (Dean & Rainnie, 2009). Organizations could use this knowledge in their advantage and also give call center employees tasks that could improve certain processes within the organization.

Organizations could benefit from the results of this study, but this study has also theoretical relevance. This study adds to the literature on task variety, as this topic is not often

investigated. As mentioned previously, boredom and workload do not mediate the relation between task variety and job satisfaction. This information could help other researchers in the future to look for other factors that could influence that relationship. Additionally, the data of this research showed a clearer understanding of how employees view task variety. The participants in this study showed that how many tasks they have or how much time they spend answering phone call does not affect their job satisfaction. However, how varied they perceived their tasks to be did have an influence on job satisfaction. This shows that task variety is not as simple as having more tasks, but that the perceptions of employees are more important.

References

- Abad, Z. S. H., Noaen, M., Zowghi, D., Far, B. H., & Barker, K. (2018). Two sides of the same coin: Software developers' perceptions of task and task interruption. *Proceedings of the 22Nd International Conference on Evaluation and Assessment in Software Engineering 2018*, 175-180.
- Abdolahi, B., Damirchi, G. V., & Ganjeh, H. (2011). Surveying of job boredom proneness effect on job satisfaction and job involvement. *Interdisciplinary Journal of Contemporary Research in Business*, 3(3), 1332-1338.
- Anjali, K. T., & Anand, D. (2015). Intellectual stimulation and job commitment: A study of IT professionals. *IUP Journal of Organizational Behavior*, 14(2), 28.
- Arshadi, N., & Damiri, H. (2013). The relationship of job stress with turnover intention and job performance: Moderating role of OBSE. *Procedia-Social and Behavioral Sciences*, 84, 706-710.
- Aydogdu, S., & Asikgil, B. (2011). An empirical study of the relationship among job satisfaction, organizational commitment and turnover intention. *International review of management and marketing*, 1(3), 43-53.
- Aziri, B. (2011). Job satisfaction: a literature review. *Management Research & Practice*, 3(4).
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of managerial psychology*.
- Bakker, A., Demerouti, E., & Schaufeli, W. (2003). Dual processes at work in a call centre: An application of the job demands–resources model. *European Journal of work and organizational psychology*, 12(4), 393-417.
- Balducci, C., Schaufeli, W. B., & Fraccaroli, F. (2011). The job demands–resources model and counterproductive work behaviour: The role of job-related affect. *European Journal of Work and Organizational Psychology*, 20(4), 467-496

- Belias, D., & Sklikas, D. (2013). Aspects of job design. *International Journal of Human Resource Management and Research*, 3(4), 85-94
- Bhatti, K. K., & Qureshi, T. M. (2007). Impact of employee participation on job satisfaction, employee commitment and employee productivity. *International review of business research papers*, 3(2), 54-68
- Böckerman, P., & Ilmakunnas, P. (2012). The job satisfaction-productivity nexus: A study using matched survey and register data. *ILR Review*, 65(2), 244-262
- Bowling, N. A., Alarcon, G. M., Bragg, C. B., & Hartman, M. J. (2015). A meta-analytic examination of the potential correlates and consequences of workload. *Work & Stress*, 29(2), 95-113
- Bowling, N. A., & Kirkendall, C. (2012). Workload: A review of causes, consequences, and potential interventions. *Contemporary occupational health psychology: Global perspectives on research and practice*, 2, 221-238.
- Brady, M. K., & Cronin Jr, J. J. (2001). Customer orientation: Effects on customer service perceptions and outcome behaviors. *Journal of service Research*, 3(3), 241-251.
- Budhwar, P. S., Varma, A., Malhotra, N., & Mukherjee, A. (2009). Insights into the Indian call centre industry: can internal marketing help tackle high employee turnover?. *Journal of services marketing*, 23(5), 351-362.
- Ceja, L., & Navarro, J. (2011). Dynamic patterns of flow in the workplace: Characterizing within-individual variability using a complexity science approach. *Journal of Organizational Behavior*, 32(4), 627-651.
- Chebat, J. C., & Kollias, P. (2000). The impact of empowerment on customer contact employees' roles in service organizations. *Journal of Service research*, 3(1), 66-81.

- Cheong, K., Kim, J., & So, S. (2008). A study of strategic call center management: relationship between key performance indicators and customer satisfaction. *European Journal of Social Sciences*, 6(2), 268-276.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience* (Vol. 1990). New York: Harper & Row.
- Dean, A. M., & Rainnie, A. (2009). Frontline employees' views on organizational factors that affect the delivery of service quality in call centers. *Journal of Services marketing*.
- Derks, D., ten Brummelhuis, L. L., Zecic, D., & Bakker, A. B. (2014). Switching on and off...: Does smartphone use obstruct the possibility to engage in recovery activities?. *European Journal of Work and Organizational Psychology*, 23(1), 80-90.
- De Ruyter, K. O., Wetzels, M., & Feinberg, R. (2001). Role stress in call centers: Its effects on employee performance and satisfaction. *Journal of interactive marketing*, 15(2), 23-35.
- Dwyer, D. J., & Fox, M. L. (2006). The Relationship Between Job Demands and Key Performance Indicators: Moderating Effects of Job Resources in Call Centers. *Journal of Business & Management*, 12(2)
- Eisinga, R., Te Grotenhuis, M., & Pelzer, B. (2013). The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown?. *International journal of public health*, 58(4), 637-642.
- Erdogan, B., & Bauer, T. N. (2014). Leader-member exchange (LMX) theory: The relational approach to leadership.
- Faber, J., & Fonseca, L. M. (2014). How sample size influences research outcomes. *Dental press journal of orthodontics*, 19(4), 27-29.
- Filiz, Z. (2014). An analysis of the levels of job satisfaction and life satisfaction of the academic staff. *Social Indicators Research*, 116(3), 793-808.

- Flint, D., Haley, L. M., & McNally, J. J. (2013). Individual and organizational determinants of turnover intent. *Personnel Review*.
- Foss, N. J., Minbaeva, D. B., Pedersen, T., & Reinholt, M. (2009). Encouraging knowledge sharing among employees: How job design matters. *Human resource management*, 48(6), 871-893.
- Game, A. M. (2007). Workplace boredom coping: Health, safety, and HR implications. *Personnel Review*.
- Garg, P., & Rastogi, R. (2006). New model of job design: motivating employees' performance. *Journal of management Development*.
- Gerhart, B. (1987). How important are dispositional factors as determinants of job satisfaction? Implications for job design and other personnel programs. *Journal of Applied Psychology*, 72(3), 366
- Geurts, S. A., & Sonnentag, S. (2006). Recovery as an explanatory mechanism in the relation between acute stress reactions and chronic health impairment. *Scandinavian journal of work, environment & health*, 482-492.
- Goldberg, L. S., & Grandey, A. A. (2007). Display rules versus display autonomy: emotion regulation, emotional exhaustion, and task performance in a call center simulation. *Journal of occupational health psychology*, 12(3), 301.
- Goussinsky, R. (2012). Coping with customer aggression. *Journal of Service Management*.
- Grandey, A. A., Dickter, D. N., & Sin, H. P. (2004). The customer is not always right: Customer aggression and emotion regulation of service employees. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 397-418.

- Groth, M., & Grandey, A. (2012). From bad to worse: Negative exchange spirals in employee–customer service interactions. *Organizational Psychology Review*, 2(3), 208–233. <https://doi.org/10.1177/2041386612441735>
- Haager, J. S., Kuhbandner, C., & Pekrun, R. (2018). To be bored or not to be bored—How task-related boredom influences creative performance. *The Journal of Creative Behavior*, 52(4), 297-304.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign* (Vol. 2779). Reading, Mass.: Addison-Wesley.
- Halkos, G., & Bousinakis, D. (2010). The effect of stress and satisfaction on productivity. *International Journal of Productivity and Performance Management*.
- Hamilton, J. A., Haier, R. J., & Buchsbaum, M. S. (1984). Intrinsic enjoyment and boredom coping scales: Validation with personality, evoked potential and attention measures. *Personality and individual differences*, 5(2), 183-193.
- Holdsworth, L., & Cartwright, S. (2003). Empowerment, stress and satisfaction: an exploratory study of a call centre. *Leadership & Organization Development Journal*.
- Holman, D., Batt, R., & Holtgrewe, U. (2007). The global call center report: International perspectives on management and employment.
- Hu, Q., Schaufeli, W. B., & Taris, T. W. (2011). The job demands–resources model: An analysis of additive and joint effects of demands and resources. *Journal of vocational behavior*, 79(1), 181-190.
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: a meta-analytic summary and theoretical extension of the work design literature. *Journal of applied psychology*, 92(5), 1332.

- Imran, M., Maqbool, N., & Shafique, H. (2014). Impact of technological advancement on employee performance in banking sector. *International Journal of Human Resource Studies*, 4(1), 57.
- Jack, E. P., Bedics, T. A., & McCary, C. E. (2006). Operational challenges in the call center industry: a case study and resource-based framework. *Managing Service Quality: An International Journal*.
- Jensen, C., Finsen, L., Sjøgaard, K., & Christensen, H. (2002). Musculoskeletal symptoms and duration of computer and mouse use. *International journal of industrial ergonomics*, 30(4-5), 265-275.
- Jordan, B., & Putz, P. (2004). Assessment as practice: Notes on measures, tests, and targets. *Human organization*, 63(3), 346-358
- Kaiser, S., Patras, J., Adolfsen, F., Richardsen, A. M., & Martinussen, M. (2020). Using the job demands–resources model to evaluate work-related outcomes among Norwegian health care workers. *SAGE Open*, 10(3), 2158244020947436.
- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of environmental psychology*, 15(3), 169-182.
- Kass, S. J., Vodanovich, S. J., & Callender, A. (2001). State-trait boredom: Relationship to absenteeism, tenure, and job satisfaction. *Journal of business and psychology*, 16(2), 317-327.
- Khalid, A., Sarfaraz, A., Ahmed, S., & Malik, F. (2013). Prevalence of stress among call center employees. *Pakistan Journal of Social and Clinical Psychology*, 11(2), 58.
- Khan, N. Z. A., Imran, A., & Anwar, A. (2019). Destructive leadership and job stress: causal effect of emotional exhaustion on job satisfaction of employees in call centers. *International Journal of Information, Business and Management*, 11(1), 135.

- Kraemer, T., & Gouthier, M. H. (2014). How organizational pride and emotional exhaustion explain turnover intentions in call centers: A multi-group analysis with gender and organizational tenure. *Journal of Service Management*
- Lehr, S. (2013). What Really Drives Employees' Happiness? Retrieved January 22, 2022, from Blog website: <https://www.cangrade.com/blog/talent-management/motivators-really-drive-employees-happiness/>
- Leroy, S. (2009). Why is it so hard to do my work? The challenge of attention residue when switching between work tasks. *Organizational Behavior and Human Decision Processes*, 109(2), 168-181.
- Lin, Y. H., Chen, C. Y., Hong, W. H., & Lin, Y. C. (2010). Perceived job stress and health complaints at a bank call center: comparison between inbound and outbound services. *Industrial health*, 48(3), 349-356
- Linton, S. J. (1990). Risk factors for neck and back pain in a working population in Sweden. *Work & stress*, 4(1), 41-49.
- Locke, E. A. (1969). What is job satisfaction?. *Organizational behavior and human performance*, 4(4), 309-336.
- Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In *A handbook of work and organizational psychology* (pp. 15-44). Psychology Press.
- Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied psychology*, 63(4), 408.
- Molino, M., Emanuel, F., Zito, M., Ghislieri, C., Colombo, L., & Cortese, C. G. (2016). Inbound call centers and emotional dissonance in the job demands–resources model. *Frontiers in Psychology*, 7, 1133
- Moorhead, G., & Griffin, R. W. (2008). *Organizational behavior managing people and organizations*. Dreamtech Press.

- Morf, M., Feierabend, A., & Staffelbach, B. (2017). Task variety and counterproductive work behavior. *Journal of Managerial Psychology*.
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of applied psychology*, *91*(6), 1321.
- Morrison, D., Cordery, J., Girardi, A., & Payne, R. (2005). Job design, opportunities for skill utilization, and intrinsic job satisfaction. *European journal of work and organizational psychology*, *14*(1), 59-79.
- Nakamura, J., & Csikszentmihalyi, M. (2009). Flow theory and research. *Handbook of positive psychology*, 195-206
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: the roles of job enrichment and other organizational interventions. *Journal of applied psychology*, *83*(6), 835.
- Poster, W. R. (2007). Who's on the line? Indian call center agents pose as Americans for US-outsourced firms. *Industrial Relations: A Journal of Economy and Society*, *46*(2), 271- 304.
- Reijseger, G., Schaufeli, W. B., Peeters, M. C., Taris, T. W., Van Beek, I., & Ouweneel, E. (2013). Watching the paint dry at work: Psychometric examination of the Dutch Boredom Scale. *Anxiety, Stress & Coping*, *26*(5), 508-525.
- Ro, H., & Lee, J. E. (2017). Call center employees' intent to quit: Examination of job engagement and role clarity. *Journal of Quality Assurance in Hospitality & Tourism*, *18*(4), 531-543.
- Roelen, C. A. M., Koopmans, P. C., & Groothoff, J. W. (2008). Which work factors determine job satisfaction?. *Work*, *30*(4), 433-439.
- Rydstedt, L. W., & Johnsen, S. Å. K. (2019). Towards an integration of recovery and restoration theories. *Heliyon*, *5*(7), e02023.

- Schriesheim, C., & Tsui, A. S. (1980). Development and validation of a short satisfaction instrument for use in survey feedback interventions. In *Western Academy of Management Meeting* (Vol. 1980, pp. 115-17).
- Scott-Ladd, B., Travaglione, A., & Marshall, V. (2006). Causal inferences between participation in decision making, task attributes, work effort, rewards, job satisfaction and commitment. *Leadership & Organization Development Journal*.
- Sherry, J. L. (2004). Flow and media enjoyment. *Communication theory*, 14(4), 328-347.
- Smith, R. P. (1981). Boredom: A review. *Human factors*, 23(3), 329-340.
- Sonnentag, S., Binnewies, C., & Mojza, E. J. (2008). " Did you have a nice evening?" A day-level study on recovery experiences, sleep, and affect. *Journal of Applied Psychology*, 93(3), 674.
- Spector, P. E., Fox, S., Penney, L. M., Bruursema, K., Goh, A., & Kessler, S. (2006). The dimensionality of counterproductivity: Are all counterproductive behaviors created s equal?. *Journal of vocational behavior*, 68(3), 446-460.
- Todman, M. (2007). Psychopathology and boredom: A neglected association. *Psychological science: Research, theory, and future directions*, 145-160.
- Van den Broeck, A., Van Ruysseveldt, J., Vanbelle, E., & De Witte, H. (2013). The job demands–resources model: Overview and suggestions for future research. *Advances in positive organizational psychology*.
- Van der Heijden, G. A., Schepers, J. J., & Nijssen, E. J. (2012). Understanding workplace boredom among white collar employees: Temporary reactions and individual differences. *European Journal of Work and Organizational Psychology*, 21(3), 349-375.

- Van Hooff, M. L., & Van Hooft, E. A. (2014). Boredom at work: Proximal and distal consequences of affective work-related boredom. *Journal of occupational health psychology, 19*(3), 348.
- Witt, L. A., Andrews, M. C., & Carlson, D. S. (2004). When conscientiousness isn't enough: Emotional exhaustion and performance among call center customer service representatives. *Journal of Management, 30*(1), 149-160.
- Zakay, D. (2014). Psychological time as information: The case of boredom. *Frontiers in psychology, 5*, 917.
- Zaniboni, S., Truxillo, D. M., Fraccaroli, F., McCune, E. A., & Bertolino, M. (2014). Who benefits from more tasks? Older versus younger workers. *Journal of managerial psychology.*
- Zapf, D., Isic, A., Bechtoldt, M., & Blau, P. (2003). What is typical for call centre jobs? Job characteristics, and service interactions in different call centres. *European journal of work and organizational psychology, 12*(4), 311-340.
- Zhou, Q., Hirst, G., & Shipton, H. (2012). Promoting creativity at work: The role of problem-solving demand. *Applied psychology, 61*(1), 56-80.
- Zojceska, A. (2018, December 16). HR Metrics: How and Why to Calculate Employee Turnover Rate? Retrieved January 20, 2022, from Blog website:
<https://www.talentlyft.com/en/blog/article/242/hr-metrics-how-and-why-to-calculate-employee-turnover-rate>

Appendix A

Additional results of some of the demographic questions that were not mentioned in the methodology section:

Education level	Frequency	Percent
High school diploma or similar	20	19.0
Lower vocational education	1	1.0
MBO	20	19
HBO Bachelor	19	18.1
HBO Master	1	1.0
University Bachelor	25	23.8
University Master	15	14.3
Other	3	2.9
Missing value(s)	1	1
Total	105	100

Type of organization

	Frequency	Percent
Trade and retail	6	5.7
Government and semi-government	2	1.9
Non-profit	1	1.0
Healthcare	29	27.6
Energy	32	30.5
Telecommunications	3	2.9
Finance	24	22.9
Transport and logistics	1	1.0
Media and communication	1	1.0
Other	5	4.8
Missing value(s)	1	1.0
Total	105	100

Appendix B

Introduction:

Beste contactcentermedewerker,

Allereerst wil ik u hartelijk danken voor uw deelname aan dit onderzoek. Het onderzoek gaat over baantevredenheid onder contactcentermedewerkers.

Het doel van het onderzoek is om inzicht te krijgen in welke factoren het werk van een contactcentermedewerker aantrekkelijk of juist onaantrekkelijk maken. Het onderzoek duurt ongeveer 5 à 10 minuten en bestaat grotendeels uit meerkeuzevragen.

De vragenlijst bestaat uit vier blokken. Eerst krijgt u vragen over de verschillende taken die u uitvoert tijdens uw werk. Het tweede blok bestaat uit verschillende stellingen die ingaan op de ervaringen die u kunt hebben tijdens het werk. Daarna zullen de vragen gaan over uw baantevredenheid. Tot slot gaan de laatste vragen over demografische kenmerken van uzelf. Tijdens deze vragenlijst kunt u door te klikken op de pijl rechtsonder steeds door naar het volgende blok met vragen.

Dit onderzoek wordt uitgevoerd door de Universiteit van Tilburg onder begeleiding van J.W.M. Verhoeven. Er zal vertrouwelijk met uw gegevens worden omgegaan en de resultaten worden geheel anoniem verwerkt. Persoonlijke resultaten worden niet gedeeld met uw werkgever. U mag elk moment stoppen met de vragenlijst indien u dat wenst. Als u akkoord gaat met het bovenstaande kunt u beginnen met de vragenlijst door te klikken op de pijl rechtsonder.

Mocht u nog vragen of opmerkingen hebben over het onderzoek, neem dan contact op met mij op d.m.meijer@tilburguniversity.edu

Met vriendelijke groet,
Daniëlla Meijer

Start questions:

Welke taken voert u uit als medewerker klantcontact? Beschrijf uw taken hieronder:

Hoeveel procent van uw tijd spendeert u in de telefonie als medewerker klantcontact?

In hoeverre bent u het eens met de volgende stellingen over uw werk als medewerker klantcontact?

	Helemaal niet mee eens (1)	Niet mee eens (2)	Neutraal (3)	Mee eens (4)	Helemaal mee eens (5)
Mijn werk brengt veel variatie in taken met zich mee. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mijn werk houdt in dat ik verschillende dingen mag doen. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mijn werk vereist de uitvoering van een breed scala aan taken. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mijn werk omvat het uitvoeren van verschillende taken. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Geef aan hoe vaak de onderstaande ervaringen voorkomen in uw werk als medewerker klantcontact.

	Nooit (1)	Zelden (2)	Soms (3)	Vaak (4)	Altijd (5)

Op het werk gaat de tijd heel langzaam. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Op het werk breng ik mijn tijd doelloos door. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Op mijn werk voel ik mij onrustig. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tijdens mijn werk dagdroom ik. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het lijkt alsof mijn werkdag nooit eindigt. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik heb de neiging om andere dingen te doen tijdens mijn werk. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Op mijn werk is er niet zo veel te doen. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In hoeverre bent u het eens met de volgende stellingen over uw werk als medewerker klantcontact?

	Sterk mee oneens (1)	Mee oneens (2)	Beetje mee oneens (3)	Niet mee eens en niet mee oneens (4)	Beetje mee eens (5)	Mee eens (6)	Sterk mee eens (7)
--	----------------------	----------------	-----------------------	--------------------------------------	---------------------	--------------	--------------------

Mijn werk is fysiek zwaar. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mijn werk is mentaal veeleisend. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In hoeverre bent u het eens met de volgende stellingen over uw werk als medewerker klantcontact?

	Helemaal niet mee eens (1)	Niet mee eens (2)	Neutraal (3)	Mee eens (4)	Helemaal mee eens (5)
Ik ben tevreden met mijn huidige baan. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben tevreden met mijn huidige collega's. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben tevreden en voel mij gelukkig bij mijn huidige baas. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben tevreden met mijn huidige salaris. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben tevreden met mijn kansen op promotie. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over het algemeen ben ik tevreden met	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

mijn huidige
baan. (6)

Ik denk er
vaak aan om
de
organisatie te
verlaten. (7)

Ik ben van
plan om
binnen het
komende jaar
op zoek te
gaan naar
een nieuwe
baan. (8)

Als ik
opnieuw zou
mogen
kiezen, zou ik
niet voor
deze
organisatie
werken. (9)

Age Hoe oud bent u?

Wat is uw geslacht?

Vrouw (1)

Man (2)

Anders, namelijk (3) _____

Wat is het hoogste opleidingsniveau dat u heeft voltooid?

- Geen voltooide opleiding (1)
- Lagere school/basisschool (2)
- Middelbareschooldiploma of vergelijkbaar (3)
- Lager beroepsonderwijs (4)
- MBO (5)
- HBO Bachelor (6)
- HBO Master (7)
- Universitaire Bachelor (8)
- Universitaire Master (9)
- Kandidaats/PhD (10)
- Anders, namelijk... (11) _____

Hoeveel uur per week werkt u gemiddeld als medewerker klantcontact?

In welke branche werkt u als medewerker klantcontact?

- Handel en retail (1)
- Overheid en semi-overheid (2)

- Non-profit (3)
- Gezondheidszorg en welzijnszorg (4)
- Energie (5)
- Telecommunicatie (6)
- Financiële dienstverlening (7)
- Onroerend goed (8)
- Transport en logistiek (9)
- Media en communicatie (10)
- Onderwijs (11)
- Anders, namelijk... (12) _____

Hoelang werkt u als medewerker klantcontact in jaren en/of maanden?

Jaren (1) _____

Maanden (2) _____

Bevindt uw afdeling zich op dezelfde locatie als het bedrijf waar u werkzaam bent als medewerker klantcontact?

Ja (1)

Nee (2)

Waar voert u doorgaans uw werk uit als medewerker klantcontact?

Nooit op kantoor, altijd thuis (1)

Zelden op kantoor, vaak thuis (2)

Soms op kantoor, soms thuis (3)

Vaak op kantoor, zelden thuis (4)

Altijd op kantoor, nooit thuis (5)

Appendix C

Scales and items used for the survey including the original English translations:

Subjective task variety

Item	Dutch	English
Subjective task variety 1	Mijn werk brengt veel variatie in taken met zich mee	The job involves a great deal of task variety
Subjective task variety 2	Mijn werk houdt in dat ik verschillende dingen mag doen	The job involves doing a number of different things
Subjective task variety 3	Mijn werk vereist de uitvoering van een breed scala aan taken	The job requires the performance of a wide range of tasks
Subjective task variety 4	Mijn werk omvat het uitvoeren van verschillende taken	The job involves performing a variety of tasks

Boredom

Item	Dutch	English
Boredom 1	Op het werk gaat de tijd heel langzaam	At work, time goes by very slowly
Boredom 2	Op het werk breng ik mijn tijd doelloos door	At work, I spend my time aimlessly
Boredom 3	Op mijn werk voel ik mij onrustig	At my job, I feel restless
Boredom 4	Tijdens mijn werk dagdroom ik	During work time I daydream
Boredom 5	Het lijkt alsof mijn werkdag nooit eindigt	It seems as if my working day never ends
Boredom 6	Ik heb de neiging om andere dingen te doen tijdens mijn werk	I tend to do other things during my work
Boredom 7	Op mijn werk is er niet zo veel te doen	At my work, there is not so much to do

Workload

Item	Dutch	English
Workload 1	Mijn werk is fysiek zwaar	My work is physically

Workload 2	Mijn werk is mentaal veeleisend	demanding My work is mentally demanding
------------	---------------------------------	--

Job satisfaction

Item	Dutch	English
Job satisfaction 1	Ik ben tevreden met mijn huidige baan	I am satisfied with my current job
Job satisfaction 2	Ik ben tevreden met mijn huidige collega's	I am satisfied with my current colleagues
Job satisfaction 3	Ik ben tevreden en voel mij gelukkig bij mijn huidige baas	I am satisfied and I feel happy with my current boss
Job satisfaction 4	Ik ben tevreden met mijn huidige salaris.	I am satisfied with my current salary
Job satisfaction 5	Ik ben tevreden met mijn kansen op promotie	I am satisfied with my chances of promotion
Job satisfaction 6	Over het algemeen ben ik tevreden met mijn huidige baan	Overall, I am satisfied with my current job

Turnover intention

Item	Dutch	English
Turnover intention 1	Ik denk er vaak aan om de organisatie te verlaten	I often think of leaving the organization
Turnover intention 2	Ik ben van plan om binnen het komende jaar op zoek te gaan naar een nieuwe baan.	I intend to look for a new job within the next year
Turnover intention 3	Als ik opnieuw zou mogen kiezen, zou ik niet voor deze organisatie werken	If I could choose again, I would not work for this organization.

Appendix D

Correlations table with all used variables.

Correlations

		Objective task variety 1	Objective task variety 2	Subjective task variety	Boredom	Mental workload	Job satisfaction	Turnover intention
Objective task variety 1	Pearson Correlation	1	-.301**	.169	-.020	.052	-.084	.213*
	Sig. (2-tailed)		.002	.089	.840	.605	.399	.031
	N	102	100	102	102	102	102	102
Objective task variety 2	Pearson Correlation	-.301**	1	-.304**	.001	.159	-.168	.022
	Sig. (2-tailed)	.002		.002	.994	.112	.094	.824
	N	100	101	101	101	101	101	101
Subjective task variety	Pearson Correlation	.169	-.304**	1	-.207*	.001	.551**	-.309**
	Sig. (2-tailed)	.089	.002		.034	.994	<.001	.001
	N	102	101	105	105	105	105	105
Boredom	Pearson Correlation	-.020	.001	-.207*	1	.084	-.250*	.521**
	Sig. (2-tailed)	.840	.994	.034		.396	.010	<.001
	N	102	101	105	105	105	105	105
Mental workload	Pearson Correlation	.052	.159	.001	.084	1	-.226*	.255**
	Sig. (2-tailed)	.605	.112	.994	.396		.020	.009
	N	102	101	105	105	105	105	105
Job satisfaction	Pearson Correlation	-.084	-.168	.551**	-.250*	-.226*	1	-.646**
	Sig. (2-tailed)	.399	.094	<.001	.010	.020		<.001
	N	102	101	105	105	105	105	105
Turnover intention	Pearson Correlation	.213*	.022	-.309**	.521**	.255**	-.646**	1
	Sig. (2-tailed)	.031	.824	.001	<.001	.009	<.001	
	N	102	101	105	105	105	105	105

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

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