

# THE MEDIATING ROLE OF WORK ENGAGEMENT IN THE RELATIONSHIP BETWEEN ORGANIZATIONAL JUSTICE AND JUNIOR ACCOUNTANTS' TURNOVER INTENTIONS

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## ABSTRACT

*This study examined work engagement as a mediator of the relationship between organizational justice (distributive and procedural) and junior accountants' turnover intentions. A random sampling method was employed in obtaining 83 samples (N=83) comprising of junior accountants from Jordanian public accounting firms. The analysis outcomes demonstrate the partial mediation of work engagement on the relationship between organizational justice and turnover intention. The study specifically discovered that distributive justice is positively linked with work engagement while negatively linked with turnover intention. Additionally, procedural justice is strongly and positively linked with work engagement but with turnover intention, the relationship is negative. A comprehensive model was introduced in this study and was validated in the context of Jordan. The outcomes suggest future investigation on practicable intervention strategies for reducing turnover intentions amongst junior accountants to prevent potential negative consequences to the firms.*

**Keywords:** Organizational Justice, Distributive Justice, Procedural Justice, Work Engagement, Turnover Intention, Jordan.

## INTRODUCTION

Retaining junior accountants from abandoning the accounting profession has been a subject of considerable interest amongst scholars for many years. Numerous causes of this issue have been reported and never-ending debates among both scholars and researchers have followed. In an early study, Bao et al. (1986) reported that among public accounting firms, their turnover rates were as high as 45% for junior accountants and the issue still remained a major concern even after three decades, as evidenced in extensive reports (e.g., Houghton et al., 2013; Chong & Monroe, 2015; George & Wallio, 2017). In relation to this, Houghton et al. (2013) mentioned that as stated by senior members of public accounting firms, job turnover among junior staff members remains a considerable concern for auditing profession.

Owing to the significantly high turnover rate among junior public accountants, which

also makes it costly, it is crucial to understand the factors that cause them to walk away from their respective firms or change to a non-accounting profession, as this will determine the accounting profession's direction in the future (Chong & Monroe, 2015). As evidenced in the relevant literature, a number of factors are linked to turnover intentions: Stress, burnout, gender, tenure, job satisfaction, organizational commitment and organizational justice (Chong & Monroe, 2015; George & Wallio, 2017).

Many studies also mentioned the factor of perceptions of work engagement in turnover intentions. For instance, Schaufeli and Bakker (2004) reported that employees who are engaged are more inclined to be more attached to their organization which leads to less inclination to walk away from their organization. As mentioned by Saks (2006), job engagement could foretell intention to quit. Engagement appears to be linked to intention to quit for a number of reasons. As an example, the feeling of engagement has been elaborated as a fulfilling, positive work-related experience and state of mind (Schaufeli & Bakker, 2004; Sonnentag, 2003).

As evidenced by Harju, Hakanen and Schaufeli (2016), work engagement encapsulates the aspects of both employee well-being and motivation. There has also been substantial amount of interest towards the subject of work engagement since the past decades (Albrecht et al., 2015). As remarked by Macey et al. (2011), it is not common for any term to strongly resonate with business executives like employee engagement; not lately. Accordingly, there has been a great progress in the clarification and definition of the construct which makes it unique from other comparable constructs (Hallberg & Schaufeli, 2006). Many studies have also attempted to comprehend this construct's antecedents and outcomes, as can be seen in a number of meta-analyses and reviews (e.g., Mauno, Kinnunen, & Ruokolainen, 2007; Crawford, LePine & Rich, 2010; Demerouti & Cropanzano, 2010; Halbesleben, 2010; Christian, Garza & Slaughter, 2011; Bakker, Demerouti, & Sanz-Vergel, 2014), which demonstrates progress in addressing this matter. However, organizations around the world still report fairly low levels of employee engagement. For instance, four out of every ten employees surveyed by Aon Hewitt (2013) were not engaged whereas two out of ten were actively disengaged. Thus, in order to improve employee retention, employee well-being and organizational performance it is important to have better practical and theoretical comprehension on why and how individuals become engaged with their work (Akhtar et al., 2015; Kundu & Lata, 2017; Robertson & Cooper, 2010). Employee retention has traditionally been regarded as an outcome of appropriate working conditions established by the organization (Hakanen, Seppala, & Peeters, 2017).

Although highly linked with employee withdrawal behaviors of absenteeism and turnover, work engagement was not clearly included in the models of past works on auditing and accounting, specifically on turnover intentions. For instance, the work of George and Wallio (2017) concentrated on organizational justice as a key predictor of turnover intention among public accountants. As for Fogarty et al. (2000) and Chong and Monroe (2015), their models were addressing the constructs of job satisfaction, job burnout and stressors linking accountants with work environment. Meanwhile, the models established by Maslach, Schaufeli and Leiter (2001) and Saks (2006) regard engagement as a mediating variable for the linkage between the work conditions and numerous outcomes of work such as decreased withdrawal. Thus, antecedents of work engagement need to be ascertained so that turnover intention among auditors and accountants can be reduced.

Somehow to some substantial extent, as seen in the literature, the tested models or theories relating to work engagement only attended to its antecedents from viewpoints that are unrelated to one another. The psychological foundations of work engagement (Dollard &

Bakker, 2010; May, Gilson & Harter, 2004), dispositional determinants such as the Big-Five Model and temperament (Inceoglu & Warr, 2011; Kim, Shin & Swanger, 2009; Langelan, Bakker, Van Doornen & Schaufeli, 2006), burnout (Maslach, Schaufeli & Leiter, 2001) and occupational stress-related factors such as job demands-resources model (Halbesleben, 2010; Mauno et al., 2007), are among these models. As suggested by several researchers, organizational features are more influential in prompting engagement as opposed to the personal attributes of workers (Bakker & Demerouti, 2008). In this research, the notion of organizational justice is the primary organizational feature of interest. For some decades, the subject of organizational justice has been an established research domain. As reported in a number of studies (e.g., Ali & Jan, 2012; George & Wallio, 2017; Parker, Nouri, & Hayes, 2011), organizational justice considerably impact an employee's intent to leave an organization. Empirical evidence by Moliner et al. (2008), Saks (2006) and Strom, Sears and Kelly (2014) shows organizational justice as among the important antecedents of work engagement. Somehow, studies that explore the role of work engagement particularly those that relate to organizational justice and turnover intention are still lacking.

Although there are several psychology and management studies that evidence the importance of organizational justice, only a few of them have been carried out in the field of accounting. Among the very few are the ones by Libby (1999) and Lindquist (1995) whose studies examined organizational justice in the case of budget participation. Another study of this caliber is that by Siegel, Reinstein and Miller (2001) that looked into the relationship between organizational justice and mentoring in the context of public accounting companies and Ehlen and Welker (1996) who examined the organizational justice-acceptance of mandatory peer reviews relationship in the context of accounting companies. Meanwhile, Parker and Kohlmeyer (2005) revealed the influence of fairness perception on turnover intentions via the intermediation of organizational commitment and job satisfaction of accountants.

The present study aims to investigate the relationship between organizational justice and junior accountants' turnover intentions in public Jordanian accounting firms. The study findings are aligned to prior studies using Millennial sample in public accounting firms and tackled mixed results reported by prior organizational justice works. In the same line of study, George and Wallio (2017) found the public accounting industry to possess an abnormal large number of millennial employees. The findings are expected to be applicable to other contexts with the increase in the millennial workers.

Thus, through the examination of the distributive and procedural justice as distal predictors of accountants' turnover intention, this study will contribute to the literature of organizational justice. This study is in fact among the first to look into the process that underpins the relationship between organizational justice and turnover intention of accountants in Jordan. Also, this study is of the view that organizational justice has negative linkage with accountants' intention to quit hinging on the premise that accountants would be more engaged in their work if they receive fair treatment from their firm, which translates to them having more intention to remain in their work. These relationships have been examined in the context of the Jordanian public accounting firms. In this context, the role played by organizational justice appears to be significant. For this purpose, the paper begins with the development of the hypotheses, which is followed by an elaboration of the chosen methodology. Next, the results are discussed following the analyses of data. Then, as the last portion of this work, the study's managerial implications, limitations and also the scope for future work are presented.

## REVIEW OF LITERATURE AND HYPOTHESES FORMULATION

### Relationship between Justice, Work Engagement and Turnover Intention

As shown in the literature, the two distinct forms of justice are: distributive justice and procedural justice. Such is by no means a comprehensive categorization and yet, it assists in the creation of knowledge of the significant characteristics which include behaviors and attitudes associated with the perceptions of justice. This categorization of justice also makes available some foundation for this study's construction of hypotheses.

As mentioned in some studies (e.g., Agarwal, 2014; Adams et al., 2002; Greenberg et al., 2004), distributive justice is among of the key aspects of organizational justice. As stated by Moon et al. (2008), distributive justice is among the earliest justice forms. In the context of organization, Janssen (2003) describes distributive justice as the perception of employees towards the general balance between the wide-ranging scope of investments made and rewards gained at work. Comparatively, procedural justice as described by Cohen-Charash and Spector (2001) refers to justice in the process where outcomes including budgetary allocations or promotions are created. Another dimension of organizational justice but is not explored in this study is interactional justice and it relates to the treatment given by decision makers to employees. There are two sub-dimensions in the dimension of interactional justice: Interpersonal justice who refers to respectful treatment and informational justice who refers to decision explanation truthfulness and adequacy. To some authors, these sub-dimensions are highly identical (Cropanzano & Ambrose, 2001), while others view them as highly interrelated (Colquitt, 2001).

The relationships between justice dimensions and work engagement are observable from the perspective of social exchange theory. As opposed to economic exchange, a social exchange is not grounded on an equal exchange and there is also no specification on the reciprocation. Somehow, Blau (1964) mentioned the presence of trusts among social exchange partners within each other's fair intentions. According to Cotterell, Eisenberger and Speicher (1992), the exchange partners adhere to the "rules of exchange" or the norm of reciprocity. Here, an individual will receive reimbursement in currency valued by him or her. Then, a failure of one party to reciprocate will create an imbalance (Cropanzano, Rupp & Byrne, 2003), which will eventually dissolve and eliminate the relationship. Consequently, individuals receiving economic and socio-emotional resources from their organization are thus obliged to respond in certain manner (Cropanzano & Mitchell, 2005). As remarked by Organ (1988, p. 553), "*the inherent ambiguity of such a relationship frees the individual to contribute in discretionary fashion without thinking that this would be acquiescence or exploitation*". The justice-engagement connexion is also explainable from the viewpoint of equity theory. As suggested by Adams' (1965) equity theory, situations of injustice cause tension inside an individual and the individual will try to resolve it. For an equity ratio of individual, work engagement is considerable as an input.

The applicable research has associated organizational justice with work engagement. In his empirical work on the subject of employee happiness and their positive psychological state, based on the perspective of social exchange, Saks (2006) found that procedural justice is positively linked with organization engagement. Further, Liljegren and Ekberg (2009) in their

two-year longitudinal study reported that self-rated health is predicted by organizational justice (distributive, procedural and interactional justice). Fostering organizational justice assists in the reduction of workplace stress as perceived unfairness causes negative emotions such as anxiety, depression and also exhaustion (Greenberg, 2004). As indicated by Tyler and Blader (2003), individuals perceive their social identity via their interactions with others. The authors added that this identity becomes the internal motivation to them to be engaged as it gives a feeling of self-worth and high self-esteem. In other words, fair treatment received in the workplace dictates the perception of employees of their social identity which consequently stimulates employee engagement. Meanwhile, a positive direct impact of organizational justice (distributive, procedural and interactional justice) on work engagement has been reported in a study by Park, Song and Lim (2016) and also by Lyu (2016). Hence, it is hypothesized that:

*H1a: Distributive justice will be positively related to work engagement.*

*H1b: Procedural justice will be positively related to work engagement.*

With respect to a person's intentions to leave his or her organization, a significant relationship of both distributive and procedural justice types with turnover intentions has been reported in a several studies (Alexander & Ruderman, 1987; Aryee, Budhwar & Chen, 2002; Karatepe & Shahriari, 2014). Additionally, a mixed data for the key effects of justice types on turnover intention has been reported by Khan et al. (2015). As opposed to procedural justice, the authors found distributive justice to be a significant predictor of turnover intentions. Conversely, Daileyl and Kirk (1992) reported that only procedural justice has significant linkage with turnover intentions. Meanwhile, a meta-analysis by Colquitt et al. (2001) showed strong correlation of distributive justice with withdrawal behaviors while procedural justice had a moderate association with withdrawal behaviors. As for George and Wallio (2017) who studied Millennial in the public accounting setting, they found that both distributive justice and procedural justice are adversely linked to turnover intentions among. As such, the hypotheses below are formulated:

*H2a: Distributive justice will be negatively related to turnover intention.*

*H2b: Procedural justice will be negatively related to turnover intention.*

## **Relationship between Work Engagement and Turnover Intention**

Studies on turnover intention are increasingly gaining attention in the last forty years. This demonstrates the increasing concerns among researchers as well as scholars. In this regard, there have been extensive reports on reasons why employees opt to stay or walk away from a given organization (Dreher & Dougherty, 1980; Roodt & Bothma, 1997; Lee et al., 1999; Griffeth, Hom & Gaertner, 2000; Roodt & Kotze, 2005; Chong & Monroe, 2015; George & Wallio, 2017). Nonetheless, nearly all studies were concentrating on a set of negative consequences linked with employee turnover (Bluedorn, 1982; Mobley, 1982), which denotes a crucial indicator for this study - that employee turnover and its accompanying expenses for organizations are the main challenges.

Employee engagement has been reported to have the likelihood to be associated with the attitudes, intentions and behaviors of employees (Saks, 2006). Further, Koyuncu, Burke and Fiksenbaum (2006) added that work engagement appears to potentially contribute beneficially to

the organizations of the engaged employees. As such, work engagement is unsurprisingly associated to a decrease in intentions to quit (Schaufeli & Bakker, 2004; Koyuncu et al., 2006; Saks, 2006) and is directly linked to turnover intentions (Schaufeli & Bakker, 2004). As reported in the literature (Schaufeli & Bakker, 2004; Du Plooy & Roodt, 2010), reduction in work engagement could cause turnover intentions to increase. Thus, based on the aforementioned outcomes, the following hypothesis will be put to test:

*H3: Work engagement will be negatively related to turnover intention.*

### **The Mediating Role of Work Engagement**

In the context of the JD-R model, the motivational pathway that may impart impact considering the variable availability of job resources is expected to motivate employees through the fostering of the rudimentary need for growth and the implementation of future actions so that work engagement can be increased (Schaufeli, 2017; Schaufeli, Bakker & Van Rhenen, 2009). In the work of Maslach et al. (2001) work engagement refers to a “*persistent, positive, affective motivational state of fulfilment*” (p. 417), characterized by vigor, dedication and absorption (Schaufeli et al., 2002). The term vigor means working in a very energetic fashion while dedication means being very much immersed in work and feeling a sense of pride, enthusiasm, significance, inspiration and challenge. As for the absorption, this term means being completely concentrated and happily indulging in work. Employees who are highly engaged view that work is interesting, energizing and meaningful and they also feel the positive effect such as enthusiasm, joy and happiness (Bakker & Demerouti, 2008). Therefore, work engagement is perceivable as an active state in which an employee feels the positive work-related affect and intensified intention to stay (e.g., Bal, De Cooman, & Mol, 2013; Ghosh et al., 2013; Memon, Salleh, & Baharom, 2016; Memon et al., 2014; Yalabik et al., 2013).

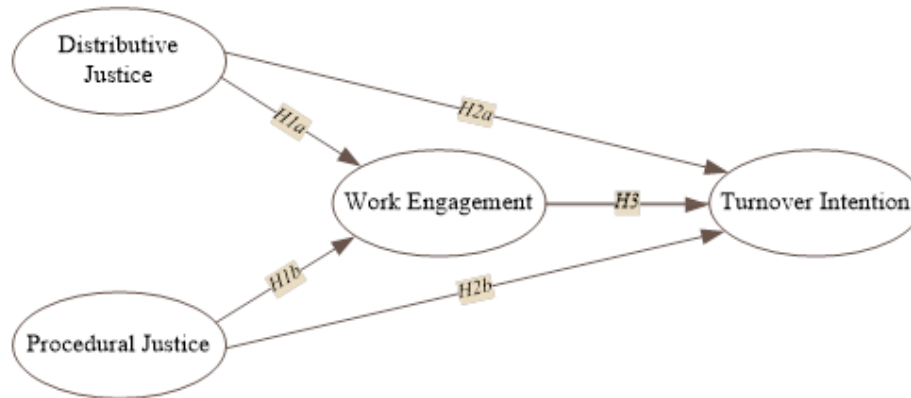
Guidance is also provided by the JD-R model in terms of the mediating role of work engagement. Specifically, Schaufeli and Bakker (2004) reported that as job resources foster growth, learning and development, they increase work engagement of employee. In turn, Bakker and Demerouti (2008) added that employees will demonstrate positive job outcomes. Empirical evidence on work engagement as a mediator in this process is also available. Saks (2006) for instance, reported that work engagement shows partial mediation on the effects of job characteristics and perceived organizational support on numerous results including organizational citizenship behaviors and intention to quit. Past works have also reported negative relation between engagement and turnover intentions and that it can function as a mediator to the relationship between job resources and intention to leave (Schaufeli & Bakker, 2004). Therefore, by way of the motivational process, job resources (e.g. organizational justice) have the potential to increase work engagement. In turn, for the organization, this is linked with the positive consequences (e.g. Schaufeli et al., 2009). The hypotheses below are thus stated:

*H4a: Work engagement mediates the relationship between distributive justice and turnover intentions.*

*H4b: Work engagement mediates the relationship between procedural justice and turnover intentions.*

Therefore, the research framework as shown in Figure 1 aims to explore the degree to which organizational justice can predict work engagement and turnover intention and explore the relationship between work engagement and turnover intention among public accountants. The

extent to which work engagement mediates the relationship between organizational justice and turnover intention is highlighted.



**FIGURE 1  
RESEARCH FRAMEWORK**

## METHOD

### Participants and Procedures

A total of 200 junior-level staff accountants working in Jordanian public accounting firms participated in this study. These participants were involved in auditing, taxation, consulting, business services and financial reporting. Junior-level accountants were particularly selected rather than managers and partners of accounting firms owing to their high turnover rate (Bao et al., 1986; Chong & Monroe, 2015; George & Wallio, 2017; Taylor & Cosenza, 1998). In preserving the participants' privacy, no personal identifiable information was required from them. A total of 127 participants agreed to take part in the study. Somehow, prior to the data analysis, elimination was made to the responses of those with no informed consent or those that did not fulfil the inclusion criteria. There were also missing data in 21 cases from the key three constructs (WE, OJ and TI); these were dropped from the study. The finalised usable data came from 83 individuals, which accounts to 41.5% response rate.

The data required from the participants were for the variables of organizational justice, work engagement, turnover intentions alongside the data on demographic information. Female participants comprised 8% of the participants while their mean age was 25 years. As for their working experience, it was recorded at 1.3 years.

### Measurement and Reliability of Variables

This study employed measures that were prior evidenced to be valid and reliable and all were used in prior turnover intention and work engagement studies in the context of accounting and auditing study samples. The initial items were translated from English to Arabic and research validity was ensured through the adoption of a thorough method to make the questions

comprehensible. The entire measures were self-reported recall scales that are explained as follows:

### **Distributive and Procedural Justice**

The measurement of distributive justice was through a 5-item scale proposed by Niehoff and Moorman (1993). The questionnaire items were supplied with a 7-point Likert-type scale for respondents to indicate their appropriate response. The range of the scale is: “1” (strongly disagree) to “7” (strongly agree); higher scores mean higher levels of perceived distributive justice. Among the items: “I think that my level of pay is fair;” “My work schedule is fair.” Strom et al. (2014) reported a Cronbach’s alpha of 0.87% for this scale.

The measurement of procedural justice employed the four items constructed by Kausto et al. (2005). A 7-point scale was used (“1” (strongly disagree) to “7” (strongly agree)). Higher scores signify higher levels of procedural justice. Among the items: “Procedures are designed to hear the concerns of all those affected by the decision” and “Procedures are designed to generate standards so that decisions can be made with consistency.” In previous research, Cronbach’s alpha for the scale has been reported at 0.89% (Strom et al., 2014).

### **Work Engagement**

The nine-item short form of UWES from Schaufeli et al. (2002) was used to measure this construct. The use of this measure is common in the literature of justice engagement (Strom et al., 2014; Ghosh et al., 2014). The item for the factor of vigor is: “At my work, I feel bursting with energy,” while the item representing the factor of dedication is “I am enthusiastic about my job” and the item that represent the factor of absorption is “I get carried away when I’m working.” A 7-point Likert scale was used for these items. In specific: 1 (never), 2 (almost never), 3 (rarely), 4 (sometimes), 5 (often), 6 (very often) and 7 (always).

### **Turnover Intention**

A total of six items from Bothma and Roodt (2013) were used in measuring turnover intentions. In particular, the items assess the respondent’s intent to leave his/her current job. The use of this measure can be referred in justice-turnover literature for instance, George and Wallio (2017). Among the items: “How often do you dream about getting another job that will better suit your personal needs?” A 7-point Likert scale was used for these items. With the past Cronbach’s alpha of 0.80, the items have acceptable internal reliability and construct validity (Bothma & Roodt, 2013).

### **Common Method Bias (Variance)**

The endogenous and exogenous variables data in this study were gathered at the same time using the same tool. This however, could lead to common method bias (CMB) and potential distortion of the data collected. CMB relates to the variance that is completely attributable to the procedure of measurement as opposed to the actual variables represented by the measures (Podsakoff et al., 2003). As a solution, a full collinearity test suggested by Rasoolimanesh et al. (2015) was included in this study. Here, if the VIF values for each latent variable are greater than 1, there could be CMB existing (Henseler, Hubona, & Ray, 2016). As shown by the analysis, there was a minimum collinearity in all predictors’ series in the structural model, where the



values of VIF are much lower than the threshold value of 5, denoting no problem of multicollinearity (Hair, Ringle & Sarstedt, 2011); Appendix A can be referred. Also, respondents are all assured on their confidentiality and anonymity. This hinders social desirability responding.

### **Statistical Analysis**

The study employed the partial least squares (PLS) method for the structural equation modelling (SEM) through the statistical package SmartPLS 3 (Ringle, Wende & Becker, 2015), as opposed to other approaches (e.g., covariance-based statistics). The choice of PLS-SEM approach was for several reasons (Barroso et al., 2010; Hair et al., 2016; Hair, Ringle & Sarstedt, 2013; Henseler, 2017; Reinartz, Haenlein & Henseler, 2009): Nature of study, the study's data size, the requirement of PLS, the focus of research and ability of PLS-SEM. In specific, this is an exploratory study which means that there is yet proof of the relationship between work engagement and accountants' turnover intention. Thus, it is possible to discover a novel interconnection. Additionally, this study has small amount of data (83 cases) which makes PLS appropriate; PLS can handle sample sets of smaller size (Ali & Park, 2016; Bari et al., 2016; Rahman et al., 2015), where the least required sample size for the PLS-SEM analysis was gauged using Monte Carlo simulation and was found to be 28 (Kock & Hadaya, 2018). Further, as PLS is a nonparametric method, data of normal distribution is not required. Also, the focal point of this research is on the prediction of a model (organizational justice and turnover intention by means of work engagement). Another reason is the increase usefulness of PLS-SEM in elucidating complex behaviors research (Henseler et al., 2016) and in generating better explanatory capacity of primary target variables and their relationships (Hair et al., 2014). Last but not least, PLS-SEM model is useful in dealing with the knowledge rustication in terms of the latent variables' distribution (Fornell & Cha, 1994).

## **RESULTS**

The PLS-SEM analysis was carried out following the configuration of the model for greater understanding. The indicators were clarified to determine which of them were formative and which are reflective. Such model configuration is important because distinction has to be made between testing reflective measurement model and testing formative measurement model as evidenced by prior literature (e.g., Hair et al., 2013; Lowry & Gaskin, 2014). The entire indicators of the latent variables were found to be reflective and thus, a two-step approach was conducted in the analysing and interpreting data using the PLS-SEM. The results of the measurement model and structural model analysis are based on the method proposed by Hair et al. (2016).

### **Measurement Model**

Tests to determine the study's items' reliability, convergent validity and discriminant validity were carried out. Based on the outcomes, all items that this study has chosen are good indicators of the latent variables. It was also shown that the models of measurement satisfy all minimum requirements (Table 1). A cut-off value of 0.70 significance for factor loadings, (t-value >1.96 and p-value <0.05), was used. In this study, the loadings of all items were greater than 0.729. As stated by Hair, Ringle and Sarstedt (2011 & 2013), outer loading factors of higher

level denote a higher level of indicator reliability. Also, the use of Dijkstra-Henseler's rho ( $\rho_A$ ) as opposed to Cronbach's alpha and Composite Reliability generates a more precise estimation of data consistency. Here, the values denote reliability of the items loaded on each construct (Ringle et al., 2017). Additionally, since Cronbach's Alpha has lower bound value which causes underestimation to the true reliability, certain scholars decided to employ Composite Reliability (CR) (Peterson & Kim, 2013). In fact, owing to its slightly higher value in comparison to that of Cronbach's Alpha with relatively inconsequential difference between them, CR can be employed as alternative to the latter (Peterson & Kim, 2013). The CR values in this study are higher than the commended threshold value of 0.70 (Hair et al., 2013; Henseler, Ringle & Sinkovics, 2009; Wong, 2013). Meanwhile, all values of average variance extracted (AVE) are higher than the threshold of 0.50. This supports the construct measures in terms of convergent validity (Henseler, 2017; Henseler, Hubona, & Ray, 2016).

Construct		Items	Loadings	$\rho_A^a$	CR <sup>c</sup>	AVE <sup>b</sup>
Organizational Justice	Distributive	OJD1	0.849	0.895	0.921	0.699
		OJD2	0.824			
		OJD3	0.826			
		OJD4	0.788			
		OJD5	0.892			
Organizational Justice	Procedural	OJP1	0.867	0.860	0.904	0.701
		OJP2	0.830			
		OJP3	0.810			
		OJP4	0.841			
Work Engagement		WE1	0.875	0.947	0.953	0.695
		WE2	0.729			
		WE3	0.853			
		WE4	0.883			
		WE5	0.873			
		WE6	0.849			
		WE7	0.853			
		WE8	0.824			
		WE9	0.751			
Turnover Intention		TI1	0.846	0.917	0.933	0.698
		TI2	0.857			
		TI3	0.834			
		TI4	0.879			
		TI5	0.795			
		TI6	0.799			
Note: <sup>a</sup> $\rho_A$ =The most important reliability measure for PLS (Dijkstra & Henseler, 2015). <sup>b</sup> AVE: Average Variance Extracted. <sup>c</sup> CR: Composite Reliability						

With regards to the discriminant validity of the study, it was tested using three methods; first, the Fornell-Larcker criterion as recommended by Hair et al. (2013) as the traditional approach used for the purpose of assessing such validity type. The second method is the HTMT test as illustrated by Henseler, Ringle and Sarstedt (2015) and the third method is to check if each indicator outer loading on the appropriated construct is higher than the cross-loadings with other constructs (Farrell, 2010; Obeid, Salleh & Mohd. Nor, 2017) (Appendix B for result

details). The HTMT method was employed during this stage as a stricter criterion in comparison to the usage of other conventional approaches. As can be construed by the results, all variables satisfy the Fornell–Larcker's criterion. In specific, the square root of each AVE is larger than the correlations between the constructs with reflective items (Hair et al., 2013; Henseler et al., 2016). Additionally, in each case, the values of heterotrait–monotrait (HTMT) are less than the threshold of 0.85 proposed by Hair et al. (2017) and Henseler et al. (2015). The results which are presented in Table 2 affirm that there is discriminant validity.

In order to test the model fit of the research model, the standardized root mean square residual (SRMR) together with other fit indices which is the normed fit index (NFI) are used (Henseler et al., 2014). The value generated by SRMR is 0.058, reaffirming the overall fit of PLS path model (Hair et al., 2014; Henseler et al., 2014). According to Henseler et al. (2016), for PLS-path model fit, a value that is lower than 0.08 is a passable cut-off threshold. Thus, there is no considerable difference between the theoretical model and empirical correlation matrix. Worded differently, the value of 0.058 indicates the sufficient fit between the data set and the theoretical model (Henseler et al., 2016). Also, the NFI generated values between 0 and 1. As mentioned by Ringle et al. (2017), NFI closer to 1 denotes better fit. As can be construed by the results of the saturated model, the model has a good fit (Bentler & Bonett, 1980; Dijkstra & Henseler, 2015; Hair et al., 2016).

<b>Table 2</b>				
<b>DISCRIMINANT VALIDITY BASED ON FORNELL-LARCKER AND HTMT CRITERIA</b>				
<b>Fornell-Larcker criterion</b>				
<b>Construct</b>	<b>DJ</b>	<b>PJ</b>	<b>TI</b>	<b>WE</b>
1. DJ	0.836			
2. PJ	0.736	0.837		
3. TI	-0.741	-0.821	0.836	
4. WE	0.686	0.796	-0.813	0.834
<b>HTMT criterion</b>				
<b>Construct</b>	<b>DJ</b>	<b>PJ</b>	<b>TI</b>	<b>WE</b>
1. DJ				
2. PJ	0.838			
3. TI	0.818	0.843		
4. WE	0.744	0.811	0.822	
SRMR composite model=0.058				
NFI normed fit index=0.795				

Note: DJ: Distributive Justice, PJ=Procedural Justice, TI=Turnover Intention, WE=Work Engagement

## Structural Model

The five-step approach introduced by Hair et al. (2013) was used by the study in measuring the structural model. The five-step approach involves: (1) Collinearity assessment among the constructs, (2) structural model path coefficients, (3) coefficient of determination ( $R^2$  value), (4) effect size  $f^2$  and (5) predictive relevance  $Q^2$  and blindfolding. In detail, each set of predictors in the structural model is first examined for possible collinearity. The VIF values assure the model's results for policy implication. Since all VIF values are less than 5, the data do not have issues of collinearity (Hair et al., 2013, 2014); Appendix A can be referred.

Further, the method of resampling bootstrap with 5000 along with each bootstrap sample comprising the identical observation amount with the original sample (i.e., 83 bootstrap cases) in

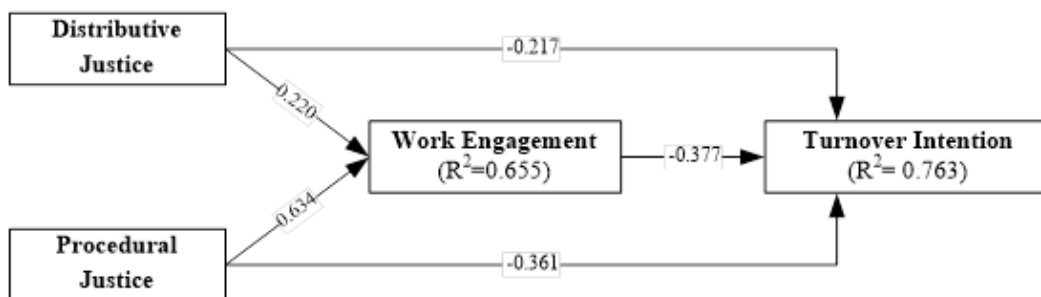
order to create standard errors and t-values (Chin, 1998; Hair et al., 2013) was employed in this study. The estimated path relationships among the latent variables in the model were evaluated in this study using the path coefficients' sign and magnitude.

Third, each dependent variable's  $R^2$  value comprises the variance's degree explained in each dependent variable and the model's predictive accuracy of. In general,  $R^2$  values  $\geq 0.75$  are substantial,  $\geq 0.50$  are moderate and  $\geq 0.25$  are weak (Chin 1998; Hair et al. 2014; Mihail & Kloutsiniotis, 2016). The  $R^2$  value of endogenous variable WE is 0.655 and while that of TI is 0.763. Based on Ali and Park (2016), this demonstrates a structural model with a good strength.

Fourth, the  $f^2$  effect sizes were computed in this study. Effect size  $f^2$  of 0.02 means small, 0.15 means medium and 0.35 means large (Chin, 1998). However, a small  $f^2$  does not automatically mean that an insignificant effect is crucial. As stated by Limayem, Hirt and Chin (2001, 281) "If there is a likelihood of occurrence for the extreme moderating conditions and the resulting beta changes are meaningful, then it is important to take these situations into account". The results are presented in Table 3.

Table 3 HYPOTHESES VERIFICATION (DIRECT RELATIONSHIP)						
Structural path	Path coefficient and (T Statistics)	Effect size ( $f^2$ )	Percentile 95% confidence intervals		P-Values (0.05%)	Conclusion
			95%LL	95% UL		
H1a: DJ->WE	0.220 (2.390)	0.064	(0.057; 0.434)		0.017	Supported
H1b: PJ->WE	0.634 (6.645)	0.534	(0.426; 0.799)		0.000	Supported
H2a: DJ->TI	-0.217 (2.688)	0.085	(-0.391; -0.069)		0.007	Supported
H2b: PJ->TI	-0.361 (3.126)	0.165	(-0.596; -0.151)		0.002	Supported
H3: WE->TI	-0.377 (3.075)	0.207	(-0.578; -0.104)		0.002	Supported
$R^2$ Work Engagement=0.655; $Q^2$ Work Engagement=0.416 $R^2$ Turnover Intention=0.763; $Q^2$ Turnover Intention=0.483						

Note: DJ: Distributive Justice, PJ: Procedural Justice, TI: Turnover Intention, WE: Work Engagement



**FIGURE 2**  
**FINAL MODEL WITH STANDARDISED PATH COEFFICIENT AND  $R^2$  VALUE**

Finally, the computation of  $Q^2$  employed the technique of blindfolding (SmartPLS-3). Following the use of the blindfolding technique at omission distance 7, the  $Q^2$  outcomes became stable and were noticeably higher than zero (Henseler & Sarstedt, 2013; Mihail and Kloutsiniotis

2015). As the  $R^2$  and  $Q^2$  results are positive and significant, the structured model can be regarded as strong and of good quality (Ali & Park, 2016) (Figure 2).

*Hypotheses 1a and 1b: Organizational justice and work engagement*

The outcomes fully affirmed this study's expectations on the impact of distributive and procedural justice as predictors of work engagement. In particular, the standardized path coefficients highlighted in Table 3 assure a significant positive linkage between distributive and procedural justice and work engagement, in particular,  $\beta=0.220, 0.634$ ,  $p\text{-value} < 0.05$ , with a  $t\text{-value}$  of 2.390, 6.645 correspondingly. The bootstrap method outcomes also comprise no absolute zero value (0.057; 0.434) and (0.426; 0.799). H1a and H1b are thus confirmed.

*Hypotheses 2a and 2b: Organizational justice and turnover intention*

A significant negative association between distributive justice and turnover intention is found in this study where  $\beta=-0.217$ ,  $t=2.688$ ,  $p\text{-value} < 0.05$ . Meanwhile, the related confidence interval (95%) was -0.391 and -0.069 in the lower and upper levels, correspondingly. What can be construed is that there is also no zero in the confidence interval. It can thus be deduced that Hypothesis 2a is supported. Additionally, as shown in Table 3, procedural justice is negatively linked with turnover intention ( $\beta=-0.361$  at  $t=3.126$ ) and is significant at a  $p\text{-value}$  less than 0.05. There was also no zero value included in the bootstrap method. Hence, Hypothesis 2b is supported.

*Hypothesis 3: Work engagement and turnover intention*

The impact of work engagement was also affirmed in this study. In detail, work engagement is significantly and negatively linked (-0.377) with turnover intention at a  $p\text{-value}$  of  $< 0.05$ . Also, as evidenced in the bootstrapping confidence intervals, the analysis outcomes were -0.578 and -0.104. Hypothesis 3 is thus supported.

## TESTS FOR MEDIATION

The direct impacts of exogenous and endogenous latent variables (LVs) have been elucidated. Nonetheless, there is another aspect of the study that is worth the criticism. In particular, this study employs a non-parametric bootstrapping method in assessing the mediating effect in terms of its significance (Hair et al., 2013; Preacher & Hayes, 2008). Incidentally, the outcomes the PLS-SEM's additional analysis on the indirect impact of DJ and PPJ on TI, are made available as can be viewed in Table 4. Also, as remarked by Shmueli et al. (2016), analysis of mediation could also significantly contribute in the prediction model. Nonetheless, as indicated by Zhao, Lynch and Chen (2010), mutual agreement on whether the relationship between the exogenous and endogenous variable has to be significant prior to the inclusion of the potential mediator, is yet to exist. As mentioned by Nitzl, Roldan and Cepeda (2016), significant indirect effect  $a \times b$  is the only requirement for mediation. Hair et al. (2013) added that if the indirect effect  $a \times b$  is significant, some of the direct effect is absorbed by the mediator.

Hypothesis	a	b	a*b		Total Effect (c)	Percentile 95% confidence intervals		Method	
	Path coeff.	Path coeff.	Path coeff.	t-value	Path coeff.	95% LL	95% UL	VAF <sup>a</sup>	Bootstrapping
DJ->WE->TI	0.220	-0.377	-0.083	2.022*	-0.300	(-0.164; -0.014)		0.28	<i>P. M<sup>b</sup></i>
PJ->WE->TI	0.634	-0.377	-0.239	2.907*	-0.601	(-0.385; -0.066)		0.40	<i>P. M<sup>b</sup></i>

Notes: \*p<0.05; <sup>a</sup> VAF=Variance Accounted For, <sup>b</sup> partial mediation; DJ: Distributive Justice, PJ: Procedural Justice, TI: Turnover Intention, WE: Work Engagement

The indirect effect of DJ on TI appears to be negative and significant (IE=-0.083 and t-value=2.022) at p<0.05 (Table 4). Also, the interval confidence was different from zero (-0.164, -0.014). Similarly, the indirect effect of PJ on TI is also negative and significant (IE=-0.239 and t-value=2.907) at p<0.05. As for the interval confidence, it was different from zero (-0.385, -0.066). As mentioned by Nitzl and Hirsch (2016), VAF computes the ratio of the indirect-to-total effect which is also called the variance accounted for (VAF) value. VAF is used to ascertain the extent to which the mediation process illuminates the dependent variable's variance. The proportion of mediation for a simple mediation is expressed as below:

$$VAF = a \times b / a \times b + c$$

VAF less than 20% means almost zero mediation, VAF higher than 20% and lower than 80% means a typical partial mediation and VAF greater than 80% means full mediation (Hair et al., 2016). This study obtained VAF values greater than 20% and less than 80% which shows that WE is noticeably a partial mediator between DJ, PJ and TI.

### Importance–Performance Map Analysis

This was followed by the importance-performance map analysis (IPMA) to identify the model's significant predictor variables. According to Ringle and Sarstedt (2016), IPMA provides the opportunity for an enriching PLS-SEM analysis and in turn, for the achievement of additional outcomes and findings. Moreover, PLS-SEM benefits through IPMA analysis as the latter may be used to test the relationships among multiple constructs and latent variables (Streukens et al., 2017). Table 5 illustrates the IPMA results.

Constructs	Importance	Performance
Distributive Justice	-0.317	62.56
Procedural Justice	-0.587	68.75
Work Engagement	-0.378	64.07

Based on the contents of results in Table 5, it is evident that procedural justice had high performance (68.75) and when matched with other constructs, it exceeds the average value and

obtaining a total effect of -0.587, the construct is said to be highly significant. The results indicate that with a one-unit increase in procedural justice (68.75-69.75), turnover intention is expected to decrease by 0.587. In other words, if the firm attempts to minimize turnover intention among the accountants, they have to enhance procedural justice within the firm. Additionally, work engagement and distributive justice aspects follow suit as the second and third top priority variables respectively. Hence, it can be concluded that in this study, procedural justice has a key role in decreasing the turnover intention among accountants more than work engagement and distribute justice.

## DISCUSSION

This study affirms the acknowledged relationships between organizational justice, work engagement and turnover intentions among junior accountants in Jordan's public accounting environment. Also, the fittingness of the theory of organizational justice with this certain population in this setting is supported. Both distributive justice (*H1a*) and procedural justice (*H1b*) appear to be significantly and positively linked with work engagement. Further, distributive justice (*H2a*), procedural justice (*H2b*) and work engagement (*H3*) appear to be significantly and negatively linked with turnover intentions. Meanwhile, work engagement functions as a partial mediator between distributive justice (*H4a*), procedural justice (*H4b*) and turnover intention. The outcomes obtained are in line with social exchange theory. Additionally, associations reported in past works are affirmed and extended in this study especially with respect to the relationships between the antecedents of work engagement and behavioral outcomes. As addition to the on-going debate, this study confirms the dominant role of work engagement as a mediating attribute in playing a significant role in organizational justice and turnover intention.

### Managerial Implications

A number of implications for managers of public accounting firms in Jordan are generated by this study's finding. As a start, the findings offer several insights into the significant role played by organizational justice in increasing work engagement and decreasing turnover intentions. It is important that managers understand the detrimental impacts of perceived distributive and procedural unfairness amongst employees. They (managers) should thus identify and deal with the issues that cause perceived unfairness in the work setting.

Second, for organizations, among the primary issues is on how to promote their employees' engagement level. The topic of engagement is increasingly an item of interest amongst researchers as it is considered as a crucial determinant of employee's intention to leave (Halbesleben & Wheeler, 2008). Employee engagement can significantly impact employee retention, productivity and loyalty aside from serving as a primary linkage to customer satisfaction, company reputation and the overall stakeholder value (Lockwood, 2007). Hence, organizations need to figure out on how to promote their employees' engagement level.

Third, with the benefits of engaged accountants under consideration, this study has considerable for organizations, specifically with respect to organizational procedures that dictate the perception of employee towards distributive, procedural and interactional justice. This study's findings can generally be comprehended within the framework of social exchange theory which proposes the possible give-and-take of the relationship between employees and their organization. Employees with a better perception of organizational justice receiving fair

treatment are expected to reciprocate by intensifying their levels of engagement (Saks, 2006). Public accounting firms in Jordan should thus foster a work environment that concentrates on organizational justice. As such, social exchange attitudes among employees can be fostered. Also, as the norm of reciprocity posits, employees presume that their organization recognizes and rewards their efforts. Public accounting firms should thus be committed in acknowledging the efforts made by employees and give rewards, financial or non-financial (e.g. work-life benefits) according to the standards of that given organization.

In essence, this study's outcomes evidence that distributive and procedural justice can be of value in improving work engagement, which will consequently lead to the decrease of turnover intention among junior accountants. Additionally, by bringing to attention the correlation (and therefore interaction) between these two dimensions of justice, this study provides valuable insights into the rudimentary processes through which work engagement is improvable. Last but not least, as organizational justice is found to promote work engagement, the importance of justice as a crucial determinant of employee engagement and turnover intention cannot be denied.

### **LIMITATIONS AND FUTURE RESEARCH**

Several limitations have been found regarding this study. The first limitation is linked with the common method variance. It can become an issue in studies employing the survey methodology. Although full collinearity tests suggest no effect of common method variance it cannot be ruled out entirely. Numerous studies have looked into the influence of organizational justice on a multitude of job outcomes. Still, more focus should be placed on the role of organizational justice on other factors (e.g., job satisfaction) that can predict turnover intention. The forthcoming work should explore the effect of organizational justice on other critical job outcomes, for instance, emotional well-being, job burnout and employee citizenship behaviors.

Additionally, the scale of Utrecht work engagement comprising nine items was employed in this study. This scale which comprises items from the vigor, dedication and absorption dimensions (Schaufeli et al., 2006) contains good psychometric properties and is employed in the generation of a single composite work engagement score. The use of this shortened work engagement scale is consistent with several studies (Karatepe & Olugbade, 2016; Lee & Ok, 2016). The forthcoming work can employ the dimensions of vigor, dedication and absorption as work engagement indicators or as the three distinct dimensions of work engagement. Another suggestion for future work is the use of work engagement as a uni-dimensional measure that taps vigor, dedication and absorption (Schaufeli et al., 2006). Thus, finding out the antecedents and consequences of work engagement using these three alternative measures could be of value in turning work engagement into a second-order latent variable, a three-factor variable or a uni-dimensional measure.

Another limitation of this study is the non-inclusion of other types of justice such as interactional justice. Interactional justice could also be made as a crucial factor impacting turnover intention and work engagement. This should be considered in the forthcoming work.

In a nutshell, this study makes available to those delving into distributive and procedural justice, work engagement and turnover intention an initial guideline on how these constructs are associated. The perspective of justice can impart complementary and compensatory impacts on employee engagement. This preliminary work is hoped to motivate further examination on the role of justice in impacting work engagement and turnover intention.



**APPENDIX**

<b>Appendix A COLLINEARITY TEST</b>						
<b>Outer VIF values</b>		<b>Inner VIF values</b>				
			DJ	PJ	TI	WE
DJ1	2.371					
DJ2	2.031	DJ			2.324	2.184
DJ3	2.209	PJ			3.351	2.184
DJ4	1.917	TI				
DJ5	3.039	WE			2.901	
PJ1	2.322					
PJ2	2.066					
PJ3	1.868					
PJ4	1.980					
WE1	4.055					
WE2	1.867					
WE3	3.112					
WE4	4.764					
WE5	3.469					
WE6	3.535					
WE7	3.347					
WE8	2.896					
WE9	2.136					
TI1	2.689					
TI2	2.813					
TI3	2.767					
TI4	3.092					
TI5	2.246					
TI6	2.298					

<b>Appendix B CROSS LOADING TEST</b>				
	DJ	PJ	TI	WE
<b>DJ1</b>	0.849	0.590	-0.574	0.614
<b>DJ2</b>	0.824	0.701	-0.695	0.589
<b>DJ3</b>	0.826	0.569	-0.620	0.546
<b>DJ4</b>	0.788	0.547	-0.555	0.504
<b>DJ5</b>	0.892	0.658	-0.646	0.610
<b>PJ1</b>	0.606	0.867	-0.689	0.702
<b>PJ2</b>	0.565	0.830	-0.646	0.626
<b>PJ3</b>	0.670	0.810	-0.658	0.656
<b>PJ4</b>	0.625	0.841	-0.750	0.677
<b>TI1</b>	-0.695	-0.647	0.846	-0.679
<b>TI2</b>	-0.608	-0.751	0.857	-0.690
<b>TI3</b>	-0.597	-0.718	0.834	-0.724
<b>TI4</b>	-0.673	-0.730	0.879	-0.754
<b>TI5</b>	-0.576	-0.622	0.795	-0.575
<b>TI6</b>	-0.562	-0.636	0.799	-0.638
<b>WE1</b>	0.630	0.692	-0.678	0.875
<b>WE2</b>	0.511	0.666	-0.651	0.729
<b>WE3</b>	0.513	0.629	-0.677	0.853
<b>WE4</b>	0.594	0.713	-0.704	0.883
<b>WE5</b>	0.600	0.661	-0.717	0.873

<b>WE6</b>	0.611	0.725	-0.695	0.849
<b>WE7</b>	0.627	0.667	-0.705	0.853
<b>WE8</b>	0.590	0.660	-0.671	0.824
<b>WE9</b>	0.448	0.536	-0.590	0.751

### ENDNOTE

1. Employee turnover is defined as the cessation of membership in an organization by an individual who received monetary compensation from the organization (Mobley 1982).
2. Organizational justice is “the term used to describe the role of fairness as it directly relates to the workplace” (Moorman, 1991, p. 845).
3. Work engagement is defined as “...a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption” (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74).
4. Distributive and procedural justice perceptions “may be looked upon as resources which may be instrumental in enhancing employee engagement due to their functional role in goal accomplishment” (Ghosh, Rai & Sinha, 2014, p. 634).
5. For assessing convergent validity, the outer loadings or item reliability should be higher than 0.7 and Average Variance Extracted (AVE) should be higher than 0.5.
6. For assessing discriminant validity, the square roots' AVE must be higher than the correlations among the constructs and heterotrait-monotrait ratio (HTMT) must be <0.85.

### REFERENCES

- Adams, G.L., Ammeter, A.P., Treadway, D.C., Ferris, G.R., Hochwarter, W.A. & Kolodinsky, R.W.(2002). Perceptions of organizational politics: Additional thoughts, reactions and multi-level issues *The many faces of multi-level issues* (pp. 287-294): Emerald Group Publishing Limited.
- Adams, J.S. (1965). Inequity in social exchange. *Advances in experimental social psychology*, 2, 267-299.
- Agarwal, U. (2014). Linking justice, trust and innovative work behaviour to work engagement. *Personnel Review*, 43(1), 41-73.
- Akhtar, R., Boustani, L., Tsivrikos, D. & Chamorro-Premuzic, T. (2015). The engageable personality: Personality and trait EI as predictors of work engagement. *Personality and Individual Differences*, 73, 44-49.
- Albrecht, S.L., Bakker, A.B., Gruman, J.A., Macey, W.H. & Saks, A.M. (2015). Employee engagement, human resource management practices and competitive advantage: An integrated approach. *Journal of Organizational Effectiveness: People and Performance*, 2(1), 7-35.
- Alexander, S. & Ruderman, M. (1987). The role of procedural and distributive justice in organizational behavior. *Social Justice Research*, 1(2), 177-198.
- Ali, M. & Park, K. (2016). The mediating role of an innovative culture in the relationship between absorptive capacity and technical and non-technical innovation. *Journal of Business Research*, 69(5), 1669-1675.
- Ali, N. & Jan, S. (2012). Relationship between organizational justice and organizational commitment and turnover intentions amongst medical representatives of pharmaceuticals companies of Pakistan. *Journal of Managerial Sciences*, 6(2), 201-212.
- Aryee, S., Budhwar, P.S. & Chen, Z.X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior*, 23(3), 267-285.
- Bakker, A.B. & Demerouti, E. (2008). Towards a model of work engagement. *Career development international*, 13(3), 209-223.
- Bakker, A.B., Demerouti, E. & Sanz-Vergel, A.I. (2014). Burnout and work engagement: The JD–R approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 389-411.
- Bal, P.M., De Cooman, R. & Mol, S.T. (2013). Dynamics of psychological contracts with work engagement and turnover intention: The influence of organizational tenure. *European Journal of Work and Organizational Psychology*, 22(1), 107-122.
- Bao, B.H., Bao, D.H. & Vasarhelyi, M.A. (1986). A stochastic model of professional accountant turnover. *Accounting, Organizations and Society*, 11(3), 289-296.
- Bari, M.W., Fanchen, M. & Baloch, M.A. (2016). Management practices and performance of mergers and acquisitions in Pakistan: Mediating role of psychological contract. *SpringerPlus*, 5(1527), 1-16.

- Barroso, C., Carrión, G.C. & Roldán, J.L. (2010). Applying maximum likelihood and PLS on different sample sizes: Studies on SERVQUAL model and employee behavior model *Handbook of partial least squares* (pp. 427-447): Springer.
- Bentler, P.M. & Bonett, D.G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588-606.
- Blau, P.M. (1964). *Exchange and power in social life*: Transaction Publishers.
- Bluedorn, A.C. (1982). A unified model of turnover from organizations. *Human Relations*, 35(2), 135-153.
- Bothma, C.F. & Roodt, G. (2013). The validation of the turnover intention scale. *SA Journal of Human Resource Management*, 11(1), 1-12.
- Chin, W.W. (1998). The partial least squares approach to structural equation modeling. In G.A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295-358). Mahwah: Erlbaum.
- Chong, V.K. & Monroe, G.S. (2015). The impact of the antecedents and consequences of job burnout on junior accountants' turnover intentions: A structural equation modelling approach. *Accounting & Finance*, 55(1), 105-132.
- Christian, M.S., Garza, A.S. & Slaughter, J.E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89-136.
- Cohen-Charash, Y. & Spector, P.E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes*, 86(2), 278-321.
- Colquitt, J.A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86(3), 386-400.
- Colquitt, J.A., Conlon, D.E., Wesson, M.J., Porter, C.O. & Ng, K.Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86(3), 425-445.
- Cotterell, N., Eisenberger, R. & Speicher, H. (1992). Inhibiting effects of reciprocation wariness on interpersonal relationships. *Journal of Personality and Social Psychology*, 62(4), 658-668.
- Crawford, E.R., LePine, J.A. & Rich, B.L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95, 834-848.
- Cropanzano, R. & Ambrose, M.L. (2001). Procedural and distributive justice are more similar than you think: A monistic perspective and a research agenda. In J. Greenberg & R. Cropanzano (Eds.), *Advances in Organizational Justice* (pp. 119-151). Stanford, CA: Stanford University Press.
- Cropanzano, R. & Mitchell, M.S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900.
- Cropanzano, R., Rupp, D.E. & Byrne, Z.S. (2003). The relationship of emotional exhaustion to work attitudes, job performance and organizational citizenship behaviors. *Journal of Applied Psychology*, 88(1), 160.
- Daileyl, R.C. & Kirk, D.J. (1992). Distributive and procedural justice as antecedents of job dissatisfaction and intent to turnover. *Human Relations*, 45(3), 305-317.
- Demerouti, E. & Cropanzano, R. (2010). From thought to action: Employee work engagement and job performance. *Work engagement: A handbook of essential theory and research*, 65, 147-163.
- Dijkstra, T.K. & Henseler, J. (2015). Consistent partial least squares path modeling. *MIS quarterly=Management Information Systems Quarterly*, 39(2), 297-316.
- Dollard, M.F. & Bakker, A.B. (2010). Psychosocial safety climate as a precursor to conducive work environments, psychological health problems and employee engagement. *Journal of Occupational and Organizational Psychology*, 83(3), 579-599.
- Dreher, G.F. & Dougherty, T.W. (1980). Turnover and competition for expected job openings: An exploratory analysis. *Academy of Management Journal*, 23(4), 766-772.
- Du Plooy, J. & Roodt, G. (2010). Work engagement, burnout and related constructs as predictors of turnover intentions. *SA Journal of Industrial Psychology*, 36(1), 1-13.
- Ehlen, C.R. & Welker, R.B. (1996). Procedural fairness in the peer and quality review programs. *Auditing*, 15(1), 38-52.
- Farrell, A.M. (2010). Insufficient discriminant validity: A comment on Bove, Pervan, Beatty and Shiu (2009). *Journal of Business Research*, 63(3), 324-327.
- Fogarty, T.J., Singh, J., Rhoads, G.K. & Moore, R.K. (2000). Antecedents and consequences of burnout in accounting: Beyond the role stress model. *Behavioral Research in Accounting*, 12, 31-67.
- Fornell, C. & Cha, J. (1994). Partial least squares. *Advanced methods of marketing research*, 407(3), 52-78.
- George, J. & Wallio, S. (2017). Organizational justice and millennial turnover in public accounting. *Employee relations*, 39(1), 112-126.

- Ghosh, P., Rai, A. & Sinha, A. (2014). Organizational justice and employee engagement: Exploring the linkage in public sector banks in India. *Personnel Review*, 43(4), 628-652.
- Ghosh, P., Satyawadi, R., Prasad Joshi, J. & Shadman, M. (2013). Who stays with you? Factors predicting employees' intention to stay. *International Journal of Organizational Analysis*, 21(3), 288-312.
- Greenberg, J. (2004). Stress Fairness to Fare No Stress: Managing workplace stress by promoting organizational justice. *Organizational Dynamics*, 33(4), 352-365.
- Greenberg, J., Roberge, M.É., Ho, V.T. & Rousseau, D.M. (2004). Fairness in idiosyncratic work arrangements: Justice as an i-deal *Research in personnel and human resources management* (pp. 1-34): Emerald Group Publishing Limited.
- Griffeth, R.W., Hom, P.W. & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests and research implications for the next millennium. *Journal of Management*, 26(3), 463-488.
- Hair J.F., Ringle, M. & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.
- Hair J.F., Hult, M., Ringle, C. & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage Publications.
- Hair, J.F, Hult, G., Ringle, C. & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM) (2<sup>nd</sup> edn)*: Thousand Oaks, CA: Sage.
- Hair, J., Ringle, C. & Sarstedt, M. (2013). Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1-2), 1-12.
- Hair, J., Sarstedt, M., Hopkins, L. & Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121.
- Hair, J.F., Hult, G.T.M., Ringle, C. & Sarstedt, M. (2013). *A primer on partial least squares structural equation modeling (PLS-SEM)*. UK: Sage Publishers.
- Hakanen, J.J., Seppala, P. & Peeters, M.C. (2017). High Job Demands, Still Engaged and Not Burned Out? The Role of Job Crafting. *International Journal of Behavioral Medicine*, 24(4), 619-624.
- Halbesleben, J.R. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources and consequences. *Work engagement: A Handbook of Essential Theory and Research*, 8, 102-117.
- Halbesleben, J.R. & Wheeler, A.R. (2008). The relative roles of engagement and embeddedness in predicting job performance and intention to leave. *Work & Stress*, 22(3), 242-256.
- Hallberg, U.E. & Schaufeli, W.B. (2006). "Same same" but different? Can work engagement be discriminated from job involvement and organizational commitment? *European psychologist*, 11(2), 119-127.
- Harju, L.K., Hakanen, J.J. & Schaufeli, W.B. (2016). Can job crafting reduce job boredom and increase work engagement? A three-year cross-lagged panel study. *Journal of Vocational Behavior*, 95, 11-20.
- Henseler, Ringle, C., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Henseler, J. (2017). Bridging design and behavioral research with variance-based structural equation modeling. *Journal of Advertising*, 46(1), 178-192.
- Henseler, J., Dijkstra, T.K., Sarstedt, M., Ringle, C.M., Diamantopoulos, A., Straub, D.W. & Calantone, R.J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, 17(2), 182-209.
- Henseler, J., Hubona, G. & Ray, P. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, 116(1), 2-20.
- Henseler, J., Ringle, C.M. & Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing*, 20(1), 277-319.
- Henseler, J. & Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics*, 28(2), 565-580.
- Hewitt, A. (2013). Trends in Global Employee Engagement Report. *Aon Hewitt, Lincolnshire, IL*.
- Houghton, K., Ng, J., Jubb, C. & Kend, M. (2013). *The future of audit: Keeping capital markets efficient*: ANU Press.
- Inceoglu, I. & Warr, P. (2011). Personality and job engagement. *Journal of Personnel Psychology*, 10, 177-181.
- Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers. *Journal of Occupational and Organizational Psychology*, 76(3), 347-364.
- Karatepe, O.M. & Olugbade, O.A. (2016). The mediating role of work engagement in the relationship between high-performance work practices and job outcomes of employees in Nigeria. *International Journal of Contemporary Hospitality Management*, 28(10), 2350-2371.

- Karatepe, O.M. & Shahriari, S. (2014). Job embeddedness as a moderator of the impact of organisational justice on turnover intentions: A study in Iran. *International Journal of Tourism Research*, 16(1), 22-32.
- Kausto, J., Elo, A.L., Lipponen, J. & Elovainio, M. (2005). Moderating effects of job insecurity in the relationships between procedural justice and employee well-being: Gender differences. *European Journal of Work and Organizational Psychology*, 14(4), 431-452.
- Khan, K., Abbas, M., Gul, A. & Raja, U. (2015). Organizational justice and job outcomes: Moderating role of Islamic work ethic. *Journal of Business Ethics*, 126(2), 235-246.
- Kim, H.J., Shin, K.H. & Swanger, N. (2009). Burnout and engagement: A comparative analysis using the Big Five personality dimensions. *International Journal of Hospitality Management*, 28(1), 96-104.
- Kock, N. & Hadaya, P. (2018) Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Information Systems Journal*, 28, 227–261.
- Koyuncu, M., Burke, R.J. & Fiksenbaum, L. (2006). Work engagement among women managers and professionals in a Turkish bank: Potential antecedents and consequences. *Equal Opportunities International*, 25(4), 299-310.
- Kundu, S.C. & Lata, K. (2017). Effects of supportive work environment on employee retention: Mediating role of organizational engagement. *International Journal of Organizational Analysis*, 25(4), 703-722.
- Langelaan, S., Bakker, A.B., Van Doornen, L.J. & Schaufeli, W.B. (2006). Burnout and work engagement: Do individual differences make a difference? *Personality and Individual Differences*, 40(3), 521-532.
- Lee, J. & Ok, C.M. (2016). Hotel employee work engagement and its consequences. *Journal of Hospitality Marketing & Management*, 25(2), 133-166.
- Lee, T., Mitchell, T., Holtom, B., McDaniel, L. & Hill, J. (1999). Theoretical development and extension of the unfolding model of voluntary turnover. *Academy of Management Journal*, 42(4), 450-462.
- Libby, T. (1999). The influence of voice and explanation on performance in a participative budgeting setting. *Accounting, Organizations and Society*, 24(2), 125-137.
- Liljegren, M. & Ekberg, K. (2009). The associations between perceived distributive, procedural and interactional organizational justice, self-rated health and burnout. *Work*, 33(1), 43-51.
- Limayem, M., Hirt, S.G. & Chin, W.W. (2001). *Intention does not always matter: The contingent role of habit on IT usage behavior*. Paper presented at the ECIS 2001 Proceedings.
- Lindquist, T.M. (1995). Fairness as an antecedent to participative budgeting: Examining the effects of distributive justice, procedural justice and referent cognitions on satisfaction and performance. *Journal of Management Accounting Research*, 7, 122-147.
- Lockwood, N. (2007). Leveraging employee engagement for competitive advantage. *HR's Strategic Role/Society for Human Resource Management*. Alexandria, VA.
- Lowry, P.B. & Gaskin, J. (2014). Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioral causal theory: When to choose it and how to use it. *IEEE Transactions on Professional Communication*, 57(2), 123-146.
- Lyu, X. (2016). Effect of organizational justice on work engagement with psychological safety as a mediator: Evidence from China. *Social Behavior and Personality: An International Journal*, 44(8), 1359-1370.
- Macey, W.H., Schneider, B., Barbera, K.M. & Young, S.A. (2011). *Employee engagement: Tools for analysis, practice and competitive advantage* (Vol. 31): John Wiley & Sons.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, 52(1), 397-422.
- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70(1), 149-171.
- May, D.R., Gilson, R.L. & Harter, L.M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, 77(1), 11-37.
- Memon, M.A., Salleh, R. & Baharom, M.N.R. (2016). The link between training satisfaction, work engagement and turnover intention. *European Journal of Training and Development*, 40(6), 407-429.
- Memon, M.A., Salleh, R., Baharom, M.N.R. & Harun, H. (2014). Person-organization fit and turnover intention: The mediating role of employee engagement. *Global Business and Management Research*, 6(3), 205-209.
- Mihail, D.M., & Kloutsiniotis, P.V. (2016). The effects of high-performance work systems on hospital employees' work-related well-being: Evidence from Greece. *European Management Journal*, 34(4), 424-438.
- Mobley, W.H. (1982). *Employee turnover, causes, consequences and control*: Addison-Wesley.
- Moliner, C., Martinez-Tur, V., Ramos, J., Peiro, J. M. & Cropanzano, R. (2008). Organizational justice and extrarole customer service: The mediating role of well-being at work. *European Journal of Work and Organizational Psychology*, 17, 327-348.

- Moon, H., Kamdar, D., Mayer, D. M., & Takeuchi, R. (2008). Me or we? The role of personality and justice as other-centered antecedents to innovative citizenship behaviors within organizations. *Journal of Applied Psychology, 93*(1), 84-94.
- Moorman, R.H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship?. *Journal of Applied Psychology, 76*(6), 845-855.
- Niehoff, B.P. & Moorman, R.H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal, 36*(3), 527-556.
- Nitzl, C. & Hirsch, B. (2016). The drivers of a superior's trust formation in his subordinate: The manager-management accountant example. *Journal of Accounting & Organizational Change, 12*(4), 472-503.
- Nitzl, C., Roldan, J.L. & Cepeda, G. (2016). Mediation analysis in partial least squares path modeling: Helping researchers discuss more sophisticated models. *Industrial Management & Data Systems, 116*(9), 1849-1864.
- Obeid, M., Salleh, Z. & Mohd Nor, M. (2017). The Mediating Effect of Job Satisfaction on The Relationship Between Personality Traits and Premature Sign-off. *Academy of Accounting and Financial Studies Journal, 21*(2), 1-17.
- Organ, D.W. (1988). *Organizational citizenship behavior: The good soldier syndrome*: Lexington Books/DC Heath and Com.
- Park, Y., Song, J.H. & Lim, D.H. (2016). Organizational justice and work engagement: The mediating effect of self-leadership. *Leadership & Organization Development Journal, 37*(6), 711-729.
- Parker, R.J. & Kohlmeyer, J.M. (2005). Organizational justice and turnover in public accounting firms: A research note. *Accounting, Organizations and Society, 30*(4), 357-369.
- Parker, R.J., Nouri, H. & Hayes, A.F. (2011). Distributive justice, promotion instrumentality and turnover intentions in public accounting firms. *Behavioral Research in Accounting, 23*(2), 169-186.
- Peterson, R.A. & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology, 98*(1), 194-198.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. & Podsakoff, N.P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903.
- Preacher, K.J. & Hayes, A.F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879-891.
- Rahman, S.A., Taghizadeh, S.K., Ramayah, T. & Ahmad, N.H. (2015). Service innovation management practices in the telecommunications industry: What does cross country analysis reveal? [journal article]. *SpringerPlus, 4*(810), 1-25. doi: 10.1186/s40064-015-1580-8
- Rasoolimanesh, S.M., Jaafar, M., Kock, N. & Ramayah, T. (2015). A revised framework of social exchange theory to investigate the factors influencing residents' perceptions. *Tourism Management Perspectives, 16*, 335-345.
- Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International journal of research in marketing, 26*(4), 332-344.
- Ringle, Wende, S. & Becker, J. (2015). "SmartPLS 3." Boenningstedt: SmartPLS GmbH. Retrieved from (<http://www.smartpls.com>).
- Ringle, C., Wende, S., Becker, J. & GmbH, R. (2017). SmartPLS - Statistical Software For Structural Equation Modeling [Internet]. Smartpls.com. 2017 [cited 2017 March 18]. Available from (<http://www.smartpls.com>).
- Ringle, C.M. & Sarstedt, M. (2016). Gain more insight from your PLS-SEM results: The importance-performance map analysis. *Industrial Management & Data Systems, 116*(9), 1865-1886.
- Robertson, I.T. & Cooper, C.L. (2010). Full engagement: The integration of employee engagement and psychological well-being. *Leadership & Organization Development Journal, 31*(4), 324-336.
- Roodt, G. & Bothma, F. (1997). Die koste van vrywillige, beheerbare arbeidomset. *SA Journal of Industrial Psychology, 23*(1), 26-30.
- Roodt, G. & Kotze, K. (2005). Factors that affect the retention of managerial and specialist staff: An exploratory study of an employee commitment model. *SA Journal of Human Resource Management, 3*(2), 48-55.
- Saks, A.M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology, 21*, 600-619.
- Schaufeli, W.B. (2017). Applying the Job Demands-Resources model: A 'how to' guide to measuring and tackling work engagement and burnout. *Organizational Dynamics, 46*, 120-132.

- Schaufeli, W.B. & Bakker, A.B. (2004). Job demands, job resources and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315.
- Schaufeli, W.B., Bakker, A.B. & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement and sickness absenteeism. *Journal of Organizational Behavior*, 30(7), 893-917.
- Schaufeli, W.B., Salanova, M., González-Romá, V. & Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, 3(1), 71-92.
- Shmueli, G., Ray, S., Estrada, J.M.V. & Chatla, S.B. (2016). The elephant in the room: Predictive performance of PLS models. *Journal of Business Research*, 69(10), 4552-4564.
- Siegel, P.H., Reinstein, A. & Miller, C.L. (2001). Mentoring and organizational justice among audit professionals. *Journal of Accounting, Auditing & Finance*, 16(1), 1-25.
- Sonnentag, S. (2003). Recovery, work engagement and proactive behavior: A new look at the interface between nonwork and work. *Journal of Applied Psychology*, 88(3), 518-528.
- Streukens, S., Leroi-Werelds, S. & Willems, K. (2017). Dealing with Nonlinearity in Importance-Performance Map Analysis (IPMA): An Integrative Framework in a PLS SEM Context. In *Partial Least Squares Path Modeling* (pp. 367-403). Springer, Cham.
- Strom, D.L., Sears, K. L. & Kelly, K.M. (2014). Work engagement: The roles of organizational justice and leadership style in predicting engagement among employees. *Journal of Leadership & Organizational Studies*, 21(1), 71-82.
- Suliman, A. & Kathairi, M.A. (2013). Organizational justice, commitment and performance in developing countries: the case of the UAE. *Employee Relations*, 35(1), 98-115.
- Taylor, S.L. & Cosenza, R.M. (1998). Reducing turnover in public accounting firms: An internal marketing strategy. *Journal of Professional Services Marketing*, 17(2), 135-157.
- Tyler, T.R. & Blader, S.L. (2003). The group engagement model: Procedural justice, social identity and cooperative behavior. *Personality and social psychology review*, 7(4), 349-361.
- Wong, K.K.K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1-32.
- Yalabik, Z.Y., Popaitoon, P., Chowne, J.A. & Rayton, B.A. (2013). Work engagement as a mediator between employee attitudes and outcomes. *The International Journal of Human Resource Management*, 24(14), 2799-2823.
- Zhao, X., Lynch, J.G. & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197-206.