

An empirical study on the impact of organizational justice on employee job satisfaction: Evidence from the Manaseer industrial complex in the mining sector



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ABSTRACT

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Employee job satisfaction is a key dependent variable in organizational behavior research as it is associated with job performance, retention, and workplace culture. It is widely accepted that employees who are satisfied with their job experience are more productive and likely to be retained by an organization. Organizational justice (i.e., distributive justice, procedural justice, and interactional justice) is linked to job satisfaction, as perceived fairness is integral to job satisfaction, working life, and employee engagement. However, there is minimal research concerning employee job satisfaction relative to organizational justice in the industrial and mining sectors of Jordan. This study aimed to determine whether organizational justice impacts employee job satisfaction within the Manaseer Industrial Complex in Jordan. A quantitative, cross-sectional study was conducted utilizing a structured questionnaire delivered to 247 employees in a variety of job levels. Data was analyzed using reliability tests, correlation, and multi-model regression analyses. Results showed a statistically significant positive relationship for distributive and interactional justice on job satisfaction, whereas procedural justice did not demonstrate a significant relationship on job satisfaction. In conclusion, organizations within the mining sector should consider the value of a transparent reward system to advance job satisfaction for employees and to develop an organizational culture that supports the well-being of employees.

Contribution/ Originality: The study contributes by providing data on the impact of the different dimensions of organizational justice on job satisfaction in Jordan's mining industry. By highlighting the stronger impact of interactional and distributive justice, it offers both theoretical and practical insights for shaping HR strategies in industrial organizations across Asia.

1. INTRODUCTION

The increasing importance of human resource management is an essential part of the ongoing process of organization management. Employees are considered key to success in the organization and are critical resources to manage. Organizational goals and objectives are mainly achieved by improving the organization's profit, performance, experience, and alignment with strategic orientation [1]. Meeting goals and objectives depends on the cooperative performance of its employees, reflecting the organization's competitive position from a strategic perspective [2].

The concept of human capital demonstrates how human resources are a part of an organization's intangible assets and a source of competitive advantage. Furthermore, the performance of human capital is a key indicator for an

organization to achieve its goals [3]. Studies have shown that many work-related attitudes affect the employee's outcomes such as organizational commitment [4], job involvement [5], employee engagement [6], and job satisfaction [7].

A key variable that influences many outcomes of employees is job satisfaction. For example, employee turnover and intention to leave [8], performance and productivity [9], customer satisfaction [10], absenteeism [11], and employee's safety [12]. Therefore, organizations must closely monitor the indicators representing human resource satisfaction. Many factors affect employee satisfaction, such as work environment [13], pay and compensation [14], relationship with supervisor [15], job security [16], appreciation [17], and organizational justice perception [18]. Organizational justice refers to an employee's notion of justice regarding the work environment and their expectations of how they should be treated by the organization [19]. This perception is based on three major dimensions: procedural justice refers to the fairness in decision-making processes, distributive justice is defined as how employees recognize fairness in outcomes compared to others, and interactional justice reflects the interpersonal treatment employees receive [20].

Job satisfaction affects employee behavior and outcomes, which has become a focus of interest for research in human resource management [12, 13, 17] as various researchers have identified the factors contributing to job satisfaction. Many studies on organizational justice have been conducted in Jordan across sectors including education, energy, transportation, the government academic sector, and health sectors [19, 21-23]. To the best of our knowledge, studies on the mining sector regarding organizational justice measures have not yet been examined.

Manaseer Industrial Complex is one of the leading companies in the mining and manufacturing sectors, which emphasizes creating a positive and constructive workplace as part of its strategic directions [24]. Therefore, this study aims to examine how organizational justice affects job satisfaction within Jordan's mining sector, focusing on employees' perceptions of the three dimensions of organizational justice and their effects on satisfaction.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This section aims to review the literature related to organizational justice and job satisfaction to develop research hypotheses.

2.1. Job Satisfaction

Job satisfaction is a significant attitude that has been widely studied within organizational behavior research. Earlier research by Brayfield and Rothe [25] described job satisfaction as the employee's attitude toward their work. A study found that employees with higher job satisfaction demonstrate increased job innovation and novelty, greater participation in decision-making, and stronger organizational commitment [26]. Studies have defined job satisfaction as the extent to which an employee has positive or negative feelings about the job [27]. More recent empirical contributions emphasize the consequences of job satisfaction [28] and its role in employee retention, employee motivation, organizational outcomes, etc., Zhou et al. [29]. Dirwan et al. [30] observed job satisfaction as an attitude that the employee holds toward their work, resulting from positive individual feelings regarding their job, derived from the assessments of its components.

Theoretical frameworks extend explanations of how perceptions of fairness shape satisfaction. Adam's equity theory was an early study of motivation regarding employee perceptions and evaluation of the job components to identify satisfaction levels [31]. It proposes that employees compare their ratios of outcomes to inputs relevant to others, whether they were in the same organization or not. The reactions to inequity may vary but mostly depend on the fairness of pay. This idea was later expanded to refer to fairness perceptions when linked to organizational justice [32].

Moreover, Simons and Roberson [33] examined the aggregation of justice perception, which revealed that the perception of justice impacts employees' organizational commitment, turnover intention, and discretionary behavior.

Additionally, it has been suggested that fairness perceptions are subjective [34]. What one employee views as fair may be perceived differently by another employee. As supported through meta-analyses, justice perceptions are powerful predictors of job satisfaction [35]. Injustice is often related to negative emotions and turnover intentions.

Likewise, Saifi and Shahzad [36] investigated the positive link between organizational justice and organizational citizenship behavior through job satisfaction, which significantly affects job performance. Sia and Tan [37] assessed the association of organizational justice and job satisfaction, including job levels from managers to supervisors and staff across thirteen departments in nine different hotels, focusing on pay, relationships, and schedules. Job satisfaction was measured by overall satisfaction, job stability, and the bond to stay at the job. The study revealed that distributive and interactional justice had a positive impact on job satisfaction. While the above literature establishes these relationships, most studies have focused on Western and service-oriented contexts. Few studies have examined heavy industry or research conducted in Middle Eastern countries, which creates a significant gap in the literature.

2.2. Organizational Justice

Organizational justice is concerned with individuals' beliefs about what is right, concerning objective reality. According to that, organizational justice is referred to as the personal evaluation of the ethical and reasonable management practices that the employee considers [38]. Nevertheless, organizational justice broadly refers to the employee's definition of fairness within the workplace. It can also be seen as the theory of equity expansion [31] with more determinant factors affecting employees' intention toward the perception Wiseman and Stillwell [39]. Cropanzano and Greenberg [40] described it as the individual's or group's fairness perception perceived through management practices and their behavioral responses to these perceptions. Organizational justice is defined as the role of fairness perception as it evolves in the workplace environment. It focuses on how employees define equal treatment and how the dimensions of this definition affect job-related activities [41].

Organizational justice is an important variable affecting human resource-related tasks due to its relationship with employee job satisfaction. In another research, Greenberg [42] declared that organizational justice may partially explain various variables of organizational behavior outcomes. This understanding of the individual toward the interaction with the decision-making process and work environment leads to conceptualizing fairness based on individual judgment, which eventually affects job performance and satisfaction Sainz et al. [43]. Mashi [18] tested the connection between organizational justice dimensions and employee outcomes, with job satisfaction serving as a mediator. The findings revealed a relationship between organizational justice and job satisfaction. Additionally, a direct relation was found between job satisfaction and employee outcomes such as organizational citizenship behavior, deviant behavior, and turnover intention. Most of these studies rely on small, homogeneous samples with an emphasis on single dimensions, which limits the generalizability of the findings without considering all three dimensions together. The perception of fairness that an employee has towards the workplace is known as organizational justice [20]. The concept contains three common dimensions. The first one is distributive justice, which describes employees' fairness perception regarding work outcomes [44, 45]. The second dimension is procedural justice, which involves the employee's perspective of fairness related to the system, along with procedures used to determine pay and resource allocation [46]. Interactional justice is the third dimension representing employee fairness perception received from the dignity and quality of treatment at the workplace [47].

2.3. Distributive Justice and Job Satisfaction

Distributive justice is referred to as the equity of resource allocation to employees, by equality of pay and compensation manner [48]. Cropanzano et al. [34] described distributive justice components related to the equity of employee rewards, equality in providing the same compensation, and resource allocation based on personal requirements. The study of Johnson et al. [20] with a focus on US public sector employees stated that distributive justice also represents the individual self-comparison to others within the organization, whether they receive equal

rewards or not. Where the allocation of organizational resources is the main cause of this perception, it may be influenced by pay, titles, or the location and size of offices. The notion of distributive justice is correlated with the outcome of input resource distribution, whether it is tangible or intangible [49].

Distributive justice may serve as a strong predictor of personal outcomes, like satisfaction with pay compensation, as it reflects the organizational rules and procedures according to Liu et al. [50] in service industries. Martins et al. [51] further emphasized its predictive role in job satisfaction and commitment behavior at the workplace, but with a small sample size. Additionally, it appears to be one of the explaining variables of individual motivation. Mensah et al. [52] conducted the study in Ghana to examine the effect of organizational justice on employee performance, with job satisfaction serving as a mediator. However, the research revealed that organizational justice does not affect job performance but affects job satisfaction and commitment, whereas distributive justice is considered the best predictor for job satisfaction based on the study model.

Another study by Lambert et al. [53] assessed the connection between job satisfaction and organizational commitment through distributive justice and procedural justice as mediator variables. The study findings highlighted distributive and procedural justice perceptions to have a notable influence on job satisfaction. Dalimunthe et al. [54] investigated the role of distributive justice at the Padang Sidempuan City Health Office in North Sumatra. Findings indicated that distributive justice exerts a greater influence on job satisfaction, which affects employee performance.

Kharismasyah et al. [55] examined how distributive and procedural justice impact organizational citizenship behavior, with job satisfaction mediating the relationship. These results demonstrate a significant relationship between distributive and procedural justice and job satisfaction. Additionally, they influence organizational citizenship behavior. Therefore, in this context, the study proposes that:

Hypothesis 1: Distributive justice has a significant positive impact on job satisfaction at Manaseer Industrial Complex.

2.4. Procedural Justice and Job Satisfaction

Procedural justice represents an employee's assessment of fairness in the decision-making process [42]. It's the process of self-evaluation by individuals in relation to fair decision-making processes and distribution within an organization [56]. Moreover, the study of Fauzi and Juniarti [57] regarding organizational justice from a psychological perspective represented emotional intelligence and procedural justice as significantly impacting job satisfaction, especially related to promotion and pay. Greenberg and Colquitt [58] introduced procedural justice as the perception of fairness that individuals hold regarding resource allocation, which is determined through procedures and policies that influence outcomes for individuals. It can be assessed by the degree to which the organization is committed to following rules, procedures, and policies, and how employees practice these policies. Concern is focused on whether decisions are made through fair and transparent processes that determine the output [23]. Employees also evaluate procedural justice based on consistency, relevance, the number of relevant parties affected, and ethical standards [59]. Outcomes derived from procedures perceived as fair are more acceptable to affect individuals than those outcomes resulting from procedures viewed as unfair [40]. Its appropriateness of the allocation process, through the same treatment of employees, no discrimination, accuracy of information, engagement in the decision-making process, fixing process mistakes, and ethics [20]. In a related manner, another study conducted by O'Callaghan [60] in the educational sector assessed the impact of perceived fairness on job satisfaction resulting from promotion procedures and procedural justice. The research findings indicated a high perception of procedural justice when employees perceive promotion procedures as transparent, and meaningful work is connected to their roles, thereby promoting employee retention. Additionally, there is a significant relationship between procedural justice and job satisfaction. Most of the research concerning procedural justice primarily focuses on sectors such as hospitality, education, or banking, where decision-making processes tend to be more structured compared to industrial contexts. Ismail et al. [61] examined practical procedural justice perception and job satisfaction by perceived fairness of the performance appraisal communication. The conducted research pointed out that perceptions

of procedural justice and their link to job satisfaction were influenced by perceptions of communication and fairness in treatment throughout the appraisal process. Additionally, procedural perception can be enhanced by avoiding ambiguous actions without proper justification. Therefore, this study proposes that:

Hypothesis 2: Procedural justice has a positive significant effect on job satisfaction at Manaseer Industrial Complex.

2.5. Interactional Justice and Job Satisfaction

Interactional justice refers to the quality of dignity, respect, and fairness shown to the employee during the application of organizational procedures [62]. Interactional justice emphasizes non-procedural elements of interpersonal interactions. It reflects an individual's social factors' response to the manner of treatment [21]. Interactional justice comprises two factors: the first is informational justice, related to truthfulness and sufficient justifications given for the decision-making process, whereas the second part is interpersonal justice, which represents the degree of dignity and respect an individual is treated with [34].

Qandeeel and Kuráth [63] stated that employees who perceive fair treatment by the organization hold more commitment, trust, and satisfaction toward the organization. Hayati and Caniago [56] studied the impact of organizational justice on job satisfaction among participants in the banking sector. The results indicated interpersonal justice as the most important predictor for job satisfaction, where it is derived from dignity, respect, and rationale of decision. In an interactional justice study, Altahayneh et al. [22] investigated the overall relation between perceived fairness from the three components of organizational justice and job satisfaction conducted in the educational teachers of Jordan. Results exhibited a thorough relation within organizational justice dimensions; furthermore, interactional justice proved to be the strongest determinant of job satisfaction among the mentioned dimensions as per the study results.

Zainalipour et al. [64] tested the association between organizational justice dimensions and job satisfaction in Iranian teachers. The findings unveiled a positive relation between the two dimensions, where interactional justice showed a significant relation with job satisfaction dimensions: supervision, coworker, pay, and promotion. However, this study was limited to a small occupational group, thus highlighting the need to evaluate interactional justice in more labor-intensive environments, which may affect people's satisfaction with different outcomes when interpersonal treatment is involved. Similarly, Sun et al. [65] indicated that justice perceptions can extend beyond human resources studies. The study examined the effect of justice perceptions in buyer and supplier relationships and found that informational justice significantly influenced the buyer-supplier relationship. Thus, the study proposes that:

Hypothesis 3: Interactional justice has a positive and significant effect on job satisfaction at Manaseer Industrial Complex.

The impact of distributive, procedural, and interactional justice on job satisfaction has been demonstrated in Figure 1.

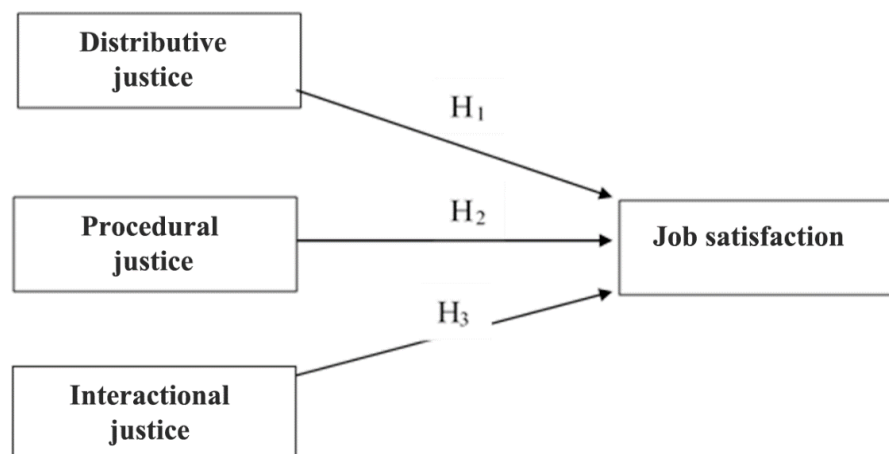


Figure 1. Research model.

3. METHODOLOGY

A quantitative-deductive approach was employed to explore employees' perceptions of organizational justice and the impact on job satisfaction. The quantitative design was used for several purposes. Firstly, the research seeks to demonstrate objectively the perception of organizational justice and examine if these perceptions relate to job satisfaction, which can be objectively assessed by a quantitative approach. Secondly, this approach enables the researcher to generalize study outcomes to similar industries. Thirdly, the quantitative approach ensures a standard data collection process along with a clearer sense of data analysis through surveys. Lastly, a quantitative approach is more suitable for studies discussing organizational justice perceptions and job satisfaction studies.

3.1. Development of Survey Instrument

To achieve the study objectives and respond to the research questions based on a literature review and theoretical framework, a proper survey was developed to test the proposed hypotheses [66]. The instrument included three sections. Section one included five questions that assessed the socio-demographic variables of participants, including age, gender, educational level, job title, and years of experience. Section two was related to independent variables, which were adopted from the previous literature (Table 1). This section included five items adopted from Al-Zu'bi [21] for distributive justice. Six items and nine items were adopted from Al-Zu'bi [21] for procedural justice and interactional justice, respectively. Section three (dependent variable) included seven items to measure job satisfaction that were adopted from Fernandes and Awamleh [67].

Table 1. Elements of organizational justice.

Variable	No of items	Source	Cronbach's alpha (α)
Distributive justice	5	Al-Zu'bi [21]	0.79
Procedural justice	6	Al-Zu'bi [21]	0.82
Interactional justice	9	Al-Zu'bi [21]	0.80
Job satisfaction	7	Fernandes and Awamleh [67]	0.87

The initial draft of the questionnaire was sent to academic reviewers. The academic experts reviewed the drafted survey and advised enhancing the introduction of the survey, modifying the demographic variables related to age, job, and experience levels. Additionally, they reviewed the validity of measures; no items were deleted.

Although the survey was translated into Arabic for clarity, as it is the official language in Jordan, to ensure clarity for the respondents, all data were analyzed in English according to journal requirements. The translation was formally reviewed by experts for validity with minor wording modifications. The survey used a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) to indicate respondent perception, aligning with previous literature [21, 67].

3.2. Data-Collection Method

The company had 550 employees in its human resources. In respect of the population frame, the researcher targeted a (220) convenience sample of employees respecting various managerial positions, including staff, supervisors, section heads, and managers, which represented (40%) of the employees' total number, where a sufficient sample could be up to (20%) [68]. A Google Form-based online questionnaire was sent to the respondents through the company's channels (e.g., emails and company WhatsApp groups). The distribution of the online survey resulted in 247 respondents.

3.3. Statistical Analysis

Statistical analysis was performed using SPSS version 22. Descriptive analysis was conducted to analyze the demographic details of study participants. Screening of variables showed that data were not outside the expected

ranges as delineated by scales, and there were no missing or unexpected outliers. Additionally, the data were checked to meet the assumptions of multiple linear regression (e.g., normality and multicollinearity). Reliability was assessed using Cronbach's alpha, while Pearson correlation coefficient was used for validity analysis. Finally, the study hypothesis was tested with multiple regression analysis.

4. RESULTS

4.1. Descriptive Analysis

Table 2 showed that a large majority of collected data were male respondents, accounting for 98% of the total respondents, with females only 2%, which is consistent with the company's gender characteristics, where the company area scope may require a more masculine environment. It showed that 57% of the respondents were in the age group from 25 to less than 35 years, and the lowest percentage was in the group over 45 years, with only 5.7%. The age group from 18 to less than 25 years comprised 9.7%, and the group from 35 to less than 45 years accounted for 27.5% of the total percentage. Regarding academic qualifications, respondents with high school or below and bachelor degrees were represented by 34% and 35.3%, respectively, while diploma holders accounted for 29.1%, and those with higher education had only 1.6%. As mentioned, most respondents were at the staff level (73.7%), followed by supervisors with 17.4%. Heads of departments and managers comprised 4.9% and 4%, respectively. Moreover, Table 2 showed that the years of experience of participants were (Less than 3 years), representing 34.4% of the total response, and the least was (From 5 to less than 7 years), with 15.8%. (More than 7 years) accounted for 27.1%, and (From 3 to less than 5 years) had 22.7%.

Table 2. Descriptive analysis.

Items	Frequency	Percentage
Gender		
Male	242	98%
Female	5	2%
Total	247	100%
Age		
From 18 to less than 25 years	24	9.7%
From 25 to less than 35 years	141	57.1%
From 35 to less than 45 years	68	27.5%
More than 45 years	14	5.7%
Total	247	100%
Academic qualification		
High school or below	84	34%
Diploma	72	29.1%
Bachelor	87	35.3%
Higher education	4	1.6%
Total	247	100%
Job title		
Manager	10	4%
Head of the department	12	4.9%
Supervisor	43	17.4%
Staff	182	73.7%
Total	247	100%
Years of experience		
Less than 3 years	85	34.4%
From 3 to less than 5 years	56	22.7%
From 5 to less than 7 years	39	15.8%
More than 7 Years	67	27.1%
Total	247	100%

4.2. Normality Test

The Skewness tests of the study variables indicated negative Skewness (Table 3). Though the value of skewness was less than (2 or -2), it is considered non-significant, and it was concluded that the data followed a normal distribution [69].

Table 3. Normal distribution test based on skewness value.

Normality test	Skewness
Distributive justice	-0.960
Procedural justice	-1.042
Interactional justice	-1.251
Job satisfaction	-1.456

4.3. Multicollinearity Test

The data was tested to ensure that there was no high correlation among the independent variables, known as the multicollinearity phenomenon, which can amplify the value of the coefficient of determination (R²). This was further confirmed by the Pearson correlation coefficient matrix, variance inflation factor (VIF), and tolerance, as shown in Table 4 and 5.

Table 4 showed that Pearson's correlation coefficient among the independent variables ranges from 0.626 to 0.769, and these values indicate that no significant correlation is present among the independent variables, as the correlation coefficient value was less than 0.80. This is a good indication that the sample was free from the phenomenon of multicollinearity between independent variables [70]. Moreover, to ensure that there was no problem of multicollinearity in the study sample, the data was tested using the Variance Inflation Factor (VIF) and tolerance for the dimensions of the independent variables. Table 5 indicated that the variance inflation factor values (VIF) were greater than 1 and less than 10, and tolerance values were greater than 0.1, which confirmed that no multicollinearity is present between study variables [71].

Table 4. Correlation matrix between independent variables.

Independent variables	Distributive justice	Procedural justice	Interactional justice
Distributive justice	1.00	0.634**	0.626**
Procedural justice	0.634**	1.00	0.769**
Interactional justice	0.626**	0.769**	1.00

Note: ** Statistically significant at $p < 0.05$

Table 5. Variance inflation factor (VIF) and the tolerance test.

Variables	VIF	Tolerance
Distributive justice	1.738	0.575
Procedural justice	4.320	0.231
Interactional justice	4.252	0.235

4.4. Reliability Analysis: Cronbach's Alpha Test

Reliability of measures is considered a concern of consistency. The internal consistency reflects the degree to which the different measures used are probing the same construct independently to achieve related results by linking the measurement of the construct to the respondent. In other words, the items are homogeneously related within the scale [72]. Cronbach's alpha is commonly used to measure internal consistency, which can be computed by the average inter-correlation of measuring items and the number of items [73]. For social science studies, Cronbach's alpha value above 0.70 is generally considered acceptable [74]. By the above analysis, the researcher calculated the reliability of scale items using Cronbach's alpha coefficient, as shown in Table 6.

The data analysis revealed that the Cronbach's alpha coefficient ranged from 0.829 to 0.956 for study dimensions and was 0.967 for total scale items, with all dimensions exceeding the minimum acceptance criterion of 0.70. Additionally, Cronbach's alpha values for each dimension exceeded 0.80, indicating good reliability [68].

Table 6. Cronbach's Alpha values.

Dimensions	Number of items	Cronbach's alpha (α)
Distributive justice	5	0.866
Procedural justice	6	0.829
Interactional justice	9	0.956
Job satisfaction	7	0.909
Total scale items	27	0.967

4.5. Validity Analysis

Validity refers to the construct used to measure what is meant to be measured, where the validation of the instrument assesses if the instrument's measures meet the purpose of research [75]. The questionnaire's face validity was evaluated by an academic expert, as mentioned in the survey development section. To ensure construct validity, the data were tested using the Pearson correlation coefficient to measure the correlation of each item with the total score of the dimensions, as demonstrated below Table 7. Table 7 showed that the Pearson correlation coefficients between each item and the total score of the dimensions ranged from 0.676 to 0.897 and were statistically significant at ($p < 0.001$), which indicated that all items had good internal consistency with their dimensions. Regarding the results of validity and reliability tests, the figures demonstrated the internal consistency of the questionnaire measures, which is suitable for further multiple regression.

Table 7. Pearson correlation coefficient.

Variable	Item	Pearson correlation coefficient
Distributive justice	Distributive 1	0.762**
	Distributive 2	0.778**
	Distributive 3	0.849**
	Distributive 4	0.838**
	Distributive 5	0.814**
Procedural justice	Procedural 1	0.830**
	Procedural 2	0.843**
	Procedural 3	0.886**
	Procedural 4	0.859**
	Procedural 5	0.790**
	Procedural 6	0.730**
Interactional justice	Interactional 1	0.822**
	Interactional 2	0.835**
	Interactional 3	0.857**
	Interactional 4	0.844**
	Interactional 5	0.897**
	Interactional 6	0.874**
	Interactional 7	0.879**
	Interactional 8	0.888**
	Interactional 9	0.858**
Job satisfaction	Satisfaction 1	0.861**
	Satisfaction 2	0.828**
	Satisfaction 3	0.827**
	Satisfaction 4	0.838**
	Satisfaction 5	0.676**
	Satisfaction 6	0.825**
	Satisfaction 7	0.820**

Note: **correlation significant at the level 0.001.

4.6. Hypothesis Testing

Table 8 showed the correlation coefficient between the independent variables and the dependent variable ($R = 0.901$), and the value of the coefficient of determination ($R^2 = 0.812$), which highlighted that 81.2% of the variance in job satisfaction was determined through the variance of organizational justice with its dimensions combined. Also, the significance value of the F-test is less than 0.05 ($p=0.000$), which indicates that the model is significant for hypothesis testing.

In Table 9, the results of multiple regression denoted a significant positive association between distributive justice and job satisfaction, $p < 0.05$ ($t\text{-value}=8.777$, $\beta=0.324$), in which an increase of distributive justice by one unit caused job satisfaction to increase by 0.324 units. These results support H1. As for the result of the procedural justice regression model, Table 9 revealed no relation between procedural justice and job satisfaction, $p > 0.05$ ($t\text{-value}=1.444$, $\beta=0.088$), which does not support H2. For interactional justice, Table 9 exhibited a significant association between interactional justice and job satisfaction, $p < 0.05$ ($t\text{-value}=10.242$, $\beta=0.569$), where an increment of interactional justice by one unit will lead to an increase in job satisfaction by 0.569 units, which supports H3.

Table 8. ANOVA and model summary.

ANOVA				Model summary	
Model	Df	Sig F*	F computed	R ²	R
Regression	3	0.000	249.758	0.812	0.901
Residual	243				
Total	246				

Note: Significant at the level 0.05.

Table 9. Independent variables coefficient.

Independent variables	β	β (Standardized)	95% CI (Lower-upper limit) for B	Std. Error	T Value	Sig t*	Decision
Distributive justice (H1)	0.324	0.297	0.252- 0.396	0.037	8.777	0.000	Accepted
Procedural justice (H2)	0.088	0.067	-0.032- 0.208	0.061	1.444	0.150	Rejected
Interactional justice (H3)	0.569	0.502	0.459- 0.679	0.056	10.242	0.000	Accepted

Note: Significant at the level 0.05.

5. DISCUSSION

The present study investigated the effect of organizational justice on job satisfaction in the Manaseer Industrial Complex located in Jordan. The majority of the hypotheses, as shown in the previous section, were accepted. The results examined that employees' perceptions of fair distribution of rewards and resources significantly enhanced job satisfaction. The results strongly support the first hypothesis (H1). The impact of distributive justice was particularly important, with a coefficient of 0.324, indicating that each 1-unit increase in distributive justice led to a 0.324 units rise in job satisfaction.

Employee perception of fair distributive justice will thoroughly evolve from justified allocation of resources (i.e., salaries & benefits). Moreover, ensuring a good balance between work schedule and workload will ultimately lead to higher job satisfaction. Additionally, by implementing distributive justice, employees feel more confident, which eventually affects their performance positively. Controlling the mentioned distributive justice factors would increase the job satisfaction of the employee. Similar findings were found in previous literature [21, 23, 52, 55].

Contrary to various studies that supported the positive impact of procedural justice on job satisfaction, our results for the second hypothesis (H2) did not align with Murtaza et al. [46] and Ismail et al. [61], but it displayed consistency with Bakhshi et al. [76], Sia and Tan [37], and Akbolat et al. [77], in which dimension of procedural

justice did not justify job satisfaction. The findings highlighted that employee's perception of fair treatment at work does not affect job satisfaction, and the findings were not as hypothesized. Moreover, the regression model showed no significant relationship between the two parameters, thereby showing no influence on job satisfaction. There may be a few reasons for such insignificance, including cultural influence and favoritism in the industry. Likewise, [Bakhshi et al. \[76\]](#) revealed that procedural justice and job satisfaction is not related but it is considerably correlated with organizational justice. These findings implied that there must be concerns by the employees regarding the decision-making processes which are unfair and not transparent that indirectly impacted the overall job satisfaction. The study by [Akbolat et al. \[77\]](#) has expressed the same concern regarding procedural justice to impact job satisfaction when unfairness is perceived in a hospital setting.

The research results supported the third hypothesis (H3) stated earlier. It examines the influence of interactional justice and job satisfaction. Results reported that interactional justice contributes positively to job satisfaction with a strong magnitude coefficient of 0.569 units, thus showing a meaningful association between job satisfaction and interactional justice. Previous studies by [Zainalipour et al. \[64\]](#) and [Elamin and Alomaim \[78\]](#) have described the importance of fair treatment and respect for employees. Treating employees fairly and respectfully enhances job satisfaction, and the chances of employee turnover are reduced.

This revealed that employees care about fair treatment and interact with them with dignity and courtesy; their personal needs must be respected, guaranteeing their employment rights and development path in truthfulness, sharing information in order to remove feelings of ambiguity. These findings aligned with past literature studies [\[18, 22\]](#).

6. CONCLUSION

In conclusion, this study examined the relationship between job satisfaction and organizational justice among employees of the Manaseer Industrial Complex, focusing on three dimensions of organizational justice: distributive, procedural, and interactional. The results revealed two positive correlations with job satisfaction, namely distributive and interactional justice. Procedural justice did not show any observable effects. However, the sample included employees from both plants and headquarters, with employees occupying different levels and positions. Consequently, perceptions of fairness or equality may have varying impacts across different plants and levels, indicating the need for further investigation.

The implications of these findings highlight that management can improve distributive justice by implementing a clear and equitable reward system, whereas interactional justice can be promoted by treating employees with dignity and respect. Despite procedural justice not being a predictor in this study, it should not be ignored. More participation by employees in decision-making and clearly communicating organizational policies may lead to proper perceptions of fair or equitable treatment over time. Even if organizational justice is followed, it should also include some organizational justice measures on the annual job satisfaction surveys to keep an internal indicator of this perception on the table for follow-up by concerned parties.

7. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

This study has several theoretical and methodological limitations that need to be acknowledged. From a theoretical perspective, the study focused on organizational justice and job satisfaction as organizational outcomes. Future research could expand the theoretical framework by exploring the relationship between organizational justice and various other organizational outcomes. Additionally, it is recommended to examine the mediating effects of variables such as performance, organizational commitment, and turnover intentions.

As far as methodological limitations, this study utilized a quantitative design, which is suitable for identifying statistical relationships but does not explore employee perceptions in much depth. Future studies could employ a mixed-methods approach, combining quantitative surveys with qualitative interviews or focus groups to obtain

insightful data and findings in the study. The cross-sectional design in the current study limits the ability to assess changes over time. Longitudinal designs in future studies would provide the ability to assess how the relationship between organizational justice and job satisfaction changes over time and whether or not other contextual structures become important over time.

Finally, the study's data collection was limited to a single company within Jordan's mining sector, indicating a need for a larger sample to strengthen the generalizability of the findings. Future research should aim to include diverse organizations across various sectors to enhance external validity. Additionally, since this study was conducted exclusively within the private sector, comparative studies between private and public sector organizations could provide valuable insights. Furthermore, the current research focused solely on employees' perspectives; subsequent studies could explore differences between employee and managerial perceptions of justice to deepen the understanding of organizational justice dynamics.

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Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

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