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HIGH PERFORMANCE WORK SYSTEMS (HPWS) AND EMPLOYEE ENGAGEMENT: THE MEDIATING EFFECT OF ORGANIZATIONAL JUSTICE

by

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To my husband and
my newborn daughter…

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Abstract

Over the past decades the term High-Performance Work Systems is often present in discussions regarding the practices that should be adopted by organizations/companies to increase corporate performance. The researchers have also highlighted the need to understand not only the "what" and "why" of the HPWS, but also the "how", which became known as the "black box". In other words, the research needs to focus on "how" and "why" a set of HR practices may improve (or not) work outcomes and how it connects with related perceptions of employee fairness and justice (Boxall, 2013; Cullinane et al., 2014).

Based on the above and on the Social Exchange theory and Job demands-resources model as a theoretical basis, the present thesis attempts to shed light on the impact of employee perceptions of HPWS on their work engagement in the Greek context. Secondly, the role of organizational justice is examined as a potential mediator to explain the "black box".

At the beginning there is the literature review section with the relevant information about the basic variables examined in the study (HPWS, Organizational justice, Employee engagement) and the presentation of both theories. The research hypotheses are stipulated and then the statistical analysis of the data, gathered via an online questionnaire, follows. The results confirm the positive impact of employee HPWS perceptions on their engagement and show that organizational justice fully mediates this relationship.

Finally, the theoretical and practical implications are discussed followed by the significance and limitations of the study and the suggestions for future research.

Key words: High-performance work practices, HPWS, employee engagement, organizational justice

Περίληψη

Ο όρος Συστήματα Εργασίας Υψηλής Απόδοσης εμφανίζεται συχνά στις συζητήσεις που γίνονται τις τελευταίες δεκαετίες σχετικά με τις πρακτικές που θα πρέπει να εφαρμόσουν οι οργανισμοί/εταιρίες προκειμένου να αυξήσουν την εταιρική απόδοση. Οι ερευνητές έχουν τονίσει την ανάγκη να γίνουν αντιληπτά όχι μόνο το «τι» είναι τα συστήματα αυτά και «γιατί» να προτιμηθούν αλλά και το «πώς» δουλεύουν, κάτι που έγινε γνωστό ως το «μαύρο κουτί». Με άλλα λόγια, η έρευνα χρειάζεται να εστιάσει στο «πώς» και το «γιατί» ένα σύστημα πρακτικών ανθρωπίνου δυναμικού μπορεί να βελτιώσει (ή όχι) τα αποτελέσματα της εργασίας αλλά και στο πώς συνδέεται με τις σχετικές αντιλήψεις των εργαζομένων για αμεροληψία και δικαιοσύνη (Boxall, 2013; Cullinane et al., 2014).

Με βάση τα παραπάνω και την θεωρία της κοινωνικής συναλλαγής και το μοντέλο Job demands-resources ως θεωρητική βάση, η παρούσα διπλωματική εργασία επιχειρεί να φωτίσει την επίδραση που έχουν οι αντιλήψεις των εργαζομένων για τα συστήματα εργασίας υψηλής απόδοσης στην εργασιακή τους δέσμευση στο Ελληνικό πλαίσιο εργασίας. Επίσης, εξετάζεται ο βαθμός στον οποίο η οργανωσιακή δικαιοσύνη λειτουργεί διαμεσολαβητικά στην ερμηνεία του «μαύρου κουτιού».

Αρχικά, στο τμήμα της βιβλιογραφικής ανασκόπησης παρουσιάζονται οι σχετικές πληροφορίες για τις βασικές μεταβλητές της έρευνας (Συστήματα Εργασίας Υψηλής Απόδοσης, Οργανωσιακή δικαιοσύνη, Δέσμευση εργαζομένων) και το θεωρητικό πλαίσιο. Στη συνέχεια διατυπώνονται οι ερευνητικές υποθέσεις και ακολουθεί η στατιστική ανάλυση των δεδομένων που συγκεντρώθηκαν από το διαδικτυακό ερωτηματολόγιο. Τα αποτελέσματα επιβεβαιώνουν την θετική επίδραση των αντιλήψεων των εργαζομένων για τα συστήματα εργασίας υψηλής απόδοσης στην εργασιακή τους δέσμευση και δείχνουν ότι η οργανωσιακή δικαιοσύνη λειτουργεί πλήρως διαμεσολαβητικά στη σχέση αυτή.

Τέλος, παρουσιάζονται οι θεωρητικές και πρακτικές επιπτώσεις ακολουθούμενες από την συμβολή της έρευνας, τους περιορισμούς στην έρευνα και τις προτάσεις όσον αφορά τις μελλοντικές έρευνες.

Λέξεις-κλειδιά: Συστήματα Εργασίας Υψηλής Απόδοσης, Οργανωσιακή δικαιοσύνη, Δέσμευση εργαζομένων

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1. Introduction

Over the past years there has been a growing interest in the role of employee engagement in an organization's performance (Alfes, Shantz, Truss, & Soane, 2013; Boon & Kalshoven, 2014; Gruman & Saks, 2011; Schaufeli, 2012; Zhong, Wayne, & Liden, 2016). According to Kahn (1990), job engagement is the motivational characteristic that drives employees to use their inner resources spontaneously as they contribute towards the organization through their job performance. In general, employee engagement is observed when employees are satisfied, motivated, committed, and identified with the organization to show in-role and extra-role behavior and reluctant to quit from the organization (Christian, Garza, & Slaughter, 2011; Schaufeli, 2012; Zhong et al., 2016).

Although there has been extensive research concerning the linkage of job engagement with employee attitudes and behaviors, there has been relatively little research on the organizational and individual factors that have an impact on employee engagement. More specifically, little is known about the role of organizational human resource practices as antecedents of job engagement (Crawford, LePine, & Rich, 2010; Saks, 2006; Zhong et al., 2016) and the intervening mechanism through which human resources systems influence job engagement (Cooke, Cooper, Bartram, Wang, & Mei, 2016; Huang, Ma, & Meng, 2018; Zhong et al., 2016).

High-performance work systems (HPWS) consist of a group of separate yet interconnected human resource practices, such as rigorous recruitment and selection, continuous training and development, developmental performance appraisal, and performance-based compensation system (Takeuchi, Lepak, Wang, and Takeuchi, 2007). According to Delery and Shaw (2001), these practices play a fundamental role in increasing employees' abilities, motivation and developmental opportunities. HPWS have, also, an impact on the employee's job satisfaction, commitment, in-role and extra-role performance (Becker, Huselid, Pickus, & Spratt, 1997). However, given that previous studies have shown that there is a difference between the intended HPWS and the employees' perceived HPWS (Bowen & Ostroff, 2004), it becomes even more interesting to examine the subject from the employees' perspective. Based on Kahn's (1990) ethnographic research on job engagement, the purpose of this study is to examine the relationship between the perceived HPWS and employee engagement.

Furthermore, this study aims at investigating the intervening mechanism through which HPWS influence employee job engagement. Findings from several studies have shown that an increased sense of justice among employees can have a positive impact on various aspects of organizational behaviour, such as work satisfaction (McFarlin and Sweeney, 1992; Bhupatkar, 2003; McCain et al., 2010), organizational commitment (Folger and Konovsky, 1989; McLean, 2009; Wang et al., 2010; Crow et al., 2012; Suliman and Kathairi, 2013), organizational trust (Saunders and Thornhill, 2003; McLean, 2009), organizational citizenship behavior (Moorman, 1991; Bhupatkar, 2003; Muhammad, 2004; Orlowska, 2011) and employee performance (Alder and Tompkins, 1997; Wang et al., 2010; Suliman and Kathairi, 2013). It is therefore considered important to examine how the judgments employees make about justice in their organization affect their engagement. According to Cropanzano et al. (2002) fairness generally focuses on who gets what (distributive justice), how goods are assigned (procedural justice), and the interpersonal treatment received along the way (interactional justice). For the purposes of this study, the role of organizational justice is examined as a potential mediator in the relationship between HPWS and employee engagement.

All in all, the present study contributes to the existing knowledge by researching the neglected role of employees as the primary recipients of HPWS practices and examining how HR practices affect employee engagement. Secondly, it is examined the extent to which perceptions of fairness regarding HR practice implementation influence employee engagement based on the Social Exchange Theory and the Job demands-resources model.

2. Literature review

2.1. High performance work systems

In the past years there has been a growing body of research on the relationship between human resource management (HRM) and firm performance (Arthur, 1994; Batt, 2002; Becker & Gerhart, 1996; Chadwick & Dabu, 2009; Guthrie, 2001; Huselid, 1995; Liao, Toya, Lepak, & Hong, 2009; Sun, Aryee, & Law, 2007). It is suggested that 'high performance' HR practices affect organization performance outcomes in a positive way (Huselid, 1995); however, this is not fully clarified. Moreover, there is a lot of discussion about the policies and the approaches the organizations should adopt in order to obtain the competitive

advantage in the market. According to Barney (1995) the effective human resource policies play the cardinal role in this effort. Therefore, there has been a shift of the focus towards quality-based competition and organizations rely on human resource development and employee contributions to succeed.

The concept of high-performance work systems (HPWS) is often present in these discussions. Depending on the approach followed the term "high performance work systems" can be defined differently. Huselid (1995) describes them as innovative human resource management practices, work structures and processes, which, when used in certain combinations or bundles, are mutually reinforcing and produce synergistic benefits. Some put the emphasis on "high-involvement management" while others to "high-commitment management", but, in short, their main characteristics are the certain degree of control ceded to employees and the progressive methods which increase employee welfare. Among these are the involvement programmes, team-based work, enhanced training and development, forms of gain-sharing and high-wage reward systems (Adler and Cole, 1995; Appelbaum and Batt, 1994; Milkman, 1997). Cooke (2001) mentions that these systems are based on the following core HR policy areas: (1) sophisticated selection and training; (2) behavior-based appraisal and advancement criteria; (3) contingent pay systems; (4) job security; and (5), employee involvement initiatives while Jiang et al. (2012) use the ability-motivation-opportunity framework to base their categorization of these human resource practices to "skills-enhancing" (training and selection), "motivation-enhancing" (job security, rewards and career opportunities) and "opportunity-enhancing" (teamwork and involvement). Training and selection aim at acquiring and retaining appropriately skilled employees (Hinkin and Tracey, 2010) and the notion of the job-fit employee is key (Jiang et al., 2012). Job security guarantees a stable environment for the employees (Zacharatos et al., 2005) and rewards are designed to foster employee motivation (Jiang et al., 2012). According to Hinkin and Tracey (2010), career opportunities serve as motivators for retention and employee professional development. Finally, teamwork refers to employees' willingness to cooperate as members of a group (Coyle-Shapiro and Morrow, 2003) and become more involved in the accomplishment of organization objectives by using their skills and motivation. Appelbaum et al. (2000) acknowledge the impact of performance-enhancing human resource practices on employees' ability, motivation and opportunity to participate while Kloutsiniotis and

Mihail (2017) mention that HPWS lead to highly skilled, self-efficacious, empowered and resilient employees.

According to Wright and Nishii (2007) a distinction can be made between intended, implemented and perceived HR practices. 'Intended' HRM are those policies and practices developed at organization level. 'Actual' practices are those enacted by line management in the process of implementation, while 'perceived HR' practices are employees' perceptions of HR enactment. The latter are the ones that influence employee-level outcomes by affecting the way the employee thinks, feels or behaves (Purcell et al., 2009).

2.2. Organizational justice

The term "organizational justice" was coined by Wendell in 1964 and is commonly used by organizational psychologists to refer to the just, fair and ethical manner in which organizations treat their employees (Greenberg, 1990; Cropanzano, 1993) and it is based on fairness perceptions (Adams, 1965). According to Colquitt and Greenberg (2003), organizational justice refers to 'the extent to which people perceive organizational events as being fair'. Bies (1987) claims that the fairness of an event, action or decision is based on the individuals' beliefs about the decision and their value or normative system, as it relates to those beliefs. Konovsky (2000) maintains that fairness is a core value in organizations and Coetzee (2005) adds that matters of fairness are bound to arise in any organization. Greenberg (1990) stresses that the way organizational justice is perceived plays a key role in the effective functioning of organizations and the personal satisfaction of the individuals they employ, which then, shapes employee attitudes.

The various dimensions of organizational justice and the distinction among them are the subject of extensive research (Johnson, 2017). As mentioned in Colquitt et al. (2005) the range of justice varies from a single dimension to four dimensions. Researchers typically distinguish between three types of justice: the perceived fairness of outcomes (distributive justice), the fairness of the processes whereby outcomes are allocated (procedural justice), and the interpersonal treatment received during the implementation of the procedure together with the perceived adequacy and timeliness of information given (interactional justice) (Colquitt et al., 2001). On the other hand, Greenberg's (1993) model of justice consists of four factors; distributive justice, procedural justice and two classes of interactional justice (i.e. interpersonal and informational justice). These four dimensions are distinct constructs

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that can, and should ideally be, empirically distinguished from one another (Blader and Tyler, 2003; Colquitt, 2001; Colquitt et al., 2001). For the purposes of the present study the three-factor model of justice (i.e. distributive, procedural and interactional justice) has been used, which is regarded by Colquitt (2001) as the second most used conceptualization after the four-factor model.

2.2.1. Distributive justice

Many of the practices implemented in HPWS are based on performance aiming at creating a link between the exchange-effort relationship and the employees' outcomes (Heffernan and Dundon, 2016). Typical examples of such practices are hiring decisions, performance appraisals, raise requests, decisions about downsizing, layoffs, etc. (Johnson, 2017). A big part of the literature on distributive justice focuses on the fairness in the distribution and the allocation of outcomes (Homans, 1961; Adams, 1965; Deutsch, 1985; Niehoff and Moorman, 1993; Colquitt, 2001; Nabatchi et al., 2007). According to Ambrose and Arnaud (2005) employees, when accepting rewards (mainly financial ones), tend to make distributive justice judgements which also influence their attitude towards the organization. Research has also shown that when employees perceive that the exchange is fair (from an economic perspective), they will be more satisfied and committed to the organization (Ambrose and Schminke, 2003), whereas perceived inequity can result in disengagement and increased turnover (Kenny and McIntyre, 2005).

2.2.2. Procedural justice

This dimension of justice refers to people's perceptions of the fairness of the rules and procedures used to determine the outcomes they receive at workplace (Thibaut and Walker, 1975; Austin and Tobiasen, 1984; Kressel and Pruitt, 1989; Suliman and Kathairi, 2013). Leventhal (1980) mentions that employees evaluate how fair the procedures are based on consistency, bias suppression, accuracy, correctability, ethicality and the degree to which they allow voice and input. Teamwork, participation in decision-making and information sharing, all present in HPWS, are a means of increasing employee influence and by enhancing procedural justice perceptions, leading to more positive work attitudes (Heffernan and Dundon, 2016). Masterson et al. (2000) also stress the role of positive perceptions of procedural fairness in higher job satisfaction and affective commitment and McFarlin and

Sweeney (1992) and Cafferkey and Dundon (2015) associate them with a more positive organizational climate. On the same grounds, Thibaut and Walker (1975) and Lind and Tyler (1988) maintain that when the employees judge the procedures as being fair, they are satisfied with them, even in the cases when the outcomes are unfavorable for them. Employees receive the feedback that they are valuable to the organizations, which results in their self-esteem being increased. Other studies have concluded that procedural justice plays a role in work pressure and stress at work, too (Judge and Colquitt, 2004).

2.2.3. Interactional justice

The final element of organizational justice, interactional justice, concerns interpersonal treatment that employees experience from decision-makers (Heffernan and Dundon, 2016). According to Bies and Moag (1986) and Tyler and Bies (1990) this kind of justice refers to the human side of organizational practices and focuses on the communication aspects, such as honesty, respect and politeness, between the manager and the employee as it is known that the attitude of line managers can have an impact on the application of HR practices on employees (Purcell and Hutchinson, 2007; Townsend and Loudoun, 2015). Additionally, different management roles and types can affect employees' perceptions about the fairness of HR practices and justice (Kilroy and Dundon, 2015). The importance of decision makers' social sensitivity and informational justification is also at the core of interpersonal justice, especially when matters of pay increases (Wu and Chaturvedi, 2009), performance appraisals (Erdogan et al., 2001) and grievance handling (Nabatchi et al., 2007) are considered. According to Kernan and Hanges (2002) the communication with employees during the implementation of HPWS practices and the justification for organizational decisions are signs of management's sensitivity to employee desires. Interactional justice has been shown to influence employee job satisfaction (Masterson et al., 2000), commitment and motivation (Cropanzano et al., 2007) and stress (Bies, 1987). On the other hand, inadequate leadership or unfair treatment from a supervisor is said to create the same sense of uncertainty and lack of control as procedural injustice (Judge and Colquitt, 2004).

2.3. Employee engagement

Employee engagement is a widely used and popular term (Robinson et al., 2004) and a subject of extensive research since its introduction in academic literature by Kahn

(1990,1992) with his work on personal engagement. Kahn (1990: 694) defines engagement as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances". For Rothbard (2001) engagement is defined as a psychological presence, consisting of attention and absorption. The emotional and intellectual commitment of an employee to the organization defines engagement for Baumruk (2004), Shaw (2005) and Richman (2006), too, while for Frank et al. (2004) it is the amount of discretionary effort that employees show in their work. According to Nelson and Simmons (2003) when an employee is engaged, they feel positively towards their work and find it personally meaningful while the workload is considered manageable and there is hope about the future of their work. On the same grounds, Maslach et al. (2001) consider engagement as the opposite of burnout, which is characterized by exhaustion, cynicism and inefficacy, whereas engagement consists of energy, involvement and efficacy. In addition, newer elements of engagement have been brought forward by recent research. Macey and Schneider (2008) consider employee engagement to consist of the combination of aspects of the self (for example, trait and behavior) with situational aspects (for example, organizational conditions) whereas Albrecht (2010: 5) defines employee engagement as "a positive work-related psychological state characterized by a genuine willingness to contribute to organizational success".

Saks (2006) notices the various definitions for employee engagement and makes the distinction between work engagement (WE) and organization engagement (OE), as there are differences in their constituents, mainly the underlying psychological conditions and consequences. He further distinguishes organizational commitment from organizational engagement since the former relates to a person's attitude and attachment towards their organization while the latter is not an attitude, but rather the degree to which an employee is attentive and absorbed in the performance of their roles; OCB is characterized by extra-role and voluntary behavior whereas engagement focuses on one's formal role performance. The distinction between engagement and job involvement needs also to be mentioned. According to May et al. (2004) engagement includes the active use of emotions and behaviors, it is about the way people employ themselves in the performance of their job while job involvement is the result of cognitive judgements and is tied to one's self-image.

2.3.1. Work engagement

Work engagement is described as a "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002: 74). It has been defined by Schaufeli and Bakker (2010: 22) as "the psychological state that accompanies the behavioral investment of personal energy". Bakker et al. (2011) explain the three components of work engagement: *vigor*, where work is experienced as stimulating and something worth devoting time and efforts, *dedication*, where work is seen as a meaningful pursuit, and *absorption*, where work is something employees are fully concentrated on. These components are also reflected in the following sample items for the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002), "When I get up in the morning, I feel like going to work" (vigor); "I am proud of the work I do" (dedication); and "I am immersed in my work" (absorption).

It has been found that certain job characteristics that might be labeled as resources, motivators or energizers, such as social support from co-workers and one's superior, performance feedback, coaching, job autonomy, task variety, and training facilities can have a positive impact on work engagement (Demerouti et al., 2001; Salanova et al., 2001; Schaufeli, Taris & Van Rhenen, 2008; Schaufeli & Bakker, 2010). Sonnentag (2003) also claims that it is due to work engagement that employees managed to recover from their previous working day whereas Salanova et al. (2001) discuss the positive association between work engagement and self-efficacy. Montgomery et al. (2003) add an interesting element to research since they found that the level of work engagement increases when employees take their positive feelings from their work to home and vice versa. Additionally, in the study conducted by Bakker et al. (2003) it has been found that among the characteristics of engaged employees is the ability to mobilize their job resources. Research has also found that engaged employees are active, take initiative at work and are able to generate their own positive feedback (Schaufeli, Taris, Le Blanc, Peeters, Bakker & De Jonge, 2001). For them tiredness is not considered an exclusively negative state as it can also be associated with positive accomplishments. Finally, they are not workaholics, who work hard because of a strong inner drive, but they work because they enjoy it.

For the purposes of this study employee engagement refers to work engagement. But, even though most of the research has also placed the focus on work engagement (e.g. Kittredge,

2010, Inoue et al., 2010, Karatepe, 2011, Gupta and Kumar, 2012, Li, 2012, Strom et al., 2013), it is considered important to mention that attitude towards an organization may be affected by and, consequently, have implications for organization which clearly shows the growing relevance of organization engagement. For example, it has been shown that employees who are disengaged in their work are not able to perform successfully, which leads to a rise in the substantial tangible costs of the organization (Karatepe and Olugbade, 2016).

2.3.2. Consequences of employee engagement

The possible consequences of work engagement relate to positive attitudes towards both work and organization, such as job satisfaction, organizational commitment, and low turnover intention (Demerouti et al., 2001; Salanova et al., 2001; Schaufeli and Bakker, 2004; Schaufeli, Taris & Van Rhenen, 2008), but also to positive organizational behavior such as, personal initiative and learning motivation (Sonnentag, 2003), extra-role behavior (Salanova, Agut and Peiró, 2005), creativity and job performance (Bakker and Xanthopoulou, 2013; Breevaart et al., 2015; Salanova, Agut, and Peiró (2005). Additionally, it has been found that engagement is positively related to health, through low levels of depression and distress (Schaufeli, Taris and Van Rhenen, 2008) and psychosomatic complaints (Demerouti et al., 2001).

Finally, engagement is not only observed in individual level but also in team level. Bakker and Schaufeli (2010) conducted a study that included 130 teams from different organizations and concluded that the collective level of engagement of the team relates to the individual level of engagement of the team members: the more engaged the team, the more engaged its members. Furthermore, it seems that the 'engaged' teams are more capable of acquiring more job resources compared to less 'engaged' ones, which in its turn has a positive impact on the level of engagement of the individual team members. Another interesting finding from the study of Bakker et al. (2005) on working couples is that engagement can be transferred from one partner to the other and vice versa, which may be the leading cause for collective forms of engagement.

2.3.3. Employee engagement models

Considering the limited research on employee engagement, the models of employee engagement are mainly based on the work of Kahn (1990) and Maslach et al. (2001).

Kahn (1990) stresses the importance that meaningfulness, safety and availability play in engagement. In a qualitative study he conducted on the psychological conditions of personal engagement and disengagement at work he found that the summer camp counselors and the organizational members of an architecture firm he interviewed were more engaged at work in situations that offered them more psychological meaningfulness and psychological safety, and when they were more psychologically available. May et al. (2004) empirically tested Khan's model and confirmed the findings. They even found characteristics that serve as predictors for meaningfulness (job enrichment and role fit), safety (rewarding co-workers and supportive supervisor relations) and psychological availability (resources).

The other model of engagement derives from the literature on burnout, where work engagement is presented as the opposite of burnout. According to Maslach et al. (2001), there are six areas of work-life leading to burnout and engagement: workload, control, rewards and recognition, community and social support, perceived fairness, and values. Work engagement is associated with a sustainable workload, feelings of choice and control, appropriate recognition and reward, a supportive work community, fairness and justice, and meaningful and valued work.

The above models offer indications about the psychological conditions underlying engagement; yet, there is no full explanation for the various degrees of engagement with which employees respond to these conditions. A stronger theorical background can be found in the social exchange theory, analyzed below.

3. Theoretical framework and hypotheses

3.1. Social Exchange Theory

The social exchange theory (SET) provides a solid theoretical framework explaining how the perception of employees about organizational justice can influence their job and organization engagement. It argues that obligations are a result of a series of interactions between parties that are in reciprocal interdependence. With the passage of time these relationships transform

into mutual commitments based on trust and loyalty on condition that certain "rules" of exchange apply (Cropanzano and Mictchell, 2005; Saks, 2006). These include reciprocity and repayment; in other words, it is expected that actions from one party will lead to a response or actions by the other party. For instance, the provision of economic and socioemotional resources from the organization will create the obligation to employees to respond in kind and repay the organization (Cropanzano and Mictchell, 2005). Albrecht et al. (2015) also acknowledge the need that management invest in the systems, processes and practices supporting employee engagement to be able to select individuals who are engaged in their work. In line with this, Robinson et. al (2004) describe engagement as a two-way relationship between employer and employee.

One way for employees to repay the organization is via their engagement. Since it is more difficult for them to vary their levels of job performance due to performance evaluation procedures used for compensation and administrative decisions, they can engage themselves to varying degrees in response to the resources and benefits provided by the organization. Thus, they can choose the extent to which they can engage in their work and the amount of cognitive, emotional and physical resources they devote to organization (Saks, 2006).

To sum up, SET provides the theoretical basis in the effort to explain the varying degrees of employee engagement in their work and organization. In accordance with Kahn's (1990) definition of engagement, employees feel the obligation to increase their role performance to repay the organization for the resources it provides them with. In the case of the organization's failure to provide these resources, employees tend to disengage and withdraw themselves form their roles. This illustrates clearly the interdependence of cognitive, emotional and physical resources the employee is willing to devote in the performance of their roles on the one hand and the economic and socioemotional resources the organization offers on the other hand.

3.2. Job demands-resources model

Engagement has been frequently researched in the framework of job demands-resources (JD-R) model, as there has been an association of lack of resources with employee disengagement (Demerouti et al., 2001). According to Bakker and Demerouti (2007) *job demands* refer to physical, psychological, social, or organizational aspects of the job that require sustained physical or mental efforts and are associated with certain physiological or psychological costs

whereas *job resources* describe the physical, psychological, social or organizational aspects of the job which function in achieving work goals, reduce job demands and the associated physiological and psychological costs or stimulate personal growth and development. For example, social support from colleagues and supervisors, performance feedback, skill variety, and autonomy, start a motivational process that leads to work engagement as they foster growth, learning and development (Schaufeli and Bakker, 2004) and consequently to higher performance. Organizational justice perceptions can be considered as resources enhancing employee engagement, since they play a functional role in goal accomplishment. In addition, the motivational aspect of job resources is enhanced when employees face high job demands (i.e. workload, emotional and mental demands). Xanthopoulou et al. (2007), add an interesting aspect to the JD-R model by showing that job and personal resources are mutually related, and that personal resources can be independent predictors of work engagement. This way, employees with high scores on optimism, self-efficacy, resilience and self-esteem are well able to mobilize their job resources, and generally are more engaged in their work. Bakker and Leiter (2010) also agree that within the job demands-resources (JD-R) perspective the enhanced internal strength serves as personal resource or psychological capital for work engagement.

3.3. HPWS perceptions, organizational justice and engagement - Study hypotheses

As mentioned in Boxall and Macky (2014) the recipients of the HR policies are not often given adequate attention in the research on the links between HR policies and firm-level performance. Alfes et al. (2013) argue that the study of employees' perceptions of HR practices yields important insights and understanding of their actual impact. Another issue according to Thompson (2011) is the assumption that the positive outcomes for organizations will be equally applicable to workers. For this reason, it is important to acknowledge employees as active agents who do shape the world around them (Grant and Shields, 2002; Dundon and Ryan, 2010) and examine their role in shaping HRM. For example, it has been found that higher firm performance may be due to work intensification (Ramsay et al., 2000) rather than greater discretion or higher job satisfaction (Wood and de Menezes, 2011).

However, it is not clear how employee perceptions of HPWS practices explain the link to behavioral outcomes in terms of justice and fairness (Farndale et al., 2011; Fuchs and

Edwards, 2012). Nishii and Wright (2008) underline that there needs to be a distinction among the *intended* or designed HR system that the organizations put on paper, the *implemented* one, which describes what managers actually put into practice, and the one *perceived* by employees. In line with this, Ramsay, Scholarios, and Harley (2000) and Wright & Boswell (2002) emphasize the mediating role of employee attitudes and behaviors in translating HR practices into performance. In addition, Liao et al. (2009) find only a moderate relationship between perceptions of HR practices of managers and employees in the same units. Consequently, the need arises to include employee perceptions in HR studies, as well (Bowen and Ostroff, 2004; Guest, 2006; Kehoe and Wright, 2013; Nishii and Wright, 2008). Bowen and Ostroff (2004) and Den Hartog et al. (2004) claim that employee personal experiences and preferences may lead to different reactions to HR practices. In line with this, Kloutsiniotis and Mihail (2020) add that research has shown the employees' tendency to interpret HR practices idiosyncratically. Nishii et al. (2008) add the differences in implementation and communication of the HR practices by the managers, too. When managers send clear, sufficient and consistent messages to employees, it is more likely that the latter form an accurate picture of the organizational policies while unclear, inconsistent and confusing messages cause uncertainty about organizational issues and leave room for subjective perceptions concerning HR practices (Nishii et al., 2008). According to Liao et al. (2009) managers' interpretations of HR provide the context within which employee perceptions of HR practices are formed; however, this does not guarantee that they are the same. On the same grounds, Bowen and Ostroff (2004: 208) stress the importance of proper communication and state that "in order to function effectively in a social context and make accurate attributions about a situation, an employee must have adequate and unambiguous information". The importance of a strong HRM environment is also stressed by Katou (2013) so that employees can experience the HRM practices in a similar way and develop the desired behaviors.

A resourceful environment characterized by vigor, dedication and absorption as mentioned in Schaufeli et. al (see section 2.3.1.) will contribute to employees' engagement. Based on the job demands-resources model, such an environment which offers HPWS makes employees remain engaged in their work as mentioned in several studies (Bakker and Demerouti, 2017). The positive link between the HPWS and the employees' engagement is also highlighted in other studies (Karatepe, 2013; Ang et al., 2013; Karatepe and Olugbade,

2016 and Kloutsiniotis and Mihail, 2017). According to social exchange theory (Blau, 1964), the organizations make investments which are visible to employees in the form of HR practices that motivate them to reciprocate by exhibiting more engagement in work-related behaviors leading to organizations' benefit (Gould-Williams, 2007; Mossholder, Richardson, & Settoon, 2011). In other words, when witnessing the organization's active interest in their well-being through the implementation of HPWS, employees will feel the need to reciprocate the positive treatment by showing greater trust towards management and developing positive behaviors (Tremblay et al., 2010). As a result, they are more engaged in their work (Wei et. al, 2010) and willing to work more effectively (Takeuchi et al. 2007). Consequently, the first hypothesis is stipulated as follows:

Hypothesis 1 Employees' HPWS perceptions will be positively related to employee engagement

Garcia-Chas et al. (2013) discuss the influence of the HR practices characterizing HPWS on the overall justice climate. For instance, with "rigorous selection and recruitment" techniques the organization sets specific objective criteria that are quantified whereas with "training and development" shows to the employees the great interest in empowering them (Searle et al., 2011). Additionally, Tang and Tang (2012) argue that with "performance management" techniques the organization shows that employees' work is evaluated and rewarded with money incentives and promotions. Similarly, with the "opportunity to participate in decision-making processes" employees are free to express their opinions (Bowen and Ostroff, 2004) while being given the autonomy in performing their work (Tang and Tang, 2012). Finally, Searle et al. (2011) maintain that the organization's interest in employees' long-term employability and career development is exhibited through "employment security". In general, and as discussed in Garcia-Chas et al. (2013) and Alfes et. al (2012) the implementation of HPWS creates a work environment based on trust where employees' feelings of organizational justice are enhanced. Therefore, it can be hypothesized that

Hypothesis 2 Employees' HPWS perceptions will be positively related to organizational justice

As it has been stated in previous sections, the implementation of HPWS shows to the employees that the organization values and respects their efforts, which results in employees exhibiting positive attitudes and behaviors (Messersmith et al., 2011; Takeuchi et al., 2007).

Research on organizational justice has also found that justice perceptions are related to organizational outcomes such as job satisfaction, organizational commitment, organizational citizenship behavior, withdrawal, and performance (Colquitt et al., 2001). Within the framework of SET, organizational justice would be directly associated with the quality of social exchange between individuals and their organizations (Bhatnagar and Biswas, 2010) which can lead to employee engagement (Biswas et al., 2013). In other words, high perceptions of fairness in the organization are more likely to make employees feel obliged to be fair in the way they perform their roles by showing more engagement (Cropanzano and Mitchell, 2005) while low perceptions of justice can cause disengagement and withdrawal from their work roles (Biswas et al., 2013).The notion that lack of fairness can increase burnout while positive perceptions of fairness can improve engagement is also present in the engagement model presented by Maslach et al. (2001).

Fuchs and Edwards, (2012) suggest that that the role of organizational justice represents a potentially important link that has been largely neglected in extant research. Since the link between HPWS and organizational justice is present in research (Wu and Chaturvedi, 2009), it is claimed that the effects on employee outcomes may be mediated through perceptions of organizational justice. Finally, several empirical studies have documented the positive influence of HPWS on employees' engagement (e.g. Ang et al., 2013; Zhang et al., 2013), with research highlighting the importance of organizational justice in this relationship (Saks, 2006). Thus, the following hypothesis can be made

Hypothesis 3 Organizational justice will mediate positively the relationship between firm-level HPWS practices and employee engagement

4. Methodology

4.1. The conceptual framework

The research hypotheses formed in the previous section are depicted schematically in the operational model in Fig. 1 below. More specifically, HPWS (independent variable) consists of Recruitment and Selection, Training and Development, Employment Security, Performance Management, Incentives and Rewards, Participation in Decision making and Job Design. Based on the Social Exchange Theory and the JD-R model it is hypothesized that HPWS leads to Employee Engagement (dependent variable), which is measured by

Vigor, Dedication and Absorption. It is also examined whether and to what extent Organizational Justice, consisting of Distributive, Procedural and Interactional justice, acts as a mediator in the above relationship.
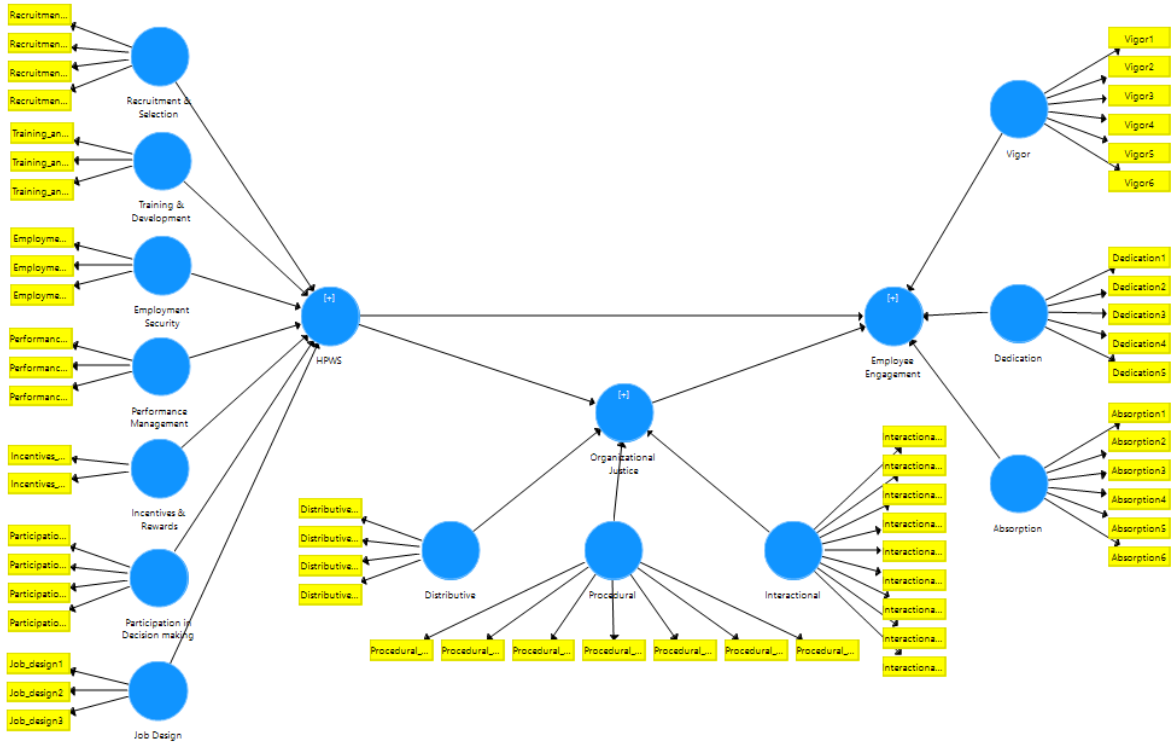

Figure 1. The operational model

As shown in Fig. 1 the seven sub-scales HPWS consists of are reflective indicators to their practices whereas they are formative indicators to HPWS. The same applies to the other two variables. In more details, distributive, procedural and interactional justice act as reflective indicators of their practices respectively while they are formative indicators to organizational justice. Finally, vigor, dedication and absorption are reflective indicators of their practices respectively whereas they are formative indicators to employee engagement.

4.2. Procedure and sample

For the purposes of the present thesis quantitative research has been performed following a deductive approach. In other words, based on the Social Exchange Theory and the JD-R model three hypotheses have been formed and tested by examining the relationship between

the variables. The variables have been analyzed with the use of research tools so that the data collected to be able to be processed using statistical procedures.

The data has been collected from employees in private companies/organizations which make use of high-performance work systems in Thessaloniki (mainly) and Athens, Greece, during November/December 2020. The questionnaire used for the data collection has been developed as an electronic one with the use of Google forms to facilitate the distribution and the completion by the employees. As far as the construction of the questionnaire is concerned, first there are five questions regarding demographic information followed by three parts representing HPWS, organizational justice and employee engagement respectively. The responses to the questions of the HPWS and organizational justice parts were provided on a five-point Likert scale ("1= strongly disagree", 5=strongly agree") whereas for the responses to the employee engagement part a six-point Likert scale was used ("1= never", "6=always"). Upon the distribution of the questionnaire via e-mail and social media employees were informed about the anonymity and the voluntary nature of the participation to the survey. The relevant information was also present on the initial page of the online questionnaire.

In total, 223 questionnaires were distributed and 146 returned, with the response rate reaching 65 %. Before the analysis of the data the questionnaires had been checked for missing or extreme values and no issues arose.

4.3. Measures

For the needs of the data analysis and since the number of questionnaires received was not very high the statistical program "Smart PLS 3" has been chosen for both the Exploratory Factor Analysis (EFA) and the Confirmatory Factor Analysis (CFA).

4.3.1."High performance work systems (HPWS)"

HPWS consists of HR practices based on scales already established in previous research. More specifically, 22 items have been used in the questionnaire comprising seven subscales (i.e. the HPWS practices). In detail, "Recruitment and Selection" consisting of four items was based on the scale developed by Zacharatos et al. (2005); "Training and Development" (three items), "Performance Management" (three items) and "Incentives and Rewards" (two items) were based on the scales developed by Sun et al. (2007). Finally, "Job design" (three items) and "Employment security" (three items) were based on the scales developed by

Delery and Doty (1996) whereas for "Participation and Decision making" two of the four items used were based on the scales developed by Delery and Doty (1996) and the other two on the scales developed by Sun et al. (2007).

In addition, a separate component analysis was conducted for each of the seven constructs of HPWS scale, while a cutoff value of 0.50 was used as an acceptable loading indicator. Values that were equal to or greater than 0.8 were considered of great importance whereas the ones above 0.7 were considered satisfactory. The number of items that met the loading criterion and the Cronbach's Alphas for the seven sub-scales are the following: "Recruitment and Selection"(three out of four items used, α=0.889), "Training and Development" (two out of three items used, α= 0.811), "Performance Management" (all three items used, α= 0.862), "Incentives and Rewards" (both items used, α= 0.803), "Job design"(all three items used, α= 0.836), "Employment security" (two out of three items used, α= 0.773), and "Participation and Decision making" (two out of four items used, α= 0.894). Cronbach's Alpha for the HPWS was α= 0.911, which is of great importance.

4.3.2."Organizational justice"

Colquitt (2001) referred to the works of Thibault and Walker (1975), Leventhal (1980), Bies and Moag (1986), and Shapiro, Buttner, and Barry (1994) to develop scales which would measure the dimensions of organizational justice. The distributive, procedural and interactional justice scale items used in this study were adapted from Colquitt (2001). In more details, 20 items comprise the organizational justice part of the questionnaire; distributive justice (four items), procedural justice (seven items) and interactional justice (nine items). Sample items include "The evaluation of my performance provides a good assessment of the effort I have put into my work.", "The procedures used in my organization are free of bias." and "My supervisor treats me with dignity." respectively.

The check of the construct reliability and validity criterion showed the following Cronbach's Alphas for the three dimensions of organizational justice: "Distributive" (three items used, α= 0.923), "Procedural" (three items used, α= 0.8) and "Interactional" (six items used, a= 0.933). The total Cronbach's Alpha for Organizational justice was α= 0.94, which is of great importance.

4.3.3. "Employee engagement"

The part of the questionnaire referred to employee engagement was based on the use of the UWE scale. The Utrecht Work Engagement Scale (UWES) is a self-report consisting of 17 items that include the three constituting aspects of work engagement: vigor, dedication, and absorption. Schaufeli and Bakker (2004) analyze the three aspects in the manual of UWES as follows: *Vigor* is assessed by six items that refer to high levels of energy and resilience, the willingness to invest effort, not being easily fatigued, and persistence in the face of difficulties. Employees who score high on vigor usually show energy, zest and stamina while working whereas the ones with low scores do not. *Dedication* is assessed by five items that refer to a sense of significance the employee gets from their work, feelings of enthusiasm and pride of their job, and feeling inspired and challenged by it. Employees with high scores on dedication experience their work as meaningful, inspiring and challenging and identify strongly with it besides feeling enthusiastic and proud of it. Those with low scores do not find meaning, inspiration and challenge in their work while they also lack enthusiasm and pride. *Absorption* is measured by six items that refer to being totally and happily immersed in one's work and having difficulties detaching oneself from it so that time passes quickly, and one forgets everything else that is around. High scorers on absorption get carried away by their work, feel immersed in it and find difficulty detaching from it. For them, time seems to fly while working. On the other hand, low scorers do not feel immersed in their work, they do not forget everything around them, time included, and they have no difficulty detaching from it. Sample items of vigor, dedication and absorption include "At my work, I feel bursting with energy.", "My job inspires me." and "I get carried away when I'm working", respectively.

The analysis provided the following Cronbach's Alphas: "Vigor" (all six items used) α= 0.835, "Dedication" (four items used) α= 0.917 and "Absorption" (five items used) α=0.836 while the Cronbach Alpha for "Employee engagement" is α= 0.94, which is of great value.

Table 1. Cronbach's Alpha

	Cronbach's Alpha
Absorption	0.836
Dedication	0.917
Distributive	0.923
Employee engagement	0.94

Employment security	0.773
HPWS	0.911
Incentives and Rewards	0.803
Interactional	0.933
Job design	0.836
Organizational justice	0.94
Participation in decision making	0.894
Performance management	0.862
Procedural	0.8
Recruitment and Selection	0.889
Training and development	0.811
Vigor	0.835

4.4. Control variables

A number of individual-level variables were controlled, including "gender" (female or male), "age" (under 25, 26-35, 36-45, 46-55 and 56 and above), "education" (high school graduate, vocational training, bachelor's degree, master's degree and doctoral degree), "employment status" (part-time, full-time (fixed contract), full-time (permanent)) and "length of employment (under 1 year, 1-5 years, 6-10 years 11-15 years, 16-20 years, over 20 years), as previous studies have shown their impact on individual variables (Foote and Tang, 2008; Ng and Feldman, 2013).

4.5. Descriptive statistics of demographic elements

Gender

As shown in Table 2 below 58.2 % of the participants are women while 41.8 % are men. These percentages correspond to 85 women and 61 men respectively out of a total of 146 respondents.

Table 2. Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	85	58.2	58.2	58.2
	Male	61	41.8	41.8	100.0
	Total	146	100.0	100.0	

Age

According to the data shown in Table 3 below, 5.5% of the respondents are under 25 years old (8 participants) and 8.2 % are between 46 and 55 years old (12 participants). The rest of the 146 participants are equally split in two age groups "26-35" and "36-45", each consisting of 63 participants (43.2 %). This is explained to a certain extent by the fact that the companies that the employees work for hire employees that are young and the companies feel that they can invest on them by training them to grow with the company.

Table 3. Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 25	8	5.5	5.5	5.5
	26-35	63	43.2	43.2	48.6
	36-45	63	43.2	43.2	91.8
	46-55	12	8.2	8.2	100.0
	Total	146	100.0	100.0	

Education

Regarding the educational level of the participants in the research it is clear from the information presented in Table 4 that the vast majority holds a Master's degree (101 participants, 69.2 %) followed by the ones holding a Bachelor's degree (37 participants, 25.3 %) whereas three of the participants hold a PhD (2.1 %). This shows that the companies that implement HPWS look for qualified employees that can fit in. This also partly explains the high number of employees belonging to the age group 26-35, since it is usually by the age of 25-26 that young people have completed their Master's degree.

Table 4. Educational level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary (high school diploma)	1	.7	.7	.7
	Certificate/Diploma (vocational training)	4	2.7	2.7	3.4
	Bachelor's degree	37	25.3	25.3	28.8
	Master's degree	101	69.2	69.2	97.9
	Doctoral degree	3	2.1	2.1	100.0
	Total	146	100.0	100.0	

Employment status

As far as the employment status of the respondents is concerned, almost all of them are full-time employees either with a fixed contract (36 employees, 24.7 %) or with an open one (105 employees, 71.9 %). Only 5 of the respondents (3.4 %) work part time, which again proves the intention of the companies to hire employees that can stay and grow with the company.

Table 5. Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Part-time	5	3.4	3.4	3.4
	Full-time (fixed contract)	36	24.7	24.7	28.1
	Full-time (permanent)	105	71.9	71.9	100.0
	Total	146	100.0	100.0	

Length of employment

Regarding the work experience of the employees almost half of them (66 employees, 45.2 %) have one to five years whereas 51 of them (34.9%) work between six and fifteen years.

Only 11 of them (7.5 %) have been working for 16 to 20 years and 5 (3.4 %) more than 20. This is explained by the fact that most of the companies whose employees have taken part in the study have started to implement HPWS during the last fifteen to twenty years.

Table 6. Length of employment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 1 year	13	8.9	8.9	8.9
	1-5 years	66	45.2	45.2	54.1
	6-10 years	27	18.5	18.5	72.6
	11-15 years	24	16.4	16.4	89.0
	16-20 years	11	7.5	7.5	96.6
	Over 20 years	5	3.4	3.4	100.0
	Total	146	100.0	100.0	

4.6. Confirmatory Factor Analysis (CFA)

The Confirmatory Factor Analysis is used to check whether the predefined causal relationship model constructed in previous step with the use of the program SmartPLS 3 is confirmed by the data collected while performing the research.

The construct reliability and validity were checked with the use of PLS Algorithm. Cronbach's Alphas' measurements had to be above 0.5 in order to be accepted while those that were above 0.8 are considered of great value. As shown in Table 7 below almost all Cronbach's Alphas are above 0.8 while the one for Employment Security is 0.773, which is satisfactory. The "composite reliability" measure, the values of which are very high for all indicators, is another confirming factor of reliability. Finally, the AVE (average variance extracted) indicator was measured to be above 0.5 for all factors which is the acceptable limit (Hair, Ringe & Sarstedt, 2011).

Table 7. Construct reliability and validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Absorption	0.836	0.842	0.884	0.604
Dedication	0.917	0.919	0.942	0.802
Distributive	0.923	0.924	0.951	0.867
Employment security	0.773	0.777	0.898	0.815
Incentives and Rewards	0.803	0.814	0.91	0.835
Interactional	0.933	0.936	0.948	0.753
Job design	0.836	0.838	0.901	0.753
Participation in decision making	0.894	0.898	0.95	0.904
Performance management	0.862	0.862	0.916	0.785
Procedural	0.8	0.802	0.882	0.714
Recruitment and Selection	0.889	0.896	0.931	0.819
Training and development	0.811	0.812	0.914	0.841
Vigor	0.835	0.838	0.878	0.547

Additionally, the discriminant validity was measured based on the HTMT (heterotrait-monotrait ratio) criterion which was found to be satisfactory based on certain values set by SmartPLS program (Henseler, Ringle & Sarstedt, 2015).

However, due to the high number of indicators used, a two-step approach is considered more appropriate to better handle them, as shown in Fig. 2 below.
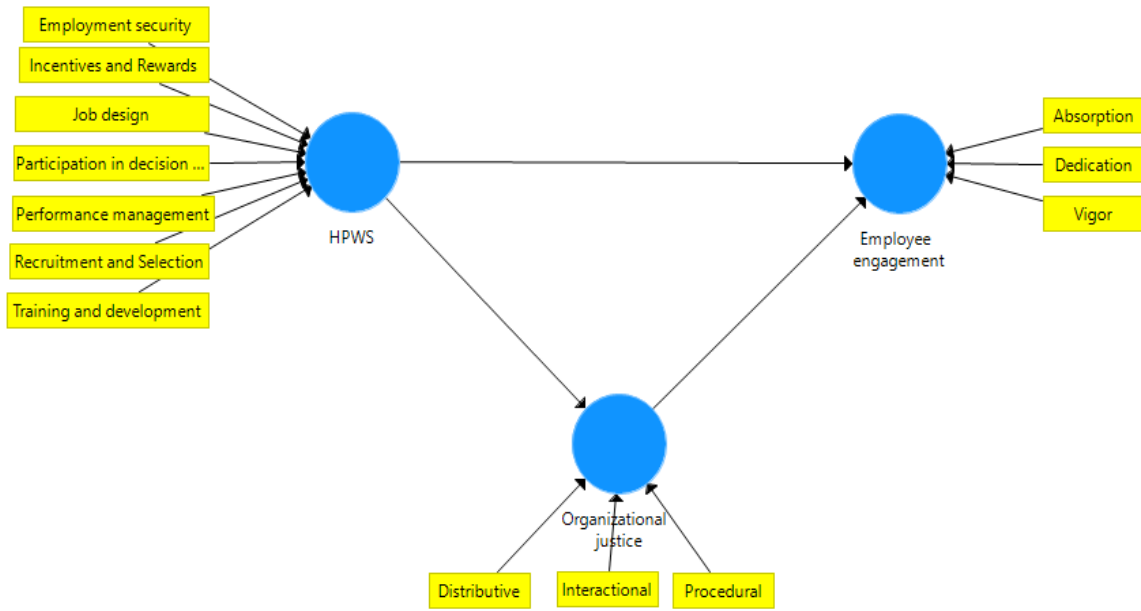
Figure 2. Two-step approach model

In order to check the hypotheses and the extent to which the certain variables correlate the bootstrapping process was performed with the check of 2000 samples (sub-samples) (Hair et al., 2011). The tables below show the path coefficients, the T-statistics and the levels of significance (P-value significance) that concern the hypotheses made in this study. The analysis of the results follows in the next section.

Table 8. Direct hypotheses (H1, H2): path coefficients, T-statistics, P-values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
HPWS -> Employee _engagement	0.505	0.534	0.072	7.014	0.000
HPWS -> Organizational _justice	0.838	0.843	0.028	30.143	0.000

Table 9. Specific Indirect Effects (mediation-H3): path coefficients, T-statistics, P-value

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDE...	P Values
HPWS -> Organizational _justice -> Employee _engagement	0.407	0.396	0.104	3.914	0.000

As seen in Tables 8 and 9, all path coefficients were found to be statistically important, the measurements for T-statistics are all above 1.96 and the P-values are below 0.05.

4.7. Results

The aim of the present thesis was to examine the impact of High-Performance Work Systems on employee engagement. During the literature review the role of Organizational justice was examined as a potential mediator in this relationship. In order to check the hypotheses there was need to examine both the direct effects and the specific indirect effects between the variables.

The three hypotheses are:

Hypothesis 1 Employees' HPWS perceptions will be positively related to employee engagement

Hypothesis 2 Employees' HPWS perceptions will be positively related to organizational justice

Hypothesis 3 Organizational justice will mediate positively the relationship between firm-level HPWS practices and employee engagement

As far as hypothesis 1 is concerned it has been found that the relationship between HPWS and employee engagement is positive and statistically important as the T-statistics is found to be > 1.96 (7.014) and P-value <0.05 (0.000), as shown in Table 8 above.

Regarding hypothesis 2 this is also confirmed by the results. More specifically, the impact of HPWS on organizational justice is positive and statistically important as T-statistics is 30.143 (>1.96) and P-value 0.000 (<0.05) (Table 8).

Finally, hypothesis 3 that examines the mediating effect of organizational justice in the HPWS and employee engagement relationship is also confirmed as shown in Table 9. The positive impact is shown by the T-statistics value (3.914>1.96) and P-value (0.000<0.05).

At this point it is considered important to mention the fact that the mediation of organizational justice is so strong that it acts as full mediator in the HPWS-employee engagement relationship as shown in Figure 3 below, where the initially statistically important relationship between HPWS and employee engagement is no longer confirmed.
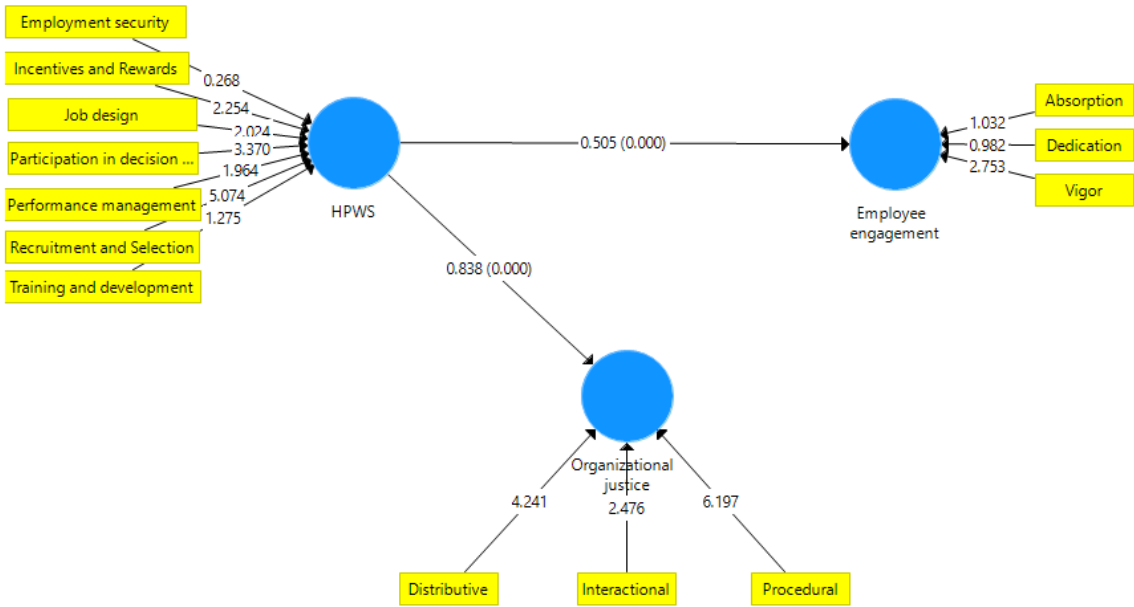
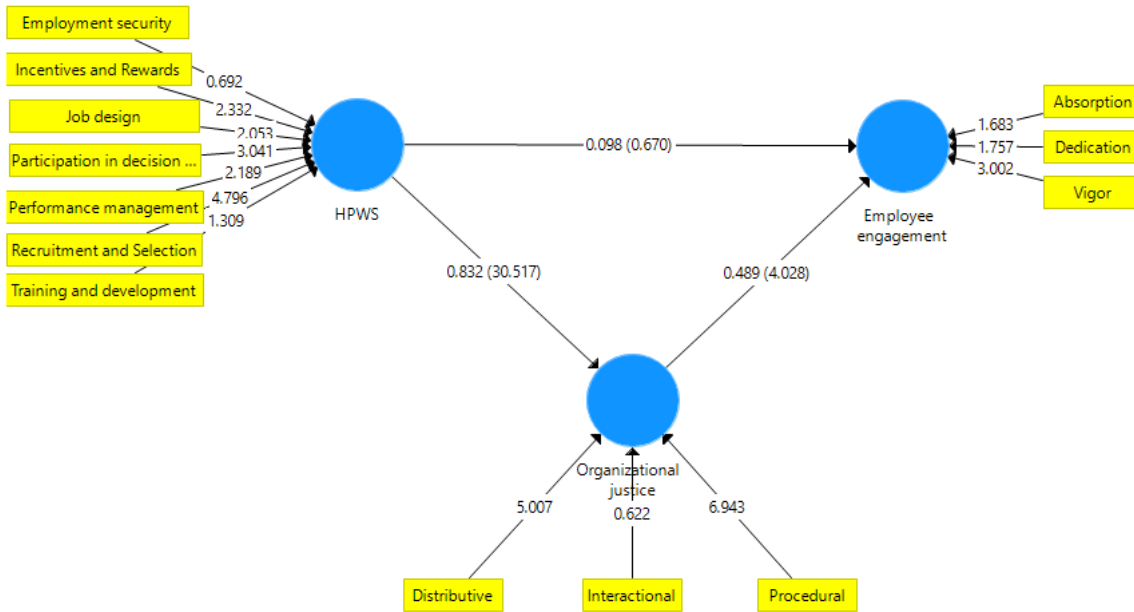Figure 3. Direct hypotheses H1, H2

Figure 4. Specific indirect effect (mediation), H3

5. Discussion

5.1. Theoretical implications

The focus of the present study has been to examine the relationship between the employees' perceptions of HPWS and employee engagement and measure the extent to which organizational justice plays a mediating role. Regarding the first hypothesis, the findings of the study confirm the positive impact of HPWS on employee engagement, which agrees with the findings of similar studies (Ang et al., 2013). More specifically, employees that work in an environment where there is employment security, incentives and rewards are available, the job is carefully designed, there is participation in decision making, the performance management is performed based on certain criteria, the recruitment and selection process is implemented wisely followed by continuous training and opportunities for development, tend to be more engaged in their work which is also explained by Social Exchange Theory analyzed in section 3.1. Additionally, the findings agree with the ones from the study conducted by Zhang et. al (2018) where social enterprise employees who perceive higher levels of empowerment HR practices are more likely to develop stronger identification motivation, and in turn, better engage with their work. The study conducted by Bakker and Xanthopoulou (2013) also showed that employees that take advantage of the opportunities provided by the implementation of HPWS exhibit greater engagement. Finally, the results of the present study show that the employee perceptions of the work environment play an important role in their engagement which is in accordance with the JD-R model (Bakker and Demerouti, 2017), and the study conducted by Chen (2018).

Concerning the second and third hypotheses that refer to the role of organizational justice in a HPWS environment, the findings confirm the great importance and impact on employee engagement as there is full mediation. All three dimensions of organizational justice have been found to correlate positively with each other, even though they are conceptually and operationally different. Greenberg (1987) pinpointed the interaction among the components of organizational justice and pointed out that if organizations manage to maintain at least one of the components of organizational justice, they can lessen the effects of injustice and even get benefits. From the three dimensions of organizational justice it has been found that it is the procedural that affects more employees followed by the distributive one. This agrees with Saks (2006) finding of procedural and distributive justice as antecedents of engagement. This

is also in agreement with the Social Exchange Theory, since the employees' perceptions of fairness in the processes leads to increased engagement level and the JD-R model, considering that the correct implementation of HPWS has also positive impact on employee engagement. For instance, when the employee feels that the outcomes (rewards, etc.) are commensurate with the efforts they make, they tend to reciprocate with even greater vigor and dedication and be more engaged in their work according to Gupta and Kumar (2012).

5.2. Practical implications

The analysis of the findings of the study yields certain practical implications for companies/organizations that implement HPWS. Since employee perceptions of HPWS can influence their engagement, the supervisors should pay attention when implementing a high performance strategy by creating a social exchange perception among employees. This way it is more likely for employees to better engage with their work and develop positive job attitudes when they see their work expectations fulfilled.

Additionally, based on the benefits of HPWS the companies should seek qualified employees that can be considered assets and offer them the competitive advantage in the market. A carefully designed and executed recruitment and selection process would be of great help towards this direction. This is also feasible provided that the high-performance work practices are implemented correctly, and employees can receive the benefits, too, which results in increased employee engagement (Karatepe, 2013). If a company claims to operate based on a HPWS but the employee is not seen as an end receiver too, then there are only few benefits. For example, if an employee is not trained correctly or offered incentives, mainly financial ones, after proper performance evaluation, the result is a disengaged employee who does not add value to the company and will probably seek employment elsewhere. Also, the employees look for a working environment where their qualifications will be acknowledged and there will be room for development. In both cases, it should be noted that just having policies in place is not enough on its own. It is the correct, consistent and unbiased implementation of HPWS that is the key.

This shifts the focus towards the line managers, the prime agents affecting the mediation process between policy design and actual application at the workplace. According to the findings of the present study, the way the managers enact policies and communicate them to employees can affect the latter's engagement level to a great extent. When the employees felt

their performance evaluation was not an accurate reflection of their effort, the procedures were found to be biased and their managers' behavior towards them problematic, their engagement level was low whereas when they received what they thought to be a fair attitude, their showed more engagement.

Last but not least, the tremendous impact of organizational justice as a mediating factor between HPWS and employee engagement can also explain the big number of employees who choose to leave a company that claims to make use of HPWS and gives the impression of an effective working environment.

5.3. Relevance and significance of the study

The present study offers significant findings regarding the engagement of the employees and adds these to existing literature on Human Resource Management. More specifically, it examines it through the path of organizational justice, on which there is not much research in Greece. Based on the feedback received from the participants it was concluded that the majority was not familiar with the organizational justice as a concept; however, a great number of them was able to recognize the practices when they completed the questionnaire.

It is also important to mention the fact that HPWS is not examined as a theoretical system that could be applied to companies but, instead of this, the employee perceptions of HPWS are at the center of the research together with the way they experience High-Performance Work Practices in their workplace. Thus, the nature of the results of the research are practical and not theoretical.

Finally, the present study offers significant input regarding the application of HPWS, organizational justice and employee engagement as the number of companies that start using HPWS increases gradually and it would be important to acknowledge the impact of organizational justice on employee engagement so as to increase the benefits that HPWS has to offer.

5.4. Limitations of the study

Having examined the theoretical and practical implications of the study it is considered important to mention the limitations that appeared during the research. First, the relatively small number of companies whose operations are based on High-Performance Work Systems

has posed a limitation regarding the number of employees that could take part in the study. Secondly, the focus was on companies that operate mainly in Thessaloniki and some companies based in Athens. In addition to this, the fact that the time for the completion of the questionnaires had to be short (approximately one month) resulted in a sample of 146 questionnaires, which proved to be small and difficult to process in the analysis that followed. Therefore, regarding research in the future, it is suggested to broaden the basis with bigger companies that operate in places outside Thessaloniki, mainly in Athens where the number of companies that implement HPWS is bigger and there are more employees familiar with the processes that could participate in similar studies. Furthermore, the participants in the study were mainly employees belonging in the entry/low level of the companies. It would be interesting if the opinion of those high in company hierarchy was considered in future studies to reach more representative conclusions. Taking under consideration the above, it is suggested that generalizations of the results be avoided.

6. Conclusions

In conclusion, the focus of the present thesis has been the relationship of HPWS and employee engagement and the extent to which organizational justice mediates it. Having performed the literature review for these three terms and analyzed their constituents it became clear that more light needs to be shed on this relationship, especially when the companies/organizations using HPWS operate in Greece. The subjects of the study were employees that work in such companies and the analysis of the data gathered via an online questionnaire showed that their perceptions of HPWS and organizational justice have a great impact on their engagement levels. This is a significant contribution to relevant literature since the number of companies that are based on HPWS is on the rise and there are not many studies focused on employees' perceptions of these systems and the way they are implemented in Greece. For this reason, it is suggested that the research be repeated on a bigger scale, to include more companies in more cities in Greece and study the viewpoints of other employees, not only low level ones, but also those high in hierarchy so as to check the impact of organizational justice on a broader scale and for the companies to be able to fully exploit the benefits of HPWS to gain both their employees' engagement and the competitive advantage in the market.

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