Does a job satisfaction and organisational citizenship behaviour relationship exist among teachers?

Kemal Cek
Department of International Business, Economics and Administrative Sciences Faculty, Near East University, Nicosia, Cyprus
kemal.cek@neu.edu.tr

Serife Eyupoglu
Department of Business Administration, Economics and Administrative Sciences Faculty, Near East University, Nicosia, Cyprus

The purpose of this study was to contribute to the educational management literature by testing a model that combines the overall job satisfaction, intrinsic satisfaction, extrinsic satisfaction and organisational citizenship behaviour of high school teachers. Structural equation modelling and hierarchical regression were used and the model was tested through the collection of data from questionnaires completed by high school teachers in Northern Cyprus. The findings of the study indicate that teachers are more intrinsically satisfied with their jobs when compared to extrinsic and overall job satisfaction, and that teachers display a high degree of organisational citizenship behaviour. The findings also show that, as hypothesised, teachers’ job satisfaction (overall, intrinsic and extrinsic) positively influences organisational citizenship behaviour, however intrinsic job satisfaction is the most influential. Practical implications for both organisations and education institutions are outlined.

Keywords: extrinsic satisfaction; high schools; intrinsic satisfaction; job satisfaction; organisational citizenship behaviour; overall job satisfaction; teachers

Introduction
The management of human resources is one of the key determinants of success for contemporary organisations (Gable & Haidt, 2005). In the 21st century, schools are struggling to transform themselves in order to meet the demand for resilience and academic success (Orr & Orphanos, 2011). In this respect, teachers’ organisational performance plays a vital role (Somech & Khotab, 2017). The competitive nature of today’s business environment creates a need for organisations to place further emphasis on their employees’ behaviours, such as employee job satisfaction (JS) and organisational citizenship behaviours (OCB) (Bateman & Organ, 1983; Podsakoff, PM, MacKenzie, Paine & Bachrach, 2000; Smith, Organ & Near, 1983; Somech & Oplatka, 2014). It is suggested that scholars and practitioners should pay attention to the JS and OCB of teachers as they are likely to affect the quality of education and success of students (Skaalvik & Skaalvik, 2017). The social system of an organisation requires stimulators such as JS and OCB to increase efficiency and concurrence between employees (Dovidio, Piliavin, Schroeder & Penner, 2006; Smith et al., 1983). JS can be referred to as the perceptions and feelings of employees about their jobs (Armstrong, M 2003). Accordingly, positive perceptions would imply the existence of JS and negative perceptions would imply dissatisfaction. Organisational citizenship behaviour is regarded as the voluntary acts of employees which go beyond their proposed job descriptions and job specifications; they are discretionary behaviours (Organ, 1988). It is claimed that there is a higher probability of satisfied employees exhibiting discretionary organisational citizenship behaviour (Baron, Byrne & Branscombe, 2006), indicating that JS contributes to the overall work performance of employees (Kossen, 1996; Skaalvik & Skaalvik, 2017).

The relationship between JS and OCB has attracted the attention of scholars in recent years (LePine, Erez & Johnson, 2002; Mitonga-Monga, Flotman & Cilliers, 2016). There is a strong indication that OCB can have a significant influence on JS and organisational performance can be improved when JS and OCB are maintained together in the long term. However, there is a research gap within the educational organisation perspective (Hemsley-Brown & Oplatka, 2006; Senes & Basim, 2012). Teachers’ roles have extended to include new responsibilities and tasks, therefore without OCB schools cannot attain high performance via formal in-role behaviours alone (George & Brief, 1992; Senes & Basim, 2012). Furthermore, the teaching profession is a highly interactive field and teachers need to positively interact face to face with their students, also necessitating the need for extra-role behaviour. According to Somech and Oplatka (2014), teaching may be a type of profession that is expected to show organisational citizenship behaviour and that the success of schools and students depend on teachers. Previous research on teachers’ performance has focused on the traditional performance measures; however, it has not shown sufficient interest in organisational behaviours (Organ, 1988). Moreover, these studies show weaknesses in terms of research questions, methodological aspects and providing a theoretical reasoning perspective. Research focusing on the correlates of organisational citizenship behaviour (Senes & Basim, 2012; Somech & Oplatka, 2014; Vajjayanthi, Shreerivasan & Roy, 2014; Wagner & Rush, 2000) can be seen in the literature, but these studies fail to provide significant evidence for the direct
relationship between JS and OCB. Moreover, studies about the outcomes of JS on OCB still require in-depth investigation (Podsakoff, NP, Podsakoff, MacKenzie, Maynes & Spelma, 2014).

This study aimed to contribute to the education research in countries in many respects. Today, a well-structured education system is considered to be one of the key factors of overall economic development in the emerging countries (Nguni, Sleeegers & Denessen, 2006). Teachers’ qualities and attitudes play a vital role in this respect (Joolideh & Yeshodhara, 2009). Currently, schools attempt to find ways of improving academic quality (Leithwood & Riehl, 2005; Orr & Orphanos, 2011). Therefore, schools need to have teachers who show positive organisational behaviours such as the OCB in the context of developing countries. Scholars have indicated that studies evaluating teachers’ job satisfaction and OCB are inadequate (Garrett, 1999). According to Lockheed and Verspoor (1991), enhancing teachers’ motivation is one of the most challenging issues that developing countries encounter. Furthermore, the context of JS and OCB requires in-depth research in the emerging economies (Mitonga-Monga et al., 2016).

Analysing the relationship between JS and OCB in the teaching profession seems inevitable. In this respect this study aims to contribute to the literature by investigating the relationship between JS and OCB in high school teachers in Northern Cyprus. A major contribution of this study lies in the fact that JS will be measured as intrinsic and extrinsic satisfaction in a two-factor model.

**Literature Review**

**Job satisfaction**

JS is a deeply researched subject of management and organisational psychology studies (Spector, 1997). It is evident that it is essential to achieve JS in order to enhance employees’ motivation and increase their performance. Creating an environment where employees can be satisfied with their jobs should be one of the primary objectives of the management of any organisation. This in turn is expected to have an influence on the organisation’s performance and the efficiency of its daily activities (Rowden, 2002). According to the two-factor theory of JS put forward by Herzberg, Mausner and Snyderman (1959), JS is divided into two subcategories, namely hygiene aspects and motivational aspects, and the factors influencing JS are not the same as the factors that may cause dissatisfaction with the job. The two-factor perspective of JS has been extensively accepted and used in recent studies (Al-Asadi, Muhammed, Abidi & Dzenopoljac, 2019; Hur, 2018; Kotni & Karamuri, 2018). The motivational factors are the intrinsic factors that are internally generated and are related to personal growth, self-esteem and achievement (Matthews, Daigle & Houston, 2018). For instance, factors such as achievement and recognition are proposed as intrinsic factors. The presence of intrinsic factors contributes to JS; however, their absence would be neutral. Dissatisfaction with the job is caused by the hygiene aspects, in other words the extrinsic factors. These factors are related to the general work and are not within the control of the employee and include organisational policies and procedures, supervision and pay (Dobrow Riza, Ganzach & Liu, 2018). It is implied that working conditions play an important role in teachers’ JS (Skaalvik & Skaalvik, 2017). In addition, intrinsic aspects of JS have been proven to have an influence on employees’ performance and productivity, and to reduce stress and burnout (Raza, Akhtar, Husnain & Akhtar, 2015).

Furthermore, Lumadi (2014) conducted an analysis using this theory and explored the aspects which cause job satisfaction or dissatisfaction for teachers in regard to the implementation of a new school curriculum. The findings of this study indicate that job security, training and transformation processes could affect employees’ job satisfaction. It is concluded that active participation and empowering teachers enhance job satisfaction during the implementation of a new school curriculum (Lumadi, 2014).

It is assumed that dissatisfaction on the part of employees may cause unfavourable situations. Dissatisfaction may reduce employees’ motivation and therefore performance (Van der Zee, 2009). A significant relationship has been found between JS and the performance of employees through a study conducted by Skibba (2002), the findings of which are in line with social exchange theory, which supports the notion that employees’ performance depends on their satisfaction. Social exchange theory supports the idea that OCB enhance workers’ cooperation and performance (Blau, 1964; Organ, 1988; Podsakoff, PM, Ahearne & MacKenzie, 1997). According to Harris, Winskowski and Engdahl (2007), relationships between colleagues have an effect on employees’ overall JS.

**Organisational citizenship behaviour**

Although the concept of OCB has been mentioned as early as Katz and Kahn (1966), the concept was pioneered by Organ (1988). OCB is considered to be the employee behaviour that is not mandatory, not directly recognised by the official reward system and that collectively contributes to the effective functioning of the organisation (Geckil & Tikici, 2015; Organ, 1988). By non-mandatory it is meant that the behaviour is not an enforceable requirement of the role or the job description and it is discretionary. Therefore, with OCB the emphasis is on the discretionary attitudes and behaviours of
employees that are beyond the call of duty (Podsakoff, NP et al., 2014). Although numerous components of OCB have been presented in the literature (Coleman & Borman, 2000; LePine et al., 2002; Organ, Podsakoff & MacKenzie, 2006; Podsakoff, PM et al., 2000), the Organ theory provides considerably more accurate and widely accepted dimensions (Podsakoff, PM, MacKenzie, Moorman & Fetter, 1990). Organisations which maintain a sense of citizenship among their employees could be more successful than their competitors (Ali & Waqar, 2013; Geckil & Tikici, 2009). It is indicated that OCB enhances the effectiveness and efficiency of an organisation, which is needed to improve the organisation’s capability of adapting itself to changes in the environment (Saxena & Saxena, 2015).

The Organ theory has been accepted as the framework for OCB research and was developed by Dennis Organ (1988). OCB can be classified in terms of five dimensions, namely conscientiousness, altruism, civic virtue, sportsmanship, and courtesy (Podsakoff, NP et al., 2014). Conscientiousness holds that employees are dedicated to their jobs even under the most unfavourable circumstances (Organ, 1988). Altruism supports the idea that friendship and cooperation exist between workers (Organ, 1988). PM Podsakoff et al. (2000) state that altruism influences the efficiency of work. Civic virtue refers employees’ willingness to participate in voluntary administrative tasks (Organ, 1988). Employees are expected to keep themselves up to date about the whole organisation (Organ, 1988). Walz and Niehoff (1996) indicate that these types of acts by employees could increase customer satisfaction and help create positive perceptions. Sportsmanship refers to employees’ tolerance levels for environmental factors (Organ, 1988). Therefore, their endurance when undertaking difficult tasks is high. Employees show positive perceptions about their colleagues (Podsakoff, PM et al., 2000). Courtesy refers to the employees’ behaviours and attitudes towards their colleagues and helps increase motivation among them (Organ, 1988). For instance, helping students voluntarily, actively participating in school committees, performing effectively and efficiently and contributing to the reputation of the school are some examples of teachers’ OCB (DiPaola & Hoy, 2005a). As a dynamic profession, it is important that teachers show extra-role behaviours such as OCB. According to DiPaola and Neves (2009), teachers with higher level of OCB are more likely to put in extra effort for their students and their schools.

Job satisfaction and organisational citizenship behaviour nexus

Due to the key role played by JS and OCB in the organisation’s competitive position, the relationship between these variables is important. NP Podsakoff, Whiting, Podsakoff and Blume (2009) suggest that employees who show OCB are perceived as performing better by their managers. Consequently, managers may perceive employees who engage in OCB to be more effective in terms of performance. In addition, the rewards gained because of job performance could motivate workers to show OCB and achieve higher performance levels (Podsakoff, NP et al., 2009). It is affirmed that the maintenance of JS is necessary to experience positive behaviours (Bateman & Organ, 1983; Werner, 2007). Positive and moderate correlations have been found between JS and OCB (Bateman & Organ, 1983; Smith et al., 1983). In another study, the relationship between dimensions of OCB and JS was investigated and moderate levels of relationships were found (Organ & Ryan, 1995). A similar study conducted by Munyon, Summers, Buckley, Ranft and Ferris (2010) indicated that employees with high optimism levels showed a positive relationship between OCB and JS. However, employees with lower levels of optimism showed fluctuating degrees of relationships between OCB and JS. William and Anderson (1991) concluded that extrinsic and intrinsic JS have a positive relationship with OCB dimensions. However, Lee and Allen (2002) found that intrinsic JS only influences OCB towards organisations and found an insignificant relationship between intrinsic JS and OCB towards individuals. It is confirmed by previous studies that a two-factor model which includes intrinsic and extrinsic JS has a better fit when compared with a one-factor model which includes an overall measure of JS (Hirschfeld, 2000; Rothmann, Steyn & Mostert, 2005). Vaijayanthi et al. (2014) found that there is a positive relationship between JS and OCB. Thus, employees with a higher level of JS are more likely to engage in extra-role behaviours (Mitonga-Monga et al., 2016).

A study conducted by Mehboob and Bhutto (2012) among faculty members of business institutes indicated that respondents had high levels of JS and moderate levels of OCB and the study concluded that JS could not be a significant predictor of OCB. In addition, JS and organisational commitment were indicated to have a positive relationship with OCB (Bateman & Organ, 1983; Moorman, 1991; Moorman, Niehoff & Organ, 1993; Organ, 1988; Smith et al., 1983). In an academic context, A Cohen and Keren (2010)
found that the organisational climate resulting from superiors’ leadership styles significantly influences the OCB of teachers. In many other studies the leadership style of the principals is found to affect the OCB of staff (Nguni et al., 2006). In addition, a statistically significant relationship between OCB and JS has been found by other studies (Nguni et al., 2006; Senen & Basim, 2012; Zeinabadi, 2010).

Therefore, in light of the literature this study proposes the following hypotheses:

H1: There is a positive relationship between overall JS and OCB.
H2: There is a positive relationship between intrinsic JS and OCB.
H3: There is a positive relationship between extrinsic JS and OCB.

Methodology
Sample and Data Collection
The main objective of this research was to analyse the relationship between JS and OCB within educational organisations. The population of this study was high school teachers in Nicosia, Northern Cyprus. The sample of respondents was selected randomly from among the total population of 1,050 high school teachers which was determined from the data collected from the Northern Cyprus Ministry of Education in 2016. According to Sekaran and Bougie (2010), for a population of 1,050, the distribution of 300 questionnaires is required. Therefore, a total of 300 teachers were asked to complete the questionnaires with 140 of the questionnaires being returned during the period April to June 2016. The overall response rate was 47%. To collect data, permission was received from the ethics committee of the university, as well as the Ministry of Education, and school principals were visited to grant access for distributing the surveys in schools. The anonymity and confidentiality of the questionnaire was explained by a cover letter attached to the front page of the questionnaire. To minimise social desirability bias this was repeated orally when distributing the questionnaire to the teachers (Chung & Monroe, 2003). The completed questionnaires were returned to a box placed at the teachers’ offices to improve anonymity. Questionnaires were distributed to the respondents by the authors in the form of a booklet clearly explaining the purpose of the study. Teachers’ participation was voluntary. In the booklet, it was emphasised that the study was for scientific research purposes and that the confidentiality of the respondents’ identities would be secured. Of the 140 questionnaires returned, 135 were applicable for analysis. The effect of the response rate was tested by the non-response bias test, which involved t-tests being conducted on the chosen responses (Armstrong, JS & Overton, 1977). The non-response bias was not an obstacle.

As can be seen from Table 1 below, 66.7% of the respondent teachers were female and 33.3% were male, 81.5% were married and 18.5% were unmarried. In terms of the age groupings of the respondents, 5.2% was aged between 20 and 29, 40.7% was aged between 30 and 39, 40.7% was aged between 40 and 49 and 13.3% was aged between 50 and 59. Seventy percent of the teachers had an undergraduate degree and 30% had a postgraduate degree. The experience of the teachers within their current organisations indicated that the majority of the respondents had been at the same organisations for more than five years.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
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</tr>
<tr>
<td></td>
<td>Female</td>
<td>66.7</td>
</tr>
<tr>
<td>Age</td>
<td>20–29</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>30–39</td>
<td>40.7</td>
</tr>
<tr>
<td></td>
<td>40–49</td>
<td>40.7</td>
</tr>
<tr>
<td></td>
<td>50–59</td>
<td>13.3</td>
</tr>
<tr>
<td>Total years of experience</td>
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<td>0.7</td>
</tr>
<tr>
<td></td>
<td>5–10</td>
<td>12.6</td>
</tr>
<tr>
<td></td>
<td>11–15</td>
<td>28.9</td>
</tr>
<tr>
<td></td>
<td>16–19</td>
<td>11.9</td>
</tr>
<tr>
<td></td>
<td>20+</td>
<td>45.9</td>
</tr>
<tr>
<td>Total years of experience in</td>
<td>1–4</td>
<td>7.4</td>
</tr>
<tr>
<td>current institution</td>
<td>5–10</td>
<td>25.2</td>
</tr>
<tr>
<td></td>
<td>11–15</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>16–19</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>20+</td>
<td>28.1</td>
</tr>
<tr>
<td>Education</td>
<td>Undergraduate</td>
<td>69.6</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>Doctor of</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Philosophy (PhD)</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Research Design
The questionnaire booklet consisted of three sections: the demographics information form, the Minnesota Satisfaction Questionnaire (MSQ), and the OCB. The first section comprised the items age, gender, marital status, level of education, years of experience and years of experience at current school. The second section comprised the JS scale which measures the intrinsic, extrinsic and overall JS of teachers. The final section comprised the OCB items which include altruism, conscientiousness, civic virtue, sportsmanship, and courtesy.

To measure the JS of teachers the short-form MSQ (Weiss, Dawis, England & Lofquist, 1967) was used. According to Scarpeio and Campbell (1983), the MSQ is accepted as an effective way of measuring JS. Moreover, it has been used to measure JS in a variety of areas, including education. The scale includes 20 facets of JS. Eleven of these facets measure intrinsic JS (feelings about the nature of the job) and nine facets measure extrinsic JS (feelings about the
external features of the job). Teachers were asked to express their level of satisfaction with the JS facets on a five-point Likert scale ranging from 1 (very dissatisfied) to 5 (very satisfied). The Turkish version of the short-form MSQ translated by Eyupoglu and Saner (2009) was used. The internal consistency of the questionnaire was 0.844, obtained using Cronbach’s alpha coefficient. A similar reliability score was also reported by Eyupoglu and Saner (2009). In addition, reliability scores for the intrinsic JS and extrinsic JS subsections were 0.814 and 0.803 respectively. According to Hai, Black, Babin, Anderson and Tatham (2006), the suggested level of Cronbach’s alpha is 0.7 and the data set needs to achieve at least this level of reliability to be an acceptable study. The independent variables were intrinsic JS, extrinsic JS and overall JS, where overall JS is the average of intrinsic and extrinsic JS measures.

OCB was constructed as the dependent variable of this research. The OCB score is the aggregate score of the five factors of the OCB dimensions. The OCB scale developed by PM Podsakoff et al. (1990) was used which is based on Organ’s (1988) five dimensions of OCB. Items include “I help others who have heavy workloads” and “I take steps to try to prevent problems with other workers.” Therefore, the OCB is the aggregated score of the five factors. The original scale includes five reverse-coded items (i.e. “I consume a lot of time complaining about trivial matters”). Respondents were asked to rate each of the 24 items on a five-point Likert scale ranging from 1 (very dissatisfied) to 5 (very satisfied). The Turkish version of the OCB scale translated by Eyupoglu (2016) was used. The reliability of the whole scale was 0.822 for this study. A similar reliability score was also reported by Eyupoglu (2016). In accordance with the reliability and internal consistency requirements suggested by the literature, the Cronbach’s alpha tests yielded acceptable levels of reliability for both the MSQ and OCB scales used in this study. The dependent variable was the OCB.

Findings
The data were analysed using descriptive statistics, correlation, confirmatory factor analysis, structural equation modelling (SEM) and hierarchical regression methods. The descriptive statistics of the collected data are shown in Table 2 below. The variables indicate the average of the intrinsic JS, extrinsic JS, overall JS and OCB constructs. Intrinsic JS and extrinsic JS were determined by taking the average of the intrinsic and extrinsic JS facets from the scale. Overall JS and OCB were determined by taking the average of all the facets. The levels of JS, intrinsic satisfaction, extrinsic satisfaction and OCB were only moderate according to the sample means of the variables. However, it can be said that the intrinsic JS of teachers is higher than their extrinsic JS. The highest mean scores are observed on OCB and intrinsic JS. The mean scores were 3.95 and 3.65 respectively. However, the mean score for overall JS was at the mid-point (3.45) and extrinsic satisfaction was just above the mid-point of the 5-point scale (3.06). Standard deviation scores were all distributed within the 0–1 interval.

### Table 2 Descriptive statistics of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic JS</td>
<td>3.65</td>
<td>0.56</td>
</tr>
<tr>
<td>Extrinsic JS</td>
<td>3.06</td>
<td>0.62</td>
</tr>
<tr>
<td>Overall JS</td>
<td>3.45</td>
<td>0.50</td>
</tr>
<tr>
<td>OCB</td>
<td>3.95</td>
<td>0.34</td>
</tr>
</tbody>
</table>

Confirmatory factor analysis (CFA) was conducted using IBM SPSS AMOS software for JS and OCB. The JS and OCB constructs were theoretically predetermined (Podsakoff, PM et al., 1990; Weiss et al., 1967). Therefore, instead of an exploratory factor analysis, CFA was used to test the validity and model fit of the constructs. As suggested in the literature the goodness-of-fit indexes were tested (Kline, 1998; Meydan & Şeşen, 2015). The two-factor JS scale achieved acceptable model fit ($\chi^2/df = 1.326$; RMSEA = .049; CFI = .944; GFI = .941). Secondly, the five-factor OCB scale showed acceptable model fit ($\chi^2/df = 1.146$; RMSEA = .033; CFI = .996; GFI = .983). Lastly, the model fit for the study model was also tested. The goodness-of-fit indexes for the model are shown in Table 3 below. The results indicate that the model used in this study met the requirements for acceptance.

### Table 3 Model-fit of the confirmatory factor analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2/df$</th>
<th>RMSEA</th>
<th>CFI</th>
<th>GFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>1.835</td>
<td>.048</td>
<td>.944</td>
<td>.941</td>
</tr>
</tbody>
</table>

To test the strength and degree of the relationships between the dependent and independent variables and to test the hypotheses, correlation was used. Table 4 represents the correlation coefficients of the dependent and independent variables. According to J Cohen (1988), the range between 0.1–0.3 indicates a small relationship; a medium relationship is indicated by the range between 0.3–0.5 and a large relationship is indicated by coefficients of more than 0.5. The results of this indicate that the correlation coefficients between OCB and the independent variables are 0.19 ($p < .005$), 0.35 ($p < .001$), 0.22 ($p < .001$) and 0.34 ($p < .001$) respectively. Therefore, there is a small-scale relationship between the dependent and independent variables. In the correlation matrix, the highest correlation coefficient was found between intrinsic JS and OCB (.35, $p < .001$). All the assumptions have been
met and multicollinearity is not an obstacle in this research.

**Table 4 Correlations between variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Intrinsic JS</th>
<th>Extrinsic JS</th>
<th>Overall JS</th>
<th>OCB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic JS</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extrinsic JS</td>
<td>0.48**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall JS</td>
<td>0.92**</td>
<td>0.75**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>OCB</td>
<td>0.35**</td>
<td>0.22*</td>
<td>0.34**</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note. Significant at *p < 0.05 and **p < 0.01.*

Figure 1 below illustrates the CFA and standardised regression weights for the proposed model for this study. The standardised findings showed that intrinsic (β = .80, p < .001, R² = .64), and extrinsic (β = .57, p < .001, R² = .32) satisfaction significantly contribute to JS. Additionally, conscientiousness (β = .57, p < .001, R² = .33), altruism (β = .70, p < .001, R² = .49), courtesy (β = .60, p < .001, R² = .39), civic virtue (β = .59, p < .001, R² = .35) and sportsmanship (β = .86, p < .001, R² = .73) significantly contribute to OCB. The standardised path showed a significant relationship between JS and OCB (β = .49, p < .001, R² = .24). Therefore, hypothesis 1 was fully supported and accepted.

![Figure 1](image)

**Figure 1 Standardised results of the SEM. Significant at *p < .01.**

Table 5 below shows the hierarchical regression analysis results for the relationship between the independent and dependent variables. Hierarchical regression analysis was conducted to test for the effect of intrinsic and extrinsic JS on OCB. In step 1, the demographic variables (gender, age, marital status, experience, current experience and education) were entered to check for their effects on OCB. The results for step 1 showed that the control variables do not have a significant relationship with OCB. In step 2, intrinsic and extrinsic JS were entered. After controlling for the demographics, the results showed a significant relationship between intrinsic (β = .21, p < .001) and extrinsic (β = .20, p < .001) JS and OCB. The model is also significant (F = 3.102, p < .005). Therefore, hypotheses 2 and 3 were accepted. The adjusted R² showed that 12.6% of variance in OCB can be explained by the independent variables.

**Table 5 Hierarchical regression analysis results for OCB**

<table>
<thead>
<tr>
<th></th>
<th>Coefficients of β</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OCB</td>
</tr>
<tr>
<td></td>
<td>Step 1</td>
</tr>
<tr>
<td>Gender</td>
<td>0.06</td>
</tr>
<tr>
<td>Age</td>
<td>-0.08</td>
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<tr>
<td>Marital status</td>
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</tr>
<tr>
<td>Experience</td>
<td>0.18</td>
</tr>
<tr>
<td>Current experience</td>
<td>-0.04</td>
</tr>
<tr>
<td>Education</td>
<td>-0.04</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>0.23*</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>0.22*</td>
</tr>
<tr>
<td>F</td>
<td>1.095</td>
</tr>
<tr>
<td>R</td>
<td>.223</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.004</td>
</tr>
<tr>
<td>R²</td>
<td>.050</td>
</tr>
</tbody>
</table>

*Note. Significant at *p < 0.05.*
Discussion
In the current study, we investigated the role of intrinsic, extrinsic and overall JS as a predictor of OCB in the education sector. There are numerous research studies in the literature which aim to analyse the relationship between OCB and other organisational behaviours (Bateman & Organ, 1983; Bogler & Somech, 2004; Organ, 1988; Organ & Lingl, 1995; Penner, Midili & Kegeleynier, 1997; Podsakoff, PM et al., 1997; Podsakoff & Mackenzie, 1994; Tang & Ibrahim, 1998). The results of these past studies have confirmed that satisfaction, commitment, justice, motivation and leadership significantly relate to OCB. Nevertheless, these studies have not acknowledged the importance of analysing JS by segregating it into categories of intrinsic and extrinsic JS and analysing their effects on OCB. Education systems in both developing and developed countries move in an environment which is highly complex and competitive (Miller, 2002). Safety issues have been a major cause of disturbance for schools in developing countries. According to Stromquist (2018), safety issues affect the satisfaction of teachers as they experience various threats throughout a working day. These issues include a lack of infrastructure as well as in-class issues, as documented by Stromquist, Klees and Lin (2017). In addition, wage, school climate and physical conditions in the school environment also play an important role in teachers’ satisfaction (Stromquist, 2018).

Furthermore, the major advances in technology have accelerated transformation within the education environment (Adelsberger, Collis & Pawlowski, 2013), as well as putting pressure on teachers to actively improve their information technology knowledge and adopt new methods of teaching (Gorgoretti, 2019). Thus, to provide good quality education, schools depend on teachers’ willingness to change with the ever-changing environment. The progress of schools is built on the performance of teachers who are willing to show extra-role behaviours such as OCB (Somech & Khotaba, 2017). In the educational context, OCB plays a vital role considering the nature of the teaching profession and schools (Bogler & Somech, 2019). Today’s schools exist in an era of ongoing transformation and teachers’ in-role job descriptions are changing. These factors create an unstable environment which in turn results in teachers facing pressures to engage in OCB (Bogler & Somech, 2019). Therefore, this study contributes to the education systems of countries that face complexity and competitiveness within the education environment.

The primary objective of this study was to determine whether JS relates positively to OCB. The results of the current study indicate that the overall JS and individual intrinsic and extrinsic JS, related positively to the OCB of teachers. These findings are in consonance with the findings of Jamali, Taghipourzahir and Moslem (2009), Organ and Konovsky (1989), Organ and Ryan (1995) and Senes and Basim (2012). Lapierre and Hackett (2007) used a different methodological theory and established a strong relationship between OCB and satisfaction. The studies conducted within an education sector perspective include Hemsley-Brown and Oplatka (2006), Senes and Basim (2012) and Zeinabadi (2010) who found a significant relationship between JS and OCB.

Hemsley-Brown and Oplatka’s (2006) study is different from the others because it further measured the schools’ organisational climate. Moreover, these studies measured the indirect effect of JS on OCB. In addition, many studies studied the relationship within other industries, with only a few studies focusing on the education industry (Senes & Basim, 2012; Zeinabadi, 2010). However, JS was used only as a mediating variable in these studies. Hence, we used JS as a direct predictor of the OCB.

The secondary objective of the study was to determine whether there is a change when considering intrinsic and extrinsic factors. The results are consistent with previous research (Chiu & Chen, 2005; Schnake, Cochran & Dumler, 1995; Zeinabadi, 2010). Intrinsic factors of JS clearly outweigh the extrinsic factors when the mean scores are considered. Teachers as professionals are ethically and morally expected to show OCB, because they play a key role in the development and education of individuals (O’Connor, 2008). It is proven in this study that teachers are more intrinsically satisfied than extrinsic satisfaction. In fact, both intrinsic and extrinsic JS relates positively to the OCB of high school teachers in Northern Cyprus. According to Chou and Lopez-Rodriguez (2013), low extrinsic satisfaction might affect employees’ willingness to show OCB. The difference between the effects of intrinsic and extrinsic JS scores is supported by Lepper and Henderlong (2000). It is argued that intrinsic and extrinsic factors can operate both simultaneously and reciprocally (Lepper & Henderlong, 2000).

Further, the results of the hierarchical regression analysis showed that the marital status of the respondents had a negative effect on their OCB. Robbins and Judge (2009) claimed that the demographics of individuals such as gender, marital status, education, experience and income may affect their organisational behaviours. However, it is confirmed that only marital status negatively affects teachers’ OCB. It could be argued that married individuals have higher intrinsic and extrinsic expectations, maybe this being due to changing expectations as a result of family obligations and responsibilities. As a result this could affect teachers’ tendency to show OCB.
negatively. Thus, the results showed that gender, age, years of experience and education did not have a significant effect on OCB. The current findings about the influence of gender on JS and OCB are in line with previous studies (Saxena, Tomar & Tomar, 2019).

Conclusion
The relationship between JS and OCB has been tested by a series of statistical analyses. Both in an organisational and educational context, this study significantly contributed to the literature by presenting evidence for the relationship between JS and OCB. The teaching profession requires intrinsic factors of satisfaction and motivation in order to be successful in developing and educating individuals, as well as extrinsic factors of motivation. The results imply that intrinsic factors have a stronger influence on the teachers’ OCB.

Today, educational systems are in an era of complexity and competitiveness (Miller, 2002). Schools are struggling with limited resources and are dependent on teachers’ willingness to engage in OCB (Somech & Oplatka, 2014). Teachers play a vital role in the success of educational organisations (Hemsley-Brown & Oplatka, 2006; Somech & Ron, 2007). OCB is necessary for teachers as they need to go beyond their proposed job descriptions (George & Brief, 1992). Given the primary assumptions of this study, it is crucial to explain the importance of JS for teachers’ performance within an educational organisation. First, this study provides unique insight for the Northern Cyprus community, education institutions and organisations. It may be suggested that OCB in teachers can be maintained by increasing the factors of satisfaction. Indeed, educational organisations need to create an organisational climate where teachers are encouraged to show OCB (Belogolovsky & Somech, 2010; DiPaola & Hoy, 2005b). It may also be suggested that managers, principals and government authorities should increase the intrinsic factors of JS in order to remove the barriers to showing OCB. However, in the long term, superiors should be judicious with the excess affirmation placed in OCB because this can have negative effects on employees’ performance (Belogolovsky & Somech, 2010; Bolino & Turnley, 2003).

Notwithstanding the materiality of this study, certain limitations should be highlighted. First, the data for this study were collected within a single period which makes the data cross-sectional. Instead, using longitudinal and lagged data could lay the ground for an impact analysis. Second, the study was conducted in Northern Cyprus, which limits the generalisability of the findings. Above all, OCB studies have their own limitations. According to PM Podsakoff et al. (2000), respondents may respond to questionnaires with bias such that OCB can be regarded as expected and non-discretionary behaviours (Podsakoff, PM et al., 2000). Thus, the validity of the findings depends on respondents’ attitudes. Lastly, the study may be argued to have a low response rate and a further study that obtains a larger response rate could be conducted to increase the generalisability of the findings.

Further research is necessary given the socioeconomic differences among countries and the transformation of the education industry. Thus, research could be conducted in different countries. There is also a need to conduct research by considering mediating variables such as organisational identification, the influence of technology, organisational climate and culture.

Authors’ Contributions
Kemal Çek developed the theoretical model, collected the data, carried out the analysis, and commented on the results. Serife Eyupoglu contributed to the practical implications and the overall theoretical framework. Both authors contributed to the review of the manuscript.

Notes
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