Organizational Justice and Work Satisfaction: Meta Analysis

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Keywords: Organizational Justice, Procedural Justice, Distributive Justice, Interactional Justice, Job Satisfaction, Meta-Analysis.

Abstract: Previous studies have shown that organizational justice can affect job satisfaction. Nevertheless, the correlation between organizational justice and job satisfaction showed varying results. The meta-analysis approach that used in current study aims to see consistency of the correlation between procedural justice, distributive justice and interactional justice and job satisfaction. Journals used in this meta-analysis were 17 journals that includes 20 studies with 4606 subjects. The results of meta-analysis showed that procedural justice, distributive justice and interactional justice positively correlated with job satisfaction. Procedural justice, distributive justice and interactional justice had positive correlations were moderate ($r_1=0.449$; $r_2=0.406$; $r_3=0.388$) refers to a 95% confidence interval, limits of acceptance are between $0.010<r_1<0.888$; $0.016<r_2<0.829$; $-0.079<r_3<0.856$. So that the correlation coefficient of $0.449$; $0.406$ and $0.388$ are within the limits of acceptance. That is a significant positive correlation between each of organizational justice aspects (procedural justice, distributive justice, interactional justice) and job satisfaction are acceptable. Finally, all of organizational justice aspects can act as predictor of job satisfaction. a limited number of studies is the weaknesses of the study because of the precision of a meta-analysis depends on the total sample used.

1 INTRODUCTION

Organizational justice is considered one of the core values of the organization. For decades, researchers have emphasized that the organizational justice is a subjective matter which is the result of the employee’s assessment of what is considered fair or unfair in the organizational lives. Employees have high expectations of justice given by the organization both in terms of allocation and process of interactional decision and management of decision makers in allocating resources. Even, employees will be willing to make adjustments to the various obstacles and hindrances that occur in the organization if the organization is able to show trust, honesty, sympathy and uphold the dignity of the employees (Yadav and Yadav, 2016).

Greenberg defines organizational justice as a general term used by organizational psychologists to refer to how organizations treat individuals (employees) fairly (Greenber, 1990). Whereas Byrne and Cropanzano (2001 in Yadav and Yadav, 2016) define organizational justice as a psychology of justice that is applied in the organizational context. Furthermore, Fortin (2008 in Yadav and Yadav, 2016) explains that organizational justice can help understand how employees associate themselves with organizational complexity. Besides, it can also be used to understand the diversity of employee relations.

Homans was regarded as the person who first proposed the concept of organizational justice in 1961. Nonetheless, some parties believed that the first person to introduce the term organizational justice was Greenberg in 1970 (Karimi, Alipour, Pour, Azizi, 2013). In the end, justice has become a theme of interest in organizational behavior studies after Blau (1964 in Yadav and Yadav, 2016) and Adams (1965 in Yadav and Yadav, 2016) conducted quite influential studies on organizational justice.

2 LITERATURE REVIEW

Some theories have contributed to the formation of the concept of organizational justice. The theory of justice from Adam (1965 in Yadav and Yadav, 2016) developed from social exchange theory.
explains that individuals will compare input and output which ultimately form perceptions of justice from the outputs received. The theory of cognition from Folger (1986 in Yadav and Yadav, 2016) emphasizes the occurrence of feelings of disappointment when individuals do not get a guarantee that the expected outputs cannot be achieved/accepted.

Early studies of organizational justice refer to two aspects, namely: 1. Employees’ perceptions of what is received as (output), and 2. Employees’ perceptions of the process that produces outputs (procedures). The first aspect is known as distributive justice, i.e. the perception of justice related to the allocation of resources based on the considerations between input and output. This aspect is based on the results of Adams’ study. The second aspect is known as procedural justice, i.e. a procedure adopted by an organization in allocating resources that produce output. The expectation is that each output must be fair, and employees must have a voice and control over the process.

Studies of organizational justice from the 1960s to the late 1980s still use two aspects of justice, procedural and distributive (Cropanzano and Greenberg, 1997). Before 1975, the study of organizational justice merely focused on the object of study on the construct of distributive justice based on Adams’ theory of justice, i.e. a development of social exchange theory. The construct of procedural justice began to be the focus of attention of researchers since Thibaut and Walker introduced this construct in 1975 (Colquitt et al., 2001). However, by the end of 1990s, Bidarian et al. (1990 in Karimi, Alipour, Pour, Azizi, 2013) suggest that a new stage was begun, i.e. the aspect of organizational justice which became the object of study of organizational behavior studies had no longer used two aspects, but three aspects. Social highlights were added as a new aspect of organizational justice known as interactional justice. Interactional justice constructs were initiated by Bies and Moag in 1986 (Colquitt et al., 2001). Furthermore, the aspect of interactional justice was still divided into two sub-aspects, namely: 1. interpersonal justice, i.e. justice felt by individuals from relationships that generate sympathy and uphold dignity, and 2. Informational justice, i.e. justice felt by individuals related to transparent and open services from the organization (Greenberg, 1993). There are still many studies on organizational justice that use these three aspects of organizational justice, some are even more complex by adding two sub-aspects of interactional justice. However, some studies only use one of the three aspects of organizational justice.

Perception of organizational justice in the process of its formation is influenced by 1) Output received from the organization (determination is whether individuals perceive positively or negatively the outcomes received by the organization); 2) Organizational practice (procedure and quality of interaction) which is determined by the extent to which the organization is able to carry out fair procedures in decision making, and 3) Characteristics of individuals who perceive (can be determined by demographic characteristics, such as age, gender, race and years of work and personality traits (Charash and Spector, 2001). Gay (2007 in Demir, 2016) states that there is no guarantee that each individual has the same perception about his assessment of investment, costs, rewards for himself and others in the process of exchanges carried out (between what is given to the organization and output received from the organization) This has the potential to produce different outcomes.

For more than 40 years, organizational justice has been studied intensively and produced empirical evidence related to causes (antecedent) {such as expectations of outcomes, organizational practices or characteristics of individuals who perceive} and their impact on outcomes {such as work performance, organizational citizenship behavior, intention to get out of the organization, organizational commitment and job satisfaction}. This finding is not limited to the context of business organizations but also to educational institutions in both the secondary and tertiary education levels (Malik and Naeem, 2011). One of studies that investigates the impact of organizational justice on outcomes is conducted by Charash & Spector (2001). The study proves that 1) procedural justice is the best predictor of work performance and counter-productive work behavior; 2) the three aspects of organizational justice are predictors of job satisfaction and affective work commitment; and 3) perceptions of organizational injustice are predictors of emotional reactions such as moods and anger.

One of the most researched variables as an impact of organizational justice is job satisfaction. Many studies prove that organizational justice is a predictor of job satisfaction, such as Charash and Spector (2001), Whisenant and Smucker (2009) Zainalpur (2010), Dundar and Tabancali (2012), Imani Nojani et al. (2012), Taheri and Soltani (2013), and Divkan, et al. (2013).

Job satisfaction is a psychological construct expressed as an outcome of organizational justice
Job satisfaction is understood as the attitudes and feelings of individuals related to their work (Karimi, Alipour, Pour, Azizi, 2013). Good and positive attitudes on the job indicate job satisfaction. On the contrary, bad and negative attitudes toward work indicate job dissatisfaction (Armstrong, 2006 in Karimi, Alipour, Pour, Azizi, 2013). Weiss, et al. (1967) in Akbolat, Isik, Yilmaz, & Akca, (2015) divide job satisfaction into two types, namely external satisfaction, i.e. satisfaction related to external resources such as: wages, promotion, administration, etc. and internal satisfaction, i.e. satisfaction related to personal resources such as individual work skills, decision making, etc. The level of job satisfaction can range from maximum satisfaction to maximum dissatisfaction and can target various aspects of work such as: types of tasks, colleagues, supervisors and supervisees, payment systems, promotions, etc. (George, et al., 2008 in Karimi, Alipour, Pour, Azizi, 2013).

Job satisfaction can be conceptualized as a result of a combination of work characteristics, work environment, and attitudes and personality traits of individuals. There are two main theoretical models that explain how organizational justice can affect job satisfaction, namely: 1) the personal outcomes model, and 2) the group-value-model. The personal outcomes model considers the aspect of distributive justice is a predictor of job satisfaction in which its effect is stronger than the other two aspects of justice. Meanwhile, the group-value-model sees that procedural justice is considered a stronger predictor (McNabb, 2009; Demir, 2016).

曝光 from the theory that explains the difference in strength of influence from aspects of organizational justice to job satisfaction as described above can at least explain the inconsistency of findings of studies that try to investigate the relationship between organizational justice and job satisfaction, from those who find evidence of influence/relationship to those who don’t. In addition, the influence strength of each aspect of organizational justice on job satisfaction is also inconsistent in each study. Some studies prove that procedural justice has a stronger effect on job satisfaction (Fatt, 2010; Nadiri and Tanova, 2010; Yaghoubi, et al., 2012; Demir, 2016; Kashif, Mahmood and Aijaz, 2016). However, other studies have found that distributive justice has stronger effects (Hedidiari and Saeedi, 2012; Karimi, Alipour, Pour and Azizi, 2013; Abasi, Mohammadipour and Aidi, 2014; Shafiee and Gitifar, 2015). In addition, interactional Justice has also been proven as the strongest aspect of organizational justice (Fatimah, Amiraa and Halim, 2011; Iqbal, 2013). Tziner, et al. (2011) find that all three aspects of organizational justice have the same strong effect on job satisfaction. In fact, there are also study findings that cannot prove the relationship between one aspect of organizational justice, i.e. procedural justice and job satisfaction (Fatimah, Amiraa and Halim, 2011).

Some publications on the relationship of organizational justice with job satisfaction show different correlation results and strengths of correlation. Therefore, it is necessary to synthesize various studies on organizational justice, both from aspects of procedural, distributive and interactional justice with job satisfaction. It needs to be conducted to obtain a general pattern of relations between the two variables. Rubin in Hunter & Schmi (2004) suggests that the purpose of the meta-analysis is to estimate the level of relationships of the previously completed studies. In addition, the meta-analysis can also convince researchers of more accurate and credible conclusions so that they can be used as a reference for other primary studies (Roshental & DiMatteo, 2001).

Referring to the aforementioned description, the researcher aims to see the consistency of the correlation between the three aspects of organizational justice, namely procedural justice, distributive justice and interactional justice with job satisfaction. The hypothesis proposed by researcher is the three aspects of organizational justice, namely: procedural justice, distributive justice and interactional justice are positively correlated with job satisfaction.

3 RESEARCH METHOD

The procedures of this study are described as follows:

3.1 Formulation of The Problems

The problems arisen in this meta-analysis study are inconsistencies in the results of primary studies regarding the correlation between the three aspects of organizational justice, namely procedural justice, attributable justice and interactional justice with job satisfaction. Therefore, meta-analysis study is conducted to see the relationship between two variables (organizational justice along with three aspects with job satisfaction) through the meta-analysis method.
3.2 Data Collection from Primary Studies

Data for this study is collected by tracing journal manuscripts in several journal providers such as SAGE Publication, Science Direct, Emerald Insight, Researchgate, and Google Scholar. The keywords used are organizational justice, organizational injustice, organizational justice perception, fairness perception, job satisfaction, and career satisfaction. Based on the search results using those keywords, 54 journal manuscripts were collected from the published scientific journals. The next stage is filtering journal manuscripts published between 2009 and 2016, having information on the number of subjects (N) and the correlation value (r) of procedural justice, attributable justice, interactional justice with job satisfaction. Based on the fulfillment of the above criteria, 17 journal texts were used for this meta-analysis study. Among them, there are 20 worthy studies to be used as data sources for conducting meta-analysis.

3.3 Data Analysis and Interpretation

The analysis uses a computer program, i.e. Microsoft Excel 2016. The meta-analysis of this study goes from primary studies in the form of correlation studies and are descriptions of the correlation between the independent variables namely procedural justice, distributive justice and interactional justice with dependent variables namely job satisfaction. Hunter-Schmidt (2004) states there are eleven artifacts that can be tested in meta-analysis; however, only two artifacts will be corrected in this meta-analysis, namely: sampling error correction and measurement error correction.

3.4 Meta Analysis Procedure

In this meta-analysis only two artefacts will be corrected.
1. Sampling error correction
   The meta-analysis technique uses the procedure of Hunter & Schmidt (2004) with the following steps:
   - Transforming the F value; change the algebraic value from the value of F to the values t, d, and r. In this case, because from the results of the research, r-value could be directly obtained so that the transformation of the F-value and t-value into r-value was not conducted.
   - A meta-analysis of bones for correction of sampling error is done by: a) calculating the mean population correlation; b) calculate the variance of rxy; c) calculate the variance of sampling error; d). calculate the impact of sampling error

2. Measurement error correction
   Correction of measurement error is done with the following steps; 1) calculate the combines average; 2) calculate the correction error of measurement on a dan b at step A.2, that is the actual correction of the population; 3) add up the the coefficient squares of variation;4) Variance that refers to the variations in artefacts; 5) Actual correlation variance; 6) Confidence Interval; 7) Impact of reliability variations.

4 RESULT

4.1 Characteristics of Research Sample

The research samples of this meta-analysis study were 4606, taken from 20 studies conducted around 2009-2016 in 8 countries namely: Malaysia, South Korea, Jordan, Iran, Pakistan, Turkey, Spain and Texas. Job characteristics of the research sample are quite diverse, ranging from teaching staff and administration from secondary and higher education institutions, government and private company employees, to hotel employees and banks.

4.2 Data Analysis.

4.2.1 Sampling Error Correction (Bare Bone Meta-Analysis)

Hunter and Schmidt (2004) state that if population correlation is assumed to be constant among several studies, the best estimate of correlation will be not a simple average of correlations of several studies but rather a weighted average for each correlation, divided by the number of samples in the study. A summary of the bare bone meta-analysis results for the three aspects of organizational justice can be seen in Table 1.
### Table 1: Summary of Bare Bone Meta-Analysis Result.

<table>
<thead>
<tr>
<th></th>
<th>Procedural</th>
<th>Distributive</th>
<th>Interactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average of population correlation</td>
<td>0.449</td>
<td>0.406</td>
<td>0.388</td>
</tr>
<tr>
<td>Variance of population correlation</td>
<td>0.053</td>
<td>0.049</td>
<td>0.060</td>
</tr>
<tr>
<td>Variance of sampling errors</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
</tr>
<tr>
<td>Variance of actual population correlation</td>
<td>0.050</td>
<td>0.046</td>
<td>0.057</td>
</tr>
<tr>
<td>Standard deviation of population correlation</td>
<td>0.224</td>
<td>0.215</td>
<td>0.238</td>
</tr>
<tr>
<td>Confidence interval</td>
<td>0.010 &lt; r &lt; 0.888</td>
<td>-0.016 &lt; r &lt; 0.829</td>
<td>-0.079 ≤ r ≤ 0.856</td>
</tr>
<tr>
<td>Impacts of sampling errors</td>
<td>5.257%</td>
<td>6.152%</td>
<td>5.240%</td>
</tr>
</tbody>
</table>

### Table 2: Summary of Measurement Error Results.

<table>
<thead>
<tr>
<th></th>
<th>Procedural</th>
<th>Distributive</th>
<th>Interactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed average</td>
<td>0.853097</td>
<td>0.848952</td>
<td>0.863631</td>
</tr>
<tr>
<td>Population correlation</td>
<td>0.526027</td>
<td>0.478813</td>
<td>0.449587</td>
</tr>
<tr>
<td>Convenient number of quadrat variance</td>
<td>0.002040</td>
<td>0.003830</td>
<td>0.001924</td>
</tr>
<tr>
<td>Variance of measurement error</td>
<td>0.000411</td>
<td>0.000633</td>
<td>0.000290</td>
</tr>
<tr>
<td>Variance of actual correlation</td>
<td>0.068315</td>
<td>0.063449</td>
<td>0.007587</td>
</tr>
<tr>
<td>Confidence interval</td>
<td>0.013739 &lt; r &lt; 0.10383</td>
<td>-0.014893 &lt; r &lt; 0.9725</td>
<td>-0.09030 &lt; r &lt; 0.989477</td>
</tr>
<tr>
<td>Impacts of measurement error</td>
<td>0.776%</td>
<td>1.281%</td>
<td>0.483%</td>
</tr>
</tbody>
</table>

### 4.2.2 Measurement Error Correction

In addition to sampling error correction, artifact correction also includes measurement error correction. Measurement errors on all three aspects of organizational justice with job satisfaction were carried out in this study. The summary of the calculation of measurement errors for the three aspects of organizational justice, namely: procedural justice, distributive justice and interactional justice can be seen in Table 2.

### 5 DISCUSSION

In this meta-analysis study, corrections were made to two artifacts, namely sampling and measurement errors. For sampling error artifacts, findings from the study results with this meta-analysis approach indicate that the correlation of the three aspects of organizational justice, namely procedural justice, distributive justice and interactional justice with moderate effect size based on the criteria of Davis (in Cortices et al., 2011). Correlation between the three aspects of organizational justice (procedural, distributive and interactional) with job satisfaction are: 0.449, 0.406 and 0.388, respectively. These scores are in the reception area 95% interval \{0.010 < r < 0.888; -0.016 < r < 0.829 and -0.079 ≤ r ≤ 0.856\}. It means that there is a positive relationship with the moderate level between procedural justice, distributive justice and interactional justice with job satisfaction. Procedural justice can explain job satisfaction approximately 20% of the total variance. Whereas distributive justice and interactional justice are around 16% and 11% of the total variance, respectively.

The use of variances in the aspects of organizational justice in various studies from the
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beginning has become a debatable matter. Researchers have proposed two aspects namely distributive and procedural justices (Greenberg, 1990; Sweeney and McFarlin, 1993). In their study, Sweeney and McFarlin found evidence that distributive justice is more correlated with person-level outcomes, such as satisfaction with salary systems; while procedural justice is more correlated with organization-level outcomes, such as organizational commitment. Researchers who propose two aspects of organizational justice assume that interactional justice is included in the aspects of procedural justice. Meanwhile, other researchers propose four aspects of organizational justice, namely distributive justice, procedural justice, interpersonal justice and informational justice (Colquitt, 2001). However, the majority of organizational justice researchers put forward three aspects namely distributive justice, procedural justice and interactional justice (DeConinck, 2010; Liljegren & Ekberg, 2009). There are also researchers who are proud that organizational justice is a multi-aspect, so it is not just two, three or four aspects (Byrne and Cropanzano, 2000). In this meta-analysis study, three aspects of organizational justice were used. It is based on the consideration that the majority of studies on organizational justice use the three aspects of organizational justice.

The correlation value of each aspect of organizational justice on job satisfaction varies but the difference is not significant because the effect of the three strengths in predicting job satisfaction is still in the same category, i.e. moderate. This finding is an evidence of the strength of predicting the same of the three predictors of job satisfaction that are the objects of this meta-analysis study. It also indicates that finally individuals consider that distributive, procedural and interactional aspects organizational justice with the organization (in this case the management) are important in generating satisfaction felt in the workplace organization. It supports the findings of one of the previous studies, namely Tziner, Oren, Bar, and Kadosh (2011) which proves that there is a relatively similar influence power between the three aspects of organizational justice on job satisfaction. However, it is different from most of findings from previous studies showing a greater influence on one aspect of organizational justice, especially aspects of procedural justice and distributive justice aspects which alternately became the most influential predictors (Fatt, 2010; Nadiri and Tanova, 2010; Yaghoubi et al. 2012; Demir, 2016; Kashif, Mahmood and Aijaz, 2016; Hedidari and Saeedi, 2012; Karimi, Alipour, Pour and Azizi, 2013; Abasi, Mohammadipour and Aidi, 2014; Shafiee and Gitifar, 2015).

Job satisfaction is a feeling of pleasure or an individual’s positive feeling as a result of an evaluation of his/her works. This feeling will emerge when the value to be obtained from the organization (outcome) is proportional to the value needed by individuals (Basaran, 1992 in Akbolat, Isik, Yilmaz & Akca, 2015). Organizations really want to have a positive work attitude that is expressed as job satisfaction for their employees. This is because individuals are important assets of an organization that can help provide a competitive advantage so that the organization can remain long-lived. Individual who is satisfied with his work is believed to tend to bring about optimal work performance. For this reason, organizations need to seek distributive, procedural, and interactional organizational justice in work practices so that employees can be positively perceived. Organizational practices that are considered fair by employees will trigger job satisfaction. This is consistent with the opinion of Yildrim (2007) in Akbolat, Isik, Yilmaz & Akca (2015) which confirms that organizational justice functions as a significant predictor of job satisfaction.

The impact of sampling errors on all three correlations was 5.26%; 6.15% and 5.24%, respectively. It is obviously seen that those scores are not significantly different or relatively small. This shows that the error bias caused by sampling errors in this study is small. One possibility is because of the heterogeneity of the samples used by the study. As can be seen in the table of sample characteristics, this study involves various characteristics of research subjects ranging from company employees (in the public and private sectors; industrial and service sectors) to teaching staff in educational institutions ranging from high school to college.

The coefficient of population correlation after good measurement error correction found in independent and dependent variables of the three relationships between the three aspects of organizational justice and job satisfaction are 0.526027; 0.478813 and 0.449587, respectively. The actual population correlation (ρ) is estimated at 0.068315; 0.063449; and 0.0075875, respectively. Meanwhile, the standard deviation shows 0.261371; 0.251891 and 0.275454, respectively. By using a 95% confidence interval, the correlation is 0.526027, 0.478813 and 0.449587 in which they are still within the accepted limits. From this calculation, it can be
concluded that there is a positive relationship between the three aspects of organizational justice and job satisfaction, with the impact of variances in reliability of 0.776%; 1.281% and 0.483%, respectively. This variance shows a different correlation between the mean of population and study due to a measurement error of 0.776% for procedural justice with job satisfaction; 1.281% for distributive justice with job satisfaction and 0.483% for interactional justice with job satisfaction.

This small measurement error deviation is because from the beginning researchers accommodate organizational justice and job satisfaction in a specific spectrum, namely choosing studies that use measuring instruments that measure almost the same construct. Especially for measuring instruments that reveal the three aspects of organizational justice. Previous studies used as data in this meta-analysis study mostly used instruments from Niehoff and Moorman (1993) to reveal organizational justice. This specific construct caused variability because measurement errors became smaller. Therefore, the future studies related to this topic are expected to be able to make more specific constructs in order to further minimize measurement errors.

6 CONCLUSION

The results of this meta-analysis study provide support to the majority of previous studies, i.e., there is a significant positive correlation between the three aspects of organizational justice, namely: distributive justice, procedural justice and interactional justice with job satisfaction. The three aspects of organizational justice have a moderate influence. It means that all three aspects have a positive linear correlation with job satisfaction. Thus it can be concluded that each aspect of organizational justice can reasonably predict the occurrence of job satisfaction.

The studies analyzed in this meta-analysis use three aspects of organizational justice altogether. It is better for future research to do a special meta-analysis using one aspect of organizational justice to be able to see the impact more specifically on both aspects of job satisfaction, i.e., internal and external satisfactions. It is to test the research findings which confirm that each aspect of organizational justice has different effects on organizational outcomes including the variables of job satisfaction (Colquitt et al., 2001).

The few numbers of studies used in this meta-analysis is one of the limitations. It is possible if more samples can maximize sampling error correction from related studies. For this reason, it is better for future research to add the number of studies because the accuracy of the meta-analysis approach is strongly influenced by the number of samples, especially for sampling error correction.

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