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## Empirically testing the relationship between income distribution, perceived value money and pay satisfaction

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### **Abstract:**

Compensation management literature highlights that income has three major features: salary, bonus and allowance. If the level and/or amount of income are distributed to employees based on proper rules this may increase pay satisfaction. More importantly, a thorough investigation in this area reveals that the effect of income distribution on pay satisfaction is not consistent if perceived value of money is present in organizations. The nature of this relationship is less

emphasized in pay distribution literature. Therefore, this study was conducted to measure the effect of the perceived value of money and income distribution on pay satisfaction using 136 usable questionnaires gathered from employees who have worked in one city based local authority in Sabah, Malaysia (MSLAUTHORITY). Outcomes of hierarchical regression analysis showed that the interaction between perceived value of money and income distribution significantly correlated with pay satisfaction. This result confirms that perceived value of money does act as a moderating variable in the income distribution model of the organizational sample. In addition, discussion and implications of this study are elaborated.

**Keywords:** income distribution, perceived value of money, pay satisfaction, Malaysia.

**JEL Code:** O15

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## 1. Introduction

Income is a crucial element of compensation management system (Drucker and White, 2000; Henderson, 2006; Mitchell and Mickel, 1999) where it is often viewed as monetary reward, direct payment, cash payment and/or extrinsic reward (Bergmann and Scarpello, 2002; Chiu *et al.*, 2001; Milkovich and Newman, 2008). Specifically, it consists of three major features: salary, bonus and allowance (Lowery *et al.*, 2002; Tang, 2007; Young, 1999). Salary is often viewed as a base pay that is given to employees on a weekly, monthly or yearly basis based on job structure (e.g., basic salary, but not including incentives) (Henderson, 2006; Young, 1999). Bonus is usually seen as cash payment provided to employees based on their performance (e.g., monetary incentives for achieving job targets) (Bloom and Milkovich, 1998; Gupta and Shaw, 1998; Lowery *et al.*, 2002). Allowance is often related to additional financial rewards legally provided to employees based on the employment contract or organization related service (e.g., entertainment allowance or allowance fixed for particular jobs or service schemes) (Bergmann & Scarpello, 2002; Milkovich and Newman, 2008). These income packages are designed to reward employees who perform a specific job or service (Anthony *et al.*, 2002; Dessler, 2006; Ismail, 2007).

Income distribution is a segment of pay design issues where it is often interpreted based on two major perspectives: quantitative and qualitative. From a quantitative perspective, it is often viewed as the level and/or amount of income that an individual receives from his/her employer based on a mathematical formula, such as statistics, economics, finance and/or accounting (Henderson, 2006; Milkovich and Newman, 2008). Conversely, from a qualitative perspective, the level and/or amount of income package is often viewed based on human psychology, that is, an individual's perception, feeling or judgement (Greenberg, 2003; Skarlicki and Folger, 1997). From this perspective, employees often perceive that the level and/or amount of income package that they receive from their employers as adequate if such income packages meet their needs and expectations (Adams, 1963, 1965; Allen and White, 2002; Luna-Arocas and Tang, 1998; Tang *et al.*, 2004b).

Traditionally, most organizations design a standard income package to reward their employees based on job structure, such as position, seniority and/or length of service (Bergmann and Scarpello, 2002; Dessler, 2006; Giacobbe-Miller *et al.*, 1998). These income packages are widely used by organizations that operate in a stable marketplace environment, but they are not able to attract, retain and motivate competent employees to sustain and increase organizational competitiveness in dynamic marketplace (Lawler, 2000; Milkovich and Newman, 2008). In the present era of global competition, many organizations have shifted their paradigms of compensation program from a traditional job based income to organizational culture and strategy (Anthony *et al.*, 2002; Gomez-Mejia and Balkin, 1992a, 1992b; Henderson, 2006). In order to realize this objective, an employer designs income distribution rules that align to dynamic changes that occur outside and inside organizations. External organizational factors or external competitiveness variables that the organizations have to deal with include economic pressures, government policies, law and regulations, ownership, custom and practices. Inside organizational factors are also said as internal alignment variables, which refer to corporate strategy, management philosophy, type of job and productivity level (Anthony *et al.*, 2002; Gomez-Mejia and Balkin, 1992a, 1992b; Milkovich and Newman, 2008).

These variables strongly affect many organizations to design income distribution rules based on performance (Giacobbe-Miller *et al.*, 1998; Henderson, 2006; Lee *et*

*al.*, 1999). Performance based income is often referred to as provision of additional monetary rewards, on top of employees' basic pay, based on contributions made by the employee (Gomez-Mejia and Balkin, 1992a, 1992b; Lee, *et al.*, 1999; Milkovich and Newman, 2008). Many scholars think that job based income and performance based income use different treatments, but properly implemented, such income systems based on appropriate rules may increase pay satisfaction in organizations (Heneman *et al.*, 1997; Tang, 1995; Tang and Chiu, 2003; Tang *et al.*, 2004b). According to several scholars, pay satisfaction may be viewed as an individual who perceives that his/her employer allocates the level and/or amount of pay equitable with his/her needs and expectations, this feeling may lead to increase in the notion of pay satisfaction (Heneman *et al.*, 1997; Lawler, 1971; Tang *et al.*, 2002, 2004b; Roberts *et al.*, 1999).

Surprisingly, observation of such a relationship revealed that the effect of income distribution on pay satisfaction is not consistent if perceived value of money is present in the organizations (Adams, 1963, 1965; Allen and White, 2002; Lawler, 1971; Tang *et al.*, 2004a). Perceived value of money is often interpreted based on an individual's frame of reference and/or in the eye of the beholder (Aryee, 1999; Hoon and Lim, 2001; Tang, 1992, 1993; Tang, 2007). From this perspective, the value of money may be seen as useful and valuable if it can be used by an individual to meet basic needs, improve standard of living and increase status in society (Aryee, 1999; Furnham and Okamura, 1999; Maslow, 1943, 1945; Luna-Arocas and Tang, 2004; Tang, 2007).

Within a pay design framework, many scholars think that income distribution; perceived value of money and pay satisfaction are distinct constructs, but highly interrelated (Aryee, 1999; Luna-Arocas and Tang, 1998, 2004; Tang, 1995; Tang and Chiu, 2003). For example, the ability of an employer to properly allocate the level and/or amount of income based on proper rules will increase pay satisfaction if employees perceive that their incomes can be used to meet their needs and expectations (Luna-Arocas and Tang, 1998, 2004; Tang *et al.*, 2004a, 2004b). Although the nature of this relationship has been studied, the moderating effect of perceived value of money in pay distribution models is less emphasized. Perceived value of money has been less emphasized because previous studies over emphasized on a segmented approach in analyzing income distribution rules, and neglected the importance of human needs in developing income distribution

models. This approach may not be able to highlight the moderating role of perceived value of money in income distribution literature (Heneman *et al.*, 1997; Tang, 1995; Tang *et al.*, 2004a, 2004b). Hence, it motivates the researchers to examine the effect of income distribution and perceived value of money on pay satisfaction that occurs in one city based local authority in Sabah, Malaysia (MSLAUTHORITY). For confidential reasons, the name of this organization is kept anonymous.

## 2. Context of the Study

Many researchers argue that the nature of Malaysian public service sector has become one of the key factors that strongly affect the design of pay systems in government agencies (Ismail *et al.*, 2007; Sulaiman and Mamman, 1996). For example, several reports of the Malaysian Royal Commission on salary (Aziz Report, 1968; Jabatan Perkhidmatan Awam, 2002; Suffian Report, 1967) reveal that compensation policies and procedures for public sector employees in Malaysia are designed, administered and monitored by a central government agency, namely Public Service Department (PSD). For example, 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 (Jabatan Perkhidmatan Awam, 1991; Mahathir Report, 1991). In order to increase the effectiveness of public service sector in meeting great challenges in 21<sup>st</sup> century, pay distribution rules as practiced in the SSB were replaced by the Malaysian Remuneration System (MRS) in 2002 (Jabatan Perkhidmatan Awam, 2002; Malaysian Public Service Department, 2006). This new pay system has strongly influenced pay systems implemented in one city based local authority in Sabah, Malaysia (MSLAUTHORITY).

In order to understand the nature of compensation system practiced in the organization, in-depth interviews were conducted involving one executive officer and one assistant administrative officer during and before the pilot study. In terms of income distribution, the HR department is not given sufficient autonomous power to design the income packages for all job categories, but they are allowed to use their creativities and innovations to improve the process and systems of allocating the level and/or amount of monetary rewards within the limits set up by

the PSD (Jabatan Perkhidmatan Awam, 2007). In the organization, all employees are entitled to receive three types of income: salary, bonus and allowance. As a government entity, this income is determined to all employees based on job (position, seniority and/or length of service) and/or performance (merit).

Employees who work in different and/or similar job groups have different views about the implementation of such distribution rules. For example, if employees perceive that the level and/or amount of income that they receive are allocated based on proper rules (i.e., job and/or performance), this will lead to higher pay satisfaction (e.g., no complaints, positive judgments and appreciate the implementation of pay systems). Further, a thorough investigation of the interview results reveals that employees who perceive the money that they receive from their employers as high value (i.e., meet basic necessities and improve standard of living), this may lead to higher pay satisfaction. The nature of this relationship is interesting, but the moderating role of perceived value of money in the income distribution model of the organization is less emphasized because of the paucity of research literature in this country (Dousin, 2008).

### 3. Relationship between Income Distribution and Pay Satisfaction

Previous studies using a direct effects model shows that income distribution has a significant impact on pay satisfaction (Tang, 1995; Tang and Chiu, 2003; Tang *et al.*, 2002, 2004b). For example, three surveys about income distribution were conducted using different samples, such as 456 employees from nursing departments in a large Midwestern hospital in a metropolitan area (Heneman *et al.*, 1997), 390 R&D personnel in three Indian public sector (Das and Bhadury, 1997), 211 full-time employees in Hong Kong, China (Tang and Chiu, 2003), 458 participants in the Southern US (Tang, 2007), and 332 US and Belgian employees in US organizations (Harris *et al.*, 2008). These studies found that the ability of managers to adequately allocated the level and/or amount of income based on employee contributions (e.g., job and/or performance) had strongly invoked employees' satisfaction with pay in the organizations. Thus, we hypothesized that:

**H1:** There is a significant relationship between income distribution and pay satisfaction.

#### **4. Relationship between Income Distribution, Perceived Value of Money and Pay Satisfaction**

Many recent studies using an indirect effects model have focused on the relationship between pay distribution, perceived value of pay and pay satisfaction, but such studies have overlooked to emphasize the moderating variable of perceived value of money in the relationship between income distribution and pay satisfaction (Adams, 1963, 1965; Allen & White, 2002; Tang *et al.*, 2004a; Williams *et al.*, 2006). For example, two studies about pay distribution that were conducted in different samples, such as 311 university lecturers in US and Spain (Tang *et al.* 2004a) and 213 samples from 182 studies gathered in the meta-analysis of multiple dimensions of compensation satisfaction (Williams *et al.*, 2006) revealed that employees who perceived the level and/or amount of income that they received from their employers could be used to fulfill their needs and expectations (e.g., basic needs, and improve standard of living, quality of life and statuses) had strongly invoked employees' perceived value of money. Consequently, it could lead to higher pay satisfaction in the organizations (Tang *et al.*, 2004a; Williams *et al.*, 2006).

The compensation research literature is consistent with the notion of organizational behavior theory. For example, Ajzen and Fishbein's (1977) ABC model states that money may be viewed as an affective component (not as a devil), cognitive component (a sign of success), and behavior component (ability to use money to meet individuals' needs and expectations). Relying on these views, individuals who perceived money as useful, important, valuable and breadwinner are individuals who have high economic values and feelings of satisfaction with high level and/or amount of income (Aryee, 1999; Tang, 1995, 2007; Tang *et al.*, 2000, 2002). Besides that, Adams' (1963, 1965) equity theory, Allen and White's (2002) equity sensitivity theory and Lawler's (1971) discrepancy theory explicitly posit that as a result of comparison between rewards (e.g., money) and job ratio will affect individuals' cognitives and emotions, this may influence their behaviors (i.e., action) in organizations (Adams, 1963, 1965; Allen and White, 2002; Lawler, 1971). These theories have used different treatments in studying compensation issues, but the notion of expectations and perceptions of one actual received can be applied in income distribution (Blau and Kahn, 2003; Greenberg, 2003; McFarlin and Sweeney, 1992; Sweeney and McFarlin, 1993). Application of the theories in



pay distribution framework highlights that individuals often compare outputs (e.g. income) that they receive with inputs that they contribute (e.g. education, experience, skills and effort) in organizations. If individuals perceive that they receive an equitable income-contribution ratio, this will increase their perceived value of money, which in turn, will lead to higher pay satisfaction (Lawler, 1971; Tang *et al.*, 2004a). The literature has been used as a foundation to develop a conceptual framework for this study as shown in Figure 1.

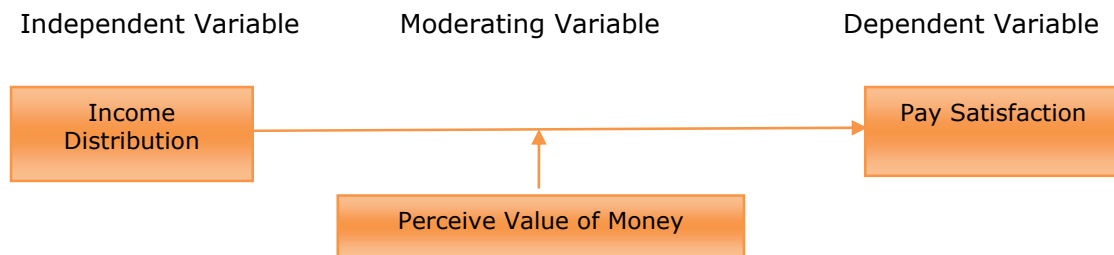


Figure 1. "Perceived value of money as a moderator in the relationship between income distribution and pay satisfaction". Source: Authors

Based on the framework, it seems reasonable to assume that income distribution will influence MSLAUTHORITY employees as this feeling influences the Western employees. Organizational behavior theory suggests that if the MSLAUTHORITY employees perceive that the money that they receive from their employers as high value, this may lead to greater pay satisfaction. Therefore, we hypothesized that:

**H2:** Perceived value of money positively moderates the effect of income distribution on pay satisfaction.

## 5. Methodology

Data for this study were gathered through in-depth interviews, pilot study and survey questionnaires. In-depth interviews were first conducted with two experienced employees, namely one executive officer and one assistant administrative officer who have worked for more than seven years in the studied organization. They were selected based on purposive sampling where they have good knowledge and experiences about the compensation and benefits program. Information gathered from these employees helped the researchers to understand

the income level policies and the procedures of perceived value of money features and pay satisfaction characteristics, as well as the relationship between such variables in the studied organization. After refining, categorizing and comparing the information with relevant theoretical and empirical evidence, the triangulated outcomes were used as a guideline to develop the content of a questionnaire for a pilot study. The pilot study was conducted by discussing the questionnaire with the interviewees in order to verify the content and format of the questionnaire. Back translation technique was used to translate the items in the questionnaires into Malay and English in order to increase the validity and reliability of the instrument (Hulland, 1999; Wright, 1996). The items used to measure the research variables were shown in Table 1.

Variable	Measured items*	Source
<b>Income distribution</b>	1. The starting salary of my position are sufficient to cover my expenses. 2. The increase of my yearly salary is align with the increasing of daily expenses. 3. Annual bonus is paid to me upon my length of service / seniority. 4. Even I accomplish my task very well, the amount of salary that I receive is not aligned with current living expenses. (5) The level of my salary is higher than other private company. (6) The allowance that I received is relevant with the responsibility of my job.	Blau and Kahn, 2003; Gupta <i>et al.</i> , 1992; Henderson, 2006; Lee <i>et al.</i> , 1999; Mikovich and Newman, 2008
<b>perceived value of money</b>	1. Money is valuable to me. 2. Money is an important factor in our life. 3. Money attract me to work harder. 4. Money is a symbol of my success, achievement and work performance. 5. Money is used to make a comparison with other employees, 6. I am motivated to work hard for money. 7. Money reinforces me to work harder. 8. Becoming rich is my dream.	Tang, 1992, 1993, 1995; Luna-Arocas and Tang, 1998, 2004, Tang and Chiu, 2003, Tang <i>et al.</i> , 2002, and Tang <i>et al.</i> , 2004a, 2004b.
<b>pay satisfaction</b>	1. Information the organization gives about pay issues. 2. Pay of other jobs in organization. 3. Consistency of the organization pay policies. 4. Differences in pay among jobs in the organization. 5. How the organization administers pay.	Heneman and Schwab, 1985.

Note: \*These items were measured using a 7-item scale ranging from "strongly disagree/dissatisfied" (1) to "strongly agree/satisfied" (7). Demographic variables were used as controlling variables because this study focused on employee attitudes.

Table 1. "Measurement scale"

The targeted population for this study was 1147 employees who worked in the studied organization. In the first step of data collection procedure, the researchers met the division/department heads to understand the rules for distributing the questionnaires in the organization. Considering the organizational rules, a convenient sampling technique was used to distribute 250 survey questionnaires to employees through contact persons (e.g., secretary of department heads, assistant managers and/or human resource managers) in organization. A total of 150 usable questionnaires were returned to the researchers, yielding a 60 percent response rate. The number of this sample exceeded the minimum sample of 30 participants as required by probability sampling technique to allow for the data to be analyzed using inferential statistics (Sekaran, 2000). The survey questionnaires were answered by participants based on their consensus and on a voluntary basis.

The Statistical Package for Social Science (SPSS) version 16.0 was used to analyze the data. Firstly, exploratory factor analysis (EFA) was used to assess the validity and reliability of measurement scales (Hair *et al.*, 1998; Nunally & Bernstein, 1994). Relying on the guidelines set up by these statisticians, a factor analysis with direct oblimin rotation was first done for all items that represented each research variable, and this was followed by other tests, that is, Kaiser-Mayer-Olkin Test (KMO), Bartlett's test of sphericity, eigenvalue, variance explained and Cronbach alpha. The value of factor analysis for all items that represent each research variable was 0.5 and more, indicating the items met the acceptable standard of validity analysis. All research variables exceeded the acceptable standard of Kaiser-Meyer-Olkin's value of 0.6 and were significant in Bartlett's test of sphericity, showing the measure of sampling adequacy for each variable was acceptable. All research variables had eigenvalues larger than 1, signifying the variables met the acceptable standard of validity analysis (Hair *et al.*, 1998). All research variables exceeded the acceptable standard of reliability analysis of 0.70, indicating the variables met the acceptable standard of reliability analysis (Nunally & Bernstein, 1994). Variables that meet the acceptable standard of validity and reliability analyses will be used in testing hypotheses.

Secondly, analysis of variance, Pearson correlation analysis and descriptive statistics were conducted to analyze the research variables and the usefulness of the data set. Finally, a hierarchical regression analysis, as recommended by Cohen and Cohen (1983), was used to measure the moderating effect of perceived value

of money in the hypothesized model. This procedure stresses the development of a multiplicative term, which is used to encompass the interaction effect, and to calculate two  $R^2$ s, one for the equation, which includes only main effects (main-effect model) and the other for a three-term equation (product-term model), which includes both the main and interaction effects. This technique may separate the component parts of the product term from the term itself to account for the complex combination of variance due to main and interaction effects. Standardized coefficients (standardized beta) were used for all analysis. Results of an interaction are evident when 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 to interpret the interaction term (Baron and Kenny, 1986).

## 6. Results

Table 2 shows the sample profile for this study. Most respondent were female (57.4 %), aged between 26 to 35 years old (44.1 %), non-management workers (81.6 %). Many of the respondents were SPM holders (41.9 %) who had been in the workforce from to 5 years (28.7 %).

Gender (%)	Education (%)	Length of Service (%)	Position (%)
Male =42.6	Master =1.0	<1 years =7.4	Management = 18.4
Female =57.4	Bachelor =11.0	1-5 years =28.7	Non-management = 81.6
	Diploma =22.8	6-10 years =17.6	
Age (%)	STPM =5.9	11-15 years =16.2	
18-25 =15.4	SPM =41.9	16-20 years =5.9	
26-35 =44.1	SRP/PMR =17.6	> 21 years =24.3	
36-45 =26.5			
>46 =14.0			

Note:

SRP/ PMR: Sijil Rendah Pelajaran Malaysia/Penilaian Menengah Rendah

SPM/MCE: Sijil Pelajaran Malaysia

STPM: Sijil Tinggi Pelajaran Malaysia

Table 2. "Participants characteristics (N=136)"

Table 3 shows the results of validity and reliability analyses for measurement scales. A factor analysis with direct oblimin rotation was first done for four variables with 19 items. After that, 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. Relying on guidelines by Hair *et al.* (1998) and Nunally and Bernstein (1994), these statistical analyses showed that (1) the value

of factor analysis for all items that represent each research variable was 0.4 and above, indicating the items met the acceptable standard of validity analysis, (2) all research variables exceeded the acceptable standard of Kaiser-Meyer-Olkin's value of 0.6, were significant in Bartlett's test of sphericity, and (3) all research variables had eigenvalues larger than 1 (Hair *et al.*, 1998). Besides that, all research variables exceeded the acceptable standard of reliability analysis of .70 (Nunnally and Bernstein, 1994). These statistical analyses confirmed that measurement scales used in this study have met the acceptable standard of validity and reliability analyses as shown in Table 3.

Measure	Items	Factor Loadings	KM O	Bartlett Test of Sphericity	Eigenvalue	Variance Explained	Cronbach Alpha
Income Distribution	6	.50 - .76	.76	318.58	3.29	54.77	.83
Perceived Value of Money	8	.44 - .87	.85	659.47	4.54	56.79	.88
Pay Satisfaction	5	.75 - .94	.88	606.15	3.95	78.93	.93

Table 3. "The results of validity and reliability analyses for measurement scales"

Variance analysis, Pearson correlation analysis and descriptive statistics were used to analyze the research variables used in this study. Firstly, analysis of variance techniques are used to compare the mean scores between two or more groups in the studied organization. In this case, independent samples t-tests are used to compare two different (independent) groups of people (i.e., gender) and ANOVA is used to compare three and more different (independent) groups of people (i.e., age) (Hair *et al.*, 1998; Yaacob, 2008). Outcomes of one-way ANOVA showed that education was found to have a significant difference, which means that income distribution, perceived value and pay satisfaction were found to be differently perceived by education level.

Table 4 shows the results of Pearson correlation analysis and descriptive statistics. Mean scores for all the variables are between 4.3 and 6.0, signifying the levels of income distribution, perceived value of money, and pay satisfaction are ranging from high (4) to highest level (7). The correlation coefficients for the relationship between the independent variable (i.e., income distribution) and the moderating

variable (i.e., perceived value of money), and the relationship between the dependent variable (i.e., pay satisfaction) were less than 0.90, indicating that data were not affected by serious collinearity problem (Hair *et al.*, 1998). In addition, the outcome of testing a direct effects model showed that income distribution positively and significantly correlated with pay satisfaction ( $r=0.55$ ,  $p<0.01$ ), therefore H1 was supported. This result demonstrates that income distribution is an important antecedent of pay satisfaction in the organizational sample.

Variable	Mean	Standard Deviation	Pearson Correlation (r)		
			1	2	3
1. Income Distribution	4.3	1.2	1		
2. Perceived Value of Money	5.5	1.1	.30**	1	
3. Pay Satisfaction	6.0	1.2	.55**	.41**	1

Note: Significant at \*\* $p<0.01$  Reliability estimation are shown in a diagonal (value 1)

Table 4. "Descriptive statistics and Pearson correlation analysis"

Variable	Dependent Variable (Pay Satisfaction)		
	Model 1	Model 2	Model 3
<u>Control Variables</u>		.04	.03
Gender	.04		
Age	.36**	.21	.19
Position	.12	.16	.15
Education	-.19	-.27**	-.24*
Length of Services	-.02	.04	.04
<u>Independent Variable</u>			
Income Distribution		.47***	-.39
Perceived Value of Money		.24***	-.30
<u>Moderating Variable</u>			
<b>Income Distribution x Perceived Value of Money</b>			<b>1.16**</b>
R <sup>2</sup>	.10	.42	.45
Adjusted R <sup>2</sup>	.06	.39	.42
R <sup>2</sup> Change	.10	.33	.03
F	2.74*	13.38***	12.91***
F Change	2.74*	36.23***	5.95*

Note: Significant at \*\*\* $p<0.05$ ; \*\* $p<0.001$

Table 5. "Results for hierarchical regression analysis"

Table 5 shows the outcomes of testing research hypothesis in Model 3. The interacting variables (income distribution x perceived value of money) significantly correlated with pay satisfaction ( $\beta=1.16$ ,  $p<.01$ ), therefore H2 was supported. This result demonstrates that before the inclusion of perceived value of money in Step 2, income distribution significantly correlated with pay satisfaction ( $\beta=0.47$ ,

$p < .0001$ ), accounting for 42 percent of the variance in dependent variable. After the inclusion the perceived value of money in Step 3, the previous significant relationship between income distribution and pay satisfaction become non significant ( $\beta = -.39$ ,  $p > .05$ ). In terms of explanatory power, the inclusion of perceived value of money in the Model 3 had explained 45 percent of the variance in dependent variable. This result meets the requirements of Baron and Kenny's (1986) moderating model testing, which sends a message that the perceived value of money acts as a moderating variable in the relationship between income distribution and pay satisfaction in the organizational sample.

## 7. Discussion and Implications

The findings of this study confirm that perceived value of money acts as a moderating variable in the relationship between income distribution and pay satisfaction in the studied organization. In the studied organization, the HR department uses the policy and procedures formulated by the stakeholder to determine standard income packages for all employees. The majority of employees perceived that employers have provided the level and/or amount of income to employees based on proper rules. Employees perceived that the level and/or amount of income that they receive have increased their perceived value of money. As a result, it may lead to an increased pay satisfaction in the organizational sample.

The implications of this study can be divided into three major areas: theoretical contribution, robustness of research methodology, and practical contribution. In terms of theoretical contribution, the findings of this study has presented substantial evidence in understanding the notion of the perceived value of money (i.e., the utility of money to meet basic needs and improve standard of living) and its interaction with income distribution (i.e., allocation of monetary rewards according to proper rules) as a major predictor of pay satisfaction. This finding has supported and extended previous research conducted in most Western countries (see Adams, 1963, 1965; Allen and White, 2002; Lawler, 1971; Tang *et al.*, 2004a, 2004b). In sum, this study confirms that the effect of income distribution on pay satisfaction is not direct, but its effect is indirectly affected by perceived value of money. The ability of managers to adequately distributed incomes based on employee contribution (job and/or merit criteria) will motivate employees to

perceive that the income that they receive will fulfill their basic necessities, and improve standards of living and statuses in society. Consequently, it may lead to higher pay satisfaction.

Regarding the robustness of research methodology, the data gathered from compensation management literature, the in-depth interviews and the survey questionnaire have satisfactorily met the requirements of validity and reliability analysis; this may lead to the production of accurate and reliable findings.

With respect to practical contributions, the findings of this study may be used as guidelines by HR practitioners to improve the design and administration of compensation system in organizations. Firstly, the level of monetary rewards need to be designed based on multiple criteria (such as job, performance, needs and/or competitor's pay) in order to appreciate high performer contributions. Secondly, adequacy of monetary rewards need be designed not only based on mathematical formula, but also need to consider individual employee differences, such as marital status, number of children and geographical area. This allocation rule can help employees to meet their basic needs, and improve their standards of living and status in society. Thirdly, the contents and methods of compensation training program need to be renewed according to external and internal organizational changes, such as business strategy, technology advancement and job complexity. If training programs consider such changes this may increase the capabilities of HR managers and/or managers to properly design and administer pay policies, and practice good interaction styles in handling employees' complaints and demands. Finally, human resource policies need to focus on hiring knowledgeable and experienced employees than fresh graduates to fulfill important positions (e.g., supervisory and managerial positions). For example, knowledgeable and experienced employees may use their technical skills to design creative income packages that appreciate employee contributions, human skills to tackle employees' complaints, and conceptual skills to assist top management in formulating pay policies that support organizational strategy and goals. If these suggestions are considered and applied, this may motivate high performing employees to support the implementation of compensation management system in their organizations.



## 8. Conclusion

This study formulated the research model based on compensation research literature mostly published in Western settings. The valid and reliable measurement scales were used to measure the moderating effect of perceived value of money in the hypothesized model. Outcomes of testing the moderating model using a hierarchical regression analysis revealed that perceived value of money moderated the effect of income distribution on pay satisfaction, therefore hypothesis 2 (H2) was supported. Statistically, the findings confirm that the level and/or amount of income that are allocated based on proper rules have increased employees' perceived value of money (i.e., meet their demands). As a result, it may lead to higher positive attitudinal and behavioral outcomes, especially pay satisfaction. This empirical result also has supported and extended compensation research literature mostly published in Western settings.

Therefore, current researches and practices within the pay system models need to consider the perceived value of money as a critical aspect of income distribution. This study further suggests that the ability of HR managers and/or managers to properly design and administer pay distribution rules will help employees to receive income packages that meet their needs and expectations. As a result, it may increase employees' appreciation and acceptance about pay systems that implemented in organizations. Thus, these positive attitudes may lead employees to maintain and sustain organizational competitiveness in the global economy.

This study acknowledges several limitations. First, a cross-sectional research design was used to gather data at one point within the period of study. This may not be able to capture the developmental issues and/or causal connections between variables of interest. Second, this study did not specify the relationship between specific indicators for the independent variable, moderating variable and dependent variable. Third, the outcomes of multiple regression analysis focused on the level of performance variation explained by the regression equations (Tabachnick & Fidell, 2001), however, a number of unexplained factors need to be incorporated to identify the causal relationship among variables and their relative explanatory power. Fourth, the survey questionnaires relied heavily on the respondents' self-responses that were selected based on convenient sampling

technique. Finally, the samples were taken from one public organization that allowed the researchers to gather data via survey questionnaires.

These limitations may decrease the ability of generalizing the results to other organizational settings. Future studies should be expanded to all public service agencies in Malaysia. On that same note, the study can also be replicated in the private sector to see if the findings hold in different contexts. The conceptual and methodological limitations should be considered when designing future research. Firstly, several organizational (e.g., type, ownership and size) and personal (e.g., age, education and type of pay) characteristics should be further explored, this may provide meaningful perspectives 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 income distribution and perceive value of money on pay satisfaction, few organizations need to be used as a pay referent in future studies. Fourthly, other theoretical constructs of perceive value of money, such as perceive value of salary, perceive value of bonus and perceive value of financial claims need to be considered because they have widely been recognized as an important link between income distribution and many aspects of individual attitudes and behaviors (e.g., satisfaction, commitment, turnover, performance, and work ethics) (Anthony *et al.*, 2002; Hoon and Lim, 2001; Mitchell and Mickel, 1999). Fifthly, other individual attitudes and behaviors such as job satisfaction, job performance, organizational commitment, turnover, and deviant behaviors should be considered because they are given more attention in compensation research literature (Ismail, 2007; Ismail *et al.*, 2007; Tang and Chiu, 2003). The importance of these issues needs to be further elaborated in future study.

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