

Full Length Research Paper

The influence of compensation system design on employee satisfaction

Hsin-Hsi Lai

General Education Center, Fortune Institute of Technology, Daliao District, Kaohsiung City 831, Taiwan.
E-mail: his@center.fotech.edu.tw. Tel: +886 7 7889888. Fax: +886 7 7889777.

Accepted 3 March 2011

For years, small and medium enterprises have been the bases of economic development in Taiwan. However, with restricted domestic economic development, increasing manpower cost and severe pressure from the international operational environment, small and medium enterprises are now facing many obstacles due to inferior capacities. Many owners of small and medium enterprises have expressed the opinion that without the development of human resources, the economic sustainability of their companies will be jeopardized. Past studies on managerial models mostly treat large enterprises as subjects. However, can compensation systems of small and medium enterprises follow the same success model? Currently, there is a lack of related case data and studies in Taiwan. Therefore, this study treats small and medium enterprises as subjects, and intends to develop a successful compensation system design for human resource management and development in these subjects to enhance employee satisfaction. An empirical analysis demonstrates a positive correlation between employee satisfaction and job-based pay, skill-based pay and performance-based pay. In addition, some demographic variables reveal a moderating effect on this relationship.

Key words: Compensation system design, employee satisfaction, compensation design.

INTRODUCTION

Compensation is an important tool in human resources. An effective compensation system design significantly influences organizational development by revealing external competitiveness, internal equity and individual equity. External competitiveness attracts talent, and internal equity helps companies to retain talent by ensuring that employees and colleagues making the same contributions obtain the same compensation. Individual equity allows employees to feel that their potential is fully rewarded; thus, they are encouraged. The connection between compensation systems and overall organizational strategy has become a significant challenge in compensation management of the 21st century (Balkin and Gomez-Mejia, 1990). How enterprises can maximize advantages from compensation systems is the most critical issue facing human resource managers (Alam, 2009). Only a few small and medium enterprises are concerned about compensation systems and compensation equity, and are thus willing to construct a long-term system of care for employees. The owners of small and medium enterprises would first like to know if compensation strategies can satisfy employees (Alam, 2009).

What do employees want? What is the best for employees? Will a compensation system enhance the long-term development of the enterprises? Currently, human market competition is equivalent to product market competition; it demonstrates that the traditional compensation system is challenged. How can enterprises attract the talent that demands better conditions, instead of attracting improper employees who increase the cost of personnel training? How can small and medium enterprises set up a compensation system that is connected with the goals of the business environment, satisfies the requirements of labor and management, and increases employee performance?

LITERATURE REVIEW

Compensation system design

Although compensation means something different to individuals, organizations and society, it is important to all. For individuals, compensation is not only the return of

benefits, but it also reflects on individuals' capabilities or achievements (Ali, 2009). For organizations, compensation is a cost or expenditure, as well as an important tool to obtain competitive advantages. Within society, compensation not only influences wealth distribution, but also symbolizes social equity and justice. Therefore, the diversity of implications and influences of compensation are profound (Chang, 1996). A compensation system is an encouragement design whereby the contribution of employees is returned. An effective compensation system can stimulate employees to work harder, thus increasing productivity (Lin, 2000), and enhancing job performance.

Henderson (1979) divided compensation into a reward system and non-reward system. In the former, enterprises distribute the returns to employees by money and various recompenses; in the latter, enterprises provide spiritual, psychological and physical welfare activities to employees. Hu (1993) suggests that compensation has two meanings for managers: first, it is the main operational expenditure of enterprises; second, it influences employees' work behavior and attitude. Wang (1998) suggested that in order to provide a return to labor, organizations should offer direct and indirect compensation to employees, including base compensation, subsidies, reward and welfare. Huang (1997) divided compensation into a base level of compensation, subsidies and rewards. Basic compensation includes salary and benefits. Subsidies include payments for rental housing, transportation, benefits to relatives, compensation for special projects, overtime, delayed food supplies and danger pay allowances (it is established by the threaten physical harm or imminent danger to the health or well being of a majority of employees officially stationed). (Ponnu and Chuah, 2010), and Rewards include a performance reward, work reward, year-end reward, full attendance reward, proposal reward and merit reward.

Hughes and Wright (1989) suggested that in the past, when organizations designed compensation systems, the managers treated compensation as a measure to reward and punish employees' behavior. In the modern environment, non-management factors, such as employees' values and their awareness of equity should also be considered. In this way, the compensation strategy of the organizations can attract, keep and stimulate talent, while also meeting their own demand for market competition and the accomplishment of strategic goals.

Chu (1995) suggested that compensation is not simply a return for labor service. It is an important tool that managers can use to influence and manipulate employee behavior.

Therefore, when designing a compensation system, in order to satisfy multiple goals, companies should consider several basic factors, such as the health of employees, their postings, performance and skills. Following Robbins (1992), this study considers compensation system design as based on three factors: job-based pay, performance-based pay and skill-based pay. These three factors are described as follows:

1) Job-based pay: Organizations decide on the relative value of job-based pay. The criteria of pay design include internal equity, job attributes, difficulty and responsibility. The theoretical basis of job-based pay is the equity theory of organizational behavior, which focuses on internal equity. According to equity theory, employees will compare their contribution and return with that of other employees and try to even out any inequity (Robbins, 1992).

2) Skill-based pay: also referred to as knowledge-based pay, is based on the skills of employees. Basically, it means that employees are paid differently according to their skills, education and capabilities. In past years, skill-based pay has been greatly valued by managers.

3) Performance-based pay: A performance-based pay design is a flexible compensation system that considers equity and individuals' different demands, and provides proper incentive for work done. Although this design increases the cost of enterprises, the benefits are significantly more than the overall cost. When employees' needs are considered and their learning motivation is enhanced, they work harder and are more loyal to their companies. Thus, employer and employee cohesion is strengthened.

Employee satisfaction

Hoppock (1935) was the first scholar to propose the concept of employee satisfaction, which he defined as the subjective reaction or satisfaction of employees with physical and psychological aspects of their work environment. Employee satisfaction" is also called "job satisfaction" (Wang, 2005). Beer (1964) defined employee or job satisfaction as employees' attitude toward enterprises, work, colleagues and the work environment. Locke (1976) proposed the Value theory, and suggested that employee satisfaction does not refer to individual needs, but is related to individuals' wants, desires or values. If employees are well-paid, have a good work environment and promotion opportunities that meet their work values, employees will be satisfied. Schneider and Vaught (1994) indicated that employee satisfaction refers to the positive emotion employees feel after evaluating their work situation. According to Heskett et al. (1994), employee satisfaction is considered in the service profit chain, which includes internal service quality and external service quality. They emphasized that enterprises should pay attention to external customers' service quality, value internal employees' service quality, treat employees as internal customers, and thus increase employee satisfaction.

Chang (2005) provided a general definition of job satisfaction that is very similar to earlier definitions: it is the feeling or attitude of employees toward their work environment. Chang measured workers' overall satisfaction with their work by the "Minnesota Satisfaction Questionnaire" (MSQ). Jerald and Robert (1995) suggested that

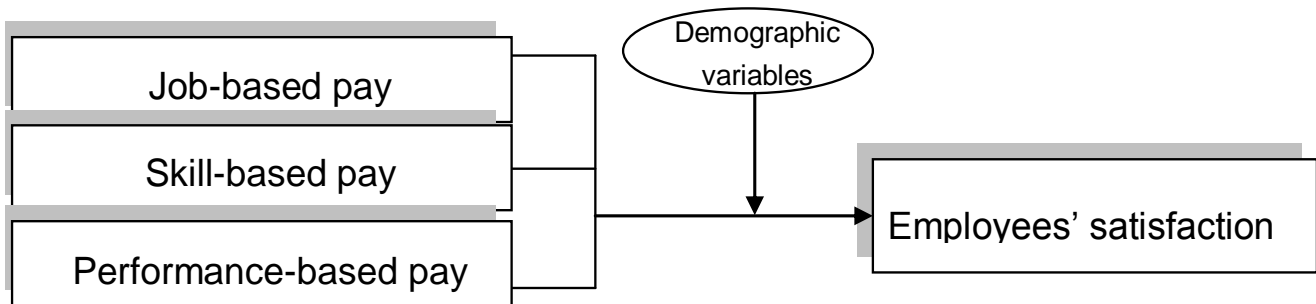


Figure 1. Compensation System Design.

Table 1. Factor analysis of compensation system design.

Names of factor	Variable	Eigen value	Factor loading	Explained variance (accumulation)	Reliability coefficient
Factor 1: job-based pay	JP03	3.486	0.871	38.541 (38.541)	0.86
	JP05		0.854		
	JP08		0.846		
	JP02		0.829		
	JP04		0.804		
	JP01		0.788		
	JP09		0.763		
	JP06		0.751		
Factor 2: skill-based pay	SP04	3.075	0.873	30.848 (69.389)	0.81
	SP01		0.862		
	SP05		0.855		
	SP02		0.834		
	SP03		0.811		
	SP06		0.794		
Factor 3: performance-based pay	PP03	2.194	0.839	15.671 (85.06)	0.83
	PP02		0.822		
	PP05		0.815		
	PP01		0.806		
	PP04		0.776		
	PP06		0.742		

that employee satisfaction refers to the general attitude of employees toward work, and that it reflects a person's work cognition, emotions and evaluations. In general, the job satisfaction of white-collar workers is higher than that of blue-collar workers; older workers have high job satisfaction than younger ones, and more experienced workers have higher job satisfaction than inexperienced ones. Interestingly, female employees' experience higher job satisfaction than male employees'. The definition of job satisfaction most often cited by scholars is the one proposed by Locke (1976): employee satisfaction is the

pleasant or positive emotion an employee feels upon evaluating his or her work (Brown and Peterson, 1993, Morrison, 1996).

Hsu (1981) provided a more nuanced definition of employee satisfaction: it is the gap between a person's expectation in a specific work environment and the actual value obtained. Fournet, Distefano and Pryer (1966) went further and suggested that the factors of job satisfaction include personal factors (that is, age, education, gender, personality traits) and work factors (that is, organization and management, pay, work safety, communication).

Table 2. Multiple regression analysis of dimensions of compensation system design on employee satisfaction.

Predictor	Non-normalized coefficient		Normalized coefficient	t value
	β estimate	Standard deviation	β distribution	
Intercept	3.751	0.284	---	7.615
Brand value	0.316	0.112	0.334	3.684**
Brand characteristics	0.158	0.065	0.188	1.469*
Brand association	0.202	0.086	0.219	2.671**

*Indicates $p < 0.05$, ** indicates $p < 0.01$.

Locke (1973) suggested that factors that determine employees' job satisfaction can be divided into two basic categories: work events and behavior. He indicated that job satisfaction is the interaction between these two elements. Work events include the work itself, compensation and the working environment; behavior includes the actors and others who move in and out of the organization. According to Shih (1991), factors included in job satisfaction include work attributes (works), pay, supervisors, partners, promotion and overall satisfaction. Wang (1999) suggested that factors influencing employee satisfaction include employees' traits, including seniority, age, educational level, level, economic capacity and organizational commitment. According to Lin (2002), the factors of employee satisfaction include pay welfare and the working environment. Tsai (2004) suggested that the factors of employee satisfaction refer to internal service quality. Finally, Chang (2005) indicated that the factors of employee satisfaction include internal marketing, gender, educational background, seniority and compensation.

Theories related to compensation system design and employee satisfaction

Psychologists divide human beings' basic needs into five levels that correspond to Maslow's "hierarchy of needs." From the perspectives of management and personnel psychology, compensation can satisfy physiological, safety and security needs, which comprise the first two levels, and also an employee's needs for social interaction, self-esteem and self actualization. Tsai (2004) suggested that if these needs can all be satisfied, employees will work at ease. Therefore, many studies argue that absence rate and job satisfaction are closely related. In order to enhance employees' job satisfaction, effective rewards (e.g., a full attendance reward and bonus) can be adopted to reduce employee absence and increase job performance.

The significant and positive correlation between compensation design and employee satisfaction (Chang, 1996) indicates that compensation is an important function in human resource management. If the design and management of a compensation system are appropriate,

enterprises will be able to attract the talents they require, motivate employees and thus keep the talents they have. In addition, they will be better able to control labor costs and fulfill governmental laws, thus increasing productivity and operational goals. Based on the arguments that have been made, this study proposes the following hypotheses:

H₁: There is a significant and positive correlation between the job-based pay of compensation system design and employee satisfaction.

H₂: There is a significant and positive correlation between the skill-based pay of compensation system design and employee satisfaction.

H₃: There is a significant and positive correlation between the performance-based pay of compensation system design and employee satisfaction.

Demographic variables

Studies on employee satisfaction demonstrate that younger employees who also have a higher educational level and income are more likely to be satisfied (Day and Landon, 1977; Zaichowsky and Liefeld, 1977; research findings of Bearden and Mason, 1984). Singh (1990) found that except for age, demographic variables do not explain power. This study considers these findings as well as previously mentioned studies in formulating the hypotheses below:

H₄: The correlation between compensation system design and employee satisfaction is significantly related to employees' gender.

H₅: The correlation between compensation system design and employee satisfaction is significantly related to employees' age.

H₆: The correlation between compensation system design and employee satisfaction is significantly related to employees' occupations.

H₇: The correlation between compensation system design and employee satisfaction is significantly related to employees' educational level.

H₈: The correlation between compensation system design and employee satisfaction is significantly related to employees' monthly income.

Table 3. The effect of different demographic variables on relationship between compensation system design and employee satisfaction.

Factors of compensation system design	Gender	Age	Occupation	Educational level	Monthly income
Job-based pay	p>0.05	p>0.05	p<0.01	p<0.01	p<0.01
Skill-based pay	p>0.05	p<0.05	p<0.05	p<0.05	p<0.05
Performance-based pay	p>0.05	p<0.05	p<0.01	p<0.05	p<0.01
Hypothesis validation	H ₄ Not supported	H ₅ partially supported	H ₆ supported	H ₇ supported	H ₈ supported

METHODOLOGY

The research framework for this study is based on the literature on the correlation between compensation system design and employee satisfaction. The overall level of employee satisfaction is the dependent variable, and the three different compensation system designs, including job-based pay, skill-based pay and performance-based pay, are the independent variables. The goal is to study the correlation between compensation system design and overall employee satisfaction.

Subjects and sampling

This study treated enterprises that received the 2010 National Outstanding SMEs Award, the highest honor for small and medium enterprises, as the targets. In this year, there were 12 outstanding enterprises selected. The research subjects were employees of these companies. By convenience sampling, 500 questionnaires were distributed, and 248 valid samples were retrieved; the valid return rate was 49.6%.

RESULTS AND ANALYSES

Factor analysis of compensation system design

The compensation system design in this study is based on the dimensions and questionnaire developed by Robbins (1992). Factor analysis shows three dimensions. Cronbach's alpha was 0.86 for job-based pay, 0.81 for skill-based pay and 0.83 for performance-based pay. After obtaining the questionnaire results, principal component analysis was conducted. Oblique rotation shows that 85.06% of the variance can be explained.

Analysis of the correlation between compensation system design and employee satisfaction

The Pearson correlation test finds that there is a significant and positive correlation between the three dimensions of compensation system design and employee satisfaction ($p<0.05$). The correlation between job-based pay and employee satisfaction is the highest (0.283), followed by performance-based pay (0.211) and skill-based pay (0.172).

Multiple regression analysis validates H₁, H₂ and H₃. The analytical result indicates that job-based pay ($t=3.684$, $p<0.01$), skill-based pay ($t=1.469$, $p<0.05$) and

performance-based pay ($t=2.671$, $p<0.01$) significantly influence employee satisfaction.

Moderating effect of demographic variables

Variance analysis reveals that age difference has a significant moderating effect on the correlation between employee satisfaction and both skill-based pay ($F=1.843$, $p<0.05$) and performance-based pay ($F=1.698$, $p<0.05$). Occupation type reveals a significant moderating effect on job-based pay ($F=2.286$, $p<0.01$), skill-based pay ($F=1.754$, $p<0.05$) and performance-based pay ($F=2.367$, $p<0.01$). Different educational levels have a significant moderating effect on the correlation between employee satisfaction and job-based pay ($F=2.5128$, $p<0.01$), skill-based pay ($F=1.856$, $p<0.05$) and performance-based pay ($F=1.694$, $p<0.01$). Finally, different monthly incomes reveal a significant moderating effect on the correlation between employee satisfaction and job-based pay ($F=3.185$, $p<0.01$), skill-based pay ($F=1.918$, $p<0.05$) and performance-based pay ($F=2.947$, $p<0.01$). Thus, H₅ is partially supported, H₆, H₇ and H₈ are supported, and H₄ is not supported.

CONCLUSIONS AND SUGGESTIONS

All enterprises encounter obstacles in management. Compensation is particularly important for intelligence-intensive industries in which talents are the core resources of enterprises and pay is important. Since pay is a sensitive issue associated with employees' benefits, enterprises are often not willing to make significant changes in this area. Even companies having pay reform tend to be conservative. Employee satisfaction relates to the compensation system design of an enterprise. Since this is the key indicator of the selection of pay strategies, it should be highly valued. Based on data analysis, this study proposes two practical suggestions regarding compensation system design:

1. Value employees' expectations: Employees' expectations refer to the general analysis of employees regarding information controlled and external information

obtained. Employees construct a basic requirement for "products" (including works, compensation and welfare) provided by enterprises and further expect certain business behavior. Employees' expectation management means that enterprises should aim to eliminate unreasonable expectations by providing satisfactory explanations of pay, working conditions, etc., and make efforts to satisfy reasonable expectations. They should also guide employees to construct effective expectations that can be fulfilled.

2. Adopt compensation system reforms that encourage internal and external equity: Compensation equity does not mean setting up an average value according to age, educational level and post. Instead, it means establishing a reasonable pay based on the overall level of the business, the development of the enterprise, an overall evaluation of posts and employees, as well as locations and overall industrial situations.

Enterprises should adopt a series of compensation system reforms, including a position evaluation technique that categorizes different positions using a stairway structure. Vertical and horizontal gaps should be pulled to allow incomes to be distributed to contributors. Compensation should be distributed according to contributions made to the enterprises, while bonuses, subsidies and welfare should be included in the pay system. The uniqueness of enterprises and departments should be fully considered to result in the maximum effect of human cost investment.

REFERENCES

- Alam GM (2009). The role of science and technology education at network age population for sustainable development of Bangladesh through human resource advancement. *Sci. Res. Essays*, 4(11): 1260-1270
- Alam GM (2009). Can governance and regulatory control ensure private higher education as business or public goods in Bangladesh? *Afr. J. Bus. Manage.*, 3 (12): 890-906.
- Ali P (2009). Job satisfaction characteristics of higher education faculty by race. *Afr. J. Bus. Manage.*, 4(5): 289-300.
- Bearden WO, Mason J (1984). An Investigation of Influences on Consumer Complaint Reports. *Adv. Consum. Res.*, 11(4):275-293
- Bier M (1993). Organizational size and job Satisfaction. *Acad. Manage. J.*, 7(1): 34 - 44.
- Brown SP, Robert AP (1993). The effect of effort on sales performance and job satisfaction. *J. Mark. Res.*, 58:70-80
- Chang SP (2005). Study on Internal Marketing, Employees' Job Satisfaction and Employees' Customer-Oriented Behavior—Using Employees of Cathay United Bank in Taichung as Subjects, master's thesis, Graduate Institute of Business Administration, National Chiayi University.
- Chu CM (1995). Study on Relationship between Pay Design Factors and Organizational Efficacy -Using Organizational Characteristic and Task Characteristic as Mediators, master's thesis, Graduate Institute of Business Science, National Taiwan University.
- Chang HT (1996). Compensation Related Theories and Model. *Hum. Resour. Manage.*, 371: 17-23.
- Day RL, Landon EL (1977). *Toward a Theory of Consumer Complaining Behavior*, in Consumer and industrial Buying Behavior, Archwoodside, Jagdish Sheth and Peter Bennett, eds. Amsterdam: North Holland Publishing Company Press.
- Fournet G, Distefano PMK Jr, Dryer MK (1996). Job Satisfaction: Issues and Problems. *Pers. Psychol.*, 19(2): 165-183.
- Henderson RI (1979). *Compensation Management, Rewarding Performance*, Reston, Viginia: Reston Publishing Co.
- Heskett JL, Tomas OJ, Gary WL, Earl SW Jr, Leonard AS (1994). Putting the service profit chain to work, *Harv. Bus. Rev.*, 72(2): 164-174.
- Hoppock R (1935). *Job Satisfaction*, N.Y.: Harper and Brother.
- Hu HF (1993). Study on Technical Personnel's Compensation Satisfaction and Factors, master's thesis, Graduate Institute of Business Administration, National Sun Yat-sen University.
- Huang YC (1997). *Modern Human Resource Management*, Taipei: Hua Ta Books.
- Hughes CL, Wrght WL (1989). Make Pay Plan Work For The People They Pay. *Pers. J.*, 68(5): 54-61.
- Jerald G, Robert AB (1995). *Behavior Organizations: Understanding and Managing the Human Side of Work* 5th ed., Prentice-Hall International, Inc,
- Lin CH (1999). *Fundamentals of Management*. Taipei: Hua Tai (trans.) (by S. P. Robbins & D. A. De Cenzo).
- Lin SY (2002). Correlation Study on Employees' Performance and Employees' Satisfaction -Using One Electronic Company as an Example, master's thesis, Graduate Institute of Industrial Engineering, Chung Yuan Christian University.
- Lin WH (2000). Study on Influence of Compensation System and Organizational Climate on Job Satisfaction and Job Performance, master's thesis, Graduate Institute of Industrial Engineering, Da Yeh University.
- Locke EA (1973). Satisfactors and Dissatisfactors among White Collar and Blue Collar Employee. *J. Appl. Psychol.*, 58: 67-76.
- Morrison KA (1996). An empirical test of a model of franchisee job satisfaction. *J. Small Bus. Manage.*, 34(3): 27-41.
- Ponnu CH, Chuah CC (2010). rganizational commitment, organizational justice and employee turnover in Malaysia. *Afr. J. Bus. Manage.*, 4(13): 2676-2692.
- Schneider DS, Babby CV (1994). A comparison job satisfaction between public and private sector managers. *Publ. Adm. Q.*, 17(1): 68-83.
- Shih P (1991). Study on Employees' Job Satisfaction, Job Involvement and Turnover Intention, master's thesis, Graduate Institute of Social Studies, National Chengchi University.
- Singh J (1990). A Typology of Consumer Dissatisfaction Response Style. *J. Retail.*, 66(1): 57-99.
- Tsai JH (2004). Study on Influence of Business Internal E-Service on Employee Satisfaction -Using IC Packing & Testing Industry in Nanzih Export Processing Zone as an Example, master's thesis, Graduate Institute of Business Administration, National Sun Yat-sen University.
- Wang WY (1999). Empirical Study on Organizational Knowledge Management - Using Chain System in Taiwan as an Example, master's thesis, Graduate Institute of Business Administration, National Yunlin University of Technology.
- Wang YY (1998). Correlation Study on Manufacturing Industry Employees Compensation System, Compensation Satisfaction and Organizational Commitment, master's thesis, Graduate Institute of Industrial Engineering Management, Tung Hai University.
- Zaichowsky J, Liefeld J (1977). *Personality Profiles of Consumer Complaint Writers, Consumer Satisfaction, Dissatisfaction and Complaint Behavior*, Bloomington: Indiana University Press.