

The mediating effect of distributive justice in the relationship between pay design and job satisfaction*

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Abstract

This study was conducted to investigate the mediating effect of distributive justice in the relationship between pay design issues (i.e., pay structure and pay level) and job satisfaction. A survey method was used to gather 190 usable questionnaires from academic employees who have worked in Malaysian public community colleges (PUBLICCOLLEGE). Outcomes of stepwise regression analysis showed that relationship between pay design features (i.e., pay structure and pay level) significantly correlated with job satisfaction. This result confirms that distributive justice plays an important role as a mediating variable in the pay design models of the organizational sector sample. In addition, implications of this study to compensation theory and practice, conceptual and methodological limitations, as well as directions for future research are discussed.

Key words: pay structure, pay level, distributive justice, job satisfaction

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1. Introduction

In the early part of the 20th century in Europe and US, a prominent researcher, Taylor (1903, 1911) linked pay to performance where high wages were paid for workers who accomplished tasks assigned to them. These ideas were strongly based on the scientific management approach which emphasized that financial incentives were a mechanism able to motivate individual workers to work at their fullest capacity. Taylor's views were based upon a foundation of unilateral development of a fair incentive pay system (Heyel, 1982; Ismail et al., 2006). In contrast, Fayol's (1930) views on compensation were influenced by an administrative management approach. He believes that financial incentives as fair representations of employee effort would improve efficiency and productivity via their impact upon feelings of fairness (Dessler, 2006; Hellriegel and Slocum, 1996). To date, there has been support for both arguments. Taylor's work forms the basis for many compensation decisions, with many contemporary organizations tying at least part of an individual's pay to team, work unit or organizational performance (Locke and Latham, 1990a, 1990b; Henderson, 2006). More recently, compensation practices have taken on a strategic focus with advocates expressing the need for the development of compensation theory and practice to be associated with organizational strategy. Accordingly, compensation practitioners express that the design of pay systems will be more efficient and effective if they are consistent with the organization's strategy and goals (Anthony et al., 2002; Gomez-Mejia et al., 2000).

Pay design consists of two major dimensions. Firstly, pay structure is often defined as the range of pay rates for different work, skills and/or performance within an organization (Bender, 2003; Milkovich and Newman, 2008). For example, pay rates are differently allocated according to the number of job levels, differences between the job levels and reward bases (i.e., job and/or performance) (Anthony et al., 2002; Henderson, 2006). Secondly, pay level is often defined as the average of the group of rates which includes a combination of several pay components such as base pay, increases, benefits, allowances and perquisites (Henderson, 2006; Milkovich and Newman, 2008). It differs according to jobs in the organization, jobs in a specific department, or combination of any job types in the organization for achieving external competitive equity (Anthony et al., 2002; Henderson, 2006). Therefore, managers must have a clear idea of the goals, types and elements of pay systems because they may attract, retain and motivate competent employees to sustain and maintain organizational competitiveness in a global economy (Lawler, 1995, 2000; Ismail, 2006).

Recent studies in this area show that properly allocated the level and structure of pay to employees based on proper rules may have a significant impact on personal outcomes, especially job satisfaction (Adams, 1963, 1965; Bloom, 1999; May et al., 2002). According to an organizational behavior perspective, job satisfaction is broadly

described as a result of employees' perception or appraisal of their jobs (McShane and Von Glinow, 2005) that may create a pleasurable or emotional state (Locke, 1976; Locke and Latham, 1990a, 1990b; Kreitner and Kinicki, 2007), a positive reaction (Mathis and Jackson, 2006), and action tendencies toward work (Vecchio, 2000; Vecchio et al., 1998). Within a compensation management framework, many scholars, such as Mathieu and Zajac (1990), May et al., (2002), Roberts et al., (1999) advocate that the ability of management to adequately allocating the level and structure of pay based on proper rules (i.e., the value of the job, the level of personal contributions and performance levels) may lead to an increased job satisfaction (Mathieu and Zajac, 1990; Roberts et al., 1999; May et al., 2002).

Surprisingly, a careful observation of such relationships reveals that effect of pay design issues on job satisfaction is indirectly affected by perceptions of distributive justice (Bloom, 1999; Ismail et al., 2008; May et al., 2002). In a compensation framework, distributive justice is often defined as fairness in the actual distribution of rewards (deCarufel, 1986; Greenberg, 2003; Sweeney and McFarlin, 1993). For example, if an individual perceives that the structure and level of pay are adequately distributed based on proper rules, this will invoke employees' perceptions of distributive justice. As a result, it may lead to a higher job satisfaction in organizations (see Adams, 1963, 1965; Bloom, 1999; May et al., 2000). Even though this relationship has been studied, little is known about the mediating effect of distributive justice in pay system models (Adams, 1963, 1965; Folger and Cropanzano, 1996; Folger and Konovsky, 1989; Greenberg, 2003). Thus, it motivates the researchers to measure the mediating effect of distributive justice in the relationship between pay design issues (i.e., pay structure and pay level) and job satisfaction that occurs in Malaysian public community colleges (PUBLICCOLLEGE) sector. For confidential reasons, the names of the individual colleges in the organizational sector are kept anonymous.

The discussion shows that it seems reasonable to assume that fairness of pay design issues will influence PUBLICCOLLEGE employees as this feeling influences Western employees. Further, distributive justice theories suggest that if PUBLICCOLLEGE employees perceive fairness about the level and structure of pay that they receive from their employers; this may lead to greater job satisfaction. Therefore, it was hypothesized that:

H1: Distributive justice mediates the effect of pay structure on job satisfaction.

H2: Distributive justice mediates the effect of pay level on job satisfaction.

2. Literature review

2.1. Context of the study

In Malaysian public service sector, compensation policies and procedures for public sector employees in Malaysia are designed, administered and monitored by a central government agency, i.e., the Public Service Department (PSD) (Aziz Report, 1968; Pekeliling Perkhidmatan 4/2002). For example, pay allocation rules are designed based on internal equity variables, such as qualifications, training, job categories and the ability to pay. These rules have affected the distributions of pay level and structure in the public sector. In 1991, the New Remuneration System (SSB) was implemented in the Malaysian public sector to strengthen the traditional job-based pay by adding merit principles as a criterion to determine extra rewards for high performing employees (Mahathir Report, 1991; Pekeliling Perkhidmatan 9/1991). In line with this change, Sulaiman and Mamman (1996) conducted a study about pay preference criteria in Malaysian public sector and found that the majority of employees prefer to use tenure, responsibility and cost of living as criteria to determine their pay differentials. Although performance is perceived as less preferred criterion for determining pay distribution, the employees still have a positive perception that the basis of this reward may be used to complement the collectivistic compensation principles used in the public sector.

In line with the current national challenges, pay distribution rules as practiced in the SSB were replaced by Malaysian Remuneration System in 2002 (Malaysian Public Service Department, 2006; Pekeliling Perkhidmatan 4/2002). However, the new pay perspectives as in the SSB, are flexible because it allows the government of Malaysia to make pay adjustments and revisions based on the government's capability to pay. For example, effective 1 July 2007, all public sector employees received a pay rise of between 7.5 to 35.0 %. A 100% increase in cost of living allowances was also allocated for certain cities in the country. This was in line with the government's aspiration of narrowing down the pay gaps among job categories and improving standard of living (Bernama, 2007; Pekeliling Perkhidmatan 7/2007). The nature of Malaysian public service sector has affected compensation system in Malaysian public community colleges PUBLICOLLEGE (Guatleng et al., 2007; Ismail et al., 2008).

The public community colleges were structurally upgraded as institutions of higher learning to provide technical education and lifelong learning experiences. In terms of compensation system, the HR managers are not given autonomous power to design the type, level and/or amount of pay, but they are allowed to use their creativities and innovations to improve the procedures for allocating the various types of pay system within the limits set up by PSD (Guatleng et al., 2007). According to the information gathered from the in-depth interviews involving 30 academic employees of the organizational sector sample, the majority of them felt that their working styles

and workloads had increased since the upgrading of these colleges to become an institution of higher learning. Despite that, the pay system is not adjusted to be on par with the Malaysian public universities. Furthermore, the pay differentials (e.g., pay rise and promotion) between them are strongly affected by the achievement in competency examinations regardless of seniority and ability to perform an actual job. This situation shows that employees have different views about the levels and structures of pay that they receive from their employers. If employees perceive that such pay systems are adequately or inadequately distributed based on existing rules, this will affect their feelings of distributive justice and thus lead to increased or decreased job satisfaction. This relationship is interesting, but little is known about the effectiveness of mediating role of distributive justice in the pay system models of the organizational sector because of the paucity of empirical research published in this country (Abang Ibrahim, 2007; Ismail et al., 2008).

2.2. Relationship between pay design, distributive justice and job satisfaction

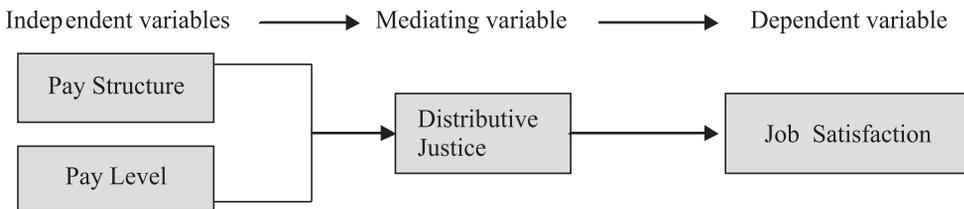
The mediating role of distributive justice in the pay system models of the PUBLICCOLLEGE sector gains strong support from compensation research literature mostly published in Western organizational settings. For example, empirical studies about pay structure (e.g., pay gaps, pay rates and pay entitlements) were conducted by Bloom (1999) in the Indiana State University, and Tang and Sarsfield-Baldwin (1996) in the South Eastern United States. These studies found that the appropriately allocated pay structures to employees based on proper distribution rules (e.g., seniority, length of service, merit and/or contribution) had strongly invoked employees' perceptions of distributive justice, this could lead to higher job satisfaction. Besides that, empirical studies about pay level (e.g., amount of merit pay, less pay level, amount of profit reward) were conducted by May et al., (2002) in the several Australian, Japan and US corporations, and Roberts et al., (1999) in approximately eighty US industries. These studies showed that sufficiently allocated pay levels to employees based on proper rules (e.g., job and/or performance) had invoked employees' perceptions of distributive justice, which in turn, lead to an increased job satisfaction.

The compensation research literature is consistent with the notion of distributive justice theories, namely Adams' (1963, 1965) equity theory and Allen and White's (2002) equity sensitivity theory. Adams' equity theory posits that employees expect to receive fair outcomes (e.g., pay, bonus, benefits, security, recognition) when they bring inputs (e.g., education, effort, time, commitment and experiences) to their jobs. If their inputs are greater than the outputs, employees will feel that they are unfairly treated. As a result, it may lead to lower job satisfaction. Conversely, if they perceive their pay as fair, this feeling may lead to higher job satisfaction (Adams, 1963, 1965). According to Allen and White (2002), relative preferences of individuals on fairness in the distribution of rewards (e.g. Entitled and Benevolent receive less pay for their work) will also influence their personal outcomes. Specifically, if Entitled group

feels that it receives adequate pays in employment relationship, this will invoke perceptions of distributive justice. As a result, it may lead to higher job satisfaction (Allen and White, 2002).

The literature has been used as foundation to develop a conceptual framework for this study as shown in Figure 1.

Figure 1: Research framework.



Source: Authors

3. Methodology

3.1. Research design

This study used a cross-sectional research design which allowed the researchers to integrate literature review, in-depth interviews, pilot study and survey questionnaires as the main procedures to gather data for this study. The main advantage of using this procedure is the potential to gather more accurate and less biased data (Cresswell, 1998; Sekaran, 2000). At the initial stage of data collection, in-depth interviews were conducted involving 30 academic employees from Sarawak and West Malaysia. They are selected based on purposive sampling where the employees have good knowledge and experiences in compensation system. Information gathered from such employees helped the researchers to understand the nature of compensation policies and procedures, employees' perceptions about the design of pay levels and structures, job satisfaction characteristics and the relationship between such variables in the studied organizations. After refining, categorizing and comparing the information with the related literature review, the triangulated information was used as a guideline to develop the content of survey questionnaires for a pilot study. Next, a pilot study was conducted involving 30 academic employees of Sarawak community colleges. Their feedbacks were used to verify the content and format of questionnaires developed for an actual survey.

3.2. Measures

Back translation technique was used to translate the content of questionnaires in Malay and English in order to increase the validity and reliability of the instrument (Hulland, 1999; Wright, 1996). The survey questionnaires had 18 items. Pay structure had 5 items and pay level had 4 items that were modified from compensation management literature (Guatleng et al., 2007; Henderson, 2006; Milkovich and Newman, 2008). Distributive justice was measured using 4 items that were modified from organizational justice literature (Adams, 1963, 1965; Moorman, 1991; Allen and White, 2002). Job satisfaction was measured using 5-item job satisfaction scale developed by Warr, Cook and Wall (1979). These items were measured using a 7-item scale ranging from “very strongly disagree/dissatisfied” (1) to “very strongly agree/satisfied” (7). Demographic variables were used as controlling variables because this study focused on employee attitudes.

3.3. Sample

The unit of analysis for this study was academic employees who have worked in the PUBLICCOLLEGE sector. The researchers obtained an official permission from the Director of the Management Division of Community Colleges in Kuala Lumpur to conduct this study in any of the 35 community colleges in the country. Fifteen community colleges from various states agreed to participate in this study. Consequently, a simple random technique was used to distribute 300 questionnaires to academic employees in the organizations. Of that total, 190 usable questionnaires were returned to the researchers, yielding a 63 percent response rate. The survey questionnaires were answered by participants based on their consent and on a voluntarily basis. The number of survey participants exceeds the minimum sample of 30 respondents as required by probability sampling technique. Thus, the data collected can be analyzed using inferential statistics (Leedy and Ormrod, 2005; Sekaran, 2000). A Statistical Package for Social Science (SPSS) version 16.0 was used to analyze the construct validity and reliability and thus test the research hypotheses.

4. Results

4.1. Sample profile

Table 1 shows the personal characteristics of respondents in this study. In terms of age structure, most respondents were aged between 26 to 30 years (53.2 percent). A large number of respondents had a bachelor degree (61.1 percent). The majority of respondents were lecturers (88.4 percent). Most of the respondents were in the field of Technical and Engineering (38.9 percent). The biggest group of respondents served as permanent and confirmed staff (62.1 percent). Respondents who had work 2 to 5 years (61.6 percent) were the majority group.

Table 1: Personal characteristics of respondents (N=190)

Age (%)	Position (%)	Type of service (%)
Less than 25years =11.6	Director = 2.6	Permanent & confirmed = 62.1
26 to 30 years = 53.2	Senior lecturer = 8.9	Permanent & probation = 17.9
31 to 35 years = 17.4	Lecturer = 88.4	Temporary = 18.9
36 to 40 years = 5.8	Field of study (%)	Contract = 0.5
41 to 45 years =3.2	Technical & Engineering = 61.1	Length of service (%)
More than 46 years =8.9	Science & Technology = 38.9	Less than 1 year = 16.3
Education (%)		2 to 5 years = 61.6
Diploma = 19.5		6 to 9 years = 5.8
Bachelor = 61.1		10 to 13 years =1.6
Masters = 19.5		More than 14 years = 14.7

Note: SRP= Sijil Rendah Pelajaran LCE= Lower Certificate of Education
 SPM= Sijil Pelajaran Malaysia MCE= Malaysia Certificate of Education
 STP= Sijil Tinggi Pelajaran HSC=Higher School Certificate

Source: Authors

4.2. Validity and reliability analyses for measurement scales

Table 2 and Table 3 show the results of psychometric assessments for measurement scales. The factor analysis with direct oblimin rotation was first done for four variables with 18 items, which related to three variables: pay structure (5 items), pay level (4 items), distributive justice (4 items), and job satisfaction (5 items). Next, the Kaiser-Mayer-Olkin Test (KMO), which is a measure of sampling adequacy, was conducted for each variable and the results indicated that it was acceptable. Specifically, the results of these statistical analyses showed that (1) all research variables exceeded the minimum standard of Kaiser-Meyer-Olkin's value of 0.6, were significant in Bartlett's test of sphericity, (2) all research variables had eigenvalues larger than 1, (3) the items for each research variable exceeded factor loadings of 0.50 (Hair et al., 1998), and (4) all research variables exceeded the acceptable standard of reliability analysis of 0.70 (Nunally and Bernstein, 1994). The statistical results confirmed the measurement scale of this study met the acceptable standard of validity and reliability analyses as shown in Table 2 and Table 3.

Table 2: Item validity

Variable	Item	Component			
		1	2	3	4
Pay structure	The total amount of monetary rewards		.59		
	The total benefit package for my position is adequate.		.73		
	My total monetary rewards is higher than those (same position/qualification) in the private sector institution.		.84		
	My total non-monetary rewards is higher than those (same position/qualification) in the private institution.		.72		
	My basic salary is adequately paid according to organization goals and strategies		.64		
Pay level	My total monetary rewards is higher than those same position/qualification) in the private sector institution.			.86	
	My total non-monetary rewards is higher than those in the private institution.			.81	
	The total amount of monetary rewards is adequate.			.65	
	The total benefit package for my position is adequate.			.71	
Distributive justice	The monetary rewards for my position are fairly allocated.	.76			
	The non-monetary rewards for my position are fairly allocated.	.72			
	I am fairly paid based on the amount of experience and skills that I have.	.82			
	My salary is comparable with my responsibilities and workload.	.77			
Job satisfaction	Enjoy doing your work.				.67
	The physical working conditions.				.69
	The freedom to choose your own method of working.				.70
	Your job security.				.67
	Your hours of work.				.79

Source: Authors

Table 3: The results of validity and reliability analyses for measurement scale

Measure	No. of items	Factor loadings	KMO	Bartlett's test of sphericity	Eigenvalue	Variance explained	Alpha reliability
Pay Structure	5	.59 to .84	.81	319.04	2.92	58.45	.82
Pay Level	4	.65 to .86	.76	363.33	2.78	69.49	.85
Distributive Justice	4	.76 to .77	.81	331.37	2.79	69.83	.86
Job Satisfaction	5	.67 to .79	.80	341.26	2.96	59.19	.83

Source: Authors

Table 4 shows the results of Pearson correlation analysis and descriptive statistics for the research variables. The table shows that mean values for the variables are from 3.4 to 4.7, signifying that the amount of pay structure and pay level, as well as the levels of distributive justice and job satisfaction are ranging from moderately high (3.0) to highest (7.0). The correlation coefficients for the relationship between the independent variable (i.e., pay structure and pay level) and the mediating variable (i.e., distributive justice), and the relationship between the independent variable (i.e., pay structure and pay level) and the dependent variable (i.e., job satisfaction) were less than 0.90, indicating the data was not affected by serious collinearity problem (Hair et al., 2005).

Table 4: Pearson correlation analysis and descriptive statistics

Variable	Mean	Standard deviation	Pearson correlation analysis			
			1	2	3	4
1. Pay Structure	3.4	1.2	(1)			
2. Pay Level	3.4	1.4	.41**	(1)		
3. Distributive Justice	3.7	1.2	.53**	.52**	(1)	
4. Job Satisfaction	4.7	1.2	.16*	.37**	.43**	(1)

Note: Significant level: $p < 0.05^*$; $p < 0.01^{**}$ Reliability estimation was shown in a diagonal (1)

Source: Authors

4.3. Hypothesis testing results

A stepwise regression analysis was recommended to assess the magnitude and direction of each independent variable, and vary the mediating variable in the relationship between many independent variables and one dependent variable (Berenson and

Levine, 1992). Baron and Kenny (1986) suggest that a mediating variable can be considered when it meets three conditions: first, the predictor variables (i.e., pay design features) are significantly correlated with the hypothesised mediator (i.e., distributive justice). Second, the predictor and mediator variables are all significantly correlated with the dependent variable (i.e., job satisfaction). Third, a previously significant effect of predictor variables is reduced to non-significance or reduced in terms of effect size after the inclusion of mediator variables into the analysis. In this regression analysis, standardized coefficients (standardized beta) were used for all analyses (Jaccard et al., 1990). Table 5 show the outcomes of testing H1 and H2 using a stepwise regression analysis.

Table 5: Result for stepwise regression analysis

Variable	Dependent variable (Job satisfaction)		
	Step 1	Step 2	Step 3
<u>Controlled variable</u>			
Age	0.09	0.08	0.03
Qualification	-0.02	-0.05	-0.04
Designation	-0.03	0.03	0.02
Field of study	0.06	0.03	-0.00
Length of service	-0.09	-0.05	0.05
Type of service	0.15	0.22*	0.25**
Basic salary	0.10	0.14	0.11
<u>Independent variable</u>			
Pay structure		-0.04	-0.20**
Pay level		0.42***	0.29***
<u>Mediating variable</u>			
Distributive justice			0.39***
R Square	0.06	0.21	0.30
Adjusted R square	0.01	0.16	0.25
F	1.19	4.27***	6.29***
R Square change	0.06	0.15	0.09
FΔ R square	1.19	17.16***	22.75***

Note: Significance at *p < 0.05; **p < 0.01; ***p < 0.001

Source: Authors

The table shows the outcomes of testing research hypotheses in Step 3. The relationship between pay design features (i.e., pay structure and pay level) and distributive justice significantly correlated with job satisfaction ($\beta=0.39$, $p<0.001$), therefore the H1 and H2 were fully accepted. This result demonstrates that before the inclusion of distributive justice in Step 3, the pay structure insignificantly correlated with job satisfaction ($\beta=-0.04$, $p<0.05$) and pay level significantly correlated with

job satisfaction ($\beta=0.42$, $p<0.001$). In terms of explanatory power, the inclusion of pay design features in Step 2 had explained 21 percent of the variance in dependent variable. After the inclusion of distributive justice in Step 3, the previous non significant pay structure changed to significant ($\beta=-0.20$, $p<0.01$) and the previous significant pay level did not change to non significant ($\beta=0.29$, $p<0.001$), but the strength of relationship between such variables was decreased. In terms of explanatory power, the inclusion of distributive justice in Step 3 had explained 30 percent of the variance in dependent variable. Further, this result confirms the mediating effect of distributive justice in the relationship between such variables in the organizational sector sample.

5. Discussion and implications

The findings of this study demonstrate that distributive justice does act as a mediating variable in the relationship between pay design issues and job satisfaction in the PUBLICCOLLEGE sector. In this sector, HR managers and/or managers have used the compensation policy and rules set up by the stakeholder (i.e., Public Service Department) to determine the type, level and/or amount of pay to employees who work in the similar and/or different job categories. The majority of the employees perceive that their pay structures and levels are appropriately allocated based on the pay distribution rules, this perception has invoked their feelings of distributive justice. As a result, it may lead to an increased job satisfaction in the organizations.

The implications of this study can be divided into three categories: theoretical contribution, robustness of research methodology, and practical contribution. In terms of theoretical contribution, the findings of this study make two contributions: firstly, distributive justice mediates the effect of pay structure on job satisfaction. This result is consistent with studies by Bloom (1999) and Tang and Sarsfield-Baldwin (1996). Secondly, distributive justice mediates the effect of pay level on job satisfaction. This result is consistent with studies by May et al. (2002), and Roberts et al. (1999). In sum, this study shows that the notion of distributive justice strongly motivate employees to assess the structure and level of pay allocated for the various types of job categories in the organizations. If employees perceive that the structure and level of pay meeting their needs and expectations, this will invoke their feelings of distributive justice. Consequently, it may lead to higher job satisfaction in the organizational sector sample. With respect to the robustness of research methodology, the data gathered from compensation management literature, the pilot study and the survey questionnaire have exceeded the minimum standard for validity and reliability analysis, thus allowing us to produce accurate and reliable findings.

In terms of practical contribution, the findings of this study may be used as guidelines by management team to improve the design of pay systems in organizations. In order

to achieve this objective, management should heavily consider two major forms of improvement efforts: structural and attitudinal changes. In terms of structural improvement, the level of pay needs to be increased equal with employee contributions to their organizations. This will help them to fulfill their necessity needs, expectations, standards of living and statuses in society. When employees feel satisfied with their pays, they may be motivated to attach to the organization and be proud to be part of the organization. Regarding attitudinal improvement, managers and operational employees need to be familiarized with up-to-date compensation system modules in order to increase their understanding about pay allocation and pay procedure used in the organizations. This will decrease their misconceptions and misjudgments about the systems, thus leading to their support in the organizational functions. In order to strengthen the training policy, top management should give priority in recruiting and selecting individuals who have higher academic qualifications, knowledgeable and sufficient experiences related to compensation system. This policy will hire the best employees that may propose creative pay distribution rules to top management, train inexperienced managers, counsel and advise employees to plan their career path in the organization and even charter future succession planning for their senior staff thus creating an atmosphere of employment security in the organizations. If organizations seriously consider and positively adopt the suggestions, this may strongly invoke employees' feelings of acceptance and appreciations about compensation policies and procedures. Hence, it may induce positive subsequent attitudinal and behavioral outcomes, such as job satisfaction, job performance, and good work ethics.

6. Conclusion

This study formulated the research model based on compensation research literature mostly published in US settings. The valid and reliable measurement scales were used to measure the mediating effect of distributive justice in the model. Outcomes of testing the model using a stepwise regression analysis revealed two important findings: first, distributive justice mediated the effect of pay structure on job satisfaction, therefore hypothesis 1 (H1) was supported. Second, distributive justice mediated the effect of pay level on job satisfaction, therefore hypothesis 2 was supported. Statistically, the findings confirm that the adequately allocating the level and structure of pay to all employees will strongly invoke employees' perceptions of distributive justice, and this perception may lead to increased positive attitudinal and behavioral outcomes such as job satisfaction. This empirical result is also consistent and has supported and broadened compensation research literature mostly published in US settings.

This study acknowledges several limitations. First, a cross-sectional research design was used to gather data at one point of time within the period of study. Therefore, this may not be able to capture the developmental issues and/or causal connections

between variables of interest. Second, this study does not specify the relationship between specific indicators for the independent variable, mediating variable and dependent variable. Third, the outcomes of multiple regression analysis have focused on the level of performance variation explained by the regression equations, but there are still a number of unexplained factors that need to be incorporated to identify the causal relationship among variables and their relative explanatory power. Fourth, the survey questionnaires rely heavily on the participants' self-responses that were selected using a simple random sampling technique. Finally, the sample for this study was taken from one organizational sector that allowed the researchers to gather data via survey questionnaires. These limitations may decrease the ability of generalizing the results of this study to other organizational settings.

The conceptual and methodological limitations of this study should be considered when designing future research. Firstly, several organizational (e.g., type, ownership and size) and personal (e.g., gender, length of service and education) characteristics should be further explored, this may provide meaningful perspectives for understanding of how individual similarities and differences affect pay systems within an organization. Secondly, other research designs (e.g., longitudinal studies) should be used to collect data and describe the patterns of change and the direction and magnitude of causal relationships between variables of interest. Thirdly, to fully understand the effect of pay design features on individual attitudes and behaviors via its impact upon feelings of distributive justice, more organizational sectors need to be used as a pay referent in future studies. Fourthly, other theoretical constructs of organizational justice theory, such as procedural justice and interactional justice need to be considered because it has widely been recognized as an important link between pay design system and many aspects of work attitudes and behaviors (e.g., satisfaction, performance, turnover, trust and work ethics). Finally, other personal outcomes of distributive justice such as job commitment, job performance, turnover, and deviant behaviors should be considered because they are given more attention in compensation research literature. The importance of these issues needs to be further discussed in future research.

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Posredni učinak pravedne raspodjele na odnos između određivanja plaća i zadovoljstva poslom

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Sažetak

Ovo istraživanje provedeno je da bi se ispitao posredni učinak pravedne raspodjele na odnos između problema određivanja plaća (struktura i visina plaća) i zadovoljstva poslom. Primijenjena je metoda ankete u cilju prikupljanja 190 korisnih upitnika koje su ispunili akademski zaposlenici na malezijskim državnim koledžima (PUBLICOLLEGE). Rezultati postupne regresivne analize potvrdili su da način određivanja plaća (struktura i visina plaća) značajno utječe na zadovoljstvo poslom. Ovaj rezultat potvrđuje da pravedna raspodjela ima važnu ulogu kao posredna varijabla u modelima određivanja plaća u organizacijskim sektorima. Povrh toga, u radu se diskutira o implikacijama provedenog istraživanja na kompenzacijsku teoriju i praksu, konceptualna i metodološka ograničenja, kao i o smjernicama za buduća istraživanja.

Ključne riječi: struktura plaća, visina plaća, pravedna raspodjela, zadovoljstvo poslom

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