
Do distributive and procedural justice matter for job satisfaction? The case of state Islamic higher education institutions in Indonesia

Azharsyah Ibrahim and Ana Fitria

Department of Islamic Banking,
Faculty of Islamic Economics and Business,
Universitas Islam Negeri Ar-Raniry,
Banda Aceh, Indonesia
Email: azharsyah@ar-raniry.ac.id
Email: ana.fitria@ar-raniry.ac.id

M. Shabri Abd. Majid*

Department of Economics,
Faculty of Economics and Business,
Universitas Syiah Kuala (USK),
Banda Aceh, Indonesia
Email: mshabri@unsyiah.ac.id
*Corresponding author

Abstract: To provide better services, many public universities in Indonesia have implemented a new remuneration scheme under public service bodies (*Badan Layanan Umum* – BLU) management. This study assesses the perception of remuneration distributive and procedural justices and their effects on job satisfaction among staff of the state Islamic higher education institutions (*Perguruan Tinggi Keagamaan Islam Negeri* – PTKIN) in Indonesia. The study selected 262 staff from 13 PTKIN as the sample of study using a purposive sampling technique. The PTKIN's staff perceived that the distributive and procedural justice of the remuneration falls under the 'fair' and 'quite fair' categories, respectively. Besides, distributive justice and procedural justice are found to have a significant positive effect on job satisfaction. These findings suggest that the government should continuously improve the remuneration scheme based on the distributive and procedural justice principles to enhance the satisfaction of the staff of PTKIN in Indonesia.

Keywords: job satisfaction; distributive justice; procedural justice; state Islamic higher education institutions.

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Biographical notes: Azharsyah Ibrahim is an Associate Professor at the Department of Islamic Banking, Faculty of Islamic Economics and Business, Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia. He completed his PhD in Islamic Management (Business and Management) from the University of Malaya, Malaysia in 2015. His research interests include management in

Islamic business, banking, finance, accounting, education, performance measurement system, public management, and Islamic business ethics. He has published numerous articles in national and international refereed journals and presented papers in various seminars locally and internationally. He has been serving several national and international journals as the editorial board's member and reviewer.

Ana Fitria is an Assistant Professor at the Department of Islamic Banking, Faculty of Islamic Economics and Business, Universitas Islam Negeri Ar-Raniry, Banda Aceh, Indonesia. She completed her Master of Accounting and Finance at Salford University, UK. Her research interests include accounting and finance, management in education, performance measurement system, Islamic finance, and the stock market. She has published a few articles in national refereed journals and presented papers in various seminars locally and internationally.

M. Shabri Abd. Majid is a Professor in Islamic Economics at the Faculty of Economics and Business, Universitas Syiah Kuala (USK). He completed his PhD in Financial Economics from the International Islamic University Malaysia (IIUM) in 2005. His research interests include financial economics, applied econometrics, Islamic economics, banking, and finance. He has published more than 100 articles in international refereed journals and presented his papers in many international conferences. He has been serving several international journals as the editorial board's member and reviewer.

1 Introduction

The issue of remuneration has been a focus of policy-makers, practitioners, and researchers globally for the last few decades. Since 2005, this issue has been intensively discussed among staff at the public universities in Indonesia, including the state Islamic higher education institutions (*Perguruan Tinggi Keagamaan Islam Negeri* – PTKIN) due to the government requirement for public universities to be operated as the public service bodies (*Badan Layanan Umum* – BLU). In Indonesia, the granting of remuneration, especially those who are working under the BLU entities, is regulated by several statutory regulations and given based on the level of responsibility and demands of professionalism with the principles of proportionality, equality, suitability, and performance. In its implementation, however, has raised several problems, especially from the perception of fairness in the determination of grading and amount of money paid. These problems are more evident in tertiary institutions, both religious and non-religious because there are several groupings of employees, particularly lecturers, who are relatively more critical than employees in other public agencies.

As an illustration, the following discussion demonstrates a comparison of grade and amount of remuneration received by the employees of a BLU-based PTKIN, the Ar-Raniry State Islamic University (UIN Ar-Raniry) Banda Aceh, Indonesia. In the Decree of the Rector of UIN Ar-Raniry No. 6 and 7 of 2018, for example, a professor who holds no administrative post is categorised in a similar grade (i.e., Grade VIII) with the ordinary lecturer who holds a managerial position but received a lower remuneration

rate. These practices have been viewed as one of the examples of unjust implementation remuneration schemes in PTKIN in Indonesia. The above-illustrated form of injustice could be true for several groups of staff, but not true for some others, depending on how they perceived justice. In the view of beneficiaries, the visible side is the final amount of remuneration received without knowing in detail how the process of its determination. In contrast, in the view of policy-makers, the visible side is the whole process by considering various aspects ranging from the financial ability (available funds) of the relevant BLU-based PTKIN, the separation of remuneration from the certified professional lecturer, workload, and position value.

The dissatisfactions of the remuneration policy did not only occur in one or two BLU-based universities, but also happen in many other higher education entities nationwide such as State Islamic University of Yogyakarta (UIN Yogyakarta) (Senjani, 2017), Universitas Brawijaya (Prasetya, 2018), Telkom University (Prasetyo et al., 2014), and Surabaya State University (Suci, 2015). In a general context, the remuneration system in higher education institutions is currently considered by many as unfair and causes dissatisfaction among the staff of universities. Most universities still rely on the group, grade, and years of service as a measuring factor. Such rewards result in not much difference between lecturers who perform well and those who are mediocre (Prasetyo et al., 2014). These practices have caused dissatisfaction among the staff, indicated by high levels of absenteeism, frequent accidents in completing tasks, mistakes in carrying out the assigned tasks, strikes, or even the transfer of employees to other organisations (Adam, 1963). In several studies, employees will adjust the working contribution to an organisation with the perception of justice they receive (Latham and Pinder, 2005).

Previous studies documented that an increasing perception of fairness of remuneration encourages employees to increase working contributions to achieve the expected economic efficiency (Abeler et al., 2011; Jawahar and Stone, 2011). Therefore, organisational justice is a fundamental aspect of the compensation system. Employees evaluate organisational justice based on three forms, namely distributive, procedural, and interactional justice (Croppanzano et al., 2002). The fairness of the structure and competitiveness of compensation in an organisation can be assessed in terms of distributive justice and procedural justice (Cohen-Charash and Spector, 2001; Hasibuan, 2009; Misra et al., 2012; Mondy et al., 1984; Sancoko, 2011). The distributive justice measures individual employee perceptions by comparing the results he received from the organisation (Alsalem and Alhaiani, 2007), while the procedural justice measures employees' perceptions of the fairness of the rules and procedures that exist in an organisation (Posthuma et al., 2007).

The aforementioned studies show that studies on remuneration topics have covered several issues, ranging from the implementation substance to the assessment methods. However, they mostly focused on studying the impact on a business entity. There are also some studies found regarding the implementation of remuneration in tertiary institutions, but their focuses on a single institution, and their main subjects were non-Islamic higher institutions. Thus, the researcher concludes that information gathering regarding the implementation of remuneration in tertiary institutions, especially at the PTKIN, is still very much needed so that the application of remuneration that has only been running for several years can be made better. For this reason, this research will focus on exploring the perspectives of stakeholders – namely beneficiaries and policy-makers – about implementing BLU remuneration in the PTKIN in Indonesia. It also attempts to

empirically measure and analyse the effects of distributive justice and procedural justice on job satisfaction among employees.

The findings of this study are hoped to shed some light on government, policy-makers, and public university management in designing a more proper policy regulating remuneration scheme for the staff of the public universities based on the principles of distributive and procedural justices. For the university staff, these findings are hoped to provide them with an insightful process and consideration underlying the mechanism of remuneration determination so that they would gain a better perspective on the remuneration scheme.

The rest of this study is preceded in the following sequences. Section 2 provides a brief overview of higher education institutions and the remuneration system in Indonesia. Section 3 reviews the relevant theories and previous studies on justice and job satisfaction. Section 4 presents the research method as the basis for the analysis, followed by the findings and discussion in Section 5. Finally, the conclusion is provided in Section 6.

2 A brief overview of higher education institutions and remuneration system in Indonesia

The higher education system in Indonesia is unique as it is managed by several ministries but predominantly by the Ministry of Education and Culture (*Kementerian Pendidikan dan Kebudayaan – Kemdikbud*) and Ministry of Religious Affairs (*Kementerian Agama – Kemenag*). *Kemdikbud* manages non-religious educational institutions that offer majors on a general scientific basis, while *Kemenag* manages religious educational institutions that provide Islamic studies-related majors. The general education system is regulated by *Kemdikbud*, while in specific; each ministry develops its own regulation based on the institutions' uniqueness. This study object, the PTKIN, is governed by *Kemenag*.

The PTKIN is a group of state Islamic higher education entities that consists of 58 institutions. These include 17 State Islamic Universities (*Universitas Islam Negeri – UIN*), 34 State Islamic Institutes (*Institut Agama Islam Negeri – IAIN*), and 7 State Islamic Colleges (*Sekolah Tinggi Agama Islam Negeri – STAIN*). In total, *Kemenag* governs 784 Islamic educational institutions, including 726 private institutions (Diktis, 2019). In concern to remuneration, however, the system for all government agencies, including state universities, is instigated by the Central Government in Jakarta through the Ministry of Finance (*Kementerian Keuangan – Kemenkeu*). It has regulated using a statutory regulation, the Government Regulation (*Peraturan Pemerintah – PP*) No. 23/2005, which was then amended by PP No. 74/2012. The PP became the basis for the Minister of Finance in setting the remuneration guideline for the government agencies, starting from Ministry of Finance Regulation (*Peraturan Menteri Keuangan – PMK*) No. 10/PMK.02/2006, then amended with PMK No. 73/PMK.05/2007, and updated with PMK No. 176/PMK.05/2017.

The PMK specifically states that remuneration must be given based on the level of responsibility and professionalism demands, following the principles of (i) proportionality, (ii) equality, (iii) propriety, and (iv) performance. The remuneration component consists of salary, honorarium, fixed allowances, incentives, bonuses for achievement, severance pay, and pensions. Payment for remuneration includes several components, namely: (i) Pay for Position in the form of additional salary sourced from

Non- tax State Revenue funds; (ii) Pay for Performance in the way of performance; and (iii) Payment for Welfare (Pay for People) in the form of individual welfare programs such as health protection and pension fund for employees who have unique expertise. Based on the PMK, each agency then sets an internal statute to implement the remuneration, especially in determining the position, grade, and payment.

Furthermore, the PMK also asserts that the remuneration scheme consists of two components, namely the additional salary and the performance incentive. For extra pay and performance incentive components, the allowable amount for each is 30% and 70% of the employee remuneration rates, obtained by multiplying the job value of the position and the Rupiah index. However, the agencies might pay less than the stated amount, depending on their financial ability. Performance appraisal is based on several components, namely the values of attendance, the primary performance and activity performance achievement, behaviour, and lecturer performance reports, and lecturer performance index.

3 Literature review

3.1 Definition of the variables

3.1.1 Perception

In behavioural studies, perception is defined as the process of how people choose, organise, and interpret information to form a meaningful picture of the world (Kotler, 2003) and the understanding environment as a stimulus in subjective experience (Gibson et al., 2009; Robbins and Coulter, 2014).

Furthermore, Baltus (1983) identifies, at least, five factors determining a person's perception of a particular object, comprising physical abilities and limitations of the sense organs, environmental conditions, experience, needs and desires, and belief, prejudice, and values. Chaplin (1999), on the other hand, views that, in general, factors triggering the formation of perception consist of stimulants, ways of learning, mental states or moods, and motivational factors. Thus, the meaning of an object or event is determined by the condition of stimulator and organism factors. Therefore, perceptions of an individual would be different from one to another. It depends on how each of them responds to aspects of the situation that have special meaning for different individuals.

3.1.2 Remuneration

According to Kessler (2009), remuneration is a way of giving rewards to employees in the workplace. DeLuca (1993) defines remuneration as a number of payments, both directly and indirectly, received by an employee in exchange for work produced. It refers to all types of rewards (Mondy and Noe, 2006), either financial rewards, tangible services, or benefits obtained by employees (Milkovich et al., 2002), as a result of reciprocal relationships at work. Remuneration is often used interchangeably with compensation. The term compensation includes pay, incentives, and benefits offered by the company's employers for hiring the services of the employees. Compensation plays an essential role in maintaining and retaining an effective workforce (Bergmann and Scarpello, 2001). A compensation policy that is just and effectively acts as a catalyst for an organisation to gain a competitive edge. Studies have shown that compensation was

one of the strongest determinants of employee attitudes, motivation, and behaviours (Gerhart and Milkovich, 1992). Compensation influences key outcomes like job satisfaction, attraction, retention, performance, skill acquisition, co-operation, and motivation.

Compensation primarily has two objectives – a reward for services rendered to the organisation and to act as a stimulus or motivate employees to improve performance. Benefits and Rewards such as bonuses, incentives, merit pay, stocks are considered a powerful tool for the long-term retention of potential employees. When people's perception is that they are being treated fairly and appreciated, they give more of their time, creative energy, and value-adding discretionary effort, directly impacting the organisation's – and individual's – performance. Organisational justice is fundamental to compensation systems. The fairness of an internally aligned and externally competitive pay structure is judged in terms of distributive justice and procedural justice (Misra et al., 2012). Researchers have stressed that many employees perceive payment allocation decisions as unfair (Heneman and Judge, 2000; Tekleab et al., 2005), explaining the weak link between actual pay and performance.

3.1.3 Justice

The word justice in the Official Dictionary of Indonesian is defined as an equal or impartial condition (KBBI, 2018). Justice does not mean that everything must be the same because there are definitely natural differences that exist in each individual, for example, differences between men and women (al-Sheha, 2012). Justice exists when someone gets what they are entitled to without violating the rights of others (Dillon, 2014). In an organisation, justice deals with employees' perceptions of fairness in organisations (Greenberg and Lind, 2000). Usually, someone will say that he was treated fairly if the treatment was in his favour, but if the treatment received feels detrimental, then he will tend to say that he was maltreated (Febriani and Nurtjahjanti, 2006).

Based on equity theory, employees regard their participation in the workplace as a barter process, where they make contributions such as their expertise and hard work. In return, they expect employment in the form of salary or recognition (Greenberg, 1987). Another way to look at justice in an organisation is through the concepts of procedural justice and distribution justice. Procedural justice emphasis whether the procedures used to distribute work results to employees is fair enough or not, while distributive justice emphasis whether the result is rewarded by just individuals based on specific standard rules (Folger and Cropanzano, 1998).

3.1.4 Distributive justice

Distributive justice is the perceived fairness of payment received, the ratio between the contribution of employees (input) and compensation received relevant to others (Misra et al., 2012). According to Colquitt (2001), distributive justice refers to the balance of the distribution of organisational results in the form of salaries, benefits, and bonuses. When individuals in an organisation perceive that the ratio of reward input they receive is balanced, they will feel the fairness that indicates distributive justice. Distributive justice is conceptualised as justice related to the outcome of decisions and the distribution of resources. Results or resources can be in the form of tangible payments, or they can also be intangible things like praise (Cohen, 1987), such as promotional opportunities (Colquitt, 2001).

Precisely, to measure distributive justice, the following indicators, partly adopted from Thibaut and Walker (1975), are proposed by Colquitt (2001), namely: (i) equality between the effort given at work and the rewards received; (ii) feasibility of rewards provided by companies based on completion of work; (iii) contribution and the appropriateness of earned benefits; and (iv) performance and the suitability of the received rewards. These indicators were initially developed by Thibaut and Walker (1975) in a law study setting.

3.1.5 Procedural justice

Procedural justice is the perceived fairness of procedures for determining the pay structure, the rules and procedures guiding pay decisions, and the information that accompanies their implementation (Misra et al., 2012). Procedural justice is a type of justice that is felt from the processes and procedures used to allocate satisfaction (Solum, 2004). It is defined as the fairness of the rules and procedures in terms of making decisions and policies that are used to achieve specific results or targets based on the control process, decision control, consistency, minimal bias, based on an accurate, upgradable, representative, and ethical information (Gangl, 2003).

Thus, it relates to the decision-making procedure by the organisation aimed at members of the organisation (Alotaibi, 2001). This justice refers to mechanisms that support employee empowerment and provide support to employees (Nath and Agrawal, 2015). To measure procedural justice, Cropanzano et al. (2007) proposes indicators, namely: (i) consistency; (ii) bias suppression; (iii) accuracy; (iv) correctability; (v) representativeness; and (vi) ethicality. These indicators are the extended version of the measurer proposed by Colquitt (2001).

3.1.6 Job satisfaction

In the study of organisational behaviour, the issue of job satisfaction is identified as one of the most important topics because it is closely related to the physical and emotional health of employees (Oshagbemi, 1999). Spector (1997) defines job satisfaction as something one feels about work and other aspects of employment, psychologically and physically, including extrinsic and intrinsic factors (Herzberg et al., 2011).

Job satisfaction is very relative, depending on how a person perceives it, and therefore tends to be unlimited. However, in Islam, satisfaction has a limit. The aim is to avoid greed by making the level of personal satisfaction meet its standard of needs. In fulfilling job satisfaction, Islam does not put material aspects as its primary measure but worship, namely the extent to which an employee can ensure that the work he does is part of his worship (Ismail et al., 2012). Thus, a Muslim employee to become unpretentious (*tawadhu*) and would work with sincerity, patience, and gratitude. In Islam, job satisfaction could also be viewed in the context of *Maqashid al-Sharia* (objectives of *Shariah*) to safeguard five essential components, namely religion, soul, reason, family, and property. By fulfilling these components, an employee would enjoy ultimate happiness (*al-sa'adah*), which leads to the formation of job satisfaction (Ismail et al., 2012).

To measure job satisfaction, Smith et al. (1969) develop the Job Description Index (JDI) by looking at five indicators, namely employment, salary, promotion, supervision, and colleagues. Meanwhile, Spector (1985) identified nine indicators for job satisfaction

in his Job Satisfaction Survey (JSS), namely salary, promotions, supervision, benefits, rewards, workplace conditions, work colleagues, nature of work, and communication.

3.2 Selected previous studies

Research examining the relationship between procedural and distributive justice to compensation or remuneration has been found in the literature. McFarlin and Sweeney (1992), for instance, found that both distributive and procedural justices were the predictor of pay and job satisfaction in the US banking industry. However, distributive justice played a more critical role. In an empirical study at a public sector organisation, the Research and Development laboratory, and an engineering design and production company in Canada, Dailey and Kirk (1992) revealed some essential relationships among employees' perceptions of procedural and distributive justices and critical work attitudes and intention to quit the organisations. In the USA, Whisenant and Smucker (2007), found a linear relationship between organisational justice and job satisfaction in sport organisations. Similarly, López-Cabarcos et al. (2015) found the influence of organisational justice on job satisfaction at the hotel industry in Portugal.

In an Arabic setting, Al-Zu'bi (2010) and Elamin and Alomaim (2011) exposed a positive association between organisational justice and job satisfaction in various industries located in Jordan and Saudi Arabia, respectively. Furthermore, Misra et al. (2012) concluded that along with rewards, distributive and procedural justice have an impact on job satisfaction in the Indian Retail Industry. Moreover, Ismail et al. (2009), and Fatt et al. (2010) found a significant correlation between organisational justice and job satisfaction, respectively in a Malay educational institution and small-medium size companies.

In the Indonesian context, studies focusing on higher education institutions are still rarely found, especially in Islamic universities. In Indonesia, the focus of the studies on the justice-job satisfaction relationship has been only limited to one or two universities, and none of them has comprehensively explored a larger number of universities nationwide, as the present study intends to explore. Senjani (2017), for example, studied the implementation of remuneration at UIN Sunan Kalijaga Yogyakarta, taking 57 lecturers and staff of the university as the sample of the study. She found that the remuneration system of the UIN Sunan Kalijaga Yogyakarta was good enough. In his research at Brawijaya University, Prasetya (2018) found a significant effect of the remuneration system on job satisfaction among the lecturers at the university. Prasetyo et al. (2014) studied the direction and policy model of the human resource remuneration system and a performance-based remuneration system at the Telkom University. They identified that the university had built a performance-based desktop, covering ranks, job evaluations, work performance, and so on.

Moreover, Hakim et al. (2016) reviewed the implementation of remuneration policies in improving the performance of staff at the Malang State University and found that the application of remuneration based on workload and employee responsibilities has improved the performance of the team. Maharani et al. (2016) found adverse and significant effects of remuneration justice, superior competence, and group cohesiveness on withholding efforts of the staff at the State Hindu Dharma Institute of Denpasar, Bali. Meanwhile, Astridina et al. (2017) compared the remuneration system at three state universities in Jakarta, West Java, and East Java and found that only some universities have fully implemented remuneration schemes based on government regulations.

Pratama and Prasetya (2017) examined the effect of the remuneration system on lecturers' job satisfaction and work motivation in Brawijaya University and found a significant influence of the remuneration system on job satisfaction and work motivation. Finally, Mas'udia et al. (2018) examined the clustering of lecturer remuneration data for performance evaluation using fuzzy c-means and found a different performance across clusters.

The above-reviewed studies conclude that information gathering regarding the implementation of remuneration at the higher education institutions is still very much needed to provide a more comprehensive recommendation for the better implementation of the remuneration scheme. For this reason, this research will focus on exploring the perspectives of stakeholders – namely beneficiaries and policy-makers – about implementing remuneration in the public Islamic state higher education institutions where they work.

4 Research methods

4.1 Research respondents

The population of this study consists of the beneficiaries and remuneration policy-makers from the BLU-based PTKIN in Indonesia. Of 58 total numbers of PTKIN in Indonesia, 17 of them are with the BLU status (BLU-based PTKIN). Of 17 BLU-based PTKIN, only 11 of them have implemented a new remuneration system (BLU, 2019) and thus becoming the institutional population of this study. A number of 262 staff from the 11 BLU-based PTKIN was participated as the sample of the study using the purposive sampling technique, based on the several criteria, namely: (i) willing to volunteer to become a respondent; (ii) receiving remuneration benefits; (iii) involved as a team to formulate a remuneration system; and (iv) from one of the BLU-based PTKIN that have paid remuneration per 2019. Besides, this study also selected nine policy-makers that are the staff of the Internal Control Unit from the several BLU-based PTKIN.

4.2 Types and data collection techniques

To gather the data, the questionnaires were distributed electronically using the Google form application for 20 days. A closed-form questionnaire comprises six options of answers are provided with weighted scores using a six-point Likert-type scale, namely 1 (strongly disagree), 2 (disagree), 3 (relatively disagree), 4 (somewhat agree), 5 (agree), and 6 (strongly agree) (Ibrahim, 2015). It was used for the following reasons: firstly, the respondents of the study comprise all employees from all beneficiaries' groups, including top to lower management, lecturers, and administrative staff who were able to give positive or negative feedback on the questions asked, and thus no reason for them to be neutral. On that basis, there was no option of 'not sure' or 'neutral' made available in the response scales. Secondly, the use of a six-point scale aims to prevent the respondents from continuously being independent if the option of 'not sure' or 'neutral' is provided. Finally, based on empirical research conducted by Trompenaars and Hampden-Turner (1997), some Asian countries, including Indonesia, show a high rank in the neutrality dimension. This kind of response would have contributed to central tendency error (Cooper and Schindler, 2008) that could be avoided using a six-point scale.

At the end of the questionnaire, the respondents were given an open question to accommodate information that closed questions could not cover. Additionally, in-depth semi-structured interviews were also conducted with selected respondents and policy-makers. Semi-structured interviews are performed to clarify and elaborate on some specific issues that were unclear during the survey. The instrument allows certain respondent flexibility to respond to research questions and permits the researcher to further dig up critical insights for clarification purposes from the respondents' viewpoint, if necessary. During the interview, the respondents were asked to respond to specified research questions, and some follow-up questions were further developed to get respondents' critical views when necessary. Thus, the basic material for the interview is the answers collected from the questionnaire as well as being used to clarify some unclear matters to cover both sides of information.

4.3 Operationalisation of variables

To measure the variables, the following indicators and respected statements are asked of the respondents, as illustrated in Table 1.

Table 1 Operationalisation of variables

<i>Variables</i>	<i>Indicators</i>	<i>Item statements</i>
Distributive Justice (DJ)	<ul style="list-style-type: none"> • Equation • Feasibility • Contributions • Performance (Colquitt, 2001; Thibaut and Walker, 1975) 	1 The remuneration I received reflects the effort that I put into work.
		2 The remuneration I received is in accordance with the work I complete.
		3 The remuneration I received reflects my contribution to the university.
		4 The remuneration I received is in accordance with the performance I produce.
		5 The remuneration I received is in accordance with my abilities.
		6 The remuneration I received is in accordance with my position.
		7 The remuneration I received was in line with my expectations.
Job Satisfaction (JS)	<ul style="list-style-type: none"> • Salary • Promotions • Supervision • Benefits • Rewards • Workplace conditions • Colleagues • Nature of work • Communication (Spector, 1985, 1994) 	1 I feel that I have received a salary according to my work.
		2 Opportunities for promotion are wide open to anyone who works well.
		3 The leaders in my place of work can be role models.
		4 One of the advantages of working here is the guarantee of job security.
		5 When I work well, I receive an appropriate reward.
		6 There are adequate facilities for work.
		7 Collaboration with colleagues is going well.
		8 I feel proud of my work here.
		9 In carrying out my work, communication between lines is appropriately established.

4.4 Data analysis technique

4.4.1 Instrument test

Since the data of this research was questionnaire-based, before analysing deeply, the goodness of data was tested using instrument tests of reliability and validity. The former is tested using Cronbach's alpha, while the latter is using the bivariate Pearson correlation test. The Cronbach's alpha values above 0.7 are considered acceptable and satisfactory, above 0.8 are considered quite good, and above 0.9 are considered exceptional (Cronbach, 1951). However, in the social sciences, an acceptable range of alpha value estimates from 0.7 to 0.8 (Nunnally and Bernstein, 1994). Meanwhile, an indicator that correlates significantly with the total score indicates its validity.

4.4.2 Data analysis

Data analysis for this research was done mostly by employing quantitative methods with additional explanation in qualitative ways. More specifically, respondents' perception was calculated using percentage analysis and mean value as the basis of analysis, as suggested by McCormick (1945). More specifically, referring to Lind et al. (2012), quantitative data collected from the questionnaire were analysed using the descriptive method of percentage with the following steps:

- a) The score of the six categories as mentioned in Section 4.2 is multiplied by the number of respondent's answers ($SA = n \times 6$; $A = n \times 5$; $SWA = n \times 4$; $RDA = n \times 3$; $DA = n \times 2$; $SDA = n \times 1$).
- b) Determine the class interval or width by finding the highest and lowest percentage numbers ($6/6 \times 100 = 100$; $1/6 \times 100 = 16.66$). Based on this, the individual class limits are set as presented in Table 2.
- c) The next step is to determine the highest score ($6 \times 262 = 1572$) and the lowest score of all items ($1 \times 262 = 262$).
- d) The respondents' answers are then analysed based on the quantity for each statement item and used as the basis for determining the score for each item, with the formula: Item score = (Total item score/Highest score) \times 100%.
- e) The final step is to determine in which category the statement falls.

Table 2 Perception categories

Percentage	Categories	Weightage value
83.35 – 100.00	Very fair	6
66.68 – 83.34	Fair	5
50.01 – 66.67	Quite fair	4
33.34 – 50.00	Quite unfair	3
16.67 – 33.33	Unfair	2
0 – 16.66	Very unfair	1

These quantitative data are then used as a basis for conducting interviews as well as confirmation with the respondents so that a comprehensive picture of the fairness of remuneration at BLU-based PTKIN in Indonesia. The results obtained from the interviews are then critically evaluated and analysed.

Furthermore, the study adopts multiple regression techniques to answer the following research questions: (Q₁): Does distributive justice affect the job satisfaction of the staff at BLU-based PTKIN in Indonesia? and (Q₂): Does procedural justice affect the job satisfaction of the staff at BLU-based PTKIN in Indonesia? To anticipate the effects of respondents' characteristics (internal factors) and working-related aspects (external factors) on job satisfaction, we incorporate them into our estimated regression models, as the additional factors determining job satisfaction. The internal factors are the condition comes from the employees themselves, while external factors are conditions related to employees' workplace. The internal factors include gender, educational level, age, and marital status, while the external actors comprise job position, monthly income, work experience, and role as policy-makers or beneficiaries. Thus, the study tests the following four models:

- 1 Model 1 comprises only distributive justice and procedural justice as the determinants of job satisfaction. This main model is written in the following equation:

$$JS = \alpha_{11} + \beta_{11}DJ + \beta_{12}PJ + \varepsilon_{11} \quad (1)$$

- 2 Model 2 comprises distributive justice, procedural justice, and internal factors (i.e., gender, educational level, age, and marital status) as the determinants of job satisfaction.

$$JS = \alpha_{21} + \beta_{21}DJ + \beta_{22}PJ + \beta_{123}GD + \beta_{24}EDU + \beta_{25}AGE + \beta_{26}MS + \varepsilon_{21} \quad (2)$$

- 3 Model 3 consists of distributive justice, procedural justice, and external factors (i.e., job position, monthly income, work experience, and their roles) as the determinants of job satisfaction.

$$JS = \alpha_{31} + \beta_{31}DJ + \beta_{32}PJ + \beta_{133}JP + \beta_{34}INC + \beta_{35}EXP + \beta_{36}ROLE + \varepsilon_{31} \quad (3)$$

- 4 Model 4 comprises distributive justice, procedural justice, internal and external factors as the determinants of job satisfaction.

$$JS = \alpha_{41} + \beta_{41}DJ + \beta_{42}PJ + \beta_{43}GD + \beta_{44}EDU + \beta_{45}AGE + \beta_{46}MS + \beta_{147}JP + \beta_{48}INC + \beta_{49}EXP + \beta_{410}ROLE + \varepsilon_{41} \quad (4)$$

where α_{ii} are the constant terms, JS is the job satisfaction, β_{ii} are the estimated regression coefficients for respective independent variables, DJ is the distributive justice; PJ is the procedural justice, GD is the gender, EDU is the education level, AGE is the age, MS is the marital status, JP is the job position, INC is the monthly income, EXP is the experience, ROLE is the role, and ε_{ii} are the error terms.

Before testing the hypotheses, the classical assumptions of normality, multicollinearity, and heteroscedasticity will be tested. To test for normality, we employed the test of Jarque-Bera (JB). If the probability values of the JB test are higher than 0.05, then the data is said to be normally distributed. Meanwhile, the Variance Inflation Factor (VIF) is adopted to test the multicollinearity of data. If the value of the VIF is smaller than ten, thus the data are viewed to be free from the multicollinearity problem. Finally, the Glejser test is used to test for the heteroscedasticity of the data. If the values of the test are greater than 0.05, then the data is concluded to be homoscedastic (Gujarati, 2009).

5 Findings and discussions

5.1 Characteristics respondents

As it has been previously mentioned, this study employed respondent from BLU-based PTKIN in Indonesia that have implemented the remuneration system as the essential criteria. By August 2019, only 11 out of 17 BLU-based PTKIN were included among the requirements. A number of 262 respondents participated in the survey that consisted of 62.6% male and 37.4% female staff. Detailed information of respondents is presented in Table 3.

Table 3 Demographic information

<i>Characteristics</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Characteristics</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Gender:</i>			<i>Role:</i>		
• Male	164	62.6	• Beneficiary	253	96.6
• Female	98	37.4	• Policy-maker	9	3.4
<i>Position group:</i>			<i>Monthly income:</i>		
• DT	107	40.8	• Below IDR3 millions	32	12.2
• DS	84	32.1	• IDR3 – 5 million	104	39.7
• PS	18	6.9	• IDR5 – 7 million	73	27.9
• JFU	24	9.2	• IDR7 – 9 million	25	9.5
• JFT	8	3.1	• IDR9 – 12 million	21	8.0
• Others	21	8.0	• Above IDR12 million	7	2.7
<i>Age group:</i>			<i>Educational level:</i>		
• 20–30 years old	26	9.9	• Diploma	2	0.8
• 31–40 years old	92	35.1	• Undergraduate	36	13.7
• 41–50 years old	110	42.1	• Masters	138	52.7
• 51–60 years old	30	11.5	• Doctoral	85	32.4
• 61 and above	4	1.5	• Others	1	0.4
<i>Working experience:</i>			<i>Marital status:</i>		
• 1–5 years	44	16.8	• Married	242	92.4
• 5.1–10 years	58	22.1	• Not Married	17	6.5
• 10.1–15 years	70	26.7	• Widow/widower	3	1.1
• 15.1–20 years	36	13.7			
• 20.1–25 years	38	14.5			
• More than 25 years	16	6.1			
Total	262	100	Total	262	100

5.2 *Findings of instruments tests*

To measure the internal consistency and accuracy of indicators, reliability, and validity tests are firstly conducted. The study found that the values of Cronbach's alpha for all 24 indicators to measure variables of distributive justice, procedural justice, and job satisfaction are 0.927, 0.956, and 0.890, respectively. Since these values are higher than 0.80, thus all indicators in our study are found to be reliable enough to measure variables (Nunnally and Bernstein, 1994). The study also found that all 24 indicators are valid to measure investigated variables, as shown by the significant correlation of each indicator to each measured variable with values ranging from 0.61 to 0.937. This indicates that, on average, the indicators are 'good' accurate enough to measure variables (Hair et al., 2012). Thus, all indicators used to measure variables in the study are reliable and valid and could be used for further analysis.

5.3 *Perception of respondents*

Table 4 demonstrates the perception of 262 selected respondents on job satisfaction within the context of remuneration implementation. There were nine statements utilised in measuring their perception based on nine indicators of Spector's (1985) Job Satisfaction Survey (JSS), namely salary, promotion, supervision, benefit, reward, workplace condition, colleague, nature of work, and communication.

In general, within the context of the remuneration system, the respondents perceived job satisfaction within the 'fair' category with an average score of 69.50. The highest mean score was 83.46 for item 8 'I feel proud of my work here', while the lowest score was 60.81 for item 3 'the leaders in my place of work can be role models'. Although the overall estimated mean values fall under the 'fair' category, only three of nine items received a score above 70 and thus supported in boosting the overall rating. Five items received lower scores and fall under the 'quite fair' category. Therefore, from a satisfaction perspective, the amount of salary, promotion opportunities, and appropriate rewards should be the concerns of policy-makers. More seriously, the leadership style should be improved in making a suitable role model within the PTKIN.

Furthermore, Table 5 illustrates the details of the perception of the respondents on distributive justice. Seven statements were asked to measure their perceptions of the distributive justice of the remuneration scheme at the BLU-based PTKIN in Indonesia. As illustrated in the table of all statement items, only one item is found to fall under the category of 'quite fair', while the remaining items fall under the 'fair' category.

Overall, from a distributive justice perspective, the respondents perceived that the remuneration received under the BLU system was fairly distributed, with an average score of 69.87. Of the seven items measured, only one is worth paying attention to, that is, from the compatibility of expectations with reality (score = 60.11; a quite fair category). A follow-up analysis from interviews with policymakers revealed some causes: 1) the return expectations of the respondents on their positions were too high so that when faced with existing facts, it creates disappointment in unfavourable answers; 2) the lack of knowledge on the remuneration system causes the respondents to have remuneration expectations differ from the reality of each PTKIN; and 3) the individuals who were installed for some significant positions were not recruited on merit-based but rather personal closeness to the officials; consequently, they were not considering it as a mandate, but a gift from a friend who happens to be in top management so that it tends to

set high expectations. This finding shows a necessity to continuously disseminate information from the parties so that the academic community at the PTKIN understands its main tasks and functions, and also recognises their rights and obligations so as not to give too high expectations of remuneration when in a particular position.

Table 4 Perception of job satisfaction

No.	Statements	Frequency						Score	Remark
		SDA	DA	RDA	SWA	A	STA		
1.	I feel that I have received a salary according to my work.	15	43	36	61	75	62	64.57	Quite fair
2.	Opportunities for promotion are wide open to anyone who works well.	21	30	48	57	61	45	65.39	Quite fair
3.	The leaders in my place of work can be role models.	31	31	47	67	62	24	60.81	Quite fair
4.	One of the advantages of working here is the guarantee of job security.	10	20	54	69	73	36	68.00	Fair
5.	When I work well, I receive an appropriate reward.	12	34	51	67	69	73	64.89	Quite fair
6.	There are adequate facilities for work.	11	29	45	83	65	30	65.97	Quite fair
7.	Collaboration with colleagues is going well.	0	10	28	50	118	56	78.24	Fair
8.	I feel proud of my work here.	2	2	19	46	93	100	83.46	Very fair
9.	In carrying out my work, communication between lines is appropriately established.	5	14	35	65	90	53	74.17	Fair
Perception of job satisfaction score								69.50	Fair

Furthermore, the mean scores for the other six items in the measurement of distributive justice perception are ranging from 70.42 to 73.09. The highest achievement score of 73.09 was perceived for the item, 'the remuneration I receive reflects the effort that I put into work'. Since these mean scores fall under the range of 66.68 to 83.34, thus it concludes that the respondents perceived the elements of distributive justice of the remuneration they received under the BLU system are in the 'fair' category. This is in line with information from interviews with policymakers who stated that the nominal remuneration of beneficiaries was very reasonable, even exceeding the value of their work results. However, dissatisfaction that arises is usually not due to insufficient numbers, but because of comparisons with other people from the same position, or with the same position in different institutions. The comparison is then concluded unilaterally without considering other factors of each individual that also contributed to the addition or reduction of the nominal *rupiah* they received. This finding reflects respondents had aware of business in proportion to the compensation that is entitled to be received.

However, further efforts are still needed to enhance stakeholder awareness about the business based on nominal remuneration. The PTKIN should also continuously disseminate information equally among the academic community about their main tasks

and functions so that they could recognise their rights and obligations so as not to give too high expectations of remuneration when they are in a particular job position.

Table 5 Perception of distributive justice of remuneration

No.	Statements	Frequency						Score	Remark
		SDA	DA	RDA	SWA	A	STA		
1.	The remuneration I received reflects the effort that I put into work.	6	22	36	61	75	62	73.09	Fair
2.	The remuneration I received is in accordance with the work I complete.	6	29	40	56	71	60	71.44	Fair
3.	The remuneration I received reflects my contribution to the university.	3	25	41	55	77	61	72.96	Fair
4.	The remuneration I received is in accordance with the performance I produce.	7	25	46	58	73	53	70.61	Fair
5.	The remuneration I received is in accordance with my abilities.	6	28	47	52	78	51	70.42	Fair
6.	The remuneration I received is in accordance with my position.	5	33	43	54	70	57	70.48	Fair
7.	The remuneration I received was in line with my expectations.	26	47	45	65	44	35	60.11	Quite fair
Perception of distributive justice of remuneration score								69.87	Fair

Finally, Table 6 illustrates the details of the perception of the respondents on procedural justice. In contrast to the results of perceptions of distributive justice of remuneration, of the eight statements in the measurement of perceptions of procedural justice of remuneration, only three items fall into the 'fair' category, while the other five falls into the 'quite fair' category. Closely, of the three items that fall into the 'fair' category, two of them found a relatively low perception score, approaching the lower limit for 'fair' that category of 66.68 to 83.34 (Table 2). Of the eight items, the lowest score is the statement 'The remuneration procedure at my work has expressed my views and feelings'. From this point of view, respondents perceived that their views and feelings were not yet fully accommodated in the application of remuneration procedures at their tertiary institutions. However, according to policy-makers during interview sessions, it is not possible to involve all employees in each decision making and accommodate all the views due to a very large number of them. What has been done so far is to involve representatives of certain groups in discussing remuneration procedures, such as representatives of managements, lecturers, Quality Assurance Unit (LPM), Internal Control Unit (SPI), and structural officials. With this composition, it is hoped that representatives will voice the aspirations and views of each represented group.

Overall, from a procedural justice perspective, the respondents perceived that the remuneration received under the BLU system was 'quite fair' with an average score of 65.70. This shows the importance of enhancing procedural justice, such as ensuring the involvement of staff representatives in each position in the discussion of remuneration procedures. The communication channels must still be improved so that employees can easily question the results that arise from remuneration procedures. Besides, consistency in implementing rules should also be underlined for future continuous improvement.

Furthermore, most respondents also felt that some people or groups were privileged in implementing the remuneration procedure at the BLU-based PTKIN where they served. This should be a serious concern of the leadership of PTKIN so that the perception of procedural remuneration justice is better and more vividly described. The leadership of PTKIN should further improve the communication channel in terms of providing input and correction of the ongoing procedures so that they can be immediately repaired or at least be repaired in the following year.

Table 6 Perception of procedural justice of remuneration

No.	Statements	Frequency						Score	Remark
		SDA	DA	RDA	SWA	A	STA		
1.	The remuneration procedure at my work has expressed my views and feelings.	16	37	61	78	39	31	61.45	Quite fair
2.	I can question the results arising from the remuneration procedures.	13	29	47	74	59	40	66.35	Quite fair
3.	Remuneration procedures have been applied consistently.	18	38	48	77	53	28	62.28	Quite fair
4.	Remuneration procedures are based on accurate data and information.	14	26	46	73	64	39	66.79	Fair
5.	There is no person or group has privilege in the remuneration procedure.	27	31	43	63	55	43	63.80	Quite fair
6.	Remuneration procedures where I work allow me to provide input and correction.	20	26	48	69	57	42	65.46	Quite fair
7.	Remuneration procedures uphold moral and ethical standards.	12	16	46	82	68	38	68.58	Fair
8.	I have received an explanation of the remuneration procedure.	11	20	36	67	81	47	70.87	Fair
Perception of procedural justice of remuneration score								65.70	Quite Fair

The problem of data and information accuracy as the basis for the preparation of procedures must also be given attention. The data and information that has been obtained from the same sample and document must be added with data and documents with more different variations so that they can represent the procedural complexity of the remuneration itself. The same thing applies to the integration of ethical and moral values in the application of remuneration procedures. Besides, the moral and ethical values applied must be more visible, for example, by stating in specific documents that remuneration procedures uphold moral and ethical standards.

Additionally, the PTKIN's stakeholders viewed that the university staff had a better understanding of the amount of remuneration received as a reflection of their contribution to the universities. This awareness will promote competition among employees to contribute more to the PTKIN for getting a higher nominal remuneration. Besides, the rationale of the amount of work and nominal remuneration received by staff should be explained in detail and well-understood by staff so that they can avoid laziness.

Furthermore, three essential aspects also need to be aware of by PTKIN stakeholders. First, the appropriateness of the remuneration value received based on performance produced. Second, the relevance of the remuneration value obtained with the capabilities possessed. Finally, the suitability of the remuneration value received by the position carried. This awareness can trigger the enthusiasm of employees to work harder.

In summary, the average score for the distributive justice and procedural justice is in the 'fair' and 'quite fair' categories, showing that the beneficiary and policy-makers have perceived a sense of justice for the remuneration system. However, further improvements are needed. Some notes suggested explicitly by the respondents include: (i) the need to have just remuneration based on workload and risk; (ii) the necessity to increase transparency and accountability so that everyone knows the rationales of the amount of remuneration received; (iii) the need to ensure the accuracy of remuneration calculations; and (iv) the need to provide additional remuneration when performance increases.

5.4 The relationship between distributive and procedural justice and job satisfaction

Table 7 reports the empirical findings of the influences of distributive justice, procedural justice, and demographic factors on the job satisfaction of the staff at BLU-based PTKIN in Indonesia. As illustrated in Table 7, based on all estimated models (i.e., Models 1, 2, 3, and 4), distributive justice is found to positively and significantly influence job satisfaction at the 1% level with an estimated value of 0.451 (Model 1), 0.432 (Model 2), 0.461 (Model 3), and 0.448 (Model 4). These findings specifically show that an increase in 100 points of the perceived distributive justice has, on average, caused job satisfaction to increase by 44.80 points on the Likert scale. It means that if respondents' perceptions of distributive justice increased, the satisfaction level towards their jobs at the PTKIN also significantly increased. The result suggests that PTKIN needs to pay close attention to the matters relating to the dissemination of information for the academic community as the respondents' expectation against the output was too high (see Table 5). Thus, as a result, obtained for this particular item is lower than expected, their level of satisfaction is also low, which means that distributive justice was not proper because the distribution of income obtained is not following what was expected. In general, as suggested by Colquitt (2001), the PTKIN needs to balance the distribution between salaries, benefits, and bonuses as the average perception score for distributive justice is only 69.87 out of 100. The result of the significant influence of distributive justice on job satisfaction is consistent with previous studies. The study of Elamin and Alomaim (2011) and Khasanah (2015), for instance, revealed that there was a significant and positive correlation between distributive justice and job satisfaction, respectively, among respondents. A similar conclusion was also made by Fatt et al. (2010) and Rohmaningrum (2016) for the cases of Malaysia and Indonesia. Anas (2018) has also demonstrated that job satisfaction has a positive and significant effect on distributive justice among nurses in Health Centres in Central Sulawesi.

Table 7 Relationship between distributive and procedural justice and job satisfaction

<i>Models</i>	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>		<i>Model 4</i>	
	<i>Coefficient</i>	<i>t-stats</i>	<i>Coefficient</i>	<i>t-stats</i>	<i>Coefficient</i>	<i>t-stats</i>	<i>Coefficient</i>	<i>t-stats</i>
Constant	1.268***	8.908	0.540	1.566	0.894	1.618	0.210	0.339
Distributive Justice	0.451***	10.150	0.432***	9.925	0.461***	10.298	0.448***	10.378
Procedural Justice	0.259***	6.175	0.262***	6.439	0.258***	6.039	0.252***	6.174
Gender	—	—	0.033	0.426	—	—	0.053	0.685
Educational Level	—	—	−0.176***	−2.755	—	—	−0.272***	−3.670
Age	—	—	0.028	0.555	—	—	0.104	1.491
Marital Status	—	—	0.544***	3.772	—	—	0.524***	3.670
Job Position	—	—	—	—	−0.037	−1.355	−0.075**	−2.451
Monthly Income	—	—	—	—	0.009	0.243	0.032	0.871
Working Experience	—	—	—	—	−0.036	−1.247	−0.074*	−1.867
Role	—	—	—	—	0.258	1.0536	0.329	1.404
R^2	0.636		0.665		0.641		0.680	
Adjusted R^2	0.633		0.657		0.636		0.667	
Var. Inflation Factor	1.972		2.016		2.001		2.049	
Jarque-Bera (Prob.)	0.033		0.012		0.052		0.020	
Glejser (Prob.)	0.574		0.820		0.595		0.903	
F -Statistic	225.965		84.222		75.925		53.350	
F -Statistic (Prob.)	0.000		0.000		0.000		0.000	

Note: *** indicates significances at the 1%, 5%, and 10% levels, respectively.

Furthermore, the study also found a significant positive effect of procedural justice on job satisfaction at the 1% level of significance with an estimated value of 0.259 (Model 1), 0.262 (Model 2), 0.258 (Model 3), and 0.252 (Model 4). Specifically, these findings show that an increase in 100 points of the perceived distributive justice has, on average, caused job satisfaction to increase by 25.73 points on the Likert scale. The results revealed that the procedural justice variable had predicted the level of job satisfaction among PTKIN's staff. The findings indicated that the staff of PTKIN, who likely to show positive feelings towards procedural justice, is expected to report a higher level of job satisfaction. This finding has indicated that consistency, bias suppression, correctness, and representative (Colquitt, 2001; Cropanzano et al., 2007) are the critical components for securing a satisfied workforce in BLU-based PTKIN in Indonesia. The representativeness (i.e., the expression of views and feelings) in the implementation of

the remuneration procedure in PTKIN seemed to be the most critical indicator that influences their level of satisfaction as it achieved the lowest mean score comparing to other indicators (see Table 6).

In general, our findings consistent with previous studies in the different study setting, such as McFarlin and Sweeney (1992) and Whisenant and Smucker (2007) in the USA, Daileyl and Kirk (1992) in Canada, López-Cabarcos et al. (2015) in Portugal, Al-Zu'bi (2010) and Elamin and Alomaim (2011) in the Middle East, Misra et al. (2012) in India, and Ismail et al. (2009), and Fatt et al. (2010) in Malaysia.

After incorporating internal demographic factors (Model 2), external demographic factors (Model 3), and a combination of both internal and external demographic factors (Model 4), the significant positive effects of distributive and procedural justice on the job satisfaction predicted in our estimated main model (Model 1) remained the same. The estimated values for both distributive justice and procedural justice were almost the same for all models. Overall, the findings entirely confirmed the essential contribution of justice on job satisfaction among staff at the PTKIN in Indonesia.

As for the internal and external demographic factors, as shown in Table 7, except for marital status that has a significant positive influence on job satisfaction, the variables of educational level, job position, and working experience have significant adverse effects on job satisfaction at least at 10% level. Meanwhile, other variables of gender, age, monthly income, and role have insignificant influence on job satisfaction. These findings imply that married staff at the PTKIN in Indonesia has enjoyed more job satisfaction than unmarried staff. Additionally, the higher the education level, job position, and length of working experience, the lower their level of job satisfaction. This could be due partially to the increasing duties and responsibilities both in teaching and administrative works experienced by senior staff, but not proportionately followed by an increase in salary and work benefits, supported by more comfortable work facilities, and a conducive working environment.

Overall, our study shows that our estimated model is good enough and free from misspecification; thus, the findings of the study could be further inferred for similar characteristics of universities in Indonesia. The F-statistic is found to be significant, with adjusted R-squares ranging from 0.633 (Model 1) to 0.667 (Model 4). This indicates that 63.30% to 70.44% of variations in job satisfaction are predicted by the changes in the levels of distributive justice, procedural justice, and other internal and external demographic factors. Except for the normality assumption, our estimated models fulfilled classical assumptions of multicollinearity and heteroscedasticity. As illustrated in Table 7, the values of Variance Inflation Factor (VIF) were between 1.972 (Model 1) to 2.049 (Model 4), showing the inexistence of the multicollinearity problem, as their values were less than ten. Finally, the probability value of the Glejser test was insignificant at the 5% level, showing the data used in the study are homoscedastic (Gujarati, 2009).

5.5 Implication of the findings

Our findings documented that distributive justice and procedural justice positively and significantly determining job satisfaction among the staff at the PTKIN in Indonesia. The findings implied that to enhance the job satisfaction of PTKIN's staff in Indonesia, the level of organisational justice, i.e., distributive justice and procedural justice, should be continuously improved. This fact is supported by other studies that revealed a positive association between such justice and job satisfaction (Bakhshi et al., 2009). Some other

studies have also shown a high correlation between procedural justice and job satisfaction (Fernandes and Awamleh, 2006; Mossholder et al., 1998; Wesolowski and Mossholder, 1997).

Of these two forms of justice, distributive justice is found to have a larger effect on job satisfaction. It indicates that factors of equality, feasibility, contributions, and performance play a more critical role in achieving a satisfied workforce in PTKIN. These findings are not surprising since the respondents scored higher for the distributive justice (score 69.87; 'fair' category – Table 5) as compared to the procedural justice (65.70; 'quite fair' category – Table 6) of the remuneration they received. Thus, distributive justice has a higher impact on job satisfaction.

The results have several valuable practical implications for the management of PTKIN as they need to apply rules fairly and consistently to all staff. The management also has to reward the staff based on performance and merit without personal bias to create a positive perception of distributive and procedural justice (Tang and Sarsfield-Baldwin, 1996). Conversely, the perceptions of unfairness can result in adverse reactions to the organisation due to poor job satisfaction (Schmitt and Dörfel, 1999). Besides, it also has economic implications in terms of recruiting and retaining committed staff. Our findings suggest that distributive fairness has more impact on job satisfaction than procedural justice. Therefore, the management of PTKIN should be aware of the mean scores of procedural justice in making managerial policies. In fact, making a procedurally fair manner, such as treating individuals with respect and justification for actions, is much cheaper economically than the cost of distributive fairness (Fatt et al., 2010).

6 Conclusions

This study evaluated the perception of remuneration justice from the perspectives of stakeholders in selected state Islamic higher education institutions (*Perguruan Tinggi Keagamaan Islam Negeri* – PTKIN) in Indonesia. It also attempted to empirically measure and analyse the effects of distributive and procedural justice on job satisfaction among the staff of PTKIN in Indonesia. A number of 269 staff were selected from 13 PTKIN in Indonesia as the sample using the purposive sampling technique and analysed using multiple regression techniques. The study documented that the distributive justice of the remuneration is perceived to be 'fair' with an average score of 68.87. In contrast, procedural justice is perceived to be 'quite fair' with an average score of 65.70. The study also recorded that both distributive and procedural justice had a significant positive effect on job satisfaction. These findings suggest that the government should continuously improve the remuneration scheme based on the distributive and procedural just principles to enhance the satisfaction of the staff of PTKIN in Indonesia.

To enhance the procedural and distributive justice in the implementation of the remuneration scheme, it is suggested that the leadership of BLU-based PTKIN should invite employee representatives when discussing remuneration procedures. The communication channels need to be provided to make it easier for employees to provide feedback and correction. The consistency of application of rules from time to time and between one person to another should be guaranteed. The bias with special privileges between one group and another group should be avoided. The data and information accuracy on remuneration mechanism and policy should be ensured. Ethical and moral values should be integrated into the remuneration policy and its implementation. Finally,

the university management should continuously update and disseminate all academic new policies and procedures so that the academic community at PTKIN understands their primary tasks, functions, rights, and obligations.

To provide more comprehensive and robust findings on the justice-job satisfaction relationship, further studies are recommended to incorporate additional variables in the theory of organisational justice, namely interactional justice, interpersonal justice, and informational justice. Future studies are also suggested to assess more effects of these recommended independent variables on other variables, such as the loyalty of the staff, university performance, community satisfaction, and so on.

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