

Analysis on the Influencing Factors of Construction Employee Well-being: Based on the Survey of the China State Construction

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Keywords: Employee Well-being, Influencing Factors, Countermeasures.

Abstract. Employee well-being has an important impact on improving working enthusiasm and enhancing the competitiveness of enterprises. This paper investigates about 70000 employees in the China State Construction (CSCEC), which is one of the largest construction groups in the world, to explore the influencing factors of employee well-being in construction industry. The results show that the first-level indicators such as occupational health insurance, work-life balance, work treatment, post work, career development, and realization of professional value, all of these have a positive impact on employee well-being. In addition, the impact of each secondary indicator on employee well-being is different. On this basis, we can put forward some suggestions, such as perfecting scientific and reasonable salary and welfare, adopting differentiated incentives and helping employees meet the self-worth, so as to provide reference for other construction enterprises.

Introduction

With the deepening of the scientific management theory, scholars have found that the tremendous work pressure making the well-being of employees gradually decrease, which directly affects the management effect of enterprises and the enthusiasm of employees. In order to effectively manage enterprises, scholars began to explore employee well-being in depth, such as evaluating employee well-being and analyzing its influencing factors, trying to improve the enthusiasm of employees, the sense of happiness in work, then enhance the competitiveness of enterprises from a scientific point of view [1,2]. As a model of the development of China's construction industry, the CSCEC has gradually found the importance of employee well-being in enterprise management. In view of this, this study takes the CSCEC as an example, carries out questionnaires on the employees, and takes the findings as inspiration to provide reference for other enterprises in the construction industry.

Research Object and Research Method

Research Object

This study uses stratified sampling method, selects employees in the CSCEC as the sample, distributes and collects questionnaires online. A total of 70,000 questionnaires were sent out and 59,643 valid questionnaires were collected, with an effective recovery rate of 85.20%.

Research Tool

This study uses the self-compiled "China Construction Employee Well-being Index Questionnaire", which draws on the relevant research of Burke [3], Warr [4] and others, then adjusts according to the characteristics of construction industry and the CSCEC.

There are four parts in this questionnaire. The first part is the background information of the respondents. Including basic information such as gender, marital status, age, employment time, educational level, positions and working areas; the second part is the requirements of filling out questionnaires; the third part contains nine categories of 66 questions, in turn: occupational health security, work-life balance, salary and welfare, work conditions, self-work, career development,

interpersonal relations, cultural identity, career value realization. The fourth part is the comprehensive evaluation; these two parts adopt the five-point scoring method, according to the importance from low to high, the order is 1 to 5.

Research Procedure

This study uses SPSS17.0 to analyze the data. Firstly, we test the reliability and validity of the data; the results are shown in Table 1 and Table 2:

Table 1, Cronbach's alpha of the questionnaire

Items	Number	Cronbach's a
Employee well-being Index in the CSCEC	66	0.985

Table 2, KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling		.992
Bartlett's Test of Sphericity	Approx. Chi-Square	3350932.523
	df	2145
	Sig.	.000

According to the data, the Cronbach's α is $0.985 > 0.80$, which has high reliability. Secondly, using the KMO and Bartlett's Test, the correlation degree of variables was analyzed. The KMO value was $0.992 > 0.80$, and the sig. was $0.000 < 0.0025$, which indicated that the differences among variables were significant. This questionnaire is suitable for follow-up analysis.

Research Results

Distribution of Employee Well-being in the CSCEC

After sorting out the data, we can find out the overall distribution of the well-being, including 15585 people who feel very happy, accounting for 26.1%; 26343 people who feel relatively happy, accounting for 44.2%; 13783 people who feel generally, accounting for 23.1%; the cumulative proportion of the three categories is 93.4%. Therefore, it can be seen that the overall well-being of the CSCEC is high, and the specific data are shown in Table 3:

Table 3, Distribution of Employee Well-being in the CSCEC

Employee	Frequency	Rate (%)	Cumulative Rate (%)
Very Happy	15585	26.1	26.1
Relatively Happy	26343	44.2	70.3
Generally	13783	23.1	93.4
Less Happy	2227	3.7	97.1
Very Unhappy	1705	2.9	100.0
Total	59643	100.0	
Average		3.87	

Analysis of the Impact of first-level indicators on Employee Well-being

Based on the other research, this paper intends to take employee well-being as dependent variable, and to analyze six independent variables: occupational health insurance, work-life balance, work treatment, post work, career development, and realization of professional value. Firstly, the correlation analysis is carried out, and on this basis, we do regression analysis. It is found that the six indicators have a significant positive correlation with the overall employee well-being. The specific results are shown in Table 4 and Table 5:

Table 4, Coefficient between indicators and well-being

	Occupational health insurance	Work-life balance	Work treatment	Post work	Career development	Realization of professional value	Well-being
Occupational health insurance	1	-	-	-	-	-	-
Work-life balance	.709**	1	-	-	-	-	-
Work treatment	.726**	.842**	1	-	-	-	-
Post work	.544**	.620**	.646**	1	-	-	-
Career development	.682**	.770**	.869**	.710**	1	-	-
Realization of professional value	.655**	.740**	.819**	.687**	.899**	1	-
Well-being	.557**	.668**	.684**	.507**	.668**	.679**	1

Table 5, Regression analysis of indicators on well-being

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.422	.018		24.059	.000
	Occupational health insurance	.041	.005	.037	8.602	.000
	Work-life balance	.271	.006	.254	46.299	.000
	Work treatment	.201	.008	.176	25.285	.000
	Post work	.025	.006	.017	4.154	.000
	Career development	.039	.010	.031	4.030	.000
	Realization of professional value	.365	.008	.307	46.563	.000

Analysis of the Impact of Secondary Indicators on Employee Well-being

In order to improve the employee well-being more pertinently, we further analyzed the correlation between secondary indicators and well-being. We analyzed from two aspects: importance and satisfaction. The results are shown in Table 6 and Figure1:

Table 6, Coefficients table

Secondary Indicators	Scores	Coefficients	Secondary Indicators	Scores	Coefficients
Work control	3.68	0.610**	Family care	3.09	0.601**
Career growth	3.49	0.633**	Off-site work	3.11	0.600**
Team culture	3.72	0.645**	Corporate value	3.87	0.632**
Salary	3.25	0.644**	Self value	3.67	0.635**
Work conditions	3.65	0.610**	Social value	3.64	0.644**
Welfare	3.46	0.644**	Post recognition	4.01	0.507**
Conflict management	3.47	0.622**	Health guarantee	3.86	0.477**
Work overtime	3.36	0.610**	Health promotion	3.55	0.527**

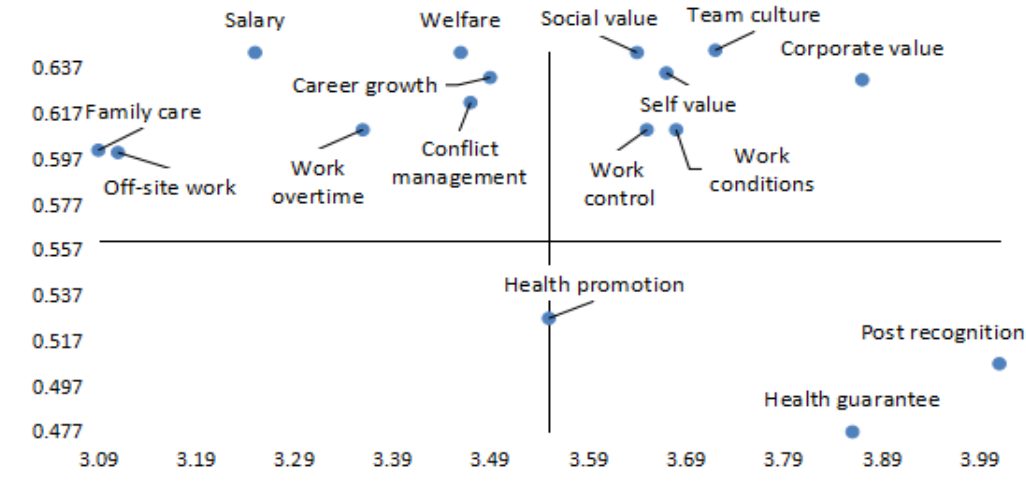


Figure 1, Coefficient chart

Through Figure 1, the indicators located in the first quadrant, and has high correlation with well-being, which is the competitive advantage of employee well-being in the CSCEC; the indicators located in the second quadrant, it has the highest correlation with the well-being, but these are the weakness of employee well-being in the CSCEC and need to be improved. The indicators located in the fourth quadrant, the correlation with the well-being is lower, need to be maintained.

Difference Analysis Based on Demographic Variables

Based on the data, we do a variance analysis, the results shown in Table7:

Table 7, Variance Analysis of Dimensions Based on Positions

		N	Mean	standard	F	Sig.
Occupational health insurance	Senior leadership	6939	3.8609	.79390	82.70	0.00
	Middle leadership	10387	3.7823	.79969		
	Staff	42317	3.7300	.83296		
	Total	59643	3.7543	.82391		
Work-life balance	Senior leadership	6939	3.2278	.86290	17.33	0.00
	Middle leadership	10387	3.2220	.84440		
	Staff	42317	3.2696	.85779		
	Total	59643	3.2565	.85631		
Work treatment	Senior leadership	6939	3.4652	.78193	14.21	0.00
	Middle leadership	10387	3.4043	.78257		
	Staff	42317	3.4433	.80356		
	Total	59643	3.4390	.79762		
Post work	Senior leadership	6939	4.1075	.59176	168.01	0.00
	Middle leadership	10387	4.0538	.59275		
	Staff	42317	3.9788	.62216		
	Total	59643	4.0068	.61536		
Career development	Senior leadership	6939	3.8890	.68803	73.76	0.00
	Middle leadership	10387	3.7905	.70029		
	Staff	42317	3.7757	.73032		
	Total	59643	3.7915	.72123		
Realization of professional value	Senior leadership	6939	3.8628	.71816	133.02	0.00
	Middle leadership	10387	3.7781	.73505		
	Staff	42317	3.7106	.78184		
	Total	59643	3.7400	.76838		

The results show that there are differences in six dimensions of occupational health insurance, work-life balance, work treatment, post work, career development, and realization of professional value. Besides the work-life balance, the overall well-being of male employees is higher than the female. Based on the segments, the score of real estate development is the highest, the score of survey and design is the lowest, and the other units have relatively little difference. For positions, the well-being of senior leadership is higher than other employees on average, except in terms of work treatment and work-life balance.

Conclusion and Countermeasures

Perfect Scientific and Reasonable Salary and Welfare

Salary and welfare are the basic guarantee for employees. The research shows that the salary and welfare of the CSCEC are in the second quadrant, which has the highest correlation with the overall well-being. To formulate a scientific and reasonable salary system is the basic need for employees in enterprises [5]. A scientific and reasonable salary level can motivate employees; stimulate their enthusiasm, which is conducive to improving of enterprises.

In addition to basic salaries, enterprises can also regulate their own welfare policies. Taking into account the personal and family conditions of employees, enterprises can give basic employees such as insurance and housing fund, overtime allowance, reward vacation, flexible work-time, relatives care and so on. In today's high work intensity, it's hard to balance family and work. Employees will spend less time at home because of long-term work [6]. This situation will lead to emotional friction between employees and families, and reduce the subjective well-being of employees. Enterprises can make some reasonable work plans, reduce work pressure, improve the efficiency of employees, and increase the time spent with their families, which can improve the employee well-being.

Adopt Differentiated Incentives

The implementation of effective management in enterprises cannot be separated from the consideration of employees and the analysis of each individual. The management of enterprises needs pertinence in order to achieve more efficient results. In the analysis of the results, it is found that there are individual differences in employee well-being. There are differences in perception and experience of employee well-being in gender, segments and positions [7]. There are also differences in their needs for job achievements or material rewards [8]. Therefore, in the process of implementing management reform, we need respect this difference so as to improve the efficiency of management.

In the strategy formulation, we adhere to the basic principle and grasp the differentiated information of employees. Therefore, according to the characteristics of different departments, we can investigate the growth mechanism, social capital, individual characteristics and organizational atmosphere of employees in different departments, and then grasp the factors that employees care most about in their work, and know under what circumstances employees feel the most accomplished and happy. Based on these, the research is compiled to provide reference for employee development.

On the basis of research materials, the differentiated employee growth mechanism can be formulated. For the actual situation of employees, understand their external needs and internal motivation, adopt targeted staff growth mechanism, stimulate the enthusiasm and responsibility of employees, and pay attention to the growth needs of employees. At the same time, let all employees understand the differentiated employee growth mechanism, stimulate employees to imitate, then imperceptibly promote employees experience, promote the employee well-being.

Help Employees Meet the Self-worth

Previous studies have shown that the employee well-being is also affected by the self-realization. In this paper, we found that the secondary indicators, such as work control, self-value realization and social value expression, are all in the first quadrant, which are highly correlated with the overall well-being. Therefore, it can be concluded that enterprises can improve the well-being by improving

their sense of work achievement, so as to take maximum benefits to enterprises. Maslow's demand theory develops human needs from low level to high level, which is divided into five categories: the low level needs include physiological, security and social needs, while the high level needs include the needs of respect and self-realization. According to the theory, only when employees satisfy low-level needs can they pursue higher-level needs [9]. As a large enterprise, the CSCEC has basically met the low-level needs of employees. Therefore, the CSCEC should take other incentives to meet the high-level needs of employees, so that employees feel respected and enhance self-realization.

Enterprises can help employees achieve self-value through several aspects: first, trust their employees, delegate more responsibilities to them, and give them more space to play freely, so as to improve their enthusiasm subjectively [10]. Of course, the premise of the distribution between responsibility and power is the ability of employees. Excessive responsibility and power will reduce the well-being of employees. Second, enterprises can satisfy employee's needs by making career planning. In order to meet the needs of employees, enterprises help employees to formulate a set of career planning strategies matching their own development strategies, which can maximize the potential of employees and improve their loyalty; in addition, enterprise can also motivate employees by setting challenging and achievable goals in order to bring long-term and stable results.

Acknowledgement

This research was financially supported by the National Natural Science Foundation of China (NO.71802005) and the Beijing Social Science Foundation (NO.17GLC068).

References

- [1] Ilies R, Aw S S Y, Pluut H. Intraindividual models of employee well-being: What have we learned and where do we go from here?[J]. *European Journal of Work & Organizational Psychology*, 2015, 24 (6): 827-838.
- [2] Mellor N J, Ingram L, Huizen M V, et al. Mindfulness training and employee well-being[J]. *International Journal of Workplace Health Management*, 2016, 9 (2).
- [3] Burke R J, Weir T. The Type A experience: occupational and life demands, satisfaction and well-being.[J]. *Psychological Reports*, 1988, 63(2):451-8.
- [4] Cifre E, Salanova M. Multidimensionality and bipolarity of a Spanish version of Warr's (1990) well-being measures [J]. *Journal of Psychology*, 2002, 136 (1): 69-74.
- [5] Zheng C, Kashi K, Fan D, et al. Impact of individual coping strategies and organisational work-life balance programmes on Australian employee well-being [J]. *International Journal of Human Resource Management*, 2016, 27 (5): 501-526.
- [6] Mäkikangas A, Kinnunen U, Feldt T, et al. The longitudinal development of employee well-being: a systematic review[J]. *Work & Stress*, 2016, 30 (1): 46-70.
- [7] Jong T D, Wiezer N, Weerd M D, et al. The impact of restructuring on employee well-being: a systematic review of longitudinal studies[J]. *Work & Stress*, 2016, In press(1):91-114.
- [8] Chen Kui. The status quo and suggestions of employee happiness in China [J]. *Development Research*, 2008 (4): 100-101.
- [9] Zheng Xiaoming, Liu Xin. The Impact of Interactive Equity on Employee Well-being: The Mediating Role of Psychological Empowerment and the Regulating Role of Power Distance [J].*Psychological Journal*, 2016, 48 (6): 693-709.
- [10] A Study on the Influencing Factors of Employees' Well-being in Jiangxi State-owned Enterprises [D]. Nanchang University, 2015.