

## **Antecedents and Consequences of Job Satisfaction: Psychological Contract Breach as Situational Determinants**

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### **ABSTRACT**

This study examines the role of organizational justice as an antecedent of job satisfaction and its effect on procrastination behavior in the context of psychological contract breach. The study was conducted through a survey of 195 education staff at state universities in Indonesia. The research data were obtained using questionnaires and then analyzed using the covariance-based Structural Equation Modeling (CB-SEM) method. The results of the study found that (1) distributive justice and procedural justice were antecedents of job satisfaction, while interactional justice had no significant effect on job satisfaction, (2) distributive justice had a positive effect on job satisfaction in the context of high-psychological contract breach; job satisfaction had a negative and significant effect on procrastination behavior in the context of psychological contract breach. The effect of organizational justice on job satisfaction and procrastination behavior occurred in the context of formal-transactional relationships compared to informal-relational. This study fills the literature gap by explaining the relationship of the dimensions of organizational justice (transactional-relational), job satisfaction, and procrastination behavior in the context of psychological contract breach.

Keywords: job satisfaction, organizational justice, procrastination behavior, situational determinants, psychological contract breach.

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## **1. INTRODUCTION**

The relationship between organizational justice, job satisfaction, and behavior has been widely stated in the literature (Budomo, 2023; Karimi & Andam, 2016; Mashi, 2018; Zhang & Deng, 2016). However, employment relationships, especially in the public sector, are not only formal and transactional but also informal and relational. This study suggests a relationship between fairness, job satisfaction, and procrastination behavior in situations with a psychological contract breach.

In public sector organizations, job satisfaction is essential to human resource management. Previous studies found that fairness was a factor that affected job satisfaction (Rufino, 2023; Abekah-Nkrumah & Atinga, 2013; Palaiologos *et al.*, 2011; Tjahjono *et al.*, 2019) as well as controlling counterproductive behavior such as procrastination behavior (Karimi & Andam, 2016). Counterproductive behavior is seen as an employee's cognitive response to his experience of injustice in the organization. Organizational injustice is classified as a job stressor. Situations where someone is mistreated are a stressor that can lead them to negative emotions and counterproductive behaviors (Palupi & Tjahjono, 2016; Weymann, 1988).

This study is motivated by two empirical gaps. First, the dimensions of organizational justice that have a dominant effect on job satisfaction and behavior are found to vary between studies. The regulations, procedures, and standards currently regulate distributive and procedural justice but do not involve interactional justice. Not all types of justice need to be formally regulated, and only social norms (Novianti *et al.*, 2017; Tusa'diah *et al.*, 2017) as described in social exchange theory. People's satisfaction in work is related to salary and how satisfied employees are, which involves material and non-material aspects, including fair social relations.

Second, the relationship between organizational justice and job satisfaction in previous studies is assumed to be based on the conditions of the employment contract and generally accepted rules in the organization. Some employees are still satisfied even though they have worked more than the specified working hours with unequal remuneration compared to other employees because "promises" or "expectations" are not stated in the formal employment contract. Unwritten agreements in the form of "promises" or "expectations" are known as psychological contracts (Rousseau, 1989, 1989, 1990, 2001). The effect of fairness in a formal contract on job satisfaction will be lower in conditions of violating the psychological contract. Psychological contract breach in organizational practice can occur due to policies such as efficiency, product quality improvement, service, and streamlining of organizational structure. The same thing can happen to employees in state higher education organizations that enforce policies such as budget efficiency to prioritize aspects of academic needs, services, and programs according to environmental demands. These two gaps become the motivation of this research.

The unit of analysis for this study is individuals, namely civil servants at state universities (government-owned) who serve the wider community (public) in the education service sector. In public service activities, civil servants in general have attached a negative stigma from the public regarding bureaucratic work attitudes and behavior, lack of responsiveness to complaints, slow service, and even seem to deliberately delay work. A study conducted by Foroux (2020) found that 88% of employees admitted that they had procrastinate their work for an hour a day, and there was a tendency for employees in public organizations to do that more often than private employees (Sharma, 1999). Procrastination behavior of employees in serving the public in the long run is very detrimental to the organization in achieving its goals, thus this is what also motivates this study.

## 2. LITERATURE REVIEW

Job satisfaction not only encourages positive behavior (productive, disciplined, obedient, innovative, helpful), but is also controls negative behavior (counterproductive: corruption, theft, vandalism, turnover). Job satisfaction is not only related to returns on economic

resources but also involves psycho-social relationships (Rufino, 2023).

### **2.1 Antecedents of Job Satisfaction**

Organizational justice is not only related to distributively fair rewards or contributions, but it is also essential to have fair procedures and interactions. Distributive justice refers to the distribution of results; procedural justice refers to the procedures involved in reaching a decision; interactional justice refers to how employees are treated based on the decisions made (Colquitt, 2001). A study (Abekah-Nkrumah & Atinga, 2013) of 300 staff at seven hospitals in Ghana also found a positive and dominant effect of distributive justice on job satisfaction. The effect of distributive justice (0.59) on job satisfaction is higher than procedural justice (0.21) and interactional justice (0.21). An experimental study (Tjahjono *et al.*, 2019) of 468 students at private universities in Yogyakarta also found that distributive justice had a significant and dominant effect on job satisfaction. The results showed that the effect of distributive justice (0.76) on job satisfaction was higher than procedural justice (0.16).

Research (Palaiologos *et al.*, 2011) of 170 middle and lower managers in 11 medium and large commercial companies in Greece found that the effect of procedural justice (0.74) on job satisfaction was higher than distributive justice (0.37). Managers' attention to organizational justice has the potential to increase job satisfaction (Pieters, 2018). The empirical literature generally finds varying results regarding the dimensions of organizational justice that have a dominant influence on job satisfaction (Abekah-Nkrumah & Atinga, 2013; Palaiologos *et al.*, 2011; Tjahjono, 2011; Tjahjono *et al.*, 2016, 2019). However, the study's results generally found that the three dimensions of organizational justice significantly affected job satisfaction. The hypothesis in this study can then be formulated as follows.

*Hypothesis 1: Distributive justice has a positive effect on job satisfaction*

*Hypothesis 2: Procedural justice has a positive effect on job satisfaction*

*Hypothesis 3 Interactional Justice has a positive effect on job satisfaction*

### **2.2 Consequences of Job Satisfaction**

Procrastination behavior in the workplace is influenced by situational factors related to ability (predisposition), job satisfaction, support (resources, time), and Situational Content (autonomy, variety, feedback, analyzability) (Weymann, 1988). Organizations that ignore organizational justice issues risk creating negative organizational attitudes, dissatisfaction with the results of organizational decisions, and non-compliance with rules and procedures (Ambrose & Schminke, 2009; Ekmekcioglu & Aydogan, 2019). A survey (Weymann, 1988) of 280 employees and supervisors in the USA found that job satisfaction is one-factor influencing procrastination behavior in terms of situational desirability. Another study (Sharma, 1999) surveyed 600 respondents in India and found that proper management and job satisfaction affect procrastination behavior. Research in recent years (Greenidge *et al.*, 2014; Zhang & Deng, 2016) also found the effect of job satisfaction on behavior. However, studies are limited to procrastination behavior. Based on behavioral theory and justice theory, job delaying behavior can also be influenced by job satisfaction. The hypothesis in this study can then be formulated as follows.

*Hypothesis 4: Job satisfaction has a negative effect on procrastination behavior*

### **2.3 Job Satisfaction as a Mediator of the Effect of Organizational Justice on Procrastination Behavior**

The behavioral theory approach observes that employee behavior is a stimulus-organism-response process. The organization provides external stimuli such as a fair contribution-reward system to individual employees. These external stimuli provide information and experiences that individuals perceive about the distributive justice provided by the organization. These perceptions then affect attitudes such as in the form of job satisfaction. Furthermore, job satisfaction affects behavioral responses (Ainslie, 1975). Empirical studies of the relationship between organizational justice, job satisfaction, and behavior are widely available (Budomo, 2023; Bilgin *et al.*, 2015; Mashi, 2018; Nadiri & Tanova, 2010). However, there are still gaps related to procrastination behavior. A survey (Mashi, 2018) of 142 local government employees in Nigeria found the role of job satisfaction in mediating the relationship between organizational justice and employee outcomes (extra-role behavior, turnover, and deviant behavior). Another study (Bilgin *et al.*, 2015) of 768 employees working in 18 hotels (4 or 5 stars) in the Antalya region of Turkey found a relationship between organizational justice, job satisfaction, and behavior. A survey (Nadiri & Tanova, 2010) of 208 hotel employees and managers in Northern Cyprus found job satisfaction's role in mediating the relationship between distributive and procedural behavior. Distributive justice is the strongest predictor in predicting job satisfaction and behavior. The hypothesis in this study can then be formulated as follows.

*Hypothesis 5: Job satisfaction mediates the effect of distributive justice on procrastination behavior*

*Hypothesis 6 Job satisfaction mediates the effect of procedural justice on procrastination behavior*

*Hypothesis 7: Job satisfaction mediates the effect of interactional justice on procrastination behavior*

#### **2.4 Psychological Contract Breach Context**

The relationship between distributive justice, job satisfaction, and procrastination behavior applies in the context of formal employment relationships bound in formal employment contracts and informal work relationships regulated by social norms. Job satisfaction mediates the effect of distributive justice on procrastination behavior in the context of high or low PCBs. However, the mediating power can be lower in the high PCB context and more robust in the low PCB context. Conditions of high psychological contract breach will increase the emotional response to injustice so that the relationship between injustice and satisfaction and counterproductive behavior will weaken. The relationship between distributive justice, job satisfaction, and procrastination behavior remained significant in the low psychological contract breach condition. There is still a relationship between distributive justice, job satisfaction, and procrastination behavior in employee and organizational relationships regulated in formal contracts (Ekmekcioglu & Aydogan, 2019). The hypothesis in this study can then be formulated as follows.

*Hypothesis 8: Distributive justice has a positive effect on job satisfaction in the high psychological contract breach context*

*Hypothesis 9: Procedural justice has a positive effect on job satisfaction in the high psychological contract breach context*

*Hypothesis 10 Interactional justice has a positive effect on job satisfaction in the high psychological contract breach context*

*Hypothesis 11: Job satisfaction has a negative effect on procrastination behavior in the high psychological contract breach context*

*Hypothesis 12 Job satisfaction mediates the effect of distributive justice on procrastination behavior in the high psychological contract breach context*

*Hypothesis 13* Job satisfaction mediates the effect of procedural justice on procrastination behavior in the high psychological contract breach context

*Hypothesis 14:* Job satisfaction mediates the effect of interactional justice on procrastination behavior in the high psychological contract breach context

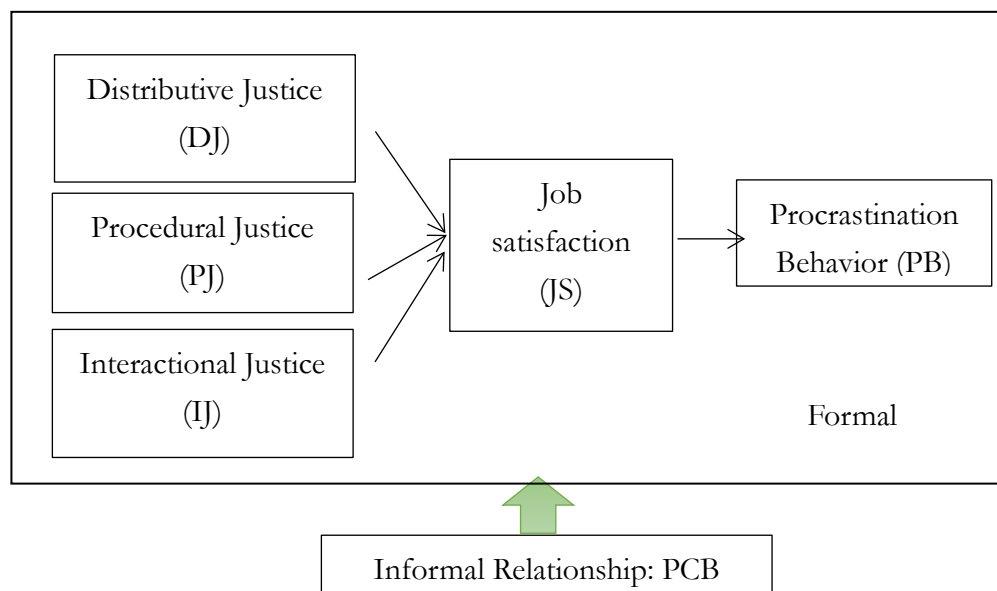


Figure 1. Research Conceptual Framework

### 3. METHODOLOGY AND RESEARCH DESIGN

The research was conducted through a survey approach with a cross-sectional design. The data were collected through questionnaires to 195 education staff at state universities in Yogyakarta, Indonesia. The sampling technique for this study is proportional purposive sampling methods, namely a sampling technique based on proportional quotas. Sampling based on proportional quotas is chosen to avoid the possibility of high bias and low reliability. This technique allows the researcher to determine the sample based on the characteristics and characteristics of the respondents in each work unit/faculty according to the desired criteria. The criteria of respondents that can be the sample in this study are: (1) education staff with civil servant status, (2) have a minimum working period of 2 years from the time they are appointed as prospective civil servants, (3) are at the level of group II, III, and IV, and (4) have middle and upper education.

The study consisted of two models. The base model examined the effect of the three dimensions of justice on job satisfaction and procrastination behavior. Distributive justice represented transactional justice, while procedural and interactional justice represented relational justice. The simulation model was carried out by grouping the sample into (1) a sample group with high psychological contract breach and (2) a sample group with low psychological contract breach.

The measurement of research variables used variable measurements developed by previous studies. Job satisfaction used indicators developed by previous research (Dhamija *et al.*, 2019). Job satisfaction consisted of 9 indicators and 9 question items. Each question item used a structured questionnaire with 5 alternative answers (Likert scale 1-5: 5 = very satisfied, 4 = satisfied, 3 = quite satisfied, 2 = dissatisfied, 1 = very

dissatisfied).

Organizational justice used indicators and instruments developed by Colquitt (Miller *et al.*, 2012). The distributive justice consisted of 4 question items, the procedural justice consisted of 4 question items, and the interactional justice consisted of 4 question items. Each question item used a structured questionnaire with 5 alternative answers (Likert scale 1-5: 5 = very fair, 4 = fair, 3 = fair enough, 2 = unfair, 1 = very unfair).

The procrastination behavior used six simplified indicators of procrastination behavior from previous studies (Özer *et al.*, 2013). Each question item used a structured questionnaire with 5 alternative answers (Likert scale 1-5: 5 = very often, 4 = often, 3 = sometimes, 2 = rarely, 1 = never). The psychological contract breach was measured by nine indicators developed by Robinson and Morrison (Cohen, 2013) and measured using a structured questionnaire with five alternative answers (Likert scale 1-5: 5 = very often, 4 = often, 3 = sometimes, 2 = rarely, 1 = never).

The data analysis used Structural Equation Modeling (SEM) analysis approach. The initial analysis of the base model used the entire sample. The simulation analysis was based on sample groups with high and low PCB. The normality test, including outlier data, was checked before the model fit. The Goodness of Fit criteria used the chi-square value parameter, CMIN/DF (Normed Chi-Square), GFI (Goodness of Fit Index), TLI (Tucker-Lewis Index), CFI (Comparative Fit Index), and RMSEA (Root Mean Square Error of Approximation) (Hair *et al.*, 1995). The hypothesis test was based on the probability value (p-value) and the CR (Critical Ratio) value. Testing the mediation role used the Sobel test (p-value) (Figueiredo Filho *et al.*, 2013; Gelman & Stern, 2006).

#### 4. RESULTS

Model testing consists of the construct measurement model and the relationship model between constructs. The construct measurement model uses Confirmatory Factor Analysis (CFA). Parameters to evaluate the validity of the measurement model use the loading factor, while the parameters to evaluate the reliability of the measurement model use the values of CR (Construct Reliability) and VE (Variance Extracted). An indicator is valid for measuring variables if the loading factor value is 0.5. The results of the CFA test showed that all indicators were valid in measuring the construct because it had a loading factor value of 0.5.

Reliability is an index that measures the consistency of measuring instruments to measure the same symptoms (Table 2). The test results obtained cut-off values CR and VE values for the variables of distributive justice, procedural justice, interactional justice, psychological contract breach, job satisfaction, and procrastination behavior, and all met the criteria for Construct Reliability and Variance Extracted, namely the VE value was greater than 0.70 (Hair, 1997), the CR value is greater than 0.60 (Fornell and Larcker, 1981), and the AVE value is greater than 0.5 (Fornell and Larcker, 1981). Thus, it can be concluded that all variables are reliable.

The estimation results of the goodness of fit index model (Table 2) are carried out by comparing the entire sample model, the model with a high PCB sample, and the model with a low PCB sample. The model that includes all samples (Table 2) shows that all parameters meet the goodness of fit criteria. The chi-square value = 187.507 ( $> 388.25$ ) with a probability of 0.068 ( $> 0.05$ ) indicates the model fit between the empirical model and the theoretical model. The CMIN/DF (Normed Chi-Square) value is  $1.172 < 2.00$ , the GFI (Goodness of Fit Index) value is  $0.910 < 0.90$ , TLI (Tucker-Lewis Index) is  $0.987 > 0.90$ , CFI (Comparative Fit Index) is  $0.989 > 0.90$ , RMSEA (Root Mean Square Error of

Approximation) is  $0.030 \leq 0.08$ . All parameters have ideal values, which meet the goodness of fit criteria. The second model (sample group with high PCBs) and third model (sample group with low PCBs) also show that all have values that can be accepted as the goodness of fit criteria.

**Table 1.** Summary of Confirmatory Factor Analysis Results

Variable	PB	JS	OJ	PCB
PB1	0,714			
PB2	0,697			
PB3	0,693			
PB4	0,634			
PB5	0,693			
PB6	0,634			
JS1		0,676		
JS2		0,739		
JS3		0,688		
JS4		0,806		
JS5		0,824		
JS6		0,754		
JS7		0,667		
JS8		0,755		
JS9		0,751		
DJ			0,884	
PJ			0,809	
IJ			0,664	
PCB1				0,232
PCB2				0,224
PCB3				0,267
PCB4				0,453
PCB5				0,676
PCB6				0,876
PCB7				0,926
PCB8				0,847
PCB9				0,777
CR	0.922	0.916	0.902	0.897
VE	0.669	0.547	0.698	0.601

Source: Primary data processed, 2021

The hypothesis (see Table 3) that distributive justice (DJ) has a positive effect on job satisfaction (JS) is **supported** ( $\rho = 0.000$ ). The hypothesis which states that procedural justice (PJ) has a positive effect on job satisfaction (JS) is **supported** ( $\rho = 0.046$ ). The hypothesis which states that interactional justice (IJ) has a positive effect on job satisfaction (JS) is **not supported** ( $\rho = 0.776$ ). The hypothesis which states that job satisfaction (JS) has a negative effect on procrastination behavior (PB) is **supported** because the significance level ( $\rho = 0.024$ ).

**Table 2.** Goodness of Fit

<i>Goodness of Fit Index</i>	<i>Cut Off Value</i>	<b>All Sample</b>	<b>High PCB</b>	<b>Low PCB</b>	<b>Model Evaluation</b>
❖ $X^2$	$\leq 388,25$	187,507	155,989	221,323	<i>Good Fit</i>
❖ <i>Significancy <math>X^2 (p)</math></i>	$\geq 0,05$	0,068	0,168	0,123	<i>Good Fit</i>
❖ CMIN/DF	$\leq 2,00$	1,172	1,114	1,118	<i>Good Fit</i>
❖ GFI	$\geq 0,90$	0,910	0,873	0,821	<i>Good Fit/moderate fit</i>
❖ TLI	$\geq 0,90$	0,987	0,982	0,976	<i>Good Fit</i>
❖ CFI	$\geq 0,90$	0,989	0,985	0,979	<i>Good Fit</i>
❖ RMSEA	$\leq 0,08$	0,030	0,032	0,037	<i>Good Fit</i>

Source: Primary data processed, 2021

**Table 3.** Structural Equation Estimation Test Results

variable direction	All Sample		High PCB Tinggi		Low PCB	
	$\beta$	p	$\beta$	p	$\beta$	p
DJ-JS	0.316	***	1.002	0.004	0.228	0.130
PJ-JS	0.295	0.046	0.019	0.912	0.689	0.006
IJ-JS	0.157	0.120	0.162	0.144	-0.046	0.812
JS-PB	-0.485	0.024	-0.305	0.304	-0.312	0.047
DJ-JS-PB	-0.097	0.059	-0.082	0.334	-0.135	0.228
PJ-JS-PB	-0.087	0.135	-0.003	0.913	-0.412	0.109
IJ-JS-PB	-0.060	0.199	-0.036	0.401	0.029	0.812

Source: Primary data processed, 2021

Job satisfaction as a mediator of the influence of distributive justice on procrastination behavior can be supported ( $p=0.05$ ). Job satisfaction as a mediator of the effect of procedural justice on procrastination behavior is **not supported** ( $p=0.913$ ). Job satisfaction as a mediator of the effect of interactional justice on procrastination behavior is **not supported** ( $p=0.135$ ). The hypothesis that job satisfaction (JS) has a negative effect on procrastination behavior (PB) in the PCB context is **supported**. The job satisfaction (JS) has no effect on the procrastination behavior (PB) in the sample group with high PCB ( $p=0.304 > 0.10$ ). However, job satisfaction (JS) has an effect on procrastination behavior (PB) in the sample group with low PCB ( $p=0.047 < 0.10$ ). It means that job satisfaction significantly affects procrastination behavior in the PCB context.

The job satisfaction is not significant as a mediator of the effect of distributive justice on procrastination behavior, both in the sample group with high PCB ( $p=0.334 > 0.10$ ) and in the sample group with low PCB ( $p=0.228 > 0.10$ ). It means that the effect of distributive justice on procrastination behavior is not through job satisfaction variables in the PCB context. The job satisfaction is not significant as a mediator of the effect of procedural justice on procrastination behavior, both in the sample group with high PCB ( $p=0.109 > 0.10$ ) and in the sample group with low PCB ( $p=0.199 > 0.10$ ). It means that the effect of procedural justice on procrastination behavior is not through job satisfaction variables in the PCB context. The job satisfaction is not significant as a mediator of the effect of interactional justice on procrastination behavior, both in the sample group with high PCB ( $p=0.401 > 0.10$ ) and in the sample group with low PCB ( $p=0.812 > 0.10$ ). It means that the effect of interactional justice on procrastination behavior is not through job satisfaction variables in the PCB context.



## 5. DISCUSSION

The study results found that distributive and procedural justice are antecedents of job satisfaction. In contrast, interactional justice is not an antecedent of job satisfaction. Distributive justice has a dominant effect ( $\beta = 0.316$ ) on job satisfaction, followed by procedural justice ( $\beta = 0.295$ ). In contrast, interactional justice has no significant effect on job satisfaction. Distributive justice is a dominant factor in job satisfaction with a negative and indirect effect on procrastination behavior. However, job satisfaction does not mediate procedural and interactional justice on procrastination behavior.

This study found consistent results with previous studies (Abekah-Nkrumah & Atinga, 2013; Palaiologos *et al.*, 2011; Tjahjono *et al.*, 2019), which also found the dominant influence of distributive justice on job satisfaction. It could be because distributive justice is easier to feel, is material in nature and relatively easy to measure, has been regulated in the performance appraisal system, and has standard operating procedures that apply to all employees at work. It is increasingly clear that matters relating to employee rights from the beginning until retirement have been written clearly and are given as they are. The system for providing salaries, remuneration, and various other types of welfare for employees has been regulated according to rank, class, and period of service so that the amount of income is determined by the employee's performance. All employees at work have regulated their primary duties and functions, including their rights so that they do not care about interactions with their leaders.

Findings of job satisfaction mediating the effect of organizational justice on procrastination behavior were carried out in the context of the relationship between employees and organizations that were formally regulated (employment contracts, work designs). On the other hand, the working relationship between employees and the organization is not only regulated by formal contracts. However, it is also often regulated in unwritten agreements or psychological contracts (Baker *et al.*, 2002; Zenger *et al.*, 2000). In contrast to formal employment contracts, psychological contracts are more flexible by providing autonomy (Rousseau, 2001).

Regarding the context of psychological contract breach, the results also found consistent results that only distributive and procedural justice significantly affected job satisfaction in conditions of high and low psychological contract breach. The results of this study indicate that, in general, employees are more sensitive to salary, compensation, and physical facilities (distributive justice) systems than procedural and interactional relationships. Formalization through the development of a fair compensation system, career system, performance appraisal system increases ease of coordination, and control.

The study found that problems in informal employment relationships in the form of psychological contract breach did not distinguish the effect between organizational justice on job satisfaction and procrastination behavior. It could be because various guidelines or standards in the salary, career and performance appraisal systems were already available in public organizations. Relationship problems that are relational and informal do not have much effect on job satisfaction. Job satisfaction is more influenced by distributive justice.

Civil servants are more afraid of formal-written rules and procedures than simply fighting for or questioning the organization's promises. Informal-unwritten or psychological contracts are straightforward to forget because there is no written evidence. In the context of public organizations, in this case, education personnel with civil servant status prioritize how to work following formal regulations because the guarantee of the fulfillment of employee rights is specific. Employees think more pragmatically and realistically. Questioning the organization's unwritten promises can harm the employees

themselves because they are considered employees who are brave with their superiors. Justice in the context of a written contract is more transparent and easier to account for. When these provisions violate these provisions, it will be easy for the injured party or feel it unfair to give claims. Other problems, such as the case of a change of leadership in the context of an unwritten contract (psychological contract), also make it possible for the promises given to employees not to be realized.

## 6. CONCLUSION

The results of this study found three main findings as follows. First, distributive justice and procedural justice were antecedents of job satisfaction, while interactional justice had no significant effect on job satisfaction. These findings confirm that higher distributive justice received by employees will be followed by higher job satisfaction. Conversely, lower distributive justice received by employees will also be followed by lower job satisfaction.

Second, distributive justice had a positive effect on job satisfaction in the context of high-psychological contract breach; job satisfaction had a negative and significant effect on procrastination behavior in the context of psychological contract breach. In other words, it is important for organizations to pay attention to the return-contribution system given to employees because it can affect their job satisfaction and minimize procrastination behavior. Employee job satisfaction in this case has a negative effect on procrastination behavior, in other words employees who are dissatisfied with their work tend to have procrastination behavior. And vice versa, when job satisfaction is higher, employee will relatively be able to control procrastination behavior. When employees feel dissatisfied with their work, they will express it in various ways, including complaining, being rebellious, and avoiding responsibility or delaying work.

This study implies that the effect of organizational justice on job satisfaction and procrastination behavior occurred in the context of formal-transactional relationships compared to informal-relational. Another implication for managerial practice from the aspect of procedural justice is for public university leaders in fulfilling basic employee rights such as salary, incentives, benefits, and remuneration must be consistent with the guidelines and formal regulations that apply. Some important indicators that measure distributive justice are: (a) performance appraisal according to the effort shown, (b) performance appraisal according to the facts produced, and (c) performance appraisal based on the contribution made.

In addition, it would be better for the leaders of public universities to maintain employee job satisfaction if they considered indicators of procedural justice such as: (a) employees can express themselves, (b) procedures are based on accurate information, (c) employees can dispute work procedures, and (d) work procedures in accordance with ethical and moral standards, which clearly form indicators of procedural fairness as predictors of job satisfaction. Leaders of public universities should also understand that distributive justice is the most dominant antecedent variable in influencing job satisfaction and procrastination behavior, thus they must be more careful in every policy-making process concerning employee rights that are extrinsic in nature, so that employees remain satisfied with the results it works.

Some of the findings from this study are useful for organizational development both in the short and long term. In the short term, this study can be useful for employees in perceiving the values of organizational justice that are accepted both extrinsically and intrinsically to give birth to an attitude of satisfaction at work. An employee who perceives

unfair treatment in terms of bonuses, gifts, benefits, career opportunities, and self-development compared to other employees in the same type of work and responsibilities can feel jealousy and dissatisfaction. Conversely, employees who are satisfied with their work results tend to behave positively and try to avoid negative behaviors such as procrastinating work that is detrimental to the organization. In the long term, the results of this study can be used as a reference for leaders of public universities at all levels in the strategic decision-making process to determine the direction of organizational progress.

This research still has some limitations. First, the research was conducted at state universities with the formalization of the compensation system, career system, and clear work procedures. The research cannot be generalized to universities with other characteristics such as private universities. Second, the research was conducted through a cross-sectional design. Research can produce different results in increasingly dynamic, complex situations in the future. In an increasingly complex and dynamic environment, it requires a system that is not only fair but also flexible. Further research is needed by comparing justice in formal arrangement (e.g modularization) with informal arrangement (such as through psychological contracts) in a dynamic environment that is likely to occur in universities in the future.

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