

An Analysis of the Factors Affecting the New Generation Employee Engagement in the Manufacturing Industry in China

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Abstract

Employee engagement was one of the core topics in academic research and management headlines. The purpose of this paper was to examine the effects of contextual variables, which include the career development planning, flexible welfare policy and employee involvement programs, towards employee engagement of the new generation employees under the China's manufacturing industry. The results showed that the career development planning, flexible welfare policy and employee involvement programs would positively impact the new generation employee engagement in the manufacturing industry in China. Furthermore, the results provided suggestions for managers to motivate new generation employee engagement in China.

Keywords: employee engagement, new generation, China

1. Introduction

Employee engagement was a critical driver of business success in today's competitive marketplace. Employee engagement could be a deciding factor in organizational success. Not only engagement possessed the potential to significantly affect employee retention, productivity and loyalty, but also a key link to customer satisfaction, company reputation, and overall stakeholder value (Lockwood, 2007). This importance was amplified in industries such as the manufacturing industries, because labor engagement would affect the company's overall manufacturing performance in higher product quality with higher overall working efficiency and lower cost. Human resources, especially the effective management of employees, were the key. The level of incentives had an important position in human resources management in the manufacturing industries (Accelerate the team development, 2010).

Labor incentive was at the core position in the management system and many management research related research during the last century. However, until today, the incentive theory was still a mystery for many employers. The problem was complicated because labor would be affected by various uncertain factors, such as many circumstantial and biological factors. As the millennial generation (also commonly known as Gen Y. This included people who were born from 1982-2000) grew in the workforce and the baby boomers retired, managers and human resources professionals would need to develop new engagement models which took into account the generational differences between baby boomers and millennial (Gilbert, 2011). More specifically, since China possessed unique growth environments, such as educational background, family relations, social culture and working environments, the new generation employees contained more unique features, such as a strong personality, poor compressive capability, values diversity, and poor job stability.

China was a world manufacturing center and manufacturing industry was an important component of China's economic development. Employee engagement became a hot topic in recent years among consulting firms and in the popular business press (Saks, 2006). There was evidence for changes in personality profiles across generations, and for differences in attitudes towards work and careers (Macky, Gardner, & Forsyth, 2008). However, employee engagement was rarely being studied with the new generation in China, particularly in the manufacturing industry. The purpose of this study was to test the relationship between the career development

planning, flexible welfare policy and employee involvement programs on employee engagement in the context of China. The objectives of the study were to 1) Review the characteristics of China's new generation; 2) Examine the relationships between employee engagement and career development planning, flexible welfare policy and employee involvement programs; 3) Provide suggestions to improve new generation employee engagement in China.

2. Literature Review

2.1 The Characteristics of China's New Generation

New generation employees were generally considered to be labor force borne in 1980-2000. This included the "after 80", and the "after 90" employees. New generation employees, because of their unique growth environment, such as educational background, family relations, social culture and working environment, might respond differently when compared with the older employees, who have more entrepreneurial value orientations (Egri & Ralston, 2004). King and Bu (2005) found that the new generation in China would prefer employers to provide high pay, job autonomy, long term job security, financial reward for obtaining, IT certificates, exciting projects, and opportunities to work on leading-edge technology. At the same time, the authors found that employers would prefer employees to work extra hours when needed, to be loyal and to volunteer to do non-required tasks. Similarly, Fisher and Yuan (1998) pointed out Chinese employees felt that good wages were the most important, followed by good working conditions and personal loyalty from the boss and the organizations. Interesting work was relatively unimportant, especially to older employees, and 'being in on things' was not important at all.

2.2 Employee Engagement Measuring Scale

Organizational commitment was measured from three aspects: (1) the acceptance to organization's goals and values; (2) the efforts for organization's goal; (3) the willingness of leaving company (Hrebiniak & Alutto, 1972). Organizational commitment scale was mainly measured by the occupational status, the interpersonal relationship, the career opportunities and the possibility of leaving organization (Meyer, Allen, & Gellatly, 1990). Meyer et al. (1990) applied the model with three dimensions for organizational commitment. This was the most accepted and commonly used around the world with high reliability and validity.

3. Method

3.1 Qualitative Stage

This study is conducted an in-depth literature review to build up an employee engagement framework. In general, a focus group was a common qualitative research technique which was used by organizations with marketing purposes. This stage consisted of focus group interviews to gain in-depth insights regarding the participants' overall experiences. The results were generally used to design a questionnaire for a quantitative study (Kokemuller & Media, 2013). The following table was a summary of factors which might influence the engagement management scale (See Table 1).

Table 1. Factors influencing the engagement management scale

Assuming	Segmentation variables	Source
Employee career development plan	I can continuously acquire new knowledge and technology	(Meyer et. al., 1990)
	In the work I can be fully to start my own career	(Meyer et. al., 1990)
	I have relevant learning and development opportunities to master related skills	(Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002)
	In the past six months, someone talk with me about my work	(Rath & Conchie, 2004)
Flexible welfare	I can make a positive contribution through work	(Leiter & Maslach, 1999)
	In the past year, I had the opportunity to learn and grow	(Rath & Conchie, 2004)
	Organization is really concerned about my welfare	(May, 2004)
	Overall, I think my pay is fair	(Schaufeli et. al, 2002)
	When handling work, I have a lot of independent space	(May, 2004)
	Welfare programs provided by the company consider the different needs of different employee	(Britt, Knox & Miller, 2001)
Employee	The company can provide flexible personal service benefits	(Britt et. al., 2001)
	The company can provide flexible insurance benefits	(Britt et. al., 2001)
	I can make a positive contribution through work	(Leiter & Maslach, 1999)

involvement plan	I like to talk openly about my experiences and feelings with a friend, rather than being stuffy inside	(Meyer et. al., 1990)
	At work I can give full play by my own expertise	(Schaufeli et. al, 2002)
	I think my supervisor or colleagues were concerned about my personal situation	(Rath & Conchie, 2004)
	At work I can give full play with my ability	(Schaufeli et. al, 2002)
	At work, I feel that my opinion was valued	(Rath & Conchie, 2004)

A focus group was conducted to validate the measurement scale of the employee engagement framework. The focus group consisted of 5 people. One group member was a plant manager with over 30 years working experience in a multinational manufacturing industry. Another group member was a senior supply chain manager with 18 years working experience in global supply center. The remaining group members were with at least 10 years of working experience in various manufacturing industries.

3.2 Quantitative Stage

3.2.1 Structure of Questionnaire and Pilot Study

A self-administered questionnaire was conducted to verify the dimensions of the employee engagement in manufacturing industry based on the findings of qualitative research. Through the above table, researchers formed the factors that might influence the engagement management scale, and then further formed the preliminary research questionnaire.

This study adopted the coding from structural Q&A. Zikmund, Babin, Carr, and Griffin (2012) suggested that coding consisted of two basic principles: first, the coding classification should be exhaustive and; second; coding classification should be mutually exclusive and independent.

According to the above 'Factors influencing the engagement management scale', three hypotheses would be tested to examine the relationships between employee engagement and career development planning, flexible welfare policy and employee involvement programs. Three hypotheses were coded by H1-H3.

Hypothesis 1 tested whether there was a positive relation between employee career development plan and employee engagement.

Hypothesis 2 tested whether there was a positive relationship between flexible welfare and employee engagement.

Hypothesis 3 tested whether there was a positive relationship between the employee involvement plan and employee engagement.

There were six questions for each hypothesis with a 5-point scoring method: 1 for "very dissatisfied", 2 for "not satisfied", 3 for "general", 4 for "satisfied", and 5 for "very satisfied".

3.2.2 Sampling and Data Collection

With the quantitative research method, the original data was collected mainly through questionnaires. This technique was often used to collect information related to people's behavior, opinions and attitudes of explanatory and descriptive data (Jankowicz, 2005). The first draft of the questionnaire was formed according to the discussion of the selection of indicators. To analyze the structural validity of the questionnaire, the questionnaire was pilot tested with 80 people. Researcher deleted inappropriate questions after the pilot test. The pilot test was tested by issuing 80 questionnaires. 65 questionnaires were returned. The questions from the questionnaire were discussed. Small adjustments in word form were made based on the results of the pilot test. Finally, 300 questionnaires were issued to 3 companies in Shanghai, China with different sizes. The questionnaires were sent out by email and were forwarded to related colleagues. Respondent replied by email when completed. 289 questionnaires were returned and there were 253 effective ones. This meant an 84.3% response rate. After the data was collected, the researcher used SPSS for statistical analysis.

4. Analysis and Results

The statistical methods that were employed in this study include descriptive statistics, reliability analysis, validity analysis and hypothesis testing.

Three hundred questionnaires were distributed and there were 289 responses. After eliminating invalid questionnaires, there were 253 valid questionnaires. 37.5% came from company A, 34% came from company B, and 28.5% came from company C. There were 112 males (44.3%), and 141 females (55.7%). From the age

perspective, 87.3% were under 34. From the nature of job perspective, 98% were Frontline employees. Most of the scores from the questionnaires were between 3 and 4, namely between “general” and “satisfied”. This illustrated the company's management of three companies did not perform well. Therefore, most employees were not satisfied in the welfare of the employee, career development plans, and flexible policy (see Table 2).

Table 2. Descriptive statistics of the respondents

Measure	Option	Frequency	%
Source	<i>Company A</i>	95	37.5%
	<i>Company B</i>	86	34.0%
	<i>Company C</i>	72	28.5%
	<i>Total</i>	253	100%
Gender	<i>Male</i>	112	44.3%
	<i>Female</i>	141	55.7%
	<i>Total</i>	253	100%
Age	<i>Below 34</i>	221	87.3%
	<i>Above 34</i>	32	12.7%
	<i>Total</i>	253	100%
Position	<i>Frontline employee</i>	248	98.0%
	<i>Leader</i>	5	2.0%
	<i>Total</i>	253	100%
Nationality	<i>China</i>	253	100%
	<i>Others</i>	0	0%
	<i>Total</i>	253	100%

Note: n=253

To ensure the reliability of the questionnaire, this study calculated the average variance extracted value (AVE) via SPSS. According to Xia (2010), when AVE was above 0.5, this meant the degree of fitting was very good. The following table shows the AVE for all the variables and measuring index of this study. The AVE for career development plan, flexible welfare policy and employee involvement plan were 0.68, 0.52 and 0.55 respectively. This indicated that these 3 indices fit the employee engagement scale appropriately (see Table 3).

Table 3. Variance extracted value of all variables

Variable and measuring index	Standardized loading	factor	AVE
Career development plan			0.68
I can continuously acquire new knowledge and technology in my work	0.84		
In the work I can be fully to start my own career	0.75		
I have relevant learning and development opportunities to master related skills	0.87		
In the past six months, someone talk with me about my work	0.72		
I can make a positive contribution through work	0.75		
In the past year, I had the opportunity to learn and grow	0.74		
Flexible welfare policy			0.52
Organization is really concerned about my welfare	0.7		
Overall, I think my pay is fair	0.87		
When handling work, I have a lot of independent space	0.6		
Welfare programs provided by the company consider the different needs of different employee	0.72		
The company can provide flexible personal service benefits	0.71		
The company can provide flexible insurance benefits	0.8		
Employee involvement plan			0.55
I can make a positive contribution through work	0.73		
I like to talk openly about my experiences and feelings with a friend, rather than being stuffy inside	0.76		
At work I can give full play by my own expertise	0.68		
I think my supervisor or colleagues were concerned about my personal situation	0.69		
At work I can give full play with my ability	0.65		
At work, I feel that my opinion was valued	0.71		

Fitting index: $\chi^2/df=0.858$, CFI=1.000, GFI=0.973, IFI=1.000, NFI=0.961, RMSEA=0.02 (All factor loading pass tests of $P < 0.05$), fitting level is good.

The χ^2 statistic for model fit is still significant, meaning that the null hypothesis of a good fit to the data can be rejected. The RMSEA likewise suggests that the fit of the model is questionable. The standardized loadings represent the correlation between each observed variable and the corresponding factor less than 0.05. The hypotheses in this study were verified through the regression analysis model. The results showed that the career development planning, flexible welfare policy and employee involvement programs would positively impact the new generation employee engagement in the manufacturing industry in China. The table below shows the results of the regression analysis (see Table 4).

Table 4. Regression results

Research questions	Nonstandardized regression coefficient	Standardized regression coefficient	P-value	Whether support hypothesis
H1a I can continuously acquire new knowledge and technology in my work	0.108	0.216	0.006	Support
H1b In the work I can be fully to start my own career	0.155	0.268	0.002	Support
H1c I have relevant learning and development opportunities to master related skills	0.101	0.194	0.017	Support
H1d In the past six months, someone talk with me about my work	0.086	0.205	0.013	Support
H1e I can make a positive contribution through work	0.126	0.211	0.015	Support
H1f In the past year, I had the opportunity to learn and grow	0.197	0.332	0.002	Support
H2a Organization is really concerned about my welfare	0.858	0.713	0.006	Support
H2b Overall, I think my pay is fair	0.563	0.525	0.015	Support
H2c When handling work, I have a lot of independent space	1.157	0.653	0.003	Support
H2d Welfare programs provided by the company consider the different needs of different employee	1.345	0.787	0.025	Support
H2e The company can provide flexible personal service benefits	0.967	0.818	0.016	Support
H2f The company can provide flexible insurance benefits	0.875	0.767	0.033	Support
H3a I can make a positive contribution through work	0.881	0.591	0.052	Support
H3b I like to talk openly about my experiences and feelings with a friend, rather than being stuffy inside	1.026	0.732	0.025	Support
H3c At work I can give full play by my own expertise	1.113	0.684	0.019	Support
H3d I think my supervisor or colleagues were concerned about my personal situation	1.301	0.745	0.023	Support
H3e At work I can give full play with my ability	0.961	0.809	0.017	Support
H3f At work, I feel that my opinion was valued	0.886	0.743	0.028	Support

5. Discussion and Implications

5.1 Theoretical Implications

The data from questionnaires and interview analysis strongly supports the critical content of hierarchy of needs. From the point of the fourth chapter of hypothesis testing, employee career development plans, flexible policies, employee involvement programs were related to employee engagement. According to the above results, most employees responded to the incentive of the employee engagement, precisely, the welfare policy, employee career development and employee involvement. This contradicted by the findings of Herzberg. According to Herzberg, salary, and working conditions such as interesting work, cannot be used as an incentive. However, when these factors were missing, then they became the motivating factors. Therefore, this study provided evidence that salary related motivation such as welfare policy encourage employee engagement. Hence, this raise questions of whether the traditional employee engagement theories were applicable to the new generations in China.

5.2 Managerial Implications

Chinese manufacturing management could refer to below suggestions:

1) The management should be willing to change management strategy and to adapt to the situation of changing in the organization. This means, according to different management objectives, the managers should be willing to change their views on staff and their incentive concept. Through the following way, management can achieve the above goals:

- Fully aware of the new generations and start thinking related management theory.
 - Review and rebuild the incentive system for Frontline employee.
- 2) The management should have flexible policy. This provides employees the opportunity to perform their abilities, to feel the atmosphere of growth. If managers have the power to change the organization's existing policies, they should also try to change the method of implementing the policies. This can be achieved by the following ways:
- Contact employees with better or more communications.
 - Improve the feedback channels from Frontline employees.
 - Appropriate authority for Frontline employees.
- 3) Managers can consider less external factor, pay more attention to internal factors and employee behavior. This method can ensure that managers can insight into the different needs of each employee. Through the following ways to achieve this goal:
- Discuss new incentive methods for Frontline employees.
 - Make real Frontline employee empowerment.
 - Consider the goal setting method for Frontline staff with assigned challenging tasks.
 - Build team spirit, work breakdown for the entire team, especially Frontline staff.

6. Limitations and Future Research

Although this study provides a number of important contributions to manufacturing management, there are still several limitations. First of all, the sample size of this study is small. There are only 253 valid questionnaires. Although the law of large number and the central limit theorem applies, due to the uncertainty of the underlying population distribution, the validity of the hypothesis testing might be affected. Furthermore, the questionnaires were only sent to three companies in Shanghai. Further research might include companies from countrywide, which would increase the generality of the results.

Second, most of the researches on employee engagement are descriptive in nature, while most of the researches are theoretical in nature and less empirical. This study is a preliminary investigation. There should be more in-depth and more dimension research, such as Corporate Social Responsibility practice in Chinese context (Luo, Lam, Li, & Shen, 2015).

Third, most of the domestic researcher used foreign researches with relatively well established models. However, due to political, economical and cultural difference, researches from foreign might not be applicable to China, especially the new generations. Similarly, urbanization would be a key factors influence on demographic (Zhang, Luo, Xiao, & Denizci Guillet, 2013; Luo, Qiu, & Lam, 2015; Luo, Qiu, Goh, & Wang, 2015). This study tries to incorporate certain difference in the research, but this is still less than a full incorporation of the characteristics of the new generations in China. Therefore, further research might include more situations of the new generations in China.

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