

Identifying the Effects of Employee Satisfaction on Commitment to Organizational Culture

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Abstract

The purpose of this paper is to explore understanding the different satisfaction factors with an empirical investigation into the cognitive evaluations of employee satisfaction and commitment to organizational culture. The study extensively investigates the internal structural and external factors that affect employee satisfaction and employee commitment to organizational culture by using structural equation model (SEM). Demographic profile influences the satisfaction levels of employees, as well as gender, working years, education, and job position. Model-SEM was constructed to identify the effects of each type of satisfaction toward a commitment to organizational culture. By conducting SEM with multiple-group analyses, the results shows that male employees pay more attention to job and welfare satisfaction than female employees when committing to organizational culture; short working years employees and degree holders are concerned with their welfare satisfaction when committing to organizational culture; managers are more concerned about their culture satisfaction when committing to organizational culture, whereas general employees are more concerned with their management satisfaction. This study provides the implications for management practice in supporting the policy making and resource allocation to improve the quality of the job while considering the individual characteristics of employees. It can shed light on the improvement direction of corporate governance for each enterprise. This paper expands the literature on human resources management for Chinese SOEs, verifies the relationship and effects among employee satisfaction factors toward commitment to organizational culture.

Keywords: employee satisfaction; commitment to organizational culture; structural equation modeling; Chinese SOEs

1. Introduction

State-owned enterprises (SOEs) that focus on China's current economic structure account for a great portion of the country's GDP. Among different types of enterprises in China, SOEs play a significant role in the national economy as they are critical to the function of a considerable portion of the manufacturing industry, along with other industries.

Employee satisfaction and organizational culture have become important research issues that gained significant research attention in China given the cultural background of Chinese SOEs. The stable and motivated workforce of SOEs and the employee satisfaction are prerequisites for the national economic health of China as it experiences rapid economic and organization transition. The SOEs for public security and special function are based on particular resource orientations with a series of monopolistic advantages [1] and not the absolute monopoly, such as entry barriers, resource control, and policy protection. They do not face market competition [2] but undertake some public services and special functions.

Compared with other enterprises, SOEs are subject to several particular norms, such as salary restrictions and long-term contracts. Egalitarianism is the norm to a certain extent [1]. These SOE features do not exist in private and foreign-owned enterprises, as well as market-based SOEs [2]. Management easily becomes inadequate and deficient in Chinese SOEs because of a lack of performance incentives and competitive environment, which inevitably affect employee commitment to organizational culture.

Chinese SOEs have played a remarkable role in the national economy. However, they have received relatively less research attention because data on SOEs are difficult to obtain given the monopoly and protected nature of the industry [1]. Thus, the increasing level of imbalance between corporate remuneration and employee needs is a critical issue during the development stage [3, 4]. Such imbalance refers to the phenomenon that employees pursue their individual goals at work, and their individual psychology is affected by the imbalances between individual capabilities and personal expectations. Kahneman [5] reported that uncertain human judgment and decision-making are due to psychological factors, which may be affected by the economic benefits of others. Nevertheless, goals that are difficult to realize may lead to the loss of psychological expectations and the decline in work quality, which cause employee stress, negative behaviors, and corporate loss [6].

Leading questions that consider the conceptualization, measurement, evaluation, and study of employee satisfaction, commitment to organizational culture, and the quality of their job have become important issues attracting significant research attention in China because of the rapidly mounting market complexity. The present study focuses on understanding the different satisfaction factors by empirically investigating cognitive evaluations on employee satisfaction and commitment to organizational culture. Measurement scales and satisfaction models have been proposed over the years. However, few studies have been performed in the context of Chinese SOEs. Thus, achieving a balance between employee satisfaction and commitment to organizational culture is important to SOEs to improve the job satisfaction. However, this remains a challenging theoretical research issue.

The present study is based on the study of Tso et al. [7] on employee satisfaction of Chinese SOEs. We follow their achievement and organizational data, takes an insider view through a field study, and provides an initial exploratory study on measuring internal employee satisfaction and commitment to organizational culture within a particular cultural background. Existing SOEs cannot change their management practices immediately; however, they need to identify means to improve the management of enterprises within the prevailing environment. Studies on the influence of employee satisfaction toward a commitment to organizational culture may help develop the latter by improving the former. Improvements in organizational culture can also enhance corporate internal management [8, 9] and improve the quality of employee's work.

This research aims to investigate the relationships between employee satisfaction and commitment to organizational culture under different SOEs. We construct a coherent conceptual framework to elaborate the theoretical relationship among employee satisfaction factors and commitment to organizational culture, which is tested and verified in an empirical research. We develop a model based on the constructs of employee satisfaction factors and commitment to organizational culture, which represents the internal relationship between these constructs and analyzes the paths and weights.

2. Literature review

The literature on employee satisfaction and organizational culture is a popular research field; it is rich and covers a wide range of areas. The following discussion presents an extensive literature review on employee satisfaction, organizational culture, commitment to organizational culture, and the interrelationships and effects. This discussion is followed by a description of SEM and field applications.

2.1. Employee satisfaction

Employee satisfaction is defined as an attitude or emotional response to an existing situation [10, 11]. Furthermore, it is a subjective value judgment, a psychological perception, or an attitude toward the enterprise. Employee satisfaction is a measure of how happy workers are with their respective jobs and working environments [12], which can affect their quality of job directly. However, a few studies that focus on the case of China have failed to reach a general agreement on the effects of employee satisfaction on enterprise management [3, 4, 7, 13]. Employees who perceive injustice within the organization may demonstrate adverse behaviours. These behaviours include reduced input, changed output, distorted self-awareness, distorted cognition, and even an untimely exit from the company [10]. De Simone et al. [14] pointed out the potential consequences of this influence on the work life and general well-being of employees. Karanika-Murray et al. [15] proved an indirect via work engagement and positive effect of organizational identification on satisfaction. Their study also showed that work engagement has a direct strong effect on job satisfaction and a direct weak effect on life satisfaction.

Satisfaction scales play a key role in satisfaction surveys. Previous research experiences [10] and case studies show that employee satisfaction scales use different models in various cultural areas or occupational groups. Payment satisfaction [16, 17] is a universal factor in most scales, which includes salary, job security and benefits, remuneration, and financial reward, across many comparative studies on satisfaction factors. However, these mechanisms in SOEs are limited because of institutional issues [1] and the lack of market competition, which is a common characteristic in Chinese SOEs. Thus, satisfaction scales have featured a certain universality and generality by covering similar concepts. However, using one common measurement scale for various industries may not cover the specialty of a company. Many employee satisfaction scales are customized under a particular background based on different countries, groups, themes, and satisfaction factors. Therefore, a comparative analysis on the reliability and validity among different research frameworks is difficult to perform. Dimensions differ according to contexts and object groups. Overall employee satisfaction is directly job-related, for example, satisfaction with working hours, job contents, future career prospects, training opportunities, and quality of job [8].

Tso et al. [7] studied the employee satisfaction of SOEs with a sample that consists of 3,029 employees from 27 SOEs that use proportionate stratified random sampling in 8 provinces or municipalities in China. Their main business is not market-oriented, but they all play a significant and monopolistic position in the economy. Tso et al. [7] chose four satisfaction factors, namely, culture, job, management, and welfare satisfaction, as independent variables. These factors are extracted from 29 questionnaire items, which are referred to as the “Minnesota Satisfaction Questionnaire” and “Gallup Q-12” survey. The survey of organizational culture is also from Tso et al. We carry out further research on the four employee satisfaction factors and the organizational culture measurement based on Tso’s employee satisfaction survey on Chinese SOEs [7] and data source.

2.2. Commitment to organizational culture

Organizational culture is an abstract, sensitive, and complex phenomenon that researchers continuously struggle to understand [18]. Considerable debates have remained over the definition of organizational culture and the extent to which culture influences corporate management [18, 19]. Two general definitions of organizational culture have been proposed. First, organizational culture is defined as a set of cognitions shared by members of a social unit; second, it is defined as a system of shared values and beliefs that produce norms of behaviour and establish an organizational way of life [20]. Only a few related studies [21] have focused on Chinese SOEs. Organizational culture refers to the behaviours of managers and employees within an organization and the meanings that people attach to such behaviours [18]. Thus, organizational culture affects the way employees interact with one another and with other stakeholders. Kotter [22] proposed the idea that organizations often have varying cultures and subcultures. Each enterprise may have its own particular culture. However, co-existing or conflicting subcultures exist in large organizations because each subculture may be applicable to a different management team or mode.

First, most corporate organization systems attempt to control the variability of employee behaviours. Organizational or group culture may provide an informal direction. Second, many organizational units maintain certain characteristics despite changes in membership and leadership. An organization’s culture is often passed through generations to create a high level of stability over time [13].

Third, individuals continuously define their social identities. Identities are defined by social roles or professional status, and people define their identities through their organizational membership. Employees who view the organization as part of their identity may easily find a sense of belonging [18, 19].

2.3. Influence of employee satisfaction on commitment to organizational culture

Numerous empirical studies have been conducted to identify the influence of employee satisfaction and commitment on organizational culture in Chinese SOEs. Many studies have shown that employee satisfaction influences their commitment to organizational culture. The increasing focus on attitude toward the quality of work is linked to the belief that the degree of employee satisfaction is related to different aspects of job behaviour, such as productivity, absenteeism, and turnover rates [10]. Gohel [12] identified that keeping morale high among workers can significantly benefit any company given that happy workers are likely to produce more, take a few days off, and stay loyal to the company.

Unsatisfied employees tend to reduce their input, which may lead to a decline in the overall efficiency and low quality of job. They resort to either turnover behaviour or embittered psychological behaviour [23], which depends on the positions and needs of the employee groups to which they belong. Currivan [24] and Egan et al. [23] used SEM and found that satisfaction is significantly related to organizational commitment. The culture and environment of an organization can influence employee satisfaction and motivation. Egan et al. [23] stated that numerous empirical studies have reported that organizational learning culture is associated with employee satisfaction and motivation to transfer learning. García-Chas et al. [25] insisted the importance of perceptions and intrinsic motivation to help strengthen employee satisfaction. However, the interactions between organizational culture and employee satisfaction are becoming increasingly complicated and have been evolving. Lim [26] examined the dynamic relationship between satisfaction and organizational culture using correlation analysis. Paulin et al. [27] employed SEM and found that employee satisfaction is strongly related to organizational commitment in customer-linkage research.

Pieces of evidence show that the link between employee satisfaction and commitment to organizational culture does not exist. Dougherty et al. [28] used ANOVA and found a weak internal relationship between the satisfaction and organizational culture. Curry et al. [29] and Currivan [24] found non-supportive evidence that indicates a significant link between satisfaction and organizational culture. We answer the following questions. How do employee satisfaction factors affect the commitment to organizational culture in SOEs? What is the varied demographic information among employee satisfaction and commitment that affect organizational culture; what they analyze is whether the different effects of satisfaction on commitment to organizational culture are significantly different between different demographic types.

3. Methodology

3.1. Design

We construct an SEM to identify the relationship among employee satisfaction factors and commitment of organizational culture. We use multiple-group analyses to consider the differences between different employee groups and to analyze their impact.

3.2. The variables and dataset

Tso et al. [7] studied the employee satisfaction of SOEs with a sample by questionnaire survey that consists of 3,029 employees from 27 SOEs that use proportionate stratified random sampling in 8 provinces or municipalities in China. The number of samples accounted for 5% of the total number of employee, based on different job position or department. Their main business is not market-oriented, but they all play a significant and monopolistic position in the economy.

Tso et al. [7] proposed a new customized employee satisfaction scale to analyze Chinese SOEs, with each item on a 5-point Likert-type scale that ranged from 1 (strongly disagree/very dissatisfied) to 5 (strongly agree/very satisfied). The identified underlying employee satisfaction factors of Chinese SOEs [7] are attributed to the culture, job, management, and welfare of the enterprises using exploratory factor analysis. The results are shown in Appendix I. The four underlying factors that affect the subjective judgment of employees on employee satisfaction are identified [7] and extracted from 29 questionnaire items, which are referred to as the “Minnesota Satisfaction Questionnaire” and “Gallup Q-12” survey. The first factor is “culture satisfaction” (CulS) with nine items related to career development opportunity and internal relationships within an organization.

The second factor is “job satisfaction” (JobS) with seven items that reflect the acceptance and recognition employees receive at work. The third factor is “management satisfaction” (MgtS) with seven items that show the feedback of employees on management policies. The last factor is “welfare satisfaction” (WelS) with six items related to healthcare and benefit. Employee commitment to organizational culture (OrgC) is measured using three indicators (cognition of organizational culture (OrgCC), participation in organizational culture (OrgCP), and identity toward organizational culture (OrgCI)) with each item on a 5-point Likert-type scale, as shown in Appendix I. These indicators are worth examining because they represent the perception of employees on organizational culture [7, 18, 19]. The questionnaire also obtains demographic information about the respondents for multiple-group analysis. The information includes gender, age, working years, education level, and job position.

3.3. Structural equation model

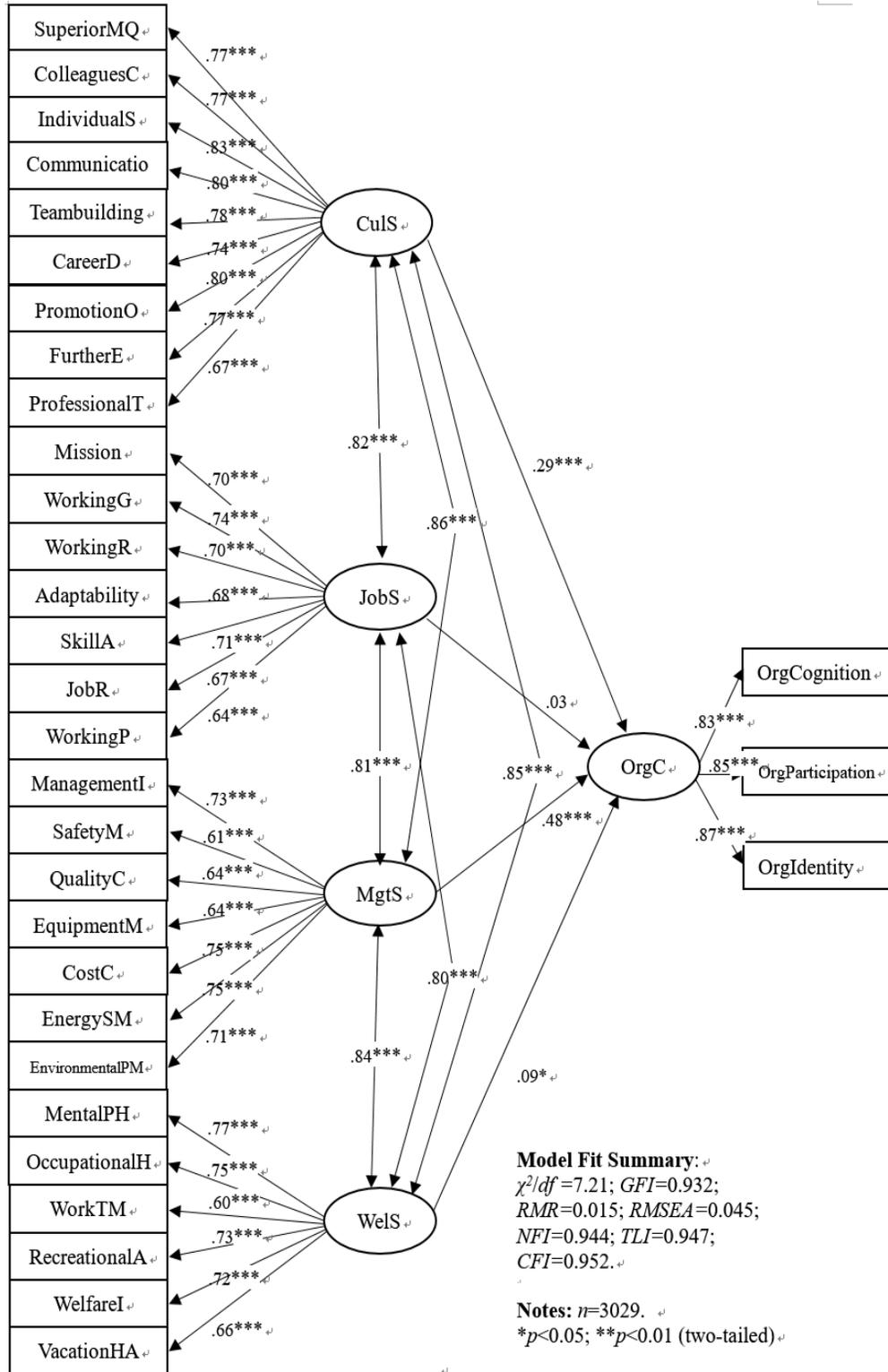
This study aims to develop an SEM that represents the relationship among four employee satisfaction factors and commitment to organizational culture. A comparative study based on the SEM is performed based on the demographic background of an employee. Employee satisfaction is a critical component of an employees' evaluation of the organization where they belong. The commitment of employees to organizational culture could serve as a key factor to ensure the sustainable development of an organization and to establish an internal relationship through employee satisfaction [9]. Thus, employee commitment to organizational culture is chosen as a target outcome variable because many studies in the literature suggest that organizational culture is more important than work commitment [6, 24]. The needs of employees have become more personalized and diversified [4]. The demographic information of employees shows that a series of multiple-group analyses is performed to identify their differences and needs, which is valuable for setting targeted group management policies and effective resource allocation.

Hox and Bechger [30] stated that SEM is a powerful technique that can combine complex path models with latent variables (factors), which are widely used in behavioral sciences. The structural equation studies the structural relationship of the latent variables among the commitment to organizational culture and four employee satisfaction factors. Latent variables can be defined from existing theory or field study or from factor analysis. Thus, we choose the following five defined latent variables to construct our own hypothetical model. These variables include CulS, JobS, MgtS, WelS, and OrgC. Latent variables are not directly observable and must be measured through the observed variables. OrgC is measured by three observed variables: cognition (OrgCC), participation (OrgCP), and identity (OrgCI). The four employee satisfaction factors are measured by 29 employee satisfaction indicators. We use the SPSS Amos 22 software, which is a specifically designed component of the SPSS software package, to implement the SEM.

4. Results

We hypothesize that culture, job, management, and welfare satisfaction are four factors that serve as the exogenous variables for the structural equation. These variables explain the dependent (endogenous) variable of employee commitment relative to organizational culture. The structural equation is expected to have a residual given that the variance of the endogenous variable may not be explained fully by other variables in the model. The results of our SEM with standardized estimated path coefficients are shown in Figure 1. The adequacy of the model is evaluated by various model fit indices. The significance of the latent and the observed variables was evaluated based on the model estimation. The significance of the path and the factor loading coefficients were tested. Path coefficients refer to the coefficients among latent variables, such as when “culture satisfaction” increases by 1 point or when “commitment to organizational culture” increases by 0.26 points. Factor loading coefficients refer to the coefficients between latent and measurable variables, such as when “working goal (WorkingG)” increases by 1 point or when “job satisfaction” increases by 0.96 points. Critical ratio (CR) is used in Amos to test the significance of the coefficients. CR is a Z statistic derived by dividing the estimated regression weight by its standard error. Furthermore, its corresponding p-value reflects that the statistical significance of the estimated parameters differs from zero.

Figure1. SEM of employee satisfaction factors and commitment to organizational culture (standardized)



The standardized path coefficient between the latent variables “job satisfaction” and “commitment to organizational culture” is 0.03, with $p = 0.32$. This may be due to the special background of the Chinese SOEs, such as Egalitarianism [1]. This value showed that path coefficient is insignificant and must be further analyzed.

Table 1. Goodness-of-fit summary of SEM

<i>Index</i>	<i>Part 1: Results</i>	<i>Part 2: Results (trimming)</i>	<i>Criteria</i>
	$\chi^2 = 3271.83$	$\chi^2 = 3272.81$	/
	$df = 454$	$df = 455$	/
	$p \text{ value} < 0.01$	$p \text{ value} < 0.01$	< 0.05
Absolute fit index	$\chi^2/df = 7.21$	$\chi^2/df = 7.19$	< 5.00
	<i>GFI</i> 0.932	0.932	> 0.90
	<i>RMR</i> 0.015	0.015	< 0.05
	<i>RMSEA</i> 0.045	0.045	< 0.05
	<i>NFI</i> 0.944	0.940	> 0.9
Relative Fit Index	<i>TLI</i> 0.947	0.947	> 0.9
	<i>CFI</i> 0.952	0.952	> 0.9
Information Index	<i>AIC</i> 3419.83	3418.81	/

Notes: $n=3029$. * $p < 0.05$; ** $p < 0.01$ (two-tailed)

This study used various types of fitness indices to evaluate the adequacy of our own model (See Table 1 Part 1). The proposed model must be adjusted if it fails to meet the goodness-of-fit criteria. Most of the absolute fit (*GFI*, *RMR*, and *RMSEA*) and relative fit indices (*NFI*, *TLI*, and *CFI*) meet their corresponding criteria. χ^2/df equals 7.21 suggests an improper result for the goodness-of-fit; χ^2/df , which is greater than 3, suggests poor goodness-of-fit [31]. Wu [32] stated that large sample sizes can lead to large χ^2 and χ^2/df . For example, χ^2/df reaching 7.35 is reasonable when the sample size is over 2000 [32]. We verified this issue by randomly selecting about 50% or 1,527 samples from our dataset to rerun the SEM model and found a χ^2/df value of 4.65. We further selected 50% of the random sample ($n = 756$) from the above subset to rerun the model and found that χ^2/df value equals 3.11. Therefore, the χ^2/df value can be reduced to fulfill its criterion by reducing the sample size of our data.

The fit index serves as one criterion for evaluating the goodness-of-fit of the model although it is not the sole justification. The model with a high level of goodness-of-fit may not be the optimal model for the data. The model may still be valid with sound theoretical foundation when some of the fit indices are not optimal, that is, when χ^2/df is greater than 5 [32]. The model fit test indicates that only the path coefficient between latent variables “job satisfaction” and “commitment to organizational culture” is insignificant ($p \text{ value} = 0.32 > 0.05$), which suggests that the original model should be adjusted by model trimming or model building. Model trimming refers to the deletion of insignificant paths and is often used to improve model identification. This study used model trimming to remove the path coefficients of latent variables “job satisfaction” and “commitment to organizational culture.” Figure 1 and Table 1, Part 2 show the model results and goodness-of-fit statistics. The fitness indices are compared and show that the *AIC* and χ^2 values have slight changes, whereas all other statistics remain the same.

The model fit indices and the significance levels of the coefficients are important in determining model adequacy; however, the theoretical basis for the model serves as a more important factor [32], which indicates that the model should be applicable to practice with a meaningful explanation. Thus, the most important factors to consider are theoretical soundness and practical value. Various perspectives and studies [27, 33] have pointed out a necessary connection between job satisfaction and organizational culture. Yang and Kassekert [34] proposed that “higher level of perceived performance orientation,” “innovation culture,” “trust in leadership,” and “better attitudes toward performance appraisal” are significantly positively associated with job satisfaction. Alvi *et al.* [35] and Lim [26] also demonstrated the effects of organizational culture, organizational commitment, and job satisfaction. Thus, job satisfaction is retained in the SEM for further analysis.

The standardized path coefficients in Figure 1 are used to compare the different effects of various coefficients. Management satisfaction indicated the highest influence on commitment to organizational cultures with a path coefficient of 0.48. This result is followed by culture satisfaction, welfare satisfaction, and job satisfaction with path coefficients of 0.29, 0.09, and 0.03, respectively. We decide to retain job satisfaction in our model although it has the smallest influence, and its path coefficient is not statistically significant. The cumulative variance influence of the four employee satisfaction factors on commitment to organizational culture reaches 0.89. Multicollinearity does not exist in the result according to the variance inflation factor test although the covariance among our four latent variables of employee satisfaction ranged from 0.80 to 0.86.

5. Discussion

5.1. Multiple-group analyses

The multi-group model is used to test for group differences in the means of particular latent constructs [36]. SEM cannot directly explain the differences among groups. However, enterprise management must often pay attention to the characteristics and needs of specific groups to simultaneously increase their satisfaction levels and achieve management efficiency. Based on their demographic information, 3,029 respondents in this study were classified into different groups by gender, working years, education level, and job position. The results are shown in Table 2. Byrne [36] indicated that latent mean differences across groups are tested through model and factor identification. Statistical testing is sometimes called confirmatory data analysis. The effect of employee satisfaction on commitment to organizational culture may vary according to the backgrounds of the respondents in the sample. Magee [37] pointed out that gender are associated with what one does and has in a job, and orientations toward extrinsic (i.e., having) and intrinsic rewards (i.e., the action is its own reward) vary with gender and age.

Andrews *et al.* [38] insisted the managers need to be aware of personality characteristics and situational contexts that impact surface acting in organizations to help understand the effects of potential divergent attitudes and behaviours on employee outcomes. Thus, we divided our data into different groups according to the demographic information of the respondents and reran the SEM to compare the effects of the four employee satisfaction factors on commitment to organizational culture.

Table 2. Summary of factor loadings and significance of multiple-group models

Factor (value)	loading	(p value)	Management satisfaction	Culture satisfaction	Welfare satisfaction	Job satisfaction	n	χ^2/df	GFI	RMSEA	CFI
Gender	Male		0.40**	0.29**	0.13**	0.08*	1904	4.98	0.926	0.046	0.950
	Female		0.64**	0.31**	/	/	1125	3.99	0.905	0.052	0.941
Working years	15+		0.54**	0.30**	/	/	1752	5.01	0.920	0.048	0.956
	15-		0.40**	0.28**	0.15**	/	1277	4.00	0.905	0.052	0.941
Education	Degree		0.52**	0.16**	0.14**	/	1298	4.80	0.923	0.047	0.946
	Non-degree		0.46**	0.37**	/	/	1731	4.15	0.913	0.049	0.947
Job position	Manager		0.26*	0.53**	/	/	364	2.12	0.856	0.056	0.906
	Employee		0.52**	0.28**	/	/	2665	6.67	0.929	0.046	0.951
Overall			0.48**	0.29**	0.09*	/	3029	7.21	0.932	0.045	0.952

Notes: * $p < 0.05$; ** $p < 0.01$ (two-tailed)

5.2. Comparison by employee gender

Scandura and Lankau [39] and Rollero [40] indicated that the gender of employees affects the relationship between job satisfaction and organizational commitment because female staff members with family responsibilities are more attentive to flexible work hours offered by their organizations. We apply gender as the multiple-group variable and construct separate SEMs with the same model structure described. We call these SEMs Model -SEM (male) and Model -SEM (female). The respondents comprise 1,904 males (62.9%) and 1,125 females (37.1%).

Model -SEM (male) shows that all four types of employee satisfaction, namely, culture, job, management, and welfare satisfaction, significantly influence employee commitment to organizational culture. Their factor loadings are ranked as follows: management satisfaction ($\lambda = 0.40$, p value < 0.01), culture satisfaction ($\lambda = 0.29$, p value < 0.01), welfare satisfaction ($\lambda = 0.13$, p value < 0.01), and job satisfaction ($\lambda = 0.08$, p value < 0.05). Approximately 89% of the cumulative variance is explained by the model. Job satisfaction has the least influence, but its coefficient is significant. Male employees still pay more attention to the quality of job.

Model -SEM (female) shows that only culture satisfaction ($\lambda = 0.31$, p value < 0.01) and management satisfaction ($\lambda = 0.64$, p value < 0.01) significantly influence employee commitment to organizational culture. The cumulative variance reaches 0.95. Job satisfaction does not have a significant effect because female employees are more stable given their permanent nature of work in the SOEs. Welfare satisfaction is also insignificant. Female employees do not have a significant financial burden. Thus, job and welfare satisfaction in Chinese SOEs have a significant effect toward the commitment to the organizational culture of male employees. Goni-Legaz and Ollolopez [41] mentioned the need to increase people's quality of life by helping them achieve work-family balance. Many female employees pay significant attention to the quality of life.

However, female employees are likely to be affected by the level of their satisfaction with the management. This point should be considered during the policymaking process of management.

5.3. Comparison by employee working years

We apply working years as the multiple-group variable and construct separate models: Model-SEM (working years of 15 or above, 15+) and Model-SEM (working years of less than 15, 15-). The comparison by working years shows 1,752 employees (57.8%) with more than 15 working years and 1,277 employees (42.2%) with less than 15 working years. In Model-SEM (15+), only culture satisfaction ($\lambda = 0.30$, p value < 0.01) and management satisfaction ($\lambda = 0.54$, p value < 0.01) significantly influence commitment to organizational culture. The cumulative variance reaches 0.84.

In Model-SEM (15-), culture satisfaction ($\lambda = 0.28$, p value < 0.01), management satisfaction ($\lambda = 0.40$, p value < 0.01), and welfare satisfaction ($\lambda = 0.15$, p value < 0.01) significantly affect employee commitment to organizational culture. The cumulative variance reaches 0.83. Employees with less than 15 working years have higher levels of economic pressure, and they place more value and attention to welfare satisfaction than the group with more than 15 working years in the enterprise.

5.4. Comparison by employee education

Model-SEM (degree holder) and Model-SEM (non-degree holder) are constructed separately by applying education as a multiple-group variable. The comparison by education level shows that 1,298 employees (42.9%) are degree holders, and 1,731 employees (57.1%) are non-degree holders. Model-SEM (degree holder) indicates that culture satisfaction ($\lambda = 0.16$, p value < 0.01), management satisfaction ($\lambda = 0.52$, p value < 0.01), and welfare satisfaction ($\lambda = 0.14$, p value < 0.01) all significantly influence commitment to organizational culture. The cumulative variance explained is 0.82.

Model-SEM (non-degree holder) shows that culture satisfaction ($\lambda = 0.37$, p value < 0.01) and management satisfaction ($\lambda = 0.46$, p value < 0.01) significantly affect commitment to organizational culture. The cumulative variance explained is 0.83. The comparative analysis presents that employees with higher educational background are more sensitive to welfare satisfaction than those with lower educational background. Employees with higher education levels have better career prospects and aim to acquire better welfare through promotions. However, employees with lower levels of education usually work in the first line of production with a stable job position and welfare. Thus, they are less sensitive to welfare.

5.5. Comparison by employee job position

The separate Model-SEM (manager) and Model-SEM (general employee) are constructed by applying job position as a multiple-group variable. Two models that demonstrate a good model fit are acceptable although some fitness index for Model-SEM (manager) is less than 0.9 (Wu, 2010). The comparison by job position shows that 364 employees are top managers and middle managers (12.0%), and 2,665 are general employees (88.0%). Model-SEM (manager) indicates that culture satisfaction ($\lambda = 0.53$, p value < 0.01) and management satisfaction ($\lambda = 0.26$, p value < 0.05) significantly influence employee commitment to organizational culture. The cumulative variance reaches 0.78. The variance explained by culture satisfaction reaches 0.53, which is higher than explained by the general employee group. This result is attributed to the job accomplished for managers.

Model-SEM (general employee) shows that culture satisfaction ($\lambda = 0.28$, p value < 0.01) and management satisfaction ($\lambda = 0.52$, p value < 0.01) significantly influence commitment to organizational culture. The model explained 80% of the cumulative variance in the data. Thus, managers in Chinese SOEs are more focused on culture satisfaction than on general employees.

6. Conclusion

This study provides a descriptive analysis of employee satisfaction and commitment to organizational culture across 27 SOEs. The results can shed light on the improvement direction of corporate governance for each enterprise. Twenty-nine employee satisfaction indicators and three organizational culture indicators are used as observed variables, as well as five latent variables, namely culture, job, management, welfare satisfaction, and commitment to organizational culture [7]. Model-SEM was constructed to identify the effects of each type of satisfaction toward a commitment to organizational culture. The calculated path coefficients show that culture, management, and welfare satisfaction significantly influence commitment to organizational culture. The influence of job satisfaction is insignificant but is retained in the proposed model based on the theoretical argument. Whether employees are satisfied with the management policies and the internal culture of the organization has the greatest effects on their commitment to the organization.

The most important factors that affect employee commitment to organizational culture were identified for people with different backgrounds by conducting SEM with multiple-group analyses (Table 2). The following results are found. (1) Male employees pay more attention to job and welfare satisfaction than female employees when committing to organizational culture. (2) Short working years employees and degree holders are concerned with their welfare satisfaction when committing to organizational culture. (3) Managers are more concerned about their culture satisfaction when committing to organizational culture, whereas general employees are more concerned with their management satisfaction.

This study expands the literature on human resources management for Chinese SOEs, verifies the relationship and effects among employee satisfaction factors toward commitment to organizational culture. These results have implications for management practice in supporting the strategic decision-making of enterprise managers. The sub-group analysis in SEM revealed that the level of influence is related to the demographic background of the employees. This relationship helps in policy making and resource allocation to improve the quality of the job. A series of managerial suggestions improved the management practice of Chinese SOEs. The findings in this study can provide policy suggestions to managers of enterprises so that they can implement effective management policies to improve employee satisfaction and commitment to organizational culture while considering the individual characteristics of employees.

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Appendix

Appendix A: Descriptive analysis of commitment to organizational culture, and employee satisfaction factors with demographic information based on Tso's survey

Type Factors (Items)	Frequency	Organizational Culture				Employee Satisfaction				
		OrgC	OrgCC	OrgCP	OrgCI	CulS	JobS	MgtS	WelS	
Gender	Male	1,904	4.56	4.60	4.55	4.52	4.31	4.62	4.49	4.39
	Female	1,125	4.54	4.56	4.54	4.52	4.33	4.63	4.53	4.41
Working years	15 or above	1,752	4.55	4.60	4.54	4.51	4.30	4.64	4.49	4.40
	Less than 15	1,277	4.55	4.57	4.56	4.53	4.34	4.60	4.52	4.39
Education	Degree holder	1,298	4.57	4.61	4.57	4.54	4.35	4.64	4.51	4.45
	Non-degree holder	1,731	4.53	4.57	4.53	4.50	4.29	4.62	4.50	4.36
Job position	Managers	364	4.73	4.83	4.71	4.65	4.53	4.77	4.55	4.64
	General employees	2,665	4.53	4.55	4.52	4.50	4.29	4.60	4.50	4.36
Overall		3,029	4.55	4.59	4.55	4.52	4.32	4.62	4.51	4.40

Notes: $n=3029$.