



The Relationship between Job Satisfaction and Organizational Citizenship Behaviour:
with Gender and Age as Moderators

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Abstract

The relationship between job satisfaction and organizational citizenship behaviour (OCB) is examined in this study. Gender and age were tested as moderators on this relationship. This research expands knowledge on job satisfaction as a predictor of OCB by looking at the interaction between gender and age. This interaction, to date, has not been studied yet. Results of this study help organizations to more effectively engage their employees to perform OCB, which will contribute to the overall organizational effectiveness. A total of 187 participants took part in this study. As expected, results showed job satisfaction to be a significant predictor of OCB. Contrary to expectations, gender did not moderate this relationship. Neither did gender directly affect OCB. Age did interact with gender, resulting in a significant three-way interaction between age, gender and job satisfaction on predicting OCB. Unexpectedly in such a way that the more satisfied older men were with their jobs, the more OCB they would perform, and the more satisfied older women were with their jobs, the less OCB they would perform. Age did not directly affect OCB. Results are discussed in terms of practical implications, limitations and suggestions for future research.

Keywords: Organizational citizenship behaviour, job satisfaction, gender, age

Introduction

Organizational citizenship behaviour (OCB) has been an organizational psychological subject of interest since its introduction by Bateman and Organ more than 30 years ago (Bateman & Organ, 1983). Organizational Citizenship Behaviours are a special type of work behaviour that are defined as “*individual behaviours that are beneficial to the organization and are discretionary, not directly or explicitly recognized by the formal reward system*” (Organ, 1995). Most of the research conducted on OCB has focused on identifying predictors and the positive outcomes of OCB (Van Dyne & LePine, 1998). Organ (1988) elaborated on some of these positive outcomes and stated that OCB can maximize the efficiency and productivity of both the employees and the organization, which will ultimately contribute to the effective functioning of an organization.

Given the importance of OCB for maximizing efficiency and productivity, this research wants to contribute by delving deeper into specific antecedents of OCB. The antecedent of OCB that this research focuses on, is job satisfaction, which in this research is considered the main predictor of OCB. Job satisfaction has been chosen as the main predictor because job satisfaction has proven to be an evident antecedent of OCB (Organ & Lingl, 1995; Zeinabadi, 2010; Chahal & Mehta, 2010). Besides this, gender has been evaluated, because it is expected that job satisfaction predicts OCB differently for men and women. Finally, age was taken into account, because it is expected that the difference in predictive value of job satisfaction for men and women decreases, as age increases.

The goals of this research will contribute as fundamental research in understanding more about OCB by trying to replicate and expand the knowledge about the relationship between job satisfaction and OCB. This study extends existing literature on OCB by adding gender and age as predictors of OCB and looking at the interaction between job satisfaction, gender and age. This interaction, to date, has not been studied yet. Knowing how different antecedents individually predict OCB and how they interact, provides a new point of view in OCB literature for future research to dive into. Furthermore, this study provides valuable knowledge for all sorts of organizations. Knowing what drives employees to perform OCB and how to maximize that motivation for different types of employees (men/women, young/old) would be beneficial for any organization.

The current study endeavours to find answers to multiple questions. To answer these questions, two research questions have been formed. The first one being: Does job satisfaction have a greater effect on performing OCB in men than in women? The second research question strives to answer whether age could influence the effect that gender has on job

satisfaction as a predictor of OCB.

Importance of OCB

Since Bateman and Organ (1983) introduced the construct OCB, many studies continued to further elaborate on this topic. In early stages of research, it became clear that OCB had positive effects on work outcomes. Most of these early studies therefore focused on the positive effects and the predictors of OCB. Very early studies such as the one by Smith, Organ and Near (1983) argued that OCB was an important measure of performance for organizations. Yet in the early years, little empirical research had been done to prove the direct effect of OCB on organizational performance. Later studies truly showed the potential of OCB for improving the performance of organizations. Podsakoff, Ahearne and MacKenzie (1997) showed that OCB had a significant positive impact on performance quantity as well as on performance quality, which led to an increased interest of industrial and organizational psychologists on this topic (Borman & Penner, 2001).

As more research on OCB emerged, more became clear on the dimensions of OCB and on how to measure those. Smith, Organ and Near (1983) discerned, based on their results, *altruism* and *generalized compliance* as the two main dimensions of OCB. Organ (1988) later extended this view and distinguished five dimensions of OCB; conscientiousness, altruism, courtesy, sportsmanship, and civic virtue, which could be further categorized into two dimensions, OCBI and OCBO (Williams & Anderson, 1991). OCBI measures all pro-social behavior directed towards others and OCBO measures all behavior beneficial to the organization. Both dimensions of OCB contribute to the productivity of employees and organizations. Various studies have shown multiple positive effects of OCB on performance outcomes of employees as well as on organizations (Tambe, 2014). Therefore, employees performing OCB proves to be vital to organizations.

All research on OCB, its dimensions and positive outcomes done so far, set a strong foundation for future research to build on. Hence, making it more and more interesting to further study the antecedents of OCB and how to maximize those. Knowing more about these antecedents and how to maximize predictors of OCB, could be beneficial for all sorts of organizations. For example, this knowledge could help organizations stimulate their workers' adaptability and improve the general work effectiveness (Gyekye & Haybatollahi, 2015). This current study focuses on one predictor of OCB; job satisfaction.

Job satisfaction predicting OCB

In recent years, a lot of research has been done to determine the antecedents of OCB. Podsakoff, MacKenzie, Paine and Bacharach (2000) reviewed the research on OCB done up to that time. In doing so, they identified numerous different antecedents for OCB, which could be divided into two main categories. The first category being employees' attitudes and the second one being dispositional variables. From 1983 onwards, many studies have elaborated on the relationship between OCB and its predictors. Meta-analysis from Organ and Ryan (1995) on 55 of those studies showed that from the different forms of employees' attitudes, especially job satisfaction could predict OCB better than dispositional variables. "*Job satisfaction has to do with the way how employees feel about their job. It has to do with the extent to which employees like or dislike various aspects of their job*" (Spector, 1997). It is quite logical to reason that job satisfaction is related to OCB. It sounds very plausible that employees who are more satisfied with their work, show more prosocial behavior towards others and the organization. Besides that, unlike dispositional traits, employees' job satisfaction can be influenced by organizations. For example, through leadership style (Voon, Lo, Ngui, & Ayob, 2011) or organizational climate (Pritchard & Karasick, 1973). This practical reason makes job satisfaction an interesting antecedent to study.

It is however unclear whether the job satisfaction – OCB relationship remains a one-way street. It might be the case that performing OCB in turn will increase job satisfaction, as found by (Organ, Podsakoff & MacKenzie, 2005), showing that performing OCB could make employees feel their jobs to be more enjoyable and rewardable. This would turn the job satisfaction – OCB relationship into a positive cycle. Other studies however, such as the one by Munyon, Hochwarter, Perrewé and Ferris (2010), show that performing too much OCB could have a negative effect on this relationship, thus decreasing job satisfaction. As more empirical evidence on this effect is needed, the possibility of a reciprocal relationship remains unclear.

Job satisfaction has been linked with OCB since its origin in 1983, with many studies, such as the one by Organ and Lingl (1995) showcasing job satisfaction as a significant predictor of OCB. Later studies (e.g., Zeinabadi, 2010; Nguni, Slegers & Denessen, 2006; Chahal & Mehta, 2010) researched the relationship between job satisfaction and OCB as well and support earlier research on job satisfaction as an antecedent of OCB. Thereby adding more evidence to support the majority of studies finding comparable results.

Based on all the previous literature concerning job satisfaction and OCB the first

hypothesis of this study will be: Employees who are more satisfied with their job, will perform more OCB.

The role of gender

The current research seeks to find a possible difference in the degree to which job satisfaction motivates men and women to perform OCB. Behaviour of men and women is largely determined by stereotypes regarding their gender (Eagly, 1987). On this basis men are expected to be agentic and independent, whereas women are expected to be communal and unselfish. According to the social heuristics hypothesis, which states that intuition favours behaviour that typically maximises payoffs, women are expected to behave more altruistically than men because women may internalize altruism as their intuitive response more than men do (Rand, Brescoll, Everett, Capraro & Barcelo, 2016). OCB can be seen as a form of altruism, because types of behaviour are carried out, without any form of direct reward. Because women may intuitively behave more altruistic, they might need less motivation in the form of job satisfaction compared to men, to perform OCB. In other words: the positive effect that job satisfaction has on performing OCB will expectedly be stronger for men than for women.

Several studies have looked at this gender stereotype in relationship to OCB and found comparable results. In the study of Lovell et al. (1999) for example, they asked 96 dormitory resident advisors to rate each other on the probability of executing OCB. Their results showed women receiving higher ratings of expected OCB than their male colleagues. Another difference in the perception of carried out OCB has been found by Allen and Rush (2001). In their experiment, assessors were asked to rate the frequency of performed OCB of men and women. Results showed that that assessors expected women to perform OCB more frequently.

The studies described above made use of peer reviews, which could lead to results tending to be more of an expectation or assumption of performed OCB, rather than the actual performed OCB. Though this current study made use of self-report scales, a different outcome is not expected. When comparing self-ratings of OCB versus superior ratings, Allen, Barnard, Rush and Russell (2000) did not find any significant differences. Neither did Van Dyne et al. (2000) when comparing OCB scores which were obtained via self-report scales versus observer reports.

According to gender stereotypes, women are expected to behave more communal and unselfish (Eagly, 1987) and altruistic (Rand et al., 2016) than men. Besides that, altruism

proved to be a motive to perform OCB (Rand et al., 2016). Therefore, this study expects to find the positive effect that job satisfaction has on performing OCB, to be stronger for men than for women. The current study expects to find gender moderating the relationship between job satisfaction and OCB. In other words, because women don't need an extra incentive in the form of job satisfaction to perform OCB as much as men do, this study expects to find women performing more OCB than men, when job satisfaction is low. When job satisfaction increases, the amount of performed OCB will increase more for men than for women. Resulting in both men and women performing high amounts of OCB when job satisfaction is high. When employees are highly satisfied with their job, a difference in OCB between men and women will expectedly not be distinguished.

The role of age

In addition to looking for the moderating effect of gender, this research will examine the role of age on OCB as well. In a time where the workforce is aging and getting more polarized (De Meulenaere, 2016), age more and more becomes a relevant construct to study. Whether job satisfaction has a different predictive value of OCB at different ages is valuable information for organizations for improving overall organizational effectiveness. Younger workers may have a completely different work motives compared to older workers. Meta-analysis of Kooij, de Lange, Jansen, Kanfer and Dikkers (2011) for example, showed extrinsic work motives to be stronger for younger employees, and intrinsic work motives to be stronger for older employees. This can have an effect on their motive for performing OCB. As seen in these American studies (Organ & Konovsky, 1989; Smith, Organ & Near, 1983) age does not have an effect on altruistic behaviour. So rather than looking for a main effect of age on OCB, it might be more relevant to consider age as being a moderator on performing OCB. Doing so will make it possible to find a difference in the degree to which job satisfaction motivates younger and older employees to perform OCB.

The average age of the worldwide working population has been rising over the past few decades. In the Netherlands, the average age of workers increases with almost 0.3 years, every year. The Dutch working population had an average age of 38.2 years in 2001. This has increased to an average age of 39.8 years in 2007 (Bruggink, 2008). This trend is also reflected in the number of jobs occupied by workers over 55 years of age. In 1995, the working population, aged between 55 and 65, occupied around five percent of the total job market. In 2002 this number grew to nine percent (Melser, 2004). As the working population is getting older and employees need to work longer, age is a very relevant topic for

organizations. The aging workforce not only has implications for society, but has consequences for organizations as well. Because of the aging workforce, organizations are confronted with great differences in age between employees, creating a so called 'multigeneration organization' (De Meulenaere, 2016). The challenge of retaining all employees and keeping them satisfied with their job and thereby improving overall organizational effectiveness is therefore more relevant than ever. This study contributes to this challenge by finding whether job satisfaction has different predictive values of OCB for men and women at different ages.

Wagner and Rush (2000), concluded job satisfaction to be a more relevant motive to perform OCB for younger employees than for older employees. Their results showed very different antecedents for younger workers compared to older workers for performing OCB. They found job satisfaction to be a significant predictor of OCB for young employees, but not for older employees. Another research, conducted by Gyekye and Haybatollahi (2015) tested job satisfaction and age as independent variables in their study on OCB. They found that in contrast to older employees, younger employees citizenship behaviours were significantly influenced by job satisfaction

Both these studies looked at either the direct effect of age on OCB or the moderating effect of age on job satisfaction and OCB. While previous research has demonstrated main or moderating effects of age, this current study wants to delve further into age as a predictor and assess how age and gender interact as moderators of job satisfaction and OCB.

This study expects to find age nullifying the moderating effect that gender has on the correlation between job satisfaction and OCB. In their studies, Gyekye and Haybatollahi (2015) and Wagner and Rush (2000) found job satisfaction to be a more relevant motive to perform OCB for young employees in comparison to older employees, regardless of gender. Chahal and Mehta (2010) argued in their research that older employees are more rigid in adjusting their needs with the organization compared to younger employees. Differences in their orientations towards themselves, others and work may lead to different salient motives for OCB among younger and older employees (Chahal & Mehta, 2010). Hence, this study expects to find age interacting with gender. As age increases, the predictive value of job satisfaction on OCB for men and women expectedly equalizes, thus nullifying the effect gender has on job satisfaction as a motivation to perform OCB.

Research question and hypotheses

To summarize, this research endeavours to answer two research questions. Does job satisfaction have a greater effect on performing organizational citizenship behaviour in men than in women? The second research question strives to answer whether age could moderate the effect that gender has on job satisfaction as a motivation for performing OCB.

To answer these questions three hypotheses have been formulated. Without an effect of job satisfaction on OCB it will not be possible to distinguish a difference between men and women on this relation.

Hypothesis 1: Employees who are more satisfied with their job, will perform more OCB.

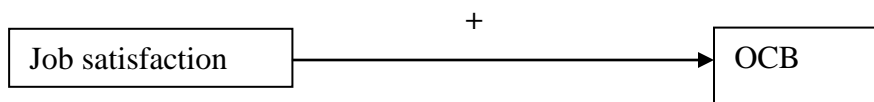


Figure 1. Job satisfaction predicting OCB

Hypothesis 2: Gender will moderate the relationship between job satisfaction and OCB. When job satisfaction is low, women will perform more OCB than men. As job satisfaction increases, OCB will increase in both sexes, but at higher rate for men than for women. When job satisfaction is high, both man and women will perform the same amount of OCB.

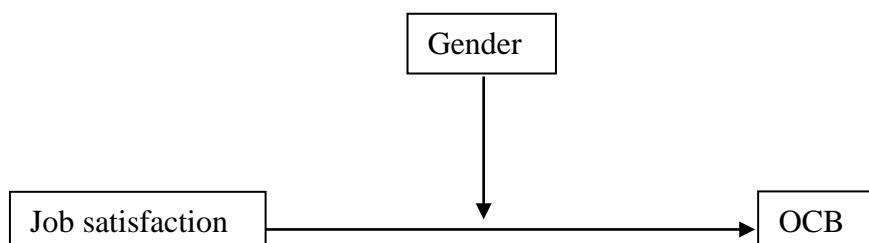


Figure 2: gender as moderator

Hypothesis 3: Age will nullify the moderating effect of gender on job satisfaction and OCB. As age increases, the predictive value of job satisfaction on OCB for men and women will equalize.

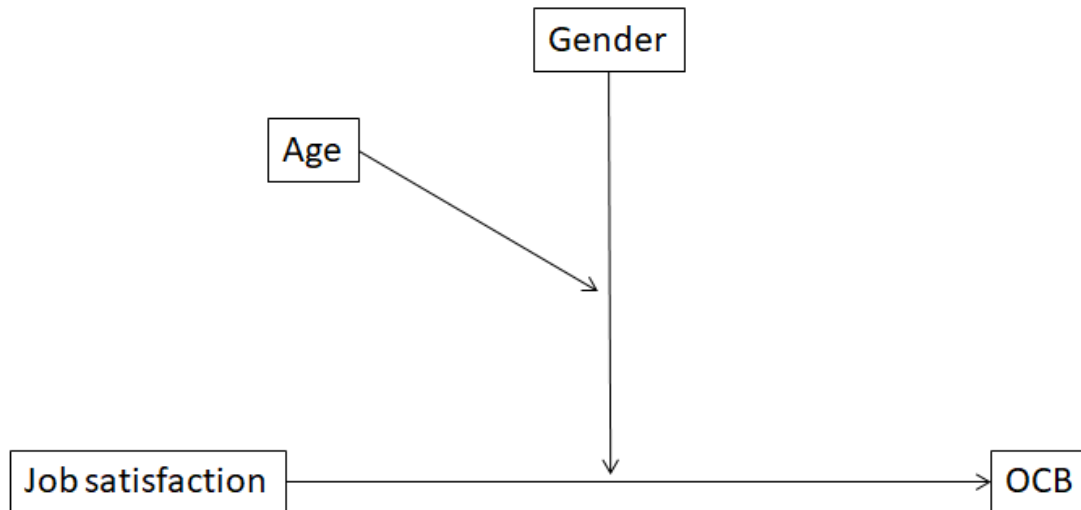


Figure 3: age moderating the moderator

Methods

Participants

A total of 187 participants took part in this study. The average age of these participants was 39.49 ($SD= 14.64$). The group consisted of 88 men (47.1%) with an average age of $M= 41.58$ ($SD= 15.17$), 98 women (52.4%) with an average age of $M= 37.76$ ($SD= 13.98$) and one ‘other’ (0.5%) with an age of 25. Out of these 187 participants, the vast majority was native Dutch (95.7%). Eight of the participants (4.3%) had a different nationality. All participants were employed in the Netherlands with an average working week of $M= 35.72$ ($SD= 5.17$) hours. As for education and tenure, a few statistics stood out. The majority of participants (87.2%) was well educated. 39.1% achieved a Bachelor’s degree and 48.1% achieved a Master’s degree. It also stood out that 70.8% of all participants worked at their current employer for less than ten years. Nearly half of all participants (49.2%) only worked at their current employer for three years or less, with over a quarter of all participants (28.6%) being employed at their current employer for just one year (see figure 4).

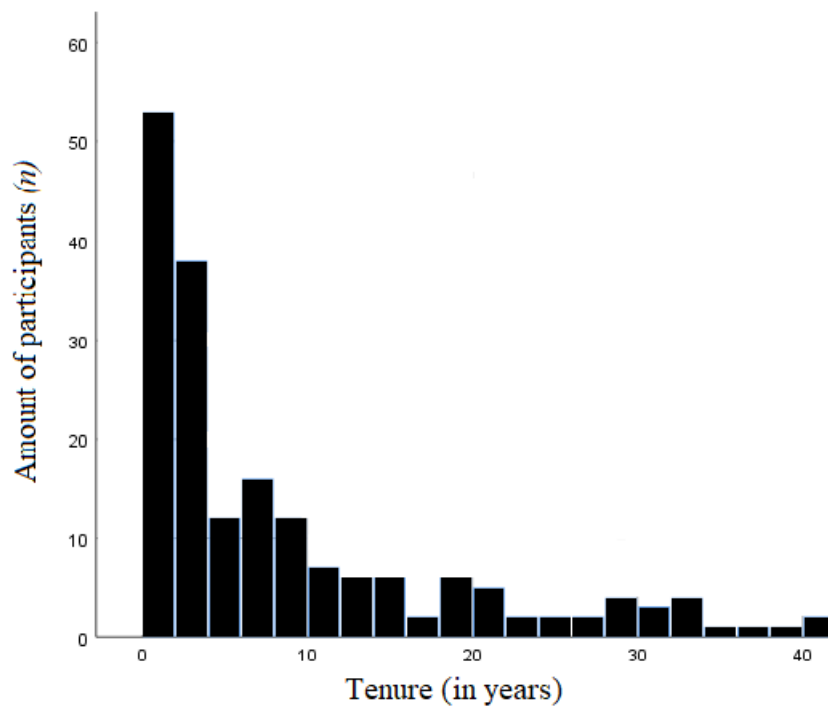


Figure 4. Tenure of the participants

To achieve a power of at least 0.80, this study needed a sample size of approximately 150 participants. Analysis to get to this number has been done using a squared multiple correlation of 0.05 for a multiple linear regression, requesting power of 0.80. With 187 participants taking part in this study, a power of 0.94 has been achieved.

Procedure

This study made use of a cross-sectional design, meaning that data were analysed from a representative subset of the population, at a specific point in time. Prior to starting the research, a questionnaire was made using the survey program Qualtrics. Because of the presumed internationality of the dataset, two versions of the same questionnaire were made: one in English and one in Dutch. Existing scales were translated using back-translation.

The research started with an introduction in which participants could choose their preferred language (Dutch or English) and where they were welcomed in their chosen language. Procedures, confidentiality, eligibility, risks and benefits and voluntary participation were explained. Informed consent followed in which participants had to declare that they met all requirements for participating in this research. To participate in this research, participants had to be at least 18 years of age and currently working in employment. After that confirmation, the questionnaire began with the OCB scale of Lee and Allen (2002). Next was

the job satisfaction scale of Macdonald and MacIntyre (1997), followed by some questions asking demographic data such as gender, age and nationality. The questionnaire finished with a debriefing, giving a short explanation of the purpose of this study.

Measures

Organizational citizenship behaviour. OCB was measured using the OCB scale of Lee and Allen (2002). This scale consisted of sixteen items. Eight of these items measured OCBI and the other eight measured OCBO. Answers were noted using a seven-point Likert scale ranging from 1= 'Strongly agree' to 7= 'Strongly disagree'. One of the OCBI questions was "I adjust my work schedule to accommodate other employees' requests for time off.". One of the OCBO question was "I defend the organization when other employees criticize it.". The complete scale can be found in appendix one.

To analyse the results of this scale, average scores of the OCBI and the OCBO scales were combined, because this research does not distinguish between those two forms of OCB. All items were reverse coded, so that higher values in this scale meant higher levels of OCB. The reliability analysis revealed a Cronbach's Alpha of $\alpha = .76$, which indicates an acceptable reliability (Gliem & Gliem, 2003).

Job satisfaction. The variable job satisfaction was measured using the job satisfaction scale of Macdonald and MacIntyre (1997). This scale consisted of ten items and answers were noted using a seven-point Likert scale ranging from 1= 'Strongly agree' to 7= 'Strongly disagree'. One of the questions to measure job satisfaction was "I feel good about working at this company.". The complete scale can be found in appendix two.

For analysing the results of this scale, average scores were used. All items were reverse coded, so that higher values in this scale meant higher levels of job satisfaction. The reliability analysis revealed a Cronbach's Alpha of $\alpha = .78$, which indicates an acceptable reliability (Gliem & Gliem, 2003).

Demographics. To find out the relevant demographic data of the participants, a few questions were included. These questions concerned gender, age, nationality, education level, tenure, number of hours in a working week, team size, industry and seniority.

Results

Data has been analysed using *IBM SPSS Statistics v26*. An alpha of .05 was used for all tests.

First, all assumptions were checked. Fifteen participants failed to fill in either the job

satisfaction scale or the OCB scale. Filling in this relatively high number of missing data with the mean score of all other participants could affect the results of this study. It has therefore been decided to delete these participants, leaving an effective sample of 187 participants. In SPSS, Mahalanobis, Cook's and Leverage values checks were performed to check for outliers. No participant violated the criteria on more than one of these checks, so no participants were deleted on that basis. When checked for multicollinearity, no independent variable correlated significant with one another. The assumption of multivariate normality was met, showing a normal distribution of scores. The assumption for linearity was met, showing a gradually increasing, linear line from 0 to 1. When checking for homogeneity, equal spread was found below and above the 0-line, meeting the assumption. Finally, for homoscedasticity an even spread of values was found, so all assumptions were met.

Table 1

Means, SD's, minima, maxima and correlations between the variables

Variable	<i>M (SD)</i>	Min	Max	1	2	3	4	5	6	7
1. OCB	4.56 (.53)	2.56	5.88	—	.26**	-.05	.14	.04	.04	.06
2. Job satisfaction	4.54 (.74)	2.20	6.00	.26**	—	.07	.14	.15*	-.18*	.11
3. Gender	1.48 (.51)	1	3	-.05	.07	—	.11	.18*	.30**	-.21**
4. Age	39.49 (14.64)	20	67	.14	.14	.11	—	.65**	-.21**	.10
5. Tenure	8.42 (9.78)	1	41	.04	.15*	.18*	.65**	—	-.14	.20**
6. Contract hours	35.72 (5.17))	24	40	.04	-.18*	.30**	-.21**	-.14	—	-.26**
7. Team size	10.57 (7.88)	2	30	.06	.11	-.21**	.10	.20**	-.26**	—

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the .01 level (2-tailed).

Looking at the table of descriptives and correlations, a number of things stand out. First of all, the significant correlation between OCB and job satisfaction. This correlation is to be expected, as literature repeatedly showed job satisfaction to be a prevalent predictor of OCB. It is therefore not surprising that OCB and job satisfaction correlate. Regarding job satisfaction, it is noticeable that job satisfaction and tenure correlate positively, meaning that the more years employees work at their organization, the more satisfied they are with their job. Besides that, contract hours correlate negatively with job satisfaction, meaning that the more hours employees work, the less satisfied they are with their job. Gender correlates with tenure, contract hours and team size, meaning that, on average, the men in this study are employed by their current employer for more years than women. Men work more hours per

week and women have on average larger team sizes. Age correlates very high with tenure, which is to be expected, as it is physically impossible for young employees to work, for example more than ten years at an organization, as they only started working a couple of years ago. The demographic variables did not affect the dependent variable OCB and no main effects of gender, $b = -.06$, $t(185) = -.74$, $p = .460$ and age, $b = .01$, $t(185) = 1.85$, $p = .066$, on OCB were found.

The first hypothesis concerned the influence of job satisfaction on OCB. It was expected that higher levels of job satisfaction would lead to more OCB. This was indeed the case, $F(1, 186) = 13.45$, $R^2 = .07$, $p < .001$, $b = .19$, $t(185) = 3.67$, $p < .001$. A linear regression analysis proved that job satisfaction had a significant effect on OCB which confirms the first hypothesis.

Secondly, this research expected to find gender moderating the relationship between job satisfaction and OCB. This has been tested using the PROCESS by Hayes (Hayes, 2012), model 1 for moderation. The predictive value of job satisfaction on OCB remains significant when gender is added to the model, $F(3, 183) = 4.81$, $p = .003$, $R^2 = .07$. The direct effect of gender in this model is not significant, $b = -.15$, $t(183) = -.30$, $p = .765$, 95% CI[-1.149, 0.846]. The moderating effect of gender in this model is also not significant, $b = .02$, $t(183) = .15$, $p = .878$, 95% CI[-0.200, 0.233]. As shown in figure 5, job satisfaction had the same effect on performing OCB for both men and women.

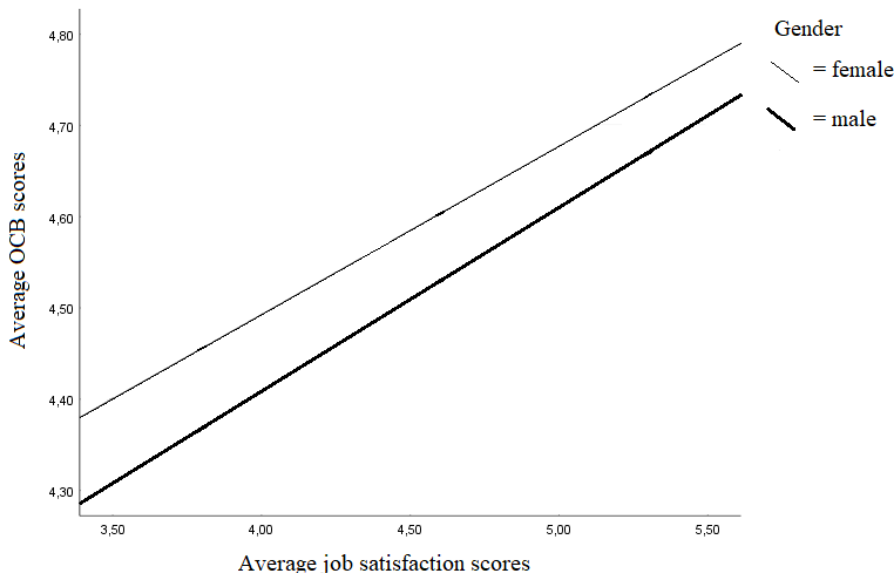


Figure 5: The interaction effect of gender

In both sexes OCB increases with the same rate when job satisfaction increases. No

interaction was found. This is contradictory to the expectations and therefore hypothesis two is rejected. Although there seems to be a difference in OCB scores between men $M = 4.52$ ($SD = .50$) and women $M = 4.59$ ($SD = .56$), the difference on average scores is not significant, $t(184) = .812, p = .418, 95\% \text{ CI}[-0.091, 0.218]$,

Thirdly, it was expected that age would moderate the expected moderation of gender, equalizing the predictive value of job satisfaction for men and women as age would increase. This has been tested using PROCESS by Hayes (Hayes, 2012), model 3 analysis for a three-way interaction. In this model, gender on its own does have a significant predictive effect on OCB, $b = 3.39, t(179) = 2.14, p = .033, 95\% \text{ CI}[0.269, 6.515]$. As does age, which has a significant predictive effect on OCB, in such a way that older employees perform more OCB, $b = .16, t(179) = 3.12, p = .002, 95\% \text{ CI}[0.060, 0.267]$. These two variables, gender and age, interact and what can be seen in figure five and table three is that the moderating effect of gender varies at different values of age. This analysis showed that age interacts with gender, $b = -.09, t(179) = -2.53, p = .012, 95\% \text{ CI}[-0.167, -0.021]$, in such a way that the more satisfied older men were with their jobs, the more OCB they would perform and the more satisfied older women were with their jobs, the less OCB they would perform. This difference in predictive value of job satisfaction for men and women is against expectations and therefore the third hypothesis is rejected. The three-way interaction of job satisfaction, gender and age is a significant predictor of OCB, $b = .020, t(179) = 2.44, p = .016, 95\% \text{ CI}[0.004, 0.035]$. When adding age to the model, the explained variance in OCB scores increases and the predictive value of the three variables combined remains significant, $F(7, 179) = 4.01, p < .001, R^2 = .14$

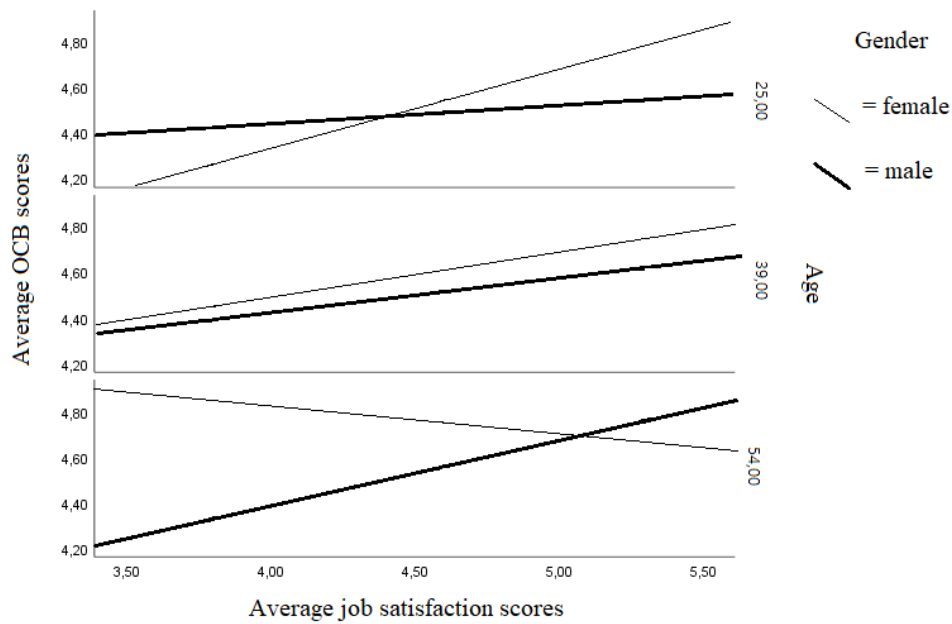


Figure 6: Gender as a moderator at 1SD below the mean age (25), the mean age (39), and 1SD above the mean age (54)

Figure 6 shows the interaction between job satisfaction and gender for the ages 25 (one standard deviation (1SD) below the mean age), 39 (mean age) and 54 (1SD above the mean age). This figure shows that at 1SD below the mean age and at the mean age, the interaction between job satisfaction and gender is not significant ($p = .152$ for 1SD below mean age $p = .694$ for the mean age). The interaction of job satisfaction and gender at 54 years (1SD above the average age) however, is significant, $F(1, 179) = 4.63, p = .033$, meaning that the more satisfied older men were with their jobs, the more OCB they would perform, and the more satisfied older women were with their jobs, the less OCB they would perform.

Table 2

Interaction effects of job satisfaction and gender at different ages

Age	Effect	$F(1, 179)$	p
25	-.24	2.07	.152
39	.04	.15	.694
54	.33	4.63	.033

Table 2 shows the regression coefficients (effect) and significance (p) of the job satisfaction and gender interaction at 25 (1SD below mean age), 39 (mean age) and 54 (1SD above mean age).

To elaborate on figure six and table two, the predictive value of job satisfaction on OCB scores of men and women at different ages is explained below. It has been found that job satisfaction is a significant predictor of OCB for women aged 25 (1SD below the mean age), $p < .001$. For women aged 39 (mean age), job satisfaction is a significant predictor of OCB as well $p = .031$. For women aged 54 (1SD above the mean age) however, job satisfaction is not a significant predictor for OCB $p = .499$.

For men, this trend is the other way around. Resulting in job satisfaction not being a significant predictor of OCB when men are aged 25 (1SD below the mean age) $p = .509$. For men aged 39 (mean age), the same applies. Although very close, job satisfaction does not significantly predict OCB, $p = .051$. For men aged 54 (1SD above the mean age) however, job satisfaction is a significant predictor of OCB, $p = .023$.

Discussion

For the current study, an online survey was conducted to determine the predictive value of job satisfaction on OCB. In addition, it was examined whether gender could have an effect on this relationship. At last, it has been examined whether age would interact with gender, affecting the relationship between job satisfaction and OCB. It was expected that higher levels of job satisfaction meant higher levels of OCB. It was also expected that this effect would be greater for men than for women. And lastly it was expected that age would nullify the moderating effect of gender. Meaning that as age would increase, the predictive value of job satisfaction on OCB would equalize for men and women.

Conform the expectations, higher levels of job satisfaction led to more OCB. Meaning that the more satisfied participants were with their job, the more OCB they would perform. What can be drawn from these findings is that job satisfaction remains a prevalent antecedent of OCB. This confirms the results of previous studies such as those by Zeinabadi (2010), Organ and Lingl (1995) and Chahal and Mehta (2010), who also studied the relationship between job satisfaction and OCB.

Contrary to the expectations, gender did not moderate this relationship. Meaning that the predictive value of job satisfaction for performing OCB was the same for men and women. This means that as job satisfaction increases, both men and women would equally perform more OCB. Age did have a moderating effect on gender, but with a different outcome than expected. Age only moderated the relationship between job satisfaction and gender at high values of age (51 years and older). In this older group, job satisfaction became a more

meaningful predictor of OCB for men and a less meaningful predictor of OCB for women. This results in men performing more OCB as job satisfaction increases and women performing less OCB as job satisfaction increases.

This is in complete contrast to the expected results. It was expected that as age would increase, the effect of gender would decrease. A possible explanation for these results can be found in different career motives for men and women at different ages. Current study found job satisfaction to only be a significant predictor of OCB for young females, average aged females and older males. Whereas it was expected to be the other way around. Heiligers (2012) studied career motives for male and female medical students and found male students to be more motivated by salary and status, whereas female students were more motivated by humanistic and altruistic reasons. OCB is related to promotion (Hui, Lam & Law, 2000), which could imply that career development in the form of salary and status is a more salient predictor of OCB for young males than job satisfaction. Young females have this specific career motivation in a lesser form, which causes job satisfaction to remain the predominant predictor of OCB.

As men age, this urge for salary and status decreases. Super (1980) studied career development over a lifetime and found 20 to 42-year olds 'exploring' and 'establishing' themselves in their careers. Meaning that they seek status and pursue to "*make a place for themselves in a new job*" (Super, 1980). As men age and this establishment in their careers is reached, their career motives change, which could explain why job satisfaction becomes the predominant predictor of OCB in older men, instead of career motives in the form of salary and status.

This study found job satisfaction to be a salient predictor of performing OCB for younger women, but not for older women. Because younger women's career motives are less focused on salary and status (Heiligers, 2012), job satisfaction remains the predominant predictor of OCB. As women age however, this changes and job satisfaction does not significantly predict OCB. This could be explained by the fact that women's career motives change over time, thus decreasing the predictive value of job satisfaction and increasing the predictive value of career motives on OCB. A confirmation of this speculation can be found in the study of Kuijpers and Scheerens (2006). They looked at career competencies for the modern career and, amongst other things, concluded that reflection on motives regarding a career was mostly done by women, who were older. These older women wanted to pursue meaningfulness or personal development in their work, which could result in job satisfaction decreasing as a main predictor for OCB and career motives increasing as a predictor of OCB.

Practical implications

The results of this study can be useful for many organizations. As work-forces age and polarize all over the world, these results help organizations engage their employees in performing OCB, which will improve the overall organization effectiveness. Younger women, average aged women and older men will be extra motivated to perform OCB when they are highly satisfied with their job. Improving job satisfaction of these employees would be an effective measure for increasing OCB. For older women, younger men and average aged men, improving job satisfaction won't increase the amount of performed OCB. With this information, organizations can target their employees more effectively to increase the amount of performed OCB of their employees.

Limitations and future research

Multiple limitations could have affected the results of this study. The first one being the form of data collection. Respondents were gathered using a convenience sample, resulting in 95.7% of the participants being Dutch and 87.2% of the participants being higher educated, having a Bachelor's or Master's degree. Because of this selective part of society, the results of this study are only generalizable for higher educated Dutch workers.

Another downside of having a sample consisting out of mostly higher educated participants is that this could give a distorted image of OCB and job satisfaction. Turnipseed (2018) and Sabahi and Dashti (2016) both showed positive relationships between emotional intelligence and OCB. Emotional intelligence is a component of intelligence, the sample of this study is, judging by their level of education, above average intelligent. This could have affected OCB scores of this study. Concerning job satisfaction, multiple studies of Ganzach (1998, 2003) showed direct negative effects of intelligence and education on job satisfaction. This could have affected job satisfaction scores of this study, which in turn could have had an effect on OCB scores because job satisfaction proved to be a significant predictor of OCB. Taken this into account makes the current study limited in generalizability.

Another limitation of this research is the nature of the questionnaire. The questionnaire used to measure all variables is based on self-reports. Although all scales have proven valid and reliable in the past, humans in general are unable to reflect a perfect comparison of the reality through self-reflection (Razavi, 2001). Depending on the nature of the outcome variable, negative affectivity could explain part of the variance of a self-measured construct. This discrepancy between the true scores and the self-reported scores of job satisfaction and OCB can influence the outcome variable OCB. Although when comparing self-ratings of OCB versus superior or observer ratings, several studies did not find a significant difference

between those OCB scores (Allen, Barnard, Rush and Russell, 2000; Van Dyne et al., 2000). This gives reason to believe that discrepancy between self-reported scores and true scores, is less of a factor when it comes to OCB. Given the fact that this study used OCB as a dependent/outcome variable, this issue is less of a concern for the present study.

A final limitation could be the global pandemic outbreak (COVID-19) that happened during the data collection of this research. Data collection started in March 2020, whilst at the same time COVID-19 started to affect daily life in the Netherlands. Government-imposed measures took place and a great amount of the working population was prohibited to work at their offices. The sudden switch to working at home brought a great deal of challenges along with it. Difficulties in communication with co-workers, concentration and motivation are some examples of the challenges workers had to deal with. This set of challenges, arguably, had a large impact on the resilience of workers, which could have affected their job satisfaction and OCB scores.

Regarding future research, it is advisable to gather a more diverse group of participants to improve the generalizability of the study. This implies finding participants with all sorts of educational backgrounds. Alongside this, it is recommended to make, next to self-report measures, use of peer-feedback to control for any self-report bias. An added value may also lie in conducting follow-up research into the effects of COVID-19 on the work-life situation. Finally, it would be very interesting for future research to look at the interplay of age and gender on different kinds of predictors of OCB and to do more research on career motives, in combination with age and gender as a predictor of OCB. It would be interesting to know more about whether career motives are a more predominant predictor of OCB at different ages for men and women than e.g. job satisfaction. Taking all these suggestions into account, further research should be able to find a less ambiguous answer on the role of job satisfaction in combination with gender and age on OCB, as well as to be able to produce more generalizable results.

Conclusion

The present study contributes to existing literature and adds more insights into the relationship between job satisfaction and OCB. To date, no other research has looked at the interplay of gender and age on job satisfaction as a predictor of OCB. The results suggest that job satisfaction differs as a predictor of OCB for men and women at different ages. The fact that an interaction has been found between job satisfaction, gender and age is a nice building block for further research to continue working on. The results of this study in combination with the suggestions mentioned above, should allow future research to furthermore examine

the interplay of gender and age on job satisfaction as a predictor of OCB.

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APPENDIX 1

Organizational citizenship behaviour items used in Lee and Allen (2002)

OCBI items:

1. Help others who have been absent.
2. Willingly give your time to help others who have work-related problems.
3. Adjust your work schedule to accommodate other employees' requests for time off.
4. Go out of the way to make newer employees feel welcome in the work group.
5. Show genuine concern and courtesy toward co-workers, even under the most trying business or personal situations.
6. Give up time to help others who have work or non-work problems.
7. Assist others with their duties.
8. Share personal property with others to help their work.

OCBO items:

1. Attend functions that are not required but that help the organizational image.
2. Keep up with developments in the organization.
3. Defend the organization when other employees criticize it.
4. Show pride when representing the organization in public.
5. Offer ideas to improve the functioning of the organization.
6. Express loyalty toward the organization.
7. Take action to protect the organization from potential problems.
8. Demonstrate concern about the image of the organization

APPENDIX 2

Job Satisfaction Scale Macdonald and MacIntyre (1997)

1. I receive recognition for a job well done
2. I feel close to the people at work
3. I feel good about working at this company
4. I feel secure about my job
5. I believe the management is concerned about me
6. On the whole, I believe work is good for my psychical health
7. My wages are good
8. All my talents and skills are used at work
9. I get along with my supervisors
10. I feel good about my job.