

RELATIONSHIP BETWEEN PERCEIVED PROCEDURAL JUSTICE, COMMUNICATION ABOUT PAY SYSTEMS AND JOB PERFORMANCE

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ABSTRACT

Compensation management literature highlights that communication is used by employers to deliver information about pay systems to employees. Although communication about pay systems is important, its effect on individual's performance is vague when feelings of procedural justice are present in organizations. Based on this literature, a conceptual framework for this study is developed and tested using data gathered from qualitative (in-depth interview) and quantitative (survey questionnaire) research methods. This study involved a sample of 334 employees from seven Malaysian private institutions of higher learning. The outcome of moderated hierarchical regression analysis shows that the inclusion of procedural justice into analysis increases the effect of communication about pay systems on job performance.

INTRODUCTION

Compensation is a broad term and may be interpreted according to organisational and individual perspectives. From an organisational perspective, compensation definitions vary among organisations within the same and/or different countries (Henderson, 2000; Milkovich & Newman, 2005). Compensation is viewed as a segment of human capital management that emphasises planning, organising, and controlling the various types of payment systems (e.g. monetary versus non-monetary rewards or direct versus indirect payments) for rewarding employees who perform their work or service. Within organisations, individual employees have different interpretations of compensation (Adams, 1963 & 1965; Herzberg, 1959 & 1968; Maslow, 1943 & 1954; Rousseau, 1989 & 1995). They often view compensation as reward entitlements and obligations are determined based on the employment contract, the value of the job, the level of personal contributions, and/or

the level of performance (Deluca, 1993; Maurer, et.al., 1995; Milkovich & Newman, 2005; Warner, 1997).

Employees who perceive the procedures of distributing pay and the allocations of pay that they receive are fair, will be motivated to meet ultimate goal of the organisational pay system: efficiency (i.e. improving performance, quality, customers, and labour costs), equity (i.e. fair pay treatment for employees through recognition of employee contributions and employee needs) and compliance with laws and regulations (Gomez-Mejia & Balkin, 1992a & 1992b; Kanter, 1989; Maurer et al., 1995; Milkovich & Newman, 2005). Thus, it may attract, retain and motivate competent employees to support organisational and human resource management goals and strategies (Gomez-Mejia & Balkin, 1992a & 1992b; Henderson, 2000; Lawler, 1995; Schuster & Zingheim, 1992). In this study, compensation is defined as pay, remuneration or reward management where financial and non-financial payments are designed and administered by employers to reward their employees.

THE NATURE OF COMMUNICATION IN COMPENSATION MANAGEMENT

Communication about pay systems is often defined as exchanging information and forming understanding about pay systems. In a compensation management context, communication involves the delivery of pay messages from one person or group (the sender) to another (the receiver) through verbal, non-verbal and written communication. Specifically, a communication process may increase employees' understanding, appreciation and credibility of compensation practices in pay administration (Fitzgerald, 2000; Hewitt Associates, 1991; Nelson, 1998; Nielson, 2002).

There are two major types of communication strategies adopted by most organizations: communicating pay information from employees to the organization and communicating pay from the organization to employees (Henderson, 2000; Lawler, 1982; Milkovich & Newman, 2005; Wallace & Fay, 1988). Communicating pay information from employees to an organization involves compensation analysts and other human resource/pay specialists to actively seek information from employees (Lawler, 1981, 1982, 1990 & 1995, Wallace & Fay, 1988). Under this communication system, most employers prefer to seek broad and specific information from at least some of their employees. Compensation managers view this type of information as useful as they seek to design pay systems that would satisfy employees' needs and would increase employee understanding of the system, thereby influencing procedural justice (Henderson, 2000; Lawler, 1982; Wallace & Fay, 1988).

Second, communicating pay information from the organization to the employees relates to how information is disseminated. This communication exchange emphasises the degree of openness and disclosure about the compensation system (Hewitt Associates, 1991; Lawler, 1982; Lawler, et.al., 1992 & 1995; Wallace & Fay, 1988). An open communication system may clearly expose the value of the compensation package quantitatively and qualitatively, deliver accurate information about pay and performance relationships, permit a voice in the system and increase the ability to understand and perceive equity and fair treatment within the system (Cascio, 1995; Hewitt Associates, 1991; Lawler, 1981, 1984a & 1984b; Wallace & Fay, 1988). Implementation of these two major types of communication strategies may help HR officers to increase appreciation and credibility of pay systems (Fitzgerald, 2000; Flannery, et.al., 1996; Hewitt Associates, 1991; Milkovich & Newman, 2005).

Relying on compensation management literature, this research has been conducted to examine the moderating role of procedural justice in the relationship between communication about pay systems and job performance. This notion has not been thoroughly studied in past research (Chang & Chen, 2002; Greenberg, 2003; Milkovich & Newman, 2005; Robbins et.al., 2000). As a case study, the nature of this relationship was studied at Malaysian private institutions of higher learning.

COMMUNICATION ABOUT PAY SYSTEMS INDIRECTLY AFFECT JOB PERFORMANCE VIA PERCEPTIONS OF PROCEDURAL JUSTICE

Past research studies in compensation management have much highlighted a direct relationship between communication about pay systems and feelings of procedural justice (Lind & Tyler, 1988; Pettijohn et.al, 2001; Sinclair, 2000). Recent studies in this area have found that the effect of the relationship between communication about pay systems on individual attitudes and behaviours (i.e. job satisfaction and job performance) is vague when feelings of procedural justice are present in organisations (Chang & Chen, 2002; Jones et.al, 1996; Fitzgerald, 2000; Greenberg, 2003). The nature of this relationship has not been emphasised in past research studies (Greenberg, 2003; Pettijohn et.al., 2001; Robbins, et.al., 2000).

This conceptual framework is consistent with the notions of procedural justice theories (Cropanzano et.al., 2001; Cropanzano & Greenberg, 1997, Greenberg, 1987a & 1987b) which state that providing employees with input into decision making by ensuring fair treatment, communicating information accurately, and consistently, suppressing bias, and providing correctability opportunities (Leventhal, 1976; Thibaut & Walker, 1978) can lead employees to perceive justice about the system and process of distributing pay within the organisation.

These findings are consistent with organisational justice theory which reveals that communicating pay messages and values openly, honestly and in a straightforward manner to employees will increase employees' understanding of the complex terms of the system and eliminate rumours and feelings of fear about the pay system. This understanding may lead to increased positive subsequent attitudinal and behavioural outcomes such as job performance (Anthony et.al., 1996; Greenberg, 2003; Guthrie, 2000; Zenger, 1992). Additionally, Robbins et.al., (2000) examined the Lind and Tyler's (1988) group-value model based on a sample of a textile products company in Southeastern United States and found that delivery of the pay message from supervisors to subordinates via a good interpersonal communication has increased employees' feeling of justice of the pay system and this could lead to increased performance in the organizations.

RESEARCH METHODOLOGY AND PROCEDURE

Both qualitative and quantitative research methods were used in three major phases of data gathering. At the initial stage of this study, in-depth interviews were conducted involving 15 experienced employees from seven Malaysian private institutions of higher learning. Their opinions were sought to clearly understand compensation management system, procedural justice characteristics and job performance features practised within the institutions. This information was primarily used to develop the relevant questionnaire for this study.

Next, a pilot study was conducted involving 20 employees from seven Malaysian private institutions of higher learning. The information gathered from these employees was used to verify the content of each question developed for the survey (e.g. identifying appropriate questions and/or creating new questions). Finally, an actual self-report questionnaire was designed using the information gathered from the in-depth interviews, compensation research literature, and pilot study. The procedure used to develop this survey questionnaire may help to gather accurate data, reduce bias and increase the quality of data being collected (Creswell, 1998; Davis, 1996; Sekaran, 1983).

The research questionnaire has four sections. Firstly, communication about pay systems had 5 items that were developed based on pay design literature (see Fitzgerald, 2000; Guthrie, 2000; Pettijohn et.al., 2001; Tata, 2000; Young, 1999; Hewitt Associates, 1991), in-depth-interviews and the pilot study responses. Secondly, procedural justice was measured using a 4-item scale developed by Moorman (1991). Finally, job performance was measured using a 4-item scale developed by Lawler and Hall (1970). These items were measured using a 7-item scale ranging from "strongly disagree/dissatisfied" (1) to "strongly agree/satisfied" (7).

This study examined 334 usable responses that were taken from seven Malaysian private institutions of higher learning. The participants for this study provided answers voluntarily. In terms of theoretical perspective, the number of respondents was higher than the minimum sample size of 200 participants recommended by Boomsma (1982). In terms of sample profile, most respondents were less than 35 years old (85%), hold university qualifications (86%), were academician (56%) or working in academic division (79%), serving less than 5 years (81%), holding permanent position (81%), and obtaining monthly salary less than RM2000 per month (73%).

A Statistical Package for Social Science (SPSS) version 11.5 was used to determine the validity and reliability of measurement scales, correlation between variables, and test research hypothesis.

RESULTS OF THE VALIDITY AND RELIABILITY ANALYSES

Table 1 presents the items that had factor analysis values of 0.40 or greater and items which had Cronbach Alpha value of more than 0.63 are considered as meeting the high validity and reliability standards (Nunally & Bernstein, 1994). Variables that had high validity and reliability standards were used as a baseline to analyse correlations between variables and test research hypotheses.

Table 1: Results of Validity and Reliability Analyses

Latent Constructs	Items	Validity	Number of Items	Reliability
Communication	Open1	.820	5	.88
	Goal2	.852		
	Value3	.808		
	Pract4	.864		
	Creat5	.714		
Procedural Justice	Collect49	.605	4	.91
	Appeal50	.939		
	Appeal51	.930		
	Clarif52	.874		
Job Performance	accomp67	.88	4	.92
	growth68	.88		
	satis69	.88		
	esteem70	.90		

RESULTS OF DESCRIPTIVE STATISTICS AND CORRELATIONAL ANALYSES

Prior to testing the hypothesis, the Pearson's correlation analysis was reviewed. Table 2 shows the mean, standard deviation and Pearson's correlation results for communication about pay systems, procedural justice, and job performance.

Table 2: Means, Standard Deviations, and Correlation between Variables

N=583

Variable	Mean	Standard Deviation	Pearson Correlation Coefficients		
			1	2	3
1. Communication	3.98	1.42	1		
2. Procedural Justice	3.60	1.35	.60**	1	
3. Job Performance	5.87	.96	.08	-.08	1

Note: **Correlation is significant at the 0.01 level (2-tailed)

Reliabilities represented on diagonal (1)

The table shows that means for the variables are from 3.60 to 5.87, signifying that the levels of compensation communication, procedural justice, and job performance are from high (3) to highest (7) level. In terms of correlation, communication about pay systems is positively and significantly correlated with procedural justice ($r=.60$, $p<0.01$), but it is positively and insignificantly correlated with job performance ($r=.08$, $p=.14$). The correlation coefficients between the independent variable (i.e. communication about pay systems) and the dependent variable (i.e. procedural justice and job performance) were less than 0.90, indicating that the data were not affected by serious collinearity problem (Hair, et.al., 1998; Sekaran, 1983).

RESULTS OF TESTING MODERATION MODEL

Moderating effect is a type of interaction where the strength of the relationship between an independent variable and a dependent variable changes when other variables are present (Cohen & Cohen, 1983; Jaccard, et.al., 1990; Kleinbaum, et.al., 1988). A hierarchical moderated regression analysis (as recommended by Cohen & Cohen, 1983) was undertaken to test interaction hypotheses. An interaction is present if the relationship between interacting terms and the dependent variable is significant. The fact that the significant main effects of predictor variables and moderator variables simultaneously exist in analysis does not affect the moderator hypothesis and is significant in interpreting the interaction term (Baron & Kenny, 1986). An examination of the differences between the squared multiple correlations for the interaction effects model and the main-effects model may determine the strength of the interaction effect in the sample data.

The hypothesis is that:

H1: Perceptions of procedural justice moderate the relationship between communication about pay systems and job performance.

Table 3 presents the results of hierarchical regression analysis for the private institutions of higher learning with job performance as the dependent variable. Standardized coefficients (standardised beta) were used for all analyses (Jaccard, et.al., 1990).

Table 3: Hierarchical Regression Results for Job Performance as a Dependent Variable

Independent Variable	Dependent Variable (Job Performance)		
	Model 1	Model 2	Model 3
Age	-.02	-.01	-.02
Education	-.03	-.05	-.06
Position	-.01	-.02	-.02
Division	-.01	.00	.00
Length of Service	.02	-.01	-.01
Service	.16**	.15**	.15**
Salary	.02	.01	.02
Response Variables:			
Communication		.20**	-.10
Procedural Justice		-.22***	-.55**
Interactions:			
Communication x Procedural Justice			.57*
R Squared	.02	.06	.07
Adjusted R ²	.00	.03	.04
F	1.13	2.18*	2.48**
R Square Change	.02	.03	.01
F Change R ²	1.13	5.71**	4.99*

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

B=Standardised Beta

Outcomes of the regression analysis are summarised into three major steps.

Step 1: Respondents' Characteristics as a Controlling Variable

This step shows that type of service is positively and significantly correlated with job commitment (B=.15, p=.01), signifying that different types of service (i.e. probation, permanent, contract and temporary status) may have different types, level

and/or amount of pay. These differences have motivated employees to improve their job performance.

Step 2: Exclusion of Procedural Justice into Analysis

This step shows that communication about pay systems is negatively and insignificantly correlated with job performance ($B=-.10$, $p=.52$), indicating that openly communicating pay messages to employees have not increased their job performance. Next, the moderating role of procedural justice in the hypothesised model needs to be further tested using a multivariate regression analysis in order to avoid confounding results before making a final conclusion.

Step 3: Inclusion of Procedural Justice into Analysis

This step shows that the interacting terms (communication about pay systems x procedural justice) are positively and significantly correlated with job performance ($B=.57$, $p=.03$), therefore this hypothesis was accepted. These results demonstrate that procedural justice has played an important role as a moderator between participation in pay systems and job performance. These findings also have gained strong support from recent literature on compensation (see Chang & Chen, 2002; Guthrie, 2000; Zenger, 1992). Further examination has found that regression equation for the interacting terms (Step 3: $B=.57$) is higher than regression equation for the main effect of communication about pay systems (Step 2: $B=-.10$), indicating that the interaction effects is strong in the sample data.

In the private institutions of higher learning, pay systems are openly communicated through the institution's pay policy and interpersonal treatment. At the organizational level, Human Resource departments take a proactive role in designing pay information systems and choosing appropriate information to be delivered to all employees through briefings and committees. At the departmental level, communication about pay systems is openly implemented through personal interactions between immediate bosses and subordinates with respect to job evaluation, performance appraisal, promotion exercises, training and recognition programs. Such communication styles may increase employees' understanding about the link between pay systems and the institution's goals, strategy, culture, and its process and system, as well as its creativity and innovation. This understanding will increase employees' acceptance of procedural justice which perhaps lead to increased job performance within the institutions.

IMPLICATIONS OF THE STUDY

The implications of this study can be divided into three major aspects: theoretical contribution, robustness of research methodology, and practical contribution. In terms of theoretical contribution, this study has extended previous research conducted in most Western countries and provided greater understanding of the notion of procedural justice in compensation management at Malaysian private institutions of higher learning. The results of this study advocate that the effect of communication about pay systems on job performance is strongly influenced by the individuals' feeling of procedural justice.

With respect to robustness of the research methodology, the questionnaire data have exceeded a minimum standard of validity and reliability analyses which lead to accurate findings. Regarding practical contributions, findings of this study provide useful guidelines for Human Resource managers to improve communication strategy in the organizations. If this strategy is to be implemented properly it may increase employees' appreciation of the pay systems and may lead to positive attitudinal and behavioural outcomes particularly that of satisfaction, commitment and performance.

LIMITATIONS OF THE STUDY

The conclusion drawn from the results of this study should consider the following limitations. Firstly, this study was a cross-sectional research design where data were taken once within the duration of this study. This research design ignored the developmental issues (such as intra-individual change and restrictions of making inference to participants) and/or causal connections between variables of interest. Secondly, this study only examined the relationship between latent variables and the conclusion drawn does not specify the relationship between specific indicators for the independent variable, moderating variable and dependent variable.

Thirdly, the outcomes of multiple regression analysis have focused on the level of performance variation explained by the regression equations (Tabachnick & Fidell, 2001). Although a substantial amount of variance in dependent measure explained by the significant predictors is identified, there are still a number of unexplained factors that can be incorporated to identify the causal relationship among variables and their relative explanatory power. Finally, this study only used a sample taken from 21 out of over 500 Malaysian private institutions of higher learning, therefore, one should be cautious about generalising the statistical results of this study.

DIRECTIONS FOR FUTURE RESEARCH

The conceptual and methodological limitations of this research need to be considered when designing future research. Firstly, this study sets a foundation for research on relationships between communication about pay systems, procedural justice, and job performance. It has raised many questions as well as confirmed initial propositions. A few research areas can be further explored as a result of this study. Secondly, the organizational and personal characteristics as a potential variable that can influence the communication about pay systems need to be further explored. Using these variables may provide meaningful perspectives for understanding of how individual similarities and differences influence the effect of communication about pay systems within organizations.

Thirdly, the case study design has its shortcomings, therefore other research designs such as longitudinal studies should be considered as a procedure for collecting data and describing the patterns of change and the direction and magnitude of causal relationships between variables of interest. Fourthly, the findings of this study rely heavily on the sample taken from the private institutions of higher learning. To fully understand the effect of communication about pay systems on individual attitudes and behaviours via their impact upon feelings of procedural justice, different organisational sectors should be involved in future research.

Fifthly, as a specific element of the procedural justice studies, the theoretical construct of interactional justice needs to be included because it has been identified as a “link” in the relationship between communication about pay systems and individual attitudes and behaviours (Eisenberger, et.al., 1986; Eisenberger, et.al., 1990; Harris & Fink, 1994; Robbins, et.al., 2000).

Finally, job performance, turnover, and deviant behaviours have been found to be important outcomes of the effect of procedural justice in compensation management literature (Ambrose, 2002; Sweeney & McFarlin, 1993; Tang & Chiu, 2003; Tang, et.al., 2000). The importance of these issues needs to be further explained in future research. In sum, a more comprehensive model including all variables as recommended in Figure 1 is needed for further examination.

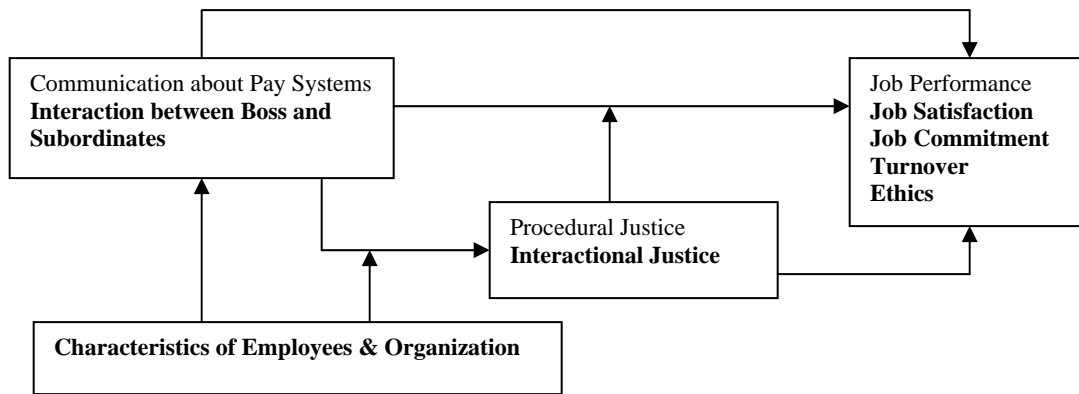


Figure 1: Revised Model for Future Research
 (The bold variables are proposed for future research)

CONCLUSION

The outcomes of testing direct effects model have not recognised a direct effect of communication about pay systems on job performance. The inclusion of procedural justice into analysis confirms that it has played a moderating role in the relationship between communication about pay systems and job performance. These findings demonstrate that the notion of procedural justice has been successfully understood in the pay system model of Malaysian private institutions of higher learning. Therefore, current research and practices within compensation management models need to consider feelings of procedural justice as an important part of compensation system. If perceptions of procedural justice is integrated with compensation systems, we may find positive subsequent personal outcomes (e.g. satisfaction, commitment, performance, ethics, and productivity and quality). These positive outcomes may eventually motivate employees to support both organizational and human resource management goals and strategies.

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