

**Enhancing Employees' Work Performance Through Organizational Justice in the
Context of Financial Crisis. A Study of the Greek Public Sector.**

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Abstract

In a period of economic crisis, the increasing pressure of sparse financial resources and the structural reforms in labor law are factors pushing and forcing managers of both public and private organizations to do more with less. The current study explores how employees' performance in the public sector is affected by perceptions of organizational justice in terms of resource allocation (e.g., benefits and compensation). The responses received from a sample of 490 employees working for public organizations in Greece indicated that work performance is significantly and positively related not only to employees' satisfaction with pay, but also to employees' perceptions of distributive and procedural justice.

Keywords: Organizational justice, pay satisfaction, work performance, financial crisis

Introduction

Even though scholars have extensively examined employees' attitudes, behaviors and individual performance in different settings, little research has explored these notions in a period of uncertainty and limited financial resources (Markovits, Boer, & van Dick, 2014). Nowadays, within the context of the global financial turmoil, managers of both the public and the private sector have to address the critical challenge of fostering employees' well-being in order to enhance motivation and job performance.

In Greece, which has been severely impacted by the debt crisis, it is timely to examine employees' performance under the ongoing Memorandum austerity measures imposed since May of 2010. Workers in Greece, in both the public and private sector, have felt the effects of pay cuts and losses in income and purchasing power. Nevertheless, cost-saving measures were

higher in the public sector than in the private sector. For decades, Greek public sector employees have been earning significantly higher wages than their private sector counterparts. Greece's recent fiscal crisis has initiated a reversal of this trend, with drastic public-sector pay cuts. Collective bargaining as a mechanism to determine public sector pay was disregarded by the government and a law passed in 2011 establishing uniform pay scales across the public sector. However, while a uniform pay scale may exist in law, considerable variations continue to exist in the salaries paid to state and semi-state employees, as there are still some civil servants that receive extra bonuses, that are not aligned with job achievements, performance (individual/organizational) or seniority and thus raising concerns of equal distribution of allowances and fair treatment (ANA, 2013).

Previous research has noted the importance of fairness in the workplace and indicated that employees' perceptions of workplace justice are positively associated with beneficial outcomes for both employees and firms. Organizational justice is found to be an important determinant of employees' attitudes, behaviors and performance at the workplace (Ohana & Meyer, 2016).

Employees who perceive higher levels of both distributive and procedural justice are more likely to respond with higher levels of job satisfaction (Organ, 1990; Rai, 2013), organizational commitment (Ali & Saifullah, 2014; Folger & Konovsky, 1989), job performance (Memari, Mahdien, & Marnani, 2013) and lower levels of turnover intentions (Nadiri & Tanova, 2010). Accordingly, it is suggested that underpayment inequity and lack of justice in firms is related to higher levels of employees' stress (Adams, 1963; Greenberg & Colquitt, 2013) and negatively related to the level of cooperation of co-workers (Rousseau, Salek, Aubé, & Morin, 2009), the quality of work, self-image and moral outrage (Greenberg, 2010).

In turbulent economic times, where there are limited financial resources and structural reforms in the labor law are imposed, little research has explored alternative predictors of employees' satisfaction with compensation and employees' performance. The current study acknowledges the close link between workplace fairness and employees' attitudes and utilizes the psychological contract theory (Rousseau, 1990) as a theoretical framework. Specifically, the aim of this research is to investigate how employees' satisfaction with pay and individual performance, in a period of economic crisis, are affected by perceptions of organizational justice. For this reason, a sample of employees from the Greek public sector was drawn and the research focuses on two questions. First, to what extent is employees' level of satisfaction with pay affected by perceptions of organizational justice? And, second, how valuable are employees' perceptions of organizational justice in predicting individuals' work performance?

This research study attempts to advance existing theoretical and empirical knowledge in several ways. First, considering the debt crisis and the limited financial resources setting, we this research shifts the attention from the actual pay levels as a predictor of work performance and addresses the importance of alternative intangible motivational predictors i.e., pay fairness in terms of 'the comparison between what people believe they deserve to be paid and what others deserve to be paid' (Jackson & Schuler, 1985). Second, we this study responds to the call for additional research on exploring relationships between organizational justice and the work performance in public sector settings. Given the important role of justice in organizational management, it is surprising how little scholarly effort has been invested in exploring the relationship between organizational justice and the outcomes in public sector settings (Choi, 2011). Third, we adopt the psychological contract is adopted as a theoretical framework and provides a deeper explanation of how work performance (work effort and work quality) is

affected by both employees' perceptions of organizational justice (distributive and procedural) and employees' level of satisfaction with pay.

Theoretical background and formulation of hypotheses

Organizational justice

In recent years, the research on work-place justice has gained considerable attention. The study of fairness in psychology started with Adams's work on equity theory (Adams, 1963) emphasizing the perceived fairness of outcomes. However, given the importance researchers attribute to fairness in organizational life, it became inevitable for this research area to proliferate and develop. Organizational justice can explain a wide range of employee behaviors and highlights the importance of the ideals of justice and fairness as a requirement for organizations to function effectively. In particular, the term organizational justice refers to several distinct forms of perceived justice, each of which offers a different answer to the question 'What is fair?' (Greenberg, 2009).

Researchers have identified four types of justice perceptions: distributive, procedural, interpersonal and informational. *Distributive* justice refers to the fairness of outcomes for individuals in comparison with what others receive (Farndale, Hope-Hailey, & Kelliher, 2011). *Procedural* justice refers to whether the decision – making processes ensure consistency and whether recipients of these decisions have the opportunity to influence the process (Byrne, Pitts, Wilson, & Steiner, 2012). Accordingly, *interpersonal* justice refers to whether one is treated with dignity and respect when decision processes and decisions themselves are implemented, while *informational* justice refers to the extent to which employees feel that they have adequate information as decisions are implemented (Colquitt, Conlon, Wesson, Porter, & Ng, 2001).

Previous studies have shown that each form of justice has unique relationships with various outcomes. Whereas the most relevant forms of justice when considering the allocation

of monetary rewards (e.g., pay compensation, merit pay, bonus decisions and gainsharing) are distributive and procedural, the relational forms of justice (interpersonal and informational) demonstrate higher correlations with supervisory outcomes (i.e. leader-member exchange, trust, perceived supervisory support), since they are conceptualized as being under the direct control of the supervisor, (Byrne, et al. 2012; Kwon, Kim, Kang, & Kim, 2008). Considering the Greek context, this argument seems even more salient. Due to the centralization of the Greek public sector and since pay decisions are made at a governmental level, public sector managers cannot interfere with pay policy decisions as they cannot control and determine the allocation of resources.

The impact of distributive justice on satisfaction with pay.

Farndale et al. (2011) indicate that distributive justice refers to the perceived equity of outcomes for individuals, for example, whether the performance-appraisal process results in what the individual perceives to be a fair evaluation. According to Adams's equity theory, employees' job satisfaction is influenced by the comparison of employees' own effort and outcome (pay) with the effort and outcome of other employees. If their own ratio of effort and pay is not equal to that of others, they will feel unjustly treated. Cropanzano, Li, & James (2007) claim that distributive justice faces the reality that not all employees are treated alike; the allocation of outcomes is differentiated in the workplace, which in turn creates worries to workers about whether they receive their just share. The distribution will be just, when the most qualified and successful employee is promoted. However, sometimes the case is far from being fair. As distributive justice refers to the fairness of the outcome (rewards allocation) (Kwon et al., 2008), this study will unveil the effects of distributive justice on employees' levels of satisfaction with pay. Pay satisfaction can be defined as the "amount of overall positive or

negative affect (or feelings) that individuals have toward their pay” (Judge, Piccolo, Podsakoff, Shaw, & Rich, 2010).

Traditionally in Greece, a minimum wage at a national level used to be established and determined by the National General Collective Agreement (EGSSE), a collective agreement signed between Greece’s most representative organizations of employees and employers. The national salary used to be comprised of the base salary and two additional allowances, namely the seniority allowance and marriage allowance. The austerity measures implemented from 2010 resulted in substantial changes in the Greek labor law and introduced a wage-setting system where the starting minimum wage was set at €586.08 (from €751.39) and prohibited any raise based on seniority (Yannakourou & Tsimpoukis, 2014). In other words, the new wage system in Greece determined uniform pay scales and is applied horizontally to both private and public-sector employees. Nevertheless, as noted, there are still some considerable variations concerning the salaries paid to civil servants. For instance, based on data released by the Greek Parliament, it is evident that some low and middle-rank public-sector employees of specific organizations, regardless of performance criteria, earn higher wages compared to their counterparts in the public and the private sector (ANA, 2013). Giannitsis & Zografakis (2015) indicated that wage changes during the Greek crisis varied widely across sectors and over time. The considerable cumulative decrease in average gross earnings in total economy entailed cuts in public sector salaries and institutional reforms towards greater labor market flexibility. However, the reductions in earnings differed strongly across individual sectors of the economy, but also within sectors (e.g., within the government sector). Hence, while a uniform pay scale may exist in law, it does not actually occur in the labor market, and there are still some employees who receive allowances that are not aligned with performance outcomes (individual/organizational), merit or seniority and thus, raising issues of unfair distribution of rewards.

Since decisions about the distribution of pay are based on unclear criteria, the wage structure of the public sector turned out to be a 'black box'. In such conditions that hinder transparency and clarity, employees are more likely to compare themselves with peers (Greenberg, Greenberg, & Antonucci, 2007). Social comparisons - comparisons between the self and others - are a fundamental psychological mechanism influencing people's judgments, experiences, and behaviour (Festinger, 1954). According to Festinger's social comparison theory, people evaluate their personal and social growth based not only on their own characteristics, but on what others have achieved. Based on the organizational justice and the social comparison theory, one could propose that employees' satisfaction with pay is affected not only by actual compensation factors (for instance the actual level of salary and benefits), but also by peer salaries and specifically by their perceptions of distributive justice.

Hypothesis 1: Employees' satisfaction with pay is positively affected by perceptions of distributive justice.

The impact of procedural justice on satisfaction with pay

Procedural justice refers to the fairness of the procedures and processes used in decision-making (Thibaut & Walker, 1975). It has been argued that when employees find the process of HRM practices fair, then they are more likely to find the outcomes of these practices to be equitable (Folger & Konovsky, 1989). Leventhal (1976), as cited in Kwon et al. 2008, suggested six rules that people use when assessing procedural justice: consistency, bias suppression, accuracy, correctability, representativeness and ethicality.

As procedural justice examines the reactions of employees to the procedures used to determine compensation, researchers tested the effect of process components in the field of compensation and the results showed that perceptions of procedural justice explained a large

portion of the variance in pay satisfaction (Till & Karren, 2011). In addition, Folger & Konovsky (1989) found a positive and strong link between satisfaction and the existence of an appeal process in the determination of pay increases, while Tremblay, Cloutier, Simard, Chênevert, & Vandenberghe (2010) found a positive link between involvement in compensation procedures and pay satisfaction. Accordingly, Schreurs, Guenter, Schumacher, Van Emmerik, & Notelaers (2013) indicated that a participative decision-making climate buffered the negative effects of low pay-level satisfaction.

Researchers have demonstrated that public organizations focus more than private ones on rules and processes (Abdel-Maksoud, Elbanna, Mahama, & Raili, 2015) and hence, leading to higher levels of inefficiency and bureaucracy (Bryson, 2011). Not surprisingly, most of the organizational studies in the public administration have focused on the effects of procedural justice on employees' work attitudes (Tremblay et al., 2010). As a result, in the public sector, despite decreased efficiency, complex rules and procedures have been emphasized to ensure fairness and equity in organizational processes (Choi, 2011). In line with this notion, Hassan's (2012) study in the US public sector, showed potential negative consequences of changing procedures that may be viewed as unfair: decline in job performance, job involvement and organizational identification.

Over the past two decades, major attempts have been made in Greece to improve the processes and procedures of the performance appraisal assessment system in the public sector. The most recent reform Law (4369/2016) was put in force in January 2017 and introduced a new evaluation system. According to the law's explanatory memorandum, the main objectives are to tackle the problem of politicization of the public administration and bureaucracy, and to introduce modern staffing policies (Lampousaki, 2016). For the first time after the Memorandum Agreements, the recently passed Law (4369/2016) combined with Law

4354/2015, which was applied in January 2016, aimed at linking wage progression with seniority, qualifications and performance.

As noted previously, the compensation literature has shown that it is important to consider procedural justice in understanding individual reactions to unfair treatment because employees turn to pay-related procedural information to judge the fairness of their outcomes (Arya, Mirchandani, & Harris, 2017). Based on the above, it is suggested that:

Hypothesis 2: Employees' satisfaction with pay is positively affected by perceptions of procedural justice.

Employees' perceptions of organizational justice as a predictor of work performance. The mediating role of pay satisfaction.

According to the social exchange theory, negotiated exchanges between employees and employers form the basis of social relationships (Blau, 1964). It is suggested that workers exchange their inputs (physical and mental effort, skills, time, etc.) for specific incentives that the organization provides (salary, benefits, as well as intangibles such as recognition, respect, reputation and status). It represents employee's mental tally of the 'give and take' of the employment relationship. In line with the theory, behavioral responses to justice perceptions have been described as manifestations of social exchange at the workplace (Hassan, Azim, & Abbas, 2016).

Social exchange theory serves as the theoretical foundation of the psychological contract theory (Coyle-Shapiro & Parzefall, 2008). Rousseau (1990) describes psychological contracts as an individual's beliefs regarding reciprocal obligations and refer to written or unwritten expectations that operate between employees and employers. Coyle-Shapiro & Parzefall (2008) claim that the social exchange and the psychological contract theory share

common elements. Specifically, both concepts are regarded as explanatory frames for the exchange relationships and suggest that each party holds a set of expectations/obligations that they will provide in return for what they receive. When the employer has failed to fulfil its promises or obligations, employees may experience psychological contract breach (Robinson & Rousseau 1994). Brockner & Wiesenfeld (2005) and Chen (2010) indicated that employees have expectations of what the organization should do in relation to the distribution of resources such as reward, careers and development and when these expectations are not met, they perceive this as injustice. Accordingly, Aggarwal & Bhargava (2009) pointed out in their studies that in firms with low levels of organizational fairness, employees feel that their psychological contract has been breached and that the organization has failed in keeping its promises.

A sizeable body of research has focused on the effects of the psychological contract theory on employees' attitudes and behaviors. It is notable that survey studies indicated that the majority of employees believe that their contracts have been violated in some way (Robinson & Rousseau, 1994). Not surprisingly, previous research has documented that the psychological contract breach negatively influences employees' attitudes and behaviors and this in turn affects negatively organizational effectiveness (Restubog, Bordia, & Bordia, 2009; Robinson & Rousseau, 1994). Specifically, psychological contract breach has been associated with reduced job satisfaction (Robinson & Rousseau 1994; Giannikis & Nikandrou, 2013), reduced commitment (Cassar & Briner, 2011), lower organizational citizenship behavior (Shih & Chuang, 2013), increased absenteeism and turnover intentions (Matthijs, Chiaburu, & Jansen, 2010; Robinson & Rousseau, 1994).

In this respect, scholars need to unveil the factors that positively influence employees' perceptions of psychological contract fulfillment. Among the factors that are found to support psychological contract fulfillment are trust (Robinson & Rousseau, 1994) and perceived

organizational support (Henderson, Wayne, Shore, Bommer, & Tetrick, 2008) whereas little research has focused on the role of organizational justice (Cassar & Buttigieg, 2015).

Not surprisingly, some scholars support that by measuring the state of the psychological contract of employees it can be captured the extent to which employees feel that they have been fairly treated in terms of the distribution of outcomes and thus it can serve as a more broadly-based measure of distributive justice (Johnson, Holladay, & Quinones, 2009). In a similar vein, Restubog et al. (2009), by examining the combined interactive effects of the procedural justice on the relationship between breach and employee outcomes, found that stronger negative outcomes are to be anticipated if employees have an expectation that procedural justice can prevent any form of contract breach.

Related studies have also provided evidence on the unique contribution of organizational justice on individual performance and work quality. It is supported that perceptions of low organizational justice in firms have a negative impact on the quality of work and productivity (Jawahar & Stone, 2015), a negative impact on the cooperation between co-workers (Wan, 2015), as well as a positive effect on employees' levels of job stress (Nieuwenhuijsen, Bruinvels, & Frings-Dresen, 2010). Using the psychological contract theory as the overarching theoretical framework and based on the previous two hypotheses, it is proposed that organizational justice is positively related to work performance and that this relationship is mediated by satisfaction with pay.

Hypothesis 3: Employees' perceptions of organizational justice (i.e. distributive and procedural) are positively associated with employees' work performance (i.e. work effort and work quality) and this relationship is mediated by satisfaction with pay.

Method

Measurements, reliability and validity of scales

Distributive justice. Distributive justice was measured with seven items developed by Scholl, Cooper, & McKenna (1987) and adapted by Kwon et al. (2008). Each item describes how much the employees receive from their organization comparing to: 1. others doing the same job within the same organization, 2. others performing a different job in the same organization, 3. others doing the same job in other organizations, 4. others who had attained the same educational level, 5. others of the same age, 6. the amount of pay that individuals expected from the system, 7. internal evaluation of self-worth. Responses to the items were on a seven-point scale ranging from 1 (very little) to 7 (very much). The Cronbach's alpha for the seven items was 0.90. The exploratory factor analysis (EFA) yielded 62% variance explained by a single factor with all loadings greater than 0.72. The seven items showed good reliability ($\alpha = 0.90$). In addition, a confirmatory factor analysis (CFA) was conducted to verify the unidimensionality of the construct. The model fits the data well: $\chi^2 [14] = 26.77$, $p = 0.02$, root mean square error of approximation (RMSEA) = 0.043; normal fit index (NFI) = 0.99, comparative fit index (CFI) = 1, goodness of fit index (GFI) = 0.98.

Procedural justice. ~~We~~ This research adapted the procedural justice measure developed by Kwon et al. (2008). Respondents were asked to evaluate the extent to which their firms ensure perceived procedural justice on a seven-point scale (1 = Strongly Disagree, to 7 = Strongly Agree). The measure comprises of five items. A sample statement for procedural justice was: 'The standard to determine my salary is clear'. The EFA conducted with the five items yielded a single-factor solution (58% variance) with loadings ranging from 0.72 to 0.81. The internal

consistency estimate (Cronbach's alpha) for the five items was 0.82. Furthermore, results from the CFA confirmed a good fit of the single factor model: $\chi^2_{[5]} = 17.31$, $p < 0.01$, RMSEA = 0.071; NFI = 0.98, CFI = 0.99, GFI = 0.99. In addition, the statistically significant relationships between each indicator variable and the latent variable ($p < 0.001$), in conjunction with the high standardised factor loadings (> 0.62) suggest that each dimension contributes significantly to its corresponding construct.

Pay satisfaction. To assess satisfaction with pay, two items of the Job Diagnostic Survey (JDS) developed by Hackman & Oldman (1980) were used. Respondents were asked to indicate how satisfied they are with the compensation in their workplace. Specifically, the items were: 1. 'The amount of pay and fringe benefits I receive' and 2. 'The degree to which I am fairly paid for what I contribute to this company'. Each of the items was measured on a seven-point Likert scale ranging from 'Extremely Dissatisfied' to 'Extremely Satisfied'. The exploratory factor analysis (EFA) yielded 87% variance explained by a single factor with loadings of 0.93. The Cronbach's alpha for the two items was 0.86. In addition, as the model is just-identified, no overall test of fit can be computed.

Work effort. Work effort was measured with five items developed by Kuvaas & Dysvik, (2010). Participants were asked to provide their level of agreement on a seven-point scale ranging from 'Strongly Disagree' to 'Strongly Agree'. A sample statement for work effort was: 'I often expend extra effort in carrying out my job'. The EFA yielded 55% variance explained by a single factor with all loadings greater than 0.72. The internal reliability of the five items was 0.80. Furthermore, results from the CFA provide support for the one factor model: $\chi^2_{[5]} = 20.50$, $p < 0.05$, RMSEA = 0.080; NFI = 0.98, CFI = 0.99, GFI = 0.98. All standardized loadings are 0.60 or above and are significant at $p < 0.001$. All standardized loadings are 0.63 or above and are significant at $p < 0.001$.

Work quality. Work quality was measured with five items developed by Kuvaas & Dysvik, (2010). Participants were asked to provide their level of agreement on a seven-point scale ranging from 'Strongly Disagree' to 'Strongly Agree'. A sample statement for work quality was: '*The quality of my work is usually high*'. The EFA yielded 61% variance explained by a single factor with all loadings greater than 0.75. The internal reliability of the five items was 0.84. Furthermore, results from the CFA provide support for the one factor model: $\chi^2_{[5]} = 17.74$, $p < 0.01$, RMSEA = 0.072; NFI = 0.99, CFI = 0.99, GFI = 0.99. All standardized loadings are 0.67 or above and are significant at $p < 0.001$.

Control variables. A number of demographic and work-related variables are considered to control for individual variations. Similar to prior studies: information with regard to gender, age, educational level, tenure, employment position status and pay level was collected (Table 1) (e.g., Monsen and Boss, 2009; Qiao, Khilji, & Wang, 2009).

Participants

~~We collected d~~Data were collected from nine different public organizations in Northern Greece. The questionnaires were hand-delivered by the researchers to the employees; 490 useable responses from a total of 800 distributed questionnaires (61.25 percent response rate) were returned to the researchers. There were 249 (50.80 percent) male participants and 241 (49.20 percent) female participants. In terms of age, 5.70 percent were aged from 18 to 24 years old, 33.10 percent from 25 to 34, 16.70 percent from 35 to 44, 22.40 percent from 45 to 54 and 22.00 percent from 55 to 65 years old. Respondents reported that 49.60 percent had a high school certificate or technical-professional training and 50.40 percent had a university or higher degree. Employees with more than 6 years of tenure represented the 46.50 percent, while the

majority (94.10 percent) were employees (5.90 percent management position). With regard to pay 72.20 percent indicated that they receive from €781 Euros to €1,180 per month.

Results

Table 1 presents the descriptive statistics and the pairwise correlations among the model variables. The mean values for distributive justice, procedural justice, pay satisfaction, work effort and work quality were 3.96, 4.15, 3.00, 4.36 and 4.55, respectively. Furthermore, Table 1 indicates that distributive justice is significantly and positively correlated with pay satisfaction, affective commitment and with work effort.

[Table 1 about here]

Structural equation modelling was used to test the proposed hypotheses and the three-step mediated approach proposed by Baron & Kenny (1986) was adopted. According to the authors, mediation occurs when three conditions are met: (a) the predictor variable (i.e., distributive and procedural justice) should be related significantly to the mediator (i.e., pay satisfaction), (b) there has to be a significant relation between the predictor (i.e., distributive and procedural justice) and the outcome (i.e., work effort, work quality), (c) the mediating variable (i.e., pay satisfaction) should be related to the outcome (i.e., work effort, work quality) with the predictors (i.e., distributive and procedural justice) in the equation. According to Baron & Kenny (1986), the reduced strength of the predictor-outcome relationship after inclusion of the mediator suggests a mediation effect. For a total mediating relationship to exist, the effect of the predictor on the dependent variable will become non-significant when it includes all the relationships in the model. For partial mediation to exist, the effect of the predictors on the dependent variable will decrease when it includes all the relationships in the model.

Consequently, in order to test the proposed hypotheses and to test the mediation criteria three models were estimated (Figure 1). Model 1 suggests that both distributive and procedural justice have a direct effect on pay satisfaction ($\beta = 0.30, p \leq 0.001$; $\beta = 0.41, p \leq 0.001$, respectively), work effort ($\beta = 0.33, p \leq 0.001$; $\beta = 0.33, p \leq 0.001$) and work quality ($\beta = 0.32, p \leq 0.001$; $\beta = 0.46, p \leq 0.001$) (Table 2). The model fit was good: $\chi^2_{[386]} = 1291.03, p < 0.001$; root mean square error of approximation (RMSEA) = 0.069, normal fit index (NFI) = 0.90, comparative fit index (CFI) = 0.92, goodness of fit index (GFI) = 0.85. Therefore, the findings provide support for hypothesis 1 and hypothesis 2, as well as they satisfy the first and the second criterion for mediation. To test hypotheses 3 and the third criterion of mediation two structural models were estimated (model 2 and model 3). Model 2 suggests that the relationship between organizational justice (distributive and procedural) and work performance (work effort and work quality) is fully mediated by pay satisfaction. The model fit was good: $\chi^2_{[388]} = 1265.92, RMSEA = 0.068, NFI = 0.90, CFI = 0.92, GFI = 0.85$. In Model 2 all paths were significant. In Model 3 a direct path from organizational justice (distributive and procedural) to work effort and work quality was included to suggest partial mediation. Structural model fit was again good: $\chi^2_{[384]} = 1177.60, RMSEA = 0.065, NFI = 0.91, CFI = 0.93, GFI = 0.86$. In Model 3 all paths were significant with the exception of the effects of procedural justice on work effort ($\beta = 0.10, p > 0.05$). Furthermore, the model comparison indicates that the partial mediation model (Model 3) has a better fit than the full mediation model (Model 2): $\Delta\chi^2(\Delta df) = 88.32(1), p \leq 0.05$. Therefore, the results reported in Table 2 provided support for hypothesis 3. In particular, it is indicated that organizational justice is positively related to work performance and this relationship is partially mediated by pay satisfaction.

[Figure 1 about here]

[Table 2 about here]

In accordance, the bootstrap analysis (500 bootstrap samples) provided support for hypothesis 3, as it is found that in the partial mediation model the associated paths are all significant: Distributive Justice → Pay Satisfaction ($\beta = 0.40, p \leq 0.001$), Distributive Justice → Work Effort ($\beta = 0.18, p \leq 0.001$), Distributive Justice → Work Quality ($\beta = 0.19, p \leq 0.001$), Procedural Justice → Pay Satisfaction ($\beta = 0.52, p \leq 0.001$), Procedural Justice → Work Effort ($\beta = 0.13, p = 0.05$), Procedural Justice → Work Quality ($\beta = 0.26, p \leq 0.001$), Pay Satisfaction → Work Effort ($\beta = 0.31, p \leq 0.001$), Pay Satisfaction → Work Quality ($\beta = 0.25, p \leq 0.05$).

Discussion

In a period of economic crisis, the reduction of governments' revenue and the increasing pressure of sparse financial resources are factors pushing and forcing managers of public organizations to do more with less (Askounis, Ergazakis, Mavri, & Toska, 2016). The current study responds to this [call and](#) explores how employees' performance in the public sector is affected by perceptions of fairness. Specifically, [this research](#) investigated how employees' level of work effort and work quality is affected by perceptions of distributive and procedural justice.

Using the psychological contract theory as the overarching theoretical framework, this study expands [our researchers'](#) understanding of the extent to which employees feel that they have been fairly treated, regardless of actual pay levels. [Specifically, B](#)based on a survey of public sector employees in Greece [we it was](#) found that work performance is significantly and positively related to employees' perceptions of organizational justice. The findings also showed that pay satisfaction mediated the effects of organizational justice on work performance. This research adds credence to the notion that different types of justice (i.e., distributive and procedural) are strong predictors of not only employees' attitudes and

behaviors, but also of employees' outcomes (i.e., work effort and work quality). Therefore, the results of this study posit that in contexts of economic crisis and limited financial resources, the need of non-financial incentives is intensified when organizational management cannot rely solely on monetary rewards. As organizations face challenges in providing competitive compensation, benefits and training programs, it is evident that the focus should lie on fairness and justice as the most cost-effective approach to enhance motivation and productivity of employees.

These findings suggest several practical implications for public organizations. Since it is well established that positive attitudes and behaviors lead to enhanced job performance (Susanty, Miradipta, & Jie, 2013), the linking of human resources management and justice appears to be of utmost importance. It is argued that the human resource management departments in public administration, in collaboration with managers, should ensure that all HR practices and policies are in line with the values of fairness and justice. Managers are expected to view the establishment of fair business norms and just systems favorably as the most viable, economical and effective approach of not only enhancing employees' attitudes (satisfaction), but also employees' outcomes (work effort and work quality) and organizations' performance (Morris & Jones, 1993). One way to achieve this would be for managers to ensure that all resource allocation decisions are to be taken in an objective, visibly and impartial manner (Jin, McDonald, & Park, 2016). This is of particular importance, as Weaver (2004) suggests that fair managers can play an important role in making the organization fair because 'fair treatment can generate similarly ethical behavior in those receiving'.

In addition, public administration should foster a direct open communication culture between management and employees. Creating an environment in which employees feel free to voice their concerns about decisions would facilitate trust towards managerial actions and develop a feeling of common interest and justice for all members (subordinates and

supervisors) (Lee, 2001). Accordingly, the participation of employees in the decision-making process would allow public organizations to move away from the traditional hierarchical structure to participative management. In such organizational environments, managers are more likely to exhibit a consultative or participative leadership style rather than a dictatorial or authoritarian one, thus having a positive effect on employees' perceptions of trust and organizational justice (Ismail, Zainuddin, & Ibrahim, 2010).

Furthermore, public organizations should make sure that they take into consideration the different contribution levels of employees when distributing rewards. When HR managers and public sector line managers treat every employee equally, then this could be unfair if they participated and contributed at different levels. Therefore, fair allocation of resources (distributive justice) through the establishment of performance based schemes (procedural justice) should be designed and implemented. Effective performance based schemes, such as merit pay and pay-for-performance systems, have been widely used in the private sector as an important component of the employee pay mix (Maltarich, Nyberg, Reilly, & Martin, 2017). Such schemes are designed to motivate employees by providing incentives to those who achieve, improve, or exceed their performance.

Nevertheless, performance based schemes are unlikely to be effective unless they are supported by a formal appraisal system that documents and evaluates employees' performance (Spano & Monfardini, 2017). Appraisal and performance review systems would allow employees who are more qualified or those who contributed more than others to receive a greater share of rewards and would ensure both distributive and procedural justice in organizations (Sanderson, 2001). An alternative plan to ensure justice in public organizations is to base individual pay on the specific difficulties of the job or the level of responsibilities (Barber & Simmering, 2002). In such pay plans, payments are made to employees who are

taking on additional responsibilities over and above those set out in their job description and at a higher level.

Nevertheless, as in all studies, there are limitations that represent opportunities for future research. One limitation is that the design of this study is cross-sectional, which precludes statements of causality. Future studies may assess the dependent variables at a later stage in order to evaluate whether the relationships identified are robust and valid over time. Additionally, data were obtained through the use of self-reports which could raise concerns of common method variance. Although, post-hoc tests were performed to assess the impact of common method bias and it was found that its effect was negligible, future studies could complement the employee-centred approach of this study by collecting multi-level data from top managers and HR departments.

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