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Impact of Total Rewards on Animation Employees' Engagement

HUANG Zhijian^{[a],*}; NING Tianshu^[a]^[a]Management Department, Shenzhen Polytechnic, Shenzhen, China.

*Corresponding author.

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Abstract

The researchers examine the impact of total rewards on engagement by multiple regression analysis in this paper. The sample for the study is 800 animation employees in South China. SPSS17.0 and AMOS18 are used in exploratory factor analysis and confirmatory factor analysis. The study proves that: (a) Total rewards are a multi-hierarchical and multi-dimensional construct which includes 7 first-order factors and 4 second-order factors. (b) Challenging working environment, appreciation and recognition, promotion opportunity and individual variable pay have significant positive impacts on employee engagement, and the contribution rate are 42.0%, 11.6%, 1.4% and 0.9% respectively. (c) Individual fixed salary, collective salary and spiritual rewards have no significant positive impacts on employee engagement. The study has further enriched the theories of total rewards and employee engagement and has provided the theoretical basis and empirical evidence supports to the management of the animation companies for them to carry out the incentive programs to the employees.

Key words: Animation companies; Employee; Total rewards; Employee engagement; Relationship

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1. RESEARCH QUESTIONS

Animation is an important part of the cultural industry, known as the most potential industry in the 21st century, with great market. According to the statistical data made by China Comic (<http://www.comic.gov.cn/>), the number of animation employees needed has exceeded 500,000 in the year 2010, whereas the total number of employees in this industry is less than 200,000. Under the situation of lacking of skilled personnel in animation industry in China, the industry still remains in the stage of motivating the employees by offering material incentives, especially the money. China's animation industry is now facing two major challenges: "insufficient incentives" and "incentives failures". Total rewards, as a new form of reward system, not only is good for the animation companies to reduce the cost of production and management and to maximize mobilizing the personnel's initiatives, but also is conducive to promoting the relationship between the enterprise and its employees, changing from that of merely employment to that of "win-win" which is interdependent and mutual commitment. And this is the inevitable choice for the animation companies in China in terms of management and employee motivation.

Employee engagement is one of the important factors affecting the organizational performance. Jack Welch once said that any company who wants to win in the competition must try to make its employees dedicated to the company. Though employment engagement is so important, the related literature showed that the academic circles still have different ideas regarding employment engagement theory. The study on the relationship between different ways of compensation and employee engagement still remains blank.

In order to provide theoretical basis and empirical evidence for Chinese animation companies to better implement the total rewards system and promote

employee engagement, the paper puts different models of compensation into the whole framework of the total rewards system. Based on the survey made to 800 employees from 80 animation companies from Guangdong China, exploratory and confirmatory factor analyses are used to test the reliability and validity of the questionnaire, and multiple regression analysis is also adopted to investigate the relationship between the total rewards and employee engagement in animation industry.

2. THEORIES AND HYPOTHESIS

In the mid-1980s, it was the American scholars who first put forward the concept of total rewards, and then many compensation experts paid full attention to total rewards, who had analyzed the problem of compensation and motivation of the work force from different aspects, such as pay, benefits, career development, interesting work, social interaction and effective work/life integration. However, considering the factor of management contingency, compensation management experts said that until now there exists “no best way” to conceptualize and implement total rewards (O’Malley & Dolmat-Connell, 2003; Kantor & Kao, 2004). Using the method of dichotomy, Gerhart & Milkovich (1993) classified the rewards according to the commonly used categories: intrinsic rewards and extrinsic rewards, monetary rewards and non-monetary rewards, individual rewards and collective rewards as well as fixed rewards and variable rewards. Chen, Ford & Farris (1999) thought that there are many overlapping parts in Gerhart and Milkovich’s classification of compensation models, proposing that classification be intrinsic rewards, extrinsic financial rewards and extrinsic non-financial rewards. These 3 types of rewards are subdivided into: intrinsic rewards, individual rewards, collective rewards, symbolic rewards, appreciation and recognition and promotion opportunities. Kochanski & Ledford (2003) classified the total rewards into 5 categories, which are work content, affiliation, direct financial rewards, indirect financial rewards and occupation. This research utilizes the ideas of Chen, Ford & Farris (1999) for reference and analyzes the results based on the exploratory factors. The relationship between the total rewards and employee engagement is analyzed from 7 perspectives: challenging work environment, individual fixed rewards, individual variable rewards, collective rewards, spiritual rewards, appreciation and recognition and promotion opportunities.

“Challenging work environment” is considered to be the important factor affecting employee engagement (Oldham & Cummings, 1996). The research of Hackman & Oldham (1980) has shown that complexity of the work has significant positive impact on employee engagement; Farh (1990) believes that the challenge of the work is the

primary factor affecting employee engagement; according to Chen, Ford & Farris (1999), working with competitive colleagues is beneficial to improve employee engagement; Song’s research states that the challenge of the work has significant positive impact on employee engagement (2008). In summary, the study proposes the following hypotheses:

H1: Challenging work environment has significant positive impact on employee engagement

Extrinsic financial compensation has all the time drawn the attention from the academic circles. Scholars have not yet reached an agreement on the relationship between individual fixed rewards and employee engagement. According to Kim & Oh (2002), Reis (1991, pp.123-131) and Song Renxiu (2008), individual fixed rewards has a positive impact on employee engagement; whereas Kochanski & Ledford (2003), James (2002), Medcof & Rumpel (2007) and Wang Ran (2007) state that individual fixed rewards does not have significant impact on employee engagement, which has been recognized by most of the scholars, as it complies with the basic principles of the two-factor theory. As for individual variable rewards, all the above mentioned scholars agreed that it has significant positive impact on employee engagement. As for the collective rewards, Reis (1991, pp.123-131) stated that it would help allocate the rewards within the units or within the teams with an equal way, thus eliminating employees’ psychological gap, which could help improve employee engagement. This view has also been supported by Kim & Oh (2002) and Diaz (1997). To sum up, we put forward the following hypotheses:

H2: Individual fixed rewards does not have significant impact on employee engagement.

H3: Individual variable rewards has significant positive impact on employee engagement.

H4: Collective rewards has significant positive impact on employee engagement.

The major difference between extrinsic non-financial rewards and extrinsic financial rewards lies in that the former is invisible and symbolic, representing social-emotional value whereas the latter is invisible, representing money or other material rewards (Martin & Harder, 1985). Chen, Ford & Farris (1999) state that spiritual rewards such as public recognition, presenting some gifts (such as meal tickets and film tickets), individual performance exhibition could well inspire employees’ enthusiasm; Ledford (2003) and Wen Panxin (2008) ’s study also confirms that spiritual rewards has positive impact on employee engagement. Kochanski & Ledford (2003), Wang Ran (2007) and Leng Mei (2007) consider that appreciation and recognition have positive impact on employee engagement. China Human Resources Development Network (<http://www.chinahrd.net/>) had done a survey to 1382 employees in 2005 and

the results show that recognition that the companies have for their employees could much help improve employee engagement than what the salaries and benefits could do. Study made by Cordero & DiTomaso (1994), Kochanski & Ledford (2003), Zha Songcheng (2007) and Song Renxiu (2008) also show that promotion opportunities have positive impact on employee engagement. To sum up, we put forward the following hypotheses:

H5: Spiritual rewards has positive impact on employee engagement.

H6: Appreciation and recognition have positive impact on employee engagement.

H7: Promotion opportunities have positive impact on employee engagement.

3. DESIGN OF THE STUDY

3.1 Definition and Measure of the Variables

In order to ensure the reliability and validity of the survey, this study adopts and modifies the well-recognized scales. A pre-survey was made to the employees from some animation companies before the questionnaire are finalized. Pre-survey was made to evaluate the design of the questionnaire and the accuracy of the words, and then the questionnaire would be modified based on the opinions and suggestions given by the experts.

The scales from the study of Chen, Ford & Farris (1999) have been modified to measure the total rewards. The original scales comprise of 6 first-order factors and 3 second-order factors, making all together 23 items. The 6 first-order factors are: intrinsic rewards, which refers to the personal experiences the job brings to the employees, such as job autonomy and work challenging; individual rewards, which refers to the cash value return basing on individual performance, such as salaries and bonuses; collective rewards, which refers to the cash value return basing on team performance, such as team bonuses; symbolic rewards, which refers to the rewards or encouragement given from the spiritual level, such as praises and offering small gifts; appreciation and recognition, which refers to the recognition made according to the employees' professional skills and abilities, such as patent and academic articles; and promotion opportunities, which refers to the opportunities for the employees to further development, such as job promotion and professional title promotion. The 3 second-order factors are: intrinsic rewards, which is the same as that in the first-order factors, extrinsic rewards, which includes individual rewards and collective rewards, and extrinsic non-financial rewards, which includes symbolic rewards, appreciation and recognition and promotion opportunities. Modifications were made to the scales without changing the structures of the scales, with 24 items altogether.

The measurement of the employee engagement directly adopts Zha's (2007) scales, with 3 factors, namely organizational identity, referring to the consistency between the behavior and ideas of the employees and the organization; job involvement, referring to the employees' commitment to and involvement in the organization, as well as the positive impact on organizational performance through their hard work; and sense of the value of the work, referring to the self-judgment on the possibility-achieved performance and satisfaction towards the work return, with 17 items altogether.

3.2 Study Sample

The survey was made from March to May in 2011, with the respondents being the employees from 80 animation companies from 7 cities of Guanagzhou, Shenzhen, Zhuhai, Dongguan, Zhongshan, Xiamen and Fuzhou. 800 questionnaires were issued, among which 512 are valid ones, with the effective rate 64.0%. Based on the suggestions made by Feng Xiaotian (2008), the number of samples has reached the level of medium scale of investigation, which is appropriate and convincing.

3.3 Statistical Processing

SPSS17.0 and AMOS18 are used to analyze and process the data. 512 valid questionnaires were split into two halves at random, with the first half used for exploratory factor analysis to set up and improve the theoretical model, and with another half used for confirmatory factor analysis to testify the rationality of the theoretical model. Then SPSS17.0 is used in correlation analysis and multiple regression analysis.

4. RESULTS AND ANALYSIS

4.1 Reliability of the Questionnaire

Internal consistency and test-retest are used for reliability test. Division of the factors and items included in every factor are subject to the results of the exploratory factor analysis.

4.1.1 Exploratory Factor Analysis

In order to testify whether the data are suitable or not for making exploratory factor analysis, sampling adequacy test was first made for sample data. The sampling adequacy Kaiser-Meyer-Olkin value were 0.92 and 0.929 respectively (greater than 0.8), and the Bartlett sphericity test p-value is 0.000 (less than 0.001), which shows that the items of the 2 variables have the possibility of sharing factors. It is appropriate to make the factor analysis. Exploratory factor analysis in this study adopts the methods of main-elements analysis and oblique rotation method to extract the factors. Factor analysis takes eigenvalue being greater than 1 as its basic principle to extract the factors. Factor analysis is supplemented by the rate of interpretation and steep-order test to determine the

number of the items. The criteria for deleting the items are (a) The maximum load is less than 0.4; (b) Joint degree is less than 0.3; (c) Cross-load is greater than 0.15 (Bi Zhongzeng, Huang Xiting, 2009).

First, factor analysis was made to total rewards. After the first-order analysis was made, 2 items which are not up to the criteria were eliminated, with the remaining 22 items belong to 7 factors. This could explain 49.87% of the variations, and the factor load of each item is between 0.41-0.79. With the proposals made by the experts, 7 factors have been named respectively as challenging work environment, individual fixed rewards, individual variable rewards, collective rewards, spiritual rewards, appreciation and recognition and promotion opportunities. Then second-order factor analysis was made to the 7 first-order factors. The value of the first-order factors are the total score of the corresponding items. 4 second-order factors were obtained, explaining 61.54% of the total variation. The factor load is between 0.52-0.81. The 4 second-order factors have been named respectively as challenging work environment, compensation, spiritual rewards and recognition and promotion.

At last, factor analysis was made to employee engagement. The results show that the original scale matches perfectly with the survey data, with no need to eliminate any single item. There exist no changes for the structures of the scales and the distribution of the items. 3 factors could explain 65.61% of the variations, with the factor load being between 0.56-0.82.

4.1.2 Reliability Analysis

Cronbach's α coefficient is used to test internal consistency reliability, and the test-retest reliability is made to retest the 30 animation employees after one month. In the exploratory study, if Cronbach's α coefficient is higher than 0.7, it will be better. In practice,

if α coefficient could read 0.6, it is acceptable (Lin, 2007). Table 1 shows that both the reliability and the test-retest reliability of the questionnaire are higher than 0.7, stating that the questionnaire has good internal consistency and time-spanning stability.

4.2 Validity of the Questionnaire

4.2.1 Content Validity

In this study, three measures have been taken to ensure the validity of the questionnaire: (1) Questionnaires are based on the scales proposed by the experts from home and abroad; (2) Judgement about the compliance between the items and the range of content in the questionnaire was made by 3 management professors from the universities and 3 experts from HR departments from the animation companies; (3) Trial survey was made before the formal one, making the questionnaire easily-understood, applicable and being in accordance with theoretical assumptions.

4.2.2 Construction Validity

AMOS18 was used to set up measurement model and to make the confirmatory factor analysis (CFA). Construction of validity was testified through the fit index of the model. Sharma, Mukherjee, Kumar, & Dillon (2005) suggested that the main fit index of CFA includes Chi-square value (χ^2), degrees of freedom (df), ratio of Chi-square to degrees of freedom (χ^2/df), significance level (p), root mean square error of approximation (RMSEA), comparative fit index (CFI), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), normed fit index (NFI), Tucker-lewis index (TLI) and residual mean square and square (RMR). The critical values are: as for χ^2 , the smaller the better; but as χ^2 is relevant to the sample size, the bigger the sample size, the bigger χ^2 .

Table 1
Reliability Coefficient of the Questionnaire

	Total rewards								Engagement							
	First-order factors				Second-order factors				Scale	Factors			Scale			
	F1	F2	F3	F4	F5	F6	F7	f1	f2	f3	f4	Total	F8	F9	F10	Total
A coefficient	0.72	0.85	0.93	0.91	0.93	0.82	0.87	0.75	0.95	0.83	0.88	0.92	0.91	0.88	0.90	0.93
Test-retest coefficient	0.80	0.88	0.95	0.95	0.96	0.87	0.90	0.85	0.96	0.89	0.93	0.93	0.96	0.92	0.93	0.95

Table 2
Results of Confirmatory Factor Analysis (N = 256)

Fit index	χ^2	df	χ^2/df	p	RMSEA	RMR	CFI	GFI	AGFI	NFI	TLI
Total rewards	511.4	215	2.379	0.000	0.050	0.039	0.955	0.927	0.906	0.925	0.947
Engagement	260.4	112	2.325	0.000	0.049	0.032	0.973	0.948	0.928	0.954	0.967

Table 3
Results of Multiple Regression Analysis of Total Rewards to Engagement

Variables	Dependent variable: Engagement				
	Model 1	Model 2	Model 3	Model 4	
				β	B
Challenging work environment	0.649***	0.492***	0.443***	0.448***	0.361***
Appreciation and recognition		0.374***	0.171***	0.253***	0.168***
Promotion opportunities			0.171***	0.157***	0.106***
Individual variable compensation				0.102**	0.085**
F	400.958***	319.150***	225.176***		174.769***
R ²	0.420	0.536	0.550		0.559
ΔR^2	0.420***	0.116***	0.014***		0.009**

(*P < 0.05 Bilateral test **P < 0.01 Bilateral test ***P < 0.001 Bilateral test)

So judgement cannot be made only basing on the size of x^2 , whereas x^2/df should be given consideration. Generally speaking, x^2/df should be smaller than 5, and it would be much better if it is smaller than 3.; p-value reached significance level of 0.05; RMSEA is smaller than or equal to 0.08, and it would be much better if it is smaller than or close to 0.5, with RMR smaller than 0.05; other index such as CFI, GFI, AGFI, NFI and TLI are all bigger than or equal to 0.9. Model based on the above is considered to be the ideal model. Table 2 shows that all the fit index of the model has met the relevant standards and the structure of the model fits well with the survey data. So the questionnaire for this study has got good construction validity.

4.3 Interactions Among the Variables

SPSS17.0 is used in multiple regression analysis, investigating the interactions among the variables, with the results shown in Table 3. The regression coefficient of the first three models is standardized coefficients β . The last model lists both the standardized coefficients β and the unstandardized coefficients B, with R² unadjusted.

Results of multiple regression analysis show that variables entering the models one after the other include challenging work environment, appreciation and recognition, promotion opportunities and individual variable rewards. Individual fixed rewards, collective rewards and spiritual rewards did not enter into the model. The correlation coefficients of the 4 variables to engagement are 0.361, 0.168, 0.106 and 0.085 respectively. The first 3 have measured up to 0.001 significance level, and the latter one has also measured up to 0.01 significance level. The contribution rate to engagement are 42.0%, 11.6%, 1.4% and 0.9%

respectively, with accumulated contribution rate being 55.9%. Thus hypotheses H1, H2, H3, H6 and H7 have received support, whereas hypotheses H4 and H5 did not get support.

5. CONCLUSIONS AND DISCUSSION

Study found that: (a) total rewards includes 7 first-order factors as challenging work environment, individual fixed rewards, individual variable rewards, collective rewards, spiritual rewards, appreciation and recognition and promotion opportunities, and 4 second-order factors as challenging work environment, compensation, spiritual rewards and recognition and promotion; (b) 4 types of compensation, ie. challenging work environment, appreciation and recognition, promotion opportunities and individual variable rewards, have significant positive impact on animation employee engagement, with contribution rates as 42.0%, 11.6%, 1.4% and 0.9% respectively; (c) individual fixed rewards, collective rewards and spiritual rewards have no significant impact on animation employee engagement.

The study has further enriched the theories of total rewards and employee engagement in the following aspects: (a) Different models of rewards are put within the overall framework of total rewards with which the interaction between them is analyzed. That can be considered as the innovation for the study of total rewards and employee engagement. (b) The results state that total rewards consists of 7 first-order factors and 4 second-order factors, which shows great differences with the previous study and with the views of Chen, Ford & Farris (1999). (c) In this study, challenging work environment, appreciation and recognition, promotion opportunities and

individual variable rewards have significant impact on employee engagement, whereas individual fixed rewards has no significant impact on employee engagement. These results are consistent with those of most scholars. (d) The study shows that collective rewards and spiritual rewards have no significant impact on employee engagement, which is quite opposite with the ideas of Chen, Ford & Farris (1999), Lester & Kickul's (2001), Kim & Oh (2002), Diaz (1997), Bill (2008), Wen panxin & Wang Fen (2008) . But these are not conflicting conclusions, instead it is due to the fact that there exist differences in terms of research situation and features of respondents of study. So the conclusions of the study can be considered as supplementary to the theories of total rewards and employee engagement.

The results of the study provide theoretical basis and empirical evidence supports to the management of the animation companies for them to carry out the incentive programs to the employees. (a) Employee engagement should be improved through creating the challenging work environment. At present, most animation companies in China are faced with embarrassing situations, with losses and supports from government policies. It is not realistic to incentive the employees by relying too much on financial rewards. The results of the study show that challenging work environment has significant impact on employee engagement, and at the same time the contribution rate of employee engagement is 42.0%. So the animation employees should be offered the work tasks with great challenges and be motivated. Research and development should be throughout the whole career of the animation employees, who should be provided with a research environment full of technological challenges, helping them grasp the latest knowledge and skills about animation industry. A good competition atmosphere is of great importance which could help the employees maintain high engagement in the healthy competition. (b) Among the 4 factors affecting animation employee engagement, appreciation and recognition ranks second, with the contribution rate of employee engagement being 11.6%. So the advantages and strengths of animation employees should be well recognized and approved, and encouragement and rewards should be given for the achievements made in terms of technological innovation and patent obtaining. Opportunities should be created for the outstanding employees to share their experiences with others. (c) More opportunities should also be created for the animation employees to improve their professional titles and management positions as a kind of motivation. (d) In terms of financial compensation, different modes of variable rewards, such as bonus, allowance and even the material rewards based on performance, are adopted to improve employee engagement.

The limitations of the study lie in 2 aspects: (a) Data for the study was collected through questionnaires and the questionnaires had been answered by the same respondent, which inevitably led to certain kind of homologous variance. Various kinds of survey tools should be used in future study, such as having respondents from different levels (leaders, colleagues) filling out the same questionnaire. (b) As cross-section method was adopted for the study, the conclusion (especially the causal relationship among the variables) did not undergo the test of time, which suggests the adoption of longitudinal method for the future study under conditions permitting.

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