



Research article

The mediating role of procedural justice on the relationship between job analysis and employee performance in Jordan Industrial Estates

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ABSTRACT

Job analysis and employees' perception of justice have a significant influence on employee performance within an organization. This study examined the relationships between job analysis, job performance, and procedural justice among local employees in Jordan Industrial Estates. The literature demonstrated gaps in knowledge regarding the relationships between these variables in developing countries, which are intended to be filled by this study. The study drew from the pay model and equity theory. Data were collected with a survey questionnaire from 690 Jordanian employees working in three industrial estates. The data were analyzed through structural equation modelling (SEM) using SPSS and AMOS software tools. The results indicated to a significant positive relationship between job analysis and job performance, job analysis and procedural justice, and a positive relationship between procedural justice and job performance. Also, it is found that procedural justice mediates the relationship between job analysis and job performance. It is expected that the results of this study would have an impact on employee's performance through the fair implementation of one of the human resources practices, namely, job analysis, and thus organizational performance. Also, it contributes to the body of knowledge and supports the mediating role of procedural justice in decisions taken within the organization.

1. Introduction

Employee and organizational performance play a critical and vital role in creating a competitive advantage with other organizations worldwide, especially in the current business environment characterized by rapid change and adaptation to different circumstances (Gridwichai et al., 2020). Besides employee performance is one of the most important influencing and decisive elements in the organization's performance and improving its reputation (Anesukanjanakul et al., 2019; Jermisittiparsert et al., 2019). The importance of employee's performance has increased and taken root over the past several years, as it has become the fastest and first important variable in any organization. It has taken the utmost priority in all aspects of the job and in the administrative contexts (Gridwichai et al., 2020).

Employee performance is not just a thought that deals with one area. Rather it is a concept focusing on employees' life satisfaction in general. It has become an important issue that reflects the provision of satisfactory and safe environmental factors in the workplace, which are reflected in the employees and contribute to achieving the strategic goals of the

organization (Jalagat, 2017). Employee's performance has a prominent and visible role in the progress of any organization and its development as employees contribute to its success and effectiveness (Korkaew and Suthinee, 2012).

There is a wide range of factors that can determine the levels of employees' performance as they are considered one of the most important cause of concern to governments, organizations, and society as a whole (Vratskikh et al., 2016). Accordingly, organizations must analyze and study these factors and work to develop them, as job performance is the main result that employees contribute to their productivity. It is an integrated set of skills, capabilities, motivation, and opportunities that are supported by the organization's performance (Gridwichai et al., 2020).

Organizations seek to gain competitive advantage by hiring highly experienced and qualified employees in the areas they specialize in. As for the organization, high performance is also important for the individuals themselves, where they feel experience elevated confidence and high satisfaction with what they are doing. In contrast, low performance is considered a failure to achieve both organizational and personal goals (Muchhal, 2014). Moreover, employees are the main factor that

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determines the success or failure of the organization. Therefore, organizations must work to attract and retain qualified and experienced staff, as well as properly rewarding them (Onuorah et al., 2019). Researchers believed that financial incentives were only way to motivate workers. Later, they proved that there are several factors affecting job performance, including motivation, job satisfaction, and justice (Sherwani, 2018). In addition, there are myriad factors able to determine level of performance in the workplace (Iqbal et al., 2015; Thao et al., 2015). These factors include equipment, physical work environment, compensation system, ideal operating procedures, anticipated performance, feedback on performance, as well as knowledge, skills and attitudes (Lankeshwara, 2018).

Employees must be motivated and thus increase the level of job satisfaction, thereby increase the organizational productivity (Inuwa, 2017). Besides, because of the huge competition among the global organizations, it is imperative to attract and retain qualified and competent employees within the organization (Akter and Moazzam, 2016). Qualified employees could be attracted and maintained through an appropriate and effective payment structure that encourages them to perform better (Inuwa, 2016). Accordingly, organizations must work hard to devise and develop compensation systems and strategies that are directly linked with raising the level of job and organizational performance as well through an effective compensation structure that motivates them to work at their best performance (Seng and Arumugam, 2017).

As it is not difficult for an employee to recognize their colleagues' salaries, justice is necessary when a certain system is going to be chosen. Employers must make sure that all organization's employees are fully understanding the remuneration decisions to keep a high level of morale and decrease the level of employees' turnover (Mello, 2011). Organizations in Jordan need to perform well to reserve their competitive place among international organizations as employees' performance was inclined in recent years based on difficulties face Jordan economy (Al-Omari and Okasheh, 2017). Many factors were identified that have a direct impact on employees' satisfaction and their performance in Jordan industrial sector in order to motivate them in an attempt to retain them as long as possible. Among these factors employees focus more on their salaries and wages in addition to their job positions than any other factor (Abuhashesh et al., 2019).

2. Review of literature

In this part of the paper, previous studies conducted by various researchers and related to the variables of this study were reviewed.

2.1. Job analysis

When designing any job, job analysis and description is carried out by identifying the capacities, qualifications and responsibilities required to fill that position and then determining the salary that the employee receives as well as the privileges he enjoys. Accordingly, the employer can demand from the employee a certain level of performance consistent with the salary he receives and has the justification to reduce this salary in case of failure to meet the job standards (Kokemuller, n.d.). Job analysis is defined as the process of determining the set of tasks, duties and skills required to develop a job description that sets out what needs to be done and the specifications of the person who will occupy that job (Armstrong and Taylor, 2014). Levine (1993) defined job analysis as a process of collecting, analysing, and structuring job information in all aspects in terms of its components, characteristics and requirements.

Job analysis process allows the organization to select the appropriate staff according to the conditions and specifications that has been identified through job description and job specifications according to the requirements and details of each job. It is a first and essential step in the recruitment process. In addition, it helps human resources department in

demonstrating duties and the suitable salary of each job (Mira et al., 2019). Through job analysis, organization can predict employees' performance; and how to reward each of them through their performance. In addition, employees know the performance that organization expects from them, and how they will be compensated for that (Hailemariam et al., 2019). Job analysis data can distinguish the knowledge, skills, abilities, and expertise which are necessary for effective and high level of performance. It can build criteria for selection, hiring, promotions, plan and create objectives for employee training and organization development programs, establish performance measurement standards and develop it, and assist in determining compensation classification levels (Steyn and Jackson, 2015).

Atteya (2012) pointed out that the selection and recruitment process is one of the most important factors that affect the performance of employees and productivity. He added, by indicating what suits each job and its specifications, expectations of the organization and employee in addition to the expected reward for that performance have been considered. He asserted that through this process, the focus should be on justice to obtain a greater degree of satisfaction of employees and thus increase the level of their performance.

The main purpose of job analysis is to furnish information requisite for preparing job description, it can also be used later in the process of job evaluation for assigning a certain value for each job for establishing pay structure. It produces two outputs: job description, which includes tasks, functions, and responsibilities within a job, and job specification, which includes knowledge, capability, skills, and any other feature that is important for any employee to perform his job. Therefore, description concentrates on the task and could be useful in developing the harmonious salary structure which is based on proportional levels of jobs, responsibilities, and qualifications; specification concentrate on the person himself (Milkovich et al., 2013).

2.1.1. Job description

Suthar et al. (2014) characterize job description as an important outcome of the job analysis process. Statt (2004) argued that job description is the process of determining the tasks and duties in addition to the responsibilities required in each job which will be the future guide to the selection and recruitment process. In other words, a job description can be considered a process that has to act with all administrative and technical aspects of the job, its title, as well as tasks, duties, and outputs of the job. In addition, Byars and Rue (2006) defined job description as a statement of all tasks to be performed and what will be followed to do these tasks later. Armstrong and Taylor (2014) argued that job description should be based on job analysis. In addition, they pointed out that description should be formal and concise.

Okumbe (1999) noted that a good job description can be used effectively in determining salaries and wages in the organization. It constitutes a basic and stable base for human resources managers to rely on during classifying jobs and determining the salary of each job internally and externally consistent. In addition, it helps managers to take necessary action against employees who do not perform their jobs properly.

2.1.2. Job specification

Amos et al. (2004) indicated that job specifications are related to the personal aspects of the job, education, personal qualifications, skills available in addition to knowledge and ability to perform tasks. Job specification is defined as a set of qualifications, physical characteristics and skills necessary for an individual to enable him to perform his job efficiently and effectively. These standards are developed in collaboration between supervisors and the human resources department of the organization (Suthar et al., 2014). Amos et al. (2004) pointed out that job specification should focus on all simple and difficult aspects. They added that job specification includes all aspects of personal and educational background, as well as skills, knowledge and ability.

2.2. Job performance

Each organization includes tangible and intangible elements. The human being is considered the living tangible element in the organization who goes into with a formal agreement with the organization to offer their talent and capabilities against some rewards (Mu, 2013). In general, employee performance is the main block in the organization building. Therefore, the factors, which put the basis for the high performance, lead to the success of the organization and achievement of these objectives has to be analysed critically (Abbas and Yaqoob, 2009).

Visveswaran and Ones (2000) pointed out that job performance is the cornerstone of the organizations work and construction today. This makes it an important research problem to identify the efficiency and quality of employees, and the nature of the training programs they need to raise their performance. They added that the decision to attract and recruit employees depends on the performance required, so it is expected that job performance will remain on the same level of importance in the future because it is one of the most important factors in the organization. Al-Omari and Okasheh (2017) argued that job performance has a huge importance for organizations as it affects their profitability directly. Muchhal (2014) added that effective job performance leads to the success of the organization and the achievement of its objectives, as well as to the satisfaction of individuals, this is the most important link between the individuals and organizations where they work.

Igen and Schneider (1991) defined performance from a behavioural view as everything that an individual or system does. They noted that performance consists of a person involved in behaviour in a particular situation in order to achieve the desired results. However, Sonnentag and Frese (2005) indicated that not every behaviour carried out by the performer is considered within the concept of performance. Campbell et al. (1993) pointed out that performance is synonymous with behaviour if it focuses on behaviours that are relevant to achieving organizational goals. Furthermore, they stated that performance is what the institution hires individual to do, and perform in a good way. Performance is not the consequence or outcome of action; it is the action itself.

Sonnentag and Frese (2005) pointed out that in the conceptualization of performance it is necessary to distinguish between behavior and the outcomes of performance. They added, the behavioral aspect of performance is what an individual does in the workplace. On the other hand, the outcomes aspect indicates to the results of worker behavior. In addition, Motowidlo et al. (1997) defined it as a group of works, activities and behaviors of the individuals, which lead to the achievement of the organization objectives. Thus, performance is the result of an individual action or group of people in order to achieve the organization goals. Liao et al. (2012) consider job performance as a basis for promotions, extra payments, reviews, and salary and wage adjustments. They considered it as a criterion for progress and obtaining rewards. Besides, Anitha (2014) stated a definition for employee performance as an indicator of monetary or non-monetary outcome of the employee that has a main and direct relationship with the performance of the organization and its success.

Anitha (2014) stated some factors like leadership, team and co-worker relationship, workplace, career development as main factors that determine employee performance. He added that training, compensation programme, policies and procedures in addition to employee engagement are considered main factors also. Therefore, the organization is supposed to focus on the factors related to the employees performance and thus achieve their organizational goals (Dahkoul, 2018). In addition, Kalkavan and Katrinli (2014) argued that job performance is a result of the skills, abilities and knowledge owned by employees, which contribute to improve the productivity of the organization to achieve its goals. Therefore, organizations must work and pay more effort to improve the employees' performance.

Glisson (2015) shows the relationship between employee performance and employees turnover. Organizations with low turnover rates have a high performance levels and constructive attitudes towards the organization. He observed later that these organizations adopt policies encourage high-level employees and reduce their work pressures. In

addition, Karanja (2014); Scammon et al. (2014) pointed out that managers and leaders should make more effort to develop policies and cultures that promote motivation both internally and externally to attract and retain high-performing employees.

The overall satisfaction of the employees as well as their reward is primarily centered on their sense of appreciation by the organization. Building appropriate pay structures and remuneration management, in general, is the general policy that managers used to generate and develop this sense among employees. The remuneration received by the employee, whether material or moral, is an important element of the organization provided to its employees in recognition of their efforts and motivation to do more (Joshi, 2016). He added that all remunerations in their financial and moral forms constitute a decisive and motivating factor for employees to increase their performance and job satisfaction.

2.3. Procedural justice

There is considerable consensus among researchers about organizational justice. It was divided by many of them into two different, but interdependent parts: distributive justice, which focuses on a sense of fairness in results and outputs, and procedural justice, which focuses on procedures which is followed (Danaeifar et al., 2016). In general, employees can overlook certain things if they have a sense of fairness to the process and distribution (Ashraf et al., 2018).

Procedural justice is concerned with the procedures followed in decisions making that concern employees such as salaries and fairness of the job system in general. In other words, it concerns fairness of the process by which decisions are made within the organization (Fields et al., 2000). In addition, Milkovich and Newman (2002) indicated to the importance of procedural justice, which is concerning in the procedures for determining compensation structure.

The establishment of salary and wage structure is considered an internal structure in the organization. Because justice is applied to internal structures, procedural justice includes how decisions about the design and management of structures are made, and if these procedures and processes have been done in a balanced and consistent manner (Milkovich et al., 2013).

Employees' understanding and acceptance of results is greatly influenced by their perception of procedural justice. If employees or managers alike believe that the way wages and salaries were prepared was fair, they would be more willing to accept it even if those wages were low. Besides, payment procedures can be considered fairer: (i) If the process of applying these procedures is continuous and involves all employees; (ii) If employees have a role to play in this process; (iii) Having the right to appeal the results; (iv) Accuracy of data used in process (Milkovich et al., 2013). According to Adam's theory of equity, where the ratio of inputs to outputs must be fair in order to increase job satisfaction and improve performance, Deutsch (1975) emphasized that human resources practices must take procedural justice in order to achieve that.

2.4. Research framework

Figure 1 shows the study framework that will be used in this research.

3. Hypothesis development

In this section hypothesis will be developed for direct relationship between job analysis as independent variable, job performance as dependent variable mediated by procedural justice.

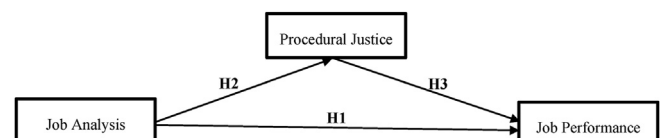


Figure 1. Research conceptual framework.

3.1. Job analysis and job performance

Job analysis through the collection and analysis of job data is a systematic practice of human resources management. Previous research on job analysis has focused on its methodological aspects. These research has had a significant impact on the modernization and development of procedures aimed at creating an accurate and useful database of jobs (AlamEdien, 2015).

Many researchers considered that job analysis represents a strategic practice and has a great importance as well a significant contribution to the organizational performance (Bowin and Harvey, 2001; Casico, 1998). Wynekoop and Walz (2000) explained that there are a number of factors that affect operational efficiency in relation to the quality and level of performance during a specific period of time. These factors include an individual's competence as well as knowledge, skills and abilities. Casico (1998) mentioned that in order to plan new jobs and perform changes to reach organizational goals and maintain them, organizations must have a good understanding of the required knowledge, skills in addition to the capabilities. Latham and Kenneth (1994) added that job analysis is considered as one of the factors that enhance the efficiency of employees and increase the level of their performance.

In the current literature on human resource performance, there is much evidence of an impact of positive job analysis process on employee performance. Job analysis is considered as a major centre of human resources practices to utilise from employees and get the best performance from them. Chapman (2006) explained that the most important goal of job analysis is to improve the use of employees and increase their performance.

AlamEdien (2015) concluded that in order to increase organizational performance, organizations must link job analysis with its business strategy in order to be able to implement the plans resulting from job analysis process. He added that organizations must set appropriate standards to enable them to conduct the analysis process effectively lead to the maximum utilization of the potential of its employees. Nyasha et al. (2013) found a significant relationship between job analysis and organizational performance as well as job performance. They noted that this is through the improvement of the organization's compensation system. Moreover, they concluded that a good and integrated job analysis has positive effects on employees through their performance and their intention to quit work.

Locke (2004) supported the idea that job analysis has a vital role in the process of planning and making appropriate, fair decisions that are transparent and defensible. He went on to say that this process enables managers to fully understand the functions of the organisation, which increases the efficiency of their decisions. In addition, Cross (2004) found a positive and significant relationship between job analysis and job performance. He explained that the analysis of the job determines the duties to be performed by the employee who is likely to perform at full capacity when he knows that he is responsible for the results of his performance. He added that the fact that performance evaluation is one of the results of job analysis, this will lead employee to pay his best efforts to accomplish the work, which raises the level of job performance. Based on the previous literature, the researcher hypothesized that:

H1. There is a positive and significant relationship between job analysis and job performance in Jordan Industrial Estates.

3.2. Job analysis and procedural justice

Procedural justice indicates to an employee's perception of equity and integrity of procedural elements within a complete system that regulates the allocation of available resources. It corresponds to subsequent and final results that deal fairly and consistently with methods, processes and mechanisms (Swalhi et al., 2017).

Procedural justice can be felt by employees when the procedures and steps within the organization embody acceptable forms in accordance

with standards and regulations (Pan et al., 2018). In other words, fairness of the procedures ought to meet the following standards: the extent to which they avoid prejudice and discrimination between employees on unfair grounds; create aligned allocations; and depend on accurate data and information. These measures should be representative of the interests of all beneficiaries, in addition to being based on established ethics (Leventhal, 1980). Therefore, it is hypothesized that:

H2. There is a positive and significant relationship between job analysis and procedural justice in Jordan Industrial Estates.

3.3. Procedural justice and job performance

Procedural justice indicates to the fairness of the procedures and processes that are used in the decision-making process that entails the organization's general policy and structure. Employees who feel procedural fairness have higher levels of control of the environment, lower levels of job absenteeism, less intent to quit work, increased job performance and commitment to the organization (Podder and Ferdauy, 2014).

Cropanzano et al. (2002); Konovsky and Cropanzano (1991) declared that there is a positive and significant correlation between employees' perception of procedural justice and their performance. Accordingly, they may have more confidence in their managers and in performance evaluation process applied to them within the organization. They added, this assessment takes place in an accurate environment by a manager who is committed to applying procedural justice in a consistent and impartial manner. Therefore, the researcher hypothesized that:

H3. There is a positive and significant relationship between procedural justice and job performance in Jordan Industrial Estates.

As was explained in the previous assumptions, there is a relationship between job analysis and job performance (Nyasha et al., 2013), and a relationship between procedural justice and job performance (Podder and Ferdauy, 2014), in addition to a relationship between job analysis and procedural justice (Pan et al., 2018). Accordingly, Baron and Kenny (1986) proved that in the event of existence there direct and positive relationships between three variables. This means that one of these variables might have the potential to mediate the relationship between two of them. Based on that, this study assumes:

H4. Procedural justice mediates the relationship between job analysis and job performance in Jordan Industrial Estates.

4. Methodology

Quantitative research had been described and demonstrated as a design which attempts to organise and master the area of the study as much as possible and restrict the concentration into a limited band of behaviour. Quantitative data are evaluated by using descriptive and inferential statistics. Moreover, the quantitative research is appropriate to enrol a small set of antecedent identified variables (Rudestam and Newton, 2001). In addition, Leedy and Ormrod (2005) declared that the quantitative research method is the most appropriate way when it is intended to study the relationship between variables that predict, illustrate or control a particular phenomenon. The explanatory and descriptive quantitative research was used to conduct this study that was conducted in Jordan Industrial Estates (JIE). The study population consists of Jordanian employees working in the industrial companies operating within JIE. The total number of the study population is 22,843 employees; they constitute 41% of the total number of employees in industrial estates of different nationalities. Three of five industrial estates were included in this study through the stratified sample, as they represent the main geographical regions in the north, middle and south of Jordan. Besides, the number of Jordanian employees in these three estates represents 87% of the total number of Jordanian workers in all estates. The data collection process was done through a

self-demonstrated questionnaire that was distributed through the random selection of factories in the study sample and the systematic random selection of employees in each factory. The study sample size is 379 employees depending on the Krejcie and Morgan (1970). Whereas Creswell (2009) suggested that the largest possible number of respondents should be selected so that the sample is representative of the target population to make the study more realistic and closer to the truth for the purpose of generalization. Team decided to continue recruitment to reach a sample size of 760 in order to allow subgroup analysis; such as comparison between industrial sectors and industrial estates as a whole. This will be published in separate report. 690 questionnaires were retrieved, of which 646 were valid for analysis. The questionnaire items were adopted by Raju and Banerjee (2017) and Rehman (2009) for job analysis, Niehoff and Moorman (1993) for procedural justice in addition to Pradhan and Jena (2017) for job performance. It was translated from English into Arabic using the back-translation method recommended by Brislin (1980). A 5-point Likert scale was used to measure the responses of respondents to the study items. The data collected was analysed through Structural Equation Modelling (SEM) using AMOS software for statistical analysis.

5. Findings

5.1. Descriptive statistics

The profile of respondents is as shown in Table 1 below:

Table 1. Profile of respondents.

	Frequency (n)	Percent (%)
Gender		
Male	317	49.07
Female	329	50.93
Age		
18 to 27	274	42.41
28 to 37	240	37.15
38 to 47	104	16.10
48 to 57	22	3.41
58 to 67	6	0.93
Marital Status		
Single	334	51.70
Married	277	42.88
Divorced/Widow	35	5.42
Experience at Company		
1 to 5	455	70.43
6 to 10	106	16.41
11 to 15	44	6.81
16 and above	41	6.38
Education Level		
High School	321	49.69
Diploma	104	16.10
Bachelor Degree	208	32.20
Graduate Studies	13	2.01
Position		
Management	195	30.19
Field Worker	451	69.81
Monthly Salary		
100 to 200	18	2.79
201 to 300	373	57.74
301 to 400	101	15.64
401 to 500	66	10.21
501 and above	88	13.62

5.2. Confirmatory factor analysis

Three of confirmatory factor analyses were used to evaluate the overall measurement model for job analysis (JA), procedural justice (PJ), as well as job performance (JP). Convergent validity, and construct reliability of each variable had been tested by assessing the fit indices, the factor loading, Average Variance Extracted (AVE), and Construct Reliability (CR). In order to get the model fit, Hair et al. (2010) suggested to achieve at least 3 fit indices to establish model fit and the recommended fit indices include Relative Chi-Square, RMSEA, and any one from GFI, AGFI, CFI, NFI, and TLI. The model gets fit for all variables as it is shown in Table 2, the RMSEA was lower than 0.08 and the relative chi-square was lower than 5 and the value of GFI, AGFI, CFI, NFI, and TLI were higher than 0.90 (see figure 2).

In illustrating Table 2 of confirmatory factor analysis (CFA) for the construct of Job Analysis, Procedural Justice, Task Performance, and Contextual Performance which have 6 items, 6 items, 6 items, 10 items respectively where all the items' factor loadings were more than 0.5 and their AVE was more than the recommended value of 0.5 (Fornell and Larcker, 1981). Therefore, none of the items were deleted. Thus, it can be concluded that all the items got adequate convergent validity (Hair et al., 2010). Similarly, in Table 2 also showed that all the constructs' reliability was higher than 0.7 which meet the cut-off value (Byrne, 2010; Hair et al., 2010; Hayes and Scharnow, 2013).

5.3. Second order CFA of job performance

The second order factor analysis of "Job Performance" met all the fitness indices above 0.9 as well as other recommended criteria for goodness of fit. The RMSEA is lower than 0.08, relative chi-square is less than the recommended 5 and the CFI, IFI, GFI, AGFI, TLI indices are higher than 0.9. Thus, the fitness of indices indicates that the second order model is a good fit to the data at hand. In addition, the output revealed that Task Performance and Contextual Performance factor loading were higher than 0.5. Based on this output, it could be concluded that next data preparation analysis (measurement model) can proceed upon where model modification can take place to meet the loading factor components and the regression weights for every construct in the model.

5.4. Measurement model

The measurement model was used in this study to examine the relationship between the independent, mediator and the dependent variables. The measurement model is the second level of analysis in the structural equation modeling, which in turn is considered part of data preparation. As, the analysis of measurement model using AMOS reveals that the model is fit, whereas goodness of model fit is achieved as the following: chi-square (CMIN) = 3403.743 (df = 1050), relative chi-square (CMIN/df) = 3.242, AGFI = .781, GFI = .805, CFI = .906, IFI = .906, TLI = .899, RMSEA = .059. Accepted criteria for relative chi-square (CMIN) should be <5, while AGFI, GFI, CFI, IFI and TLI should be >.9 (Bentler, 1983; Byrne, 2010; Hu and Bentler, 1999) and RMSEA should be <.08 (Browne and Cudeck, 1989; MacCallum et al., 1996; cited in Byrne, 2010).

5.5. Discriminant validity

The discriminant validity of the study revealed the extent of the distinction between the constructs in the measurement model. Table 3 below depicts the CFA results summary for discriminant validity. Based on the table, thus, the discriminant validity is achieved when a diagonal value in bold is higher than the values in its row and column. Therefore, all the constructs in the measurement model exhibit sufficient discriminant validity (Byrne, 2010). In addition, all the correlation (r^2) values between the constructs were less than the recommended correlation values 0.9 (Hair et al., 2010).

Table 2. Factor loadings, AVE and construct reliability of the variables.

Constructs	Items	Factor Loadings	M	SD	Construct Reliability	AVE
Job Analysis	S1Q1	0.857	3.584	1.177	0.933	0.701
	S1Q2	0.767	3.567	1.159		
	S1Q3	0.838	3.567	1.142		
	S1Q4	0.820	3.628	1.121		
	S1Q5	0.792	3.523	1.108		
	S1Q6	0.938	3.636	1.118		
Procedural Justice	S5Q1	0.791	3.135	1.147	0.911	0.631
	S5Q2	0.801	3.201	1.171		
	S5Q3	0.809	3.028	1.158		
	S5Q4	0.801	3.288	1.106		
	S5Q5	0.832	3.122	1.117		
	S5Q6	0.730	3.113	1.193		
Task Performance	S6Q1	0.892	3.353	1.095	0.924	0.673
	S6Q2	0.856	3.389	1.099		
	S6Q3	0.741	3.350	1.116		
	S6Q4	0.783	3.307	1.131		
	S6Q5	0.718	3.311	1.097		
	S6Q6	0.911	3.379	1.093		
Contextual Performance	S7Q1	0.769	3.786	1.127	0.948	0.644
	S7Q2	0.777	3.789	1.168		
	S7Q3	0.788	3.769	1.147		
	S7Q4	0.801	3.755	1.191		
	S7Q5	0.792	3.720	1.171		
	S7Q6	0.844	3.737	1.135		
	S7Q7	0.825	3.687	1.187		
	S7Q8	0.819	3.749	1.189		
	S7Q9	0.807	3.752	1.141		
	S7Q10	0.798	3.666	1.229		

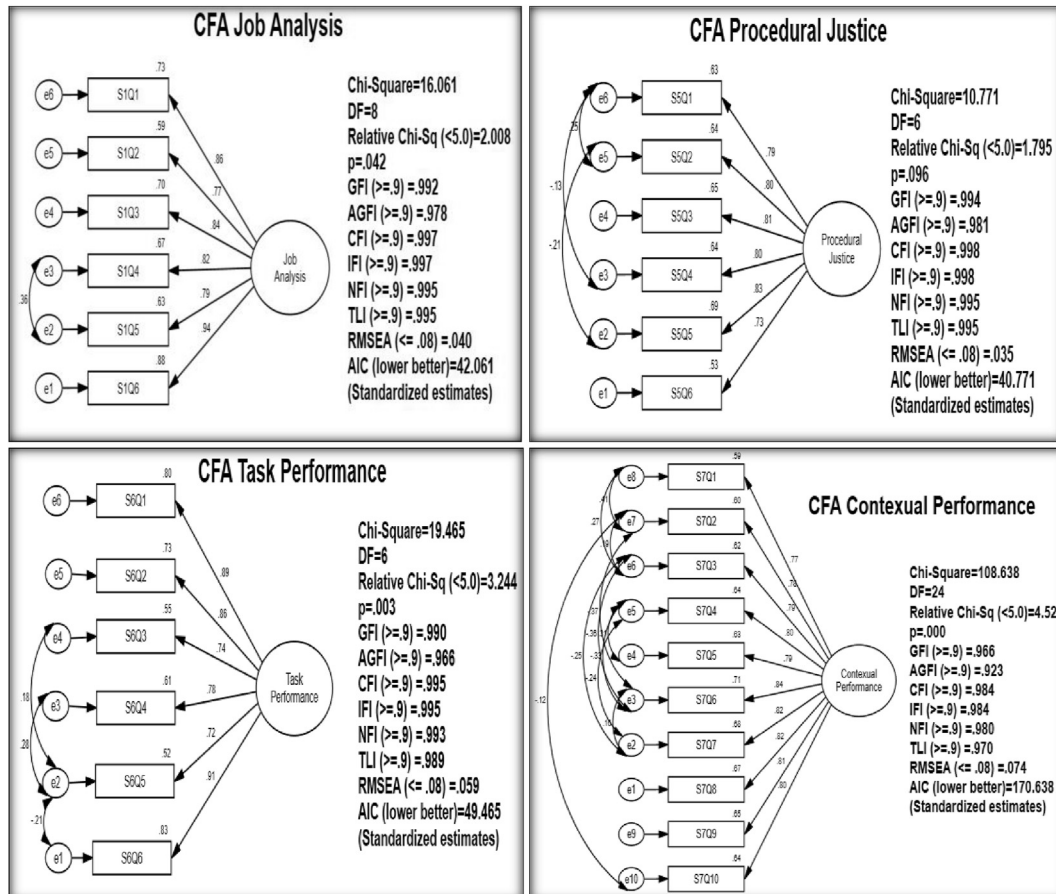


Figure 2. CFA of SA, PJ, TP, and CP.

5.6. Structural equation modelling (SEM) analysis

Structural Equation Modelling was used to determine the influence of Job Analysis on Job Performance and Procedural Justice. The maximum likelihood estimation (MLE) technique was used to estimate the model. The hypotheses of direct relationship between constructs were presented in the below Table 4. As illustrated in below table, the result indicated that Job Analysis construct was found to have a positive and statistically significant effect on Job Performance (Beta = 0.190, C.R = 3.512 and P = 0.000). This means, on average, one-unit change in the Job Analysis will increase Job Performance by 0.190 units. The result was found to be consistent with the theory. The second relationship between job analysis and procedural justice is statistically significant as the result (Beta = 0.144, C.R = 2.767 and P = 0.006). The result was found to be consistent with the theory. Similarly, the results revealed the existence of positive and significant relationship as the results (Beta = 0.631, C.R = 8.349 and P = 0.000).

5.7. Analysing the mediating effect

The final objective of this study was to determine the mediating effect of procedural justice in the relationship Job Analysis and Job Performance. Bootstrapping approach was applied to examine possible mediation effect of organizational justice in this relationship. Bootstrapping method provides an estimate of magnitude of the indirect effects and examines the statistical significance of indirect effect.

As illustrated in the below Table 5, the result indicated that the bias-corrected 95% percentile confidence interval (Beta = 0.091, P = 0.018) and does not include zero in between LB and UB. This finding revealed that the indirect effect of job analysis on job performance through mediator procedural justice is statistically significant at the 0.05 level of significant.

In explaining the mediation effect, the results of the direct model and the mediation model were compared. Since, the direct effect was statistically significant, it could be concluded that procedural justice partially mediated the relationship between job analysis and job performance. Therefore, the hypothesis was supported by sufficient statistical evidences. The null hypothesis was rejected. Thus, procedural justice partially mediates in the relationship between job analysis and job performance.

6. Discussion

According to this research results, all of the hypotheses which had been hypothesized were supported. Job analysis was positively related to job performance and positively related to procedural justice. Also, procedural justice was positively related to job performance. In addition, the findings propose that procedural justice partially mediated the relationship between the job analysis and job performance.

The first result of this study proved that there is a positive effect of job analysis on job performance which corresponds to the pay model as well as with many of the studies previously discussed above (Atteya, 2012; Hailemariam et al., 2019; Milkovich et al., 2013; Mira et al., 2019; Nyasha et al., 2013; Okumbe, 1999). Moreover, this study found a positive effect of job analysis on procedural justice, which is consistent with equity theory and many of the studies that were previously discussed (Pan et al., 2018; Swalhi et al., 2017). These studies have shown that the perception of justice in the procedures and steps taken by the organization in decision-making processes leads to an increase in the effectiveness of employees and raising their level of performance.

The results regarding to the third hypothesis showed that there is a positive effect of procedural justice on job performance, and this is in line with equity theory and the previous studies that were discussed above. Where these studies showed that the employees' perception of justice in

Table 3. Discriminant validity.

Constructs	CP	PJ	JA	TP
Contextual Performance (CP)	0.796			
Procedural Justice (PJ)	0.188	0.793		
Job Analysis (JA)	0.287	0.168	0.837	
Task Performance (TP)	0.274	0.521	0.240	0.819

The square root of AVE of each construct (on the diagonal) and correlation coefficient (on the off-Diagonal).

Table 4. Path Co-efficient results.

Hypotheses		B	S.E.	Beta	C.R.	P	Decision
Job Performance	<— Job Analysis	0.110	0.031	0.190	3.512	0.000	Supported
Procedural Justice	<— Job Analysis	0.090	0.032	0.144	2.767	0.006	Supported
Job Performance	<— Procedural Justice	0.589	0.071	0.631	8.349	0.000	Supported

Table 5. Mediation Effect of Job Analysis on Job Performance through procedural Justice.

Hypothesized Path	Beta	P-Value	95% Bootstrap BC CI		Decision
			LB	UB	
Direct Model					
Job Analysis → Job Performance	0.290	0.000			Partial mediation
Mediation Model					
Job Analysis → Job Performance	0.190	0.000			
Std. Indirect Effect	0.091	0.018	0.015	0.186	

the procedures and steps that the organization takes in decision-making processes leads to increasing their effectiveness and raise the level of their job performance (Konovsky and Cropanzano, 1991; Podder and Ferdausy, 2014).

The procedures that organization performs, especially with regard to the salary and wage structure, and how to distribute salaries to jobs in a manner commensurate with each job in terms of the duties that the employee must perform, as well as the qualifications and skills that must be provided in that employee through job analysis, has a positive impact on their performance as indicated by the results of this study. Moreover, the employees' perception of justice has a positive impact on their overall performance. This study showed, through its results, that the employees' perception of justice in these procedures and decisions increases their job performance. The results also showed that procedural justice mediates the relationship between job analysis and job performance and this corresponds to the equity theory, and also corresponds to that if there are positive and direct relationships between three variables, one of them might has the potential to mediate the relationship between them (Baron and Kenny (1986)).

7. Conclusion

In the conclusions, it is vital and necessary for organizations to seek to increase the level of job performance through all the means available, and through job decisions affecting employees and their life affairs. Among these decisions are those related to how to determine the appropriate salary for each job and how to pay it to employees by analyzing each job independently before being compared to the rest of jobs internally and externally. The employees' perception of justice towards these taken procedures has a positive and vital impact in increasing their level of satisfaction and thus performance. This will increase the employees' desire to develop themselves and stay in the organization as long as possible.

7.1. Implications

The results of this study have many theoretical and practical implications. It can be used as a practical guide for industrial companies operating in the Jordanian industrial estates and other companies, so that they pay more attention and more focus on human resources practices, especially those related to job analysis, procedures and decisions related to determining the level of salaries and wages within these companies. This study can increase companies' observance of procedural justice during their job analysis process as a first step in the construction an internal pay structure and determining the value of the pay due to everyone who occupies this job.

There is a theoretical implication for this study results from the supporting evidence of the big role of the pay model and the equity theory in explaining how and why job analysis and procedural justice affect job performance in different companies. The present findings asserted that job analysis and procedural justice have a great impact on employees' performance. Moreover, it contributes to the body of knowledge and support the mediating role of procedural justice in decisions taken within the organization.

7.2. Limitations and future research directions

There were some limitations for this study, as was for any other study. First, this study focused on job analysis aspect only, among the factors through which the internal pay structure is built. By studying the rest of the factors through which the pay structure is constructed, it could have provided a better understanding of the role of the perception of justice in employee performance. Second, the model of this study has been applied in companies operating in the Jordanian industrial estates. Jordan is developing country where this model can be applied to other locations

and in other developing countries that share similar structures and cultures.

Future studies should consider this data to the rest of the factors related to construction of the internal pay structure, as well as clarifying the role of organizational justice as a mediator in applying these factors and their impact on employee performance. Besides, future studies can measure employee performance based on appraisal reports and supervisors' point of view.

Declarations

Author contribution statement

M. Khatbeh: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

A.S.B. Mahomed: Conceived and designed the experiments; Contributed reagents, materials, analysis tools or data.

S. A. Rahman: Performed the experiments.

R. Mohamed: Analyzed and interpreted the data.

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Competing interest statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

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