



THE DETERMINANTS OF TEACHER TEAM STRUCTURE ON SUSTAINABLE DEVELOPMENT OF TONGREN UNIVERSITY IN CHINA

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Abstract:

Establishing a well-structured faculty is a significant plan for the reform and development of provincial-level universities. This paper analyzes and analyzes the age structure and scholarship structure of the five teachers of Tongren University, and finds out some hidden problems in the construction of the school's teaching staff, and proposes corresponding countermeasures. The research has been developed based on quantitative research methods through a measurement model and tried to gain further understanding. After that, by providing self-administered questionnaires, the primary data required is collected according to the survey strategy. Full-time teachers who teach at Tongren University in Guizhou, China, were selected as the sampling frame for this study. Findings show that a positive relationship exists between Age Structure and Team Structure. Also, there is a significant relationship found between Scholarship Structure and Team Structure; as well as a positive relationship found between Team Structure and Sustainable Development. This study is limited to Tongren University and may not provide similar findings in a different university. However, this study can be used as a guideline for future study on other factors which will influence the development of high-level talent lecturer team.

Keywords: determinants, teacher, team structure, sustainable development, Tongren University, China

1. Introduction

China's provincial universities are produced under the historical background of China's higher education reform and bear a critical historical mission. China is actively

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promoting the transformation and development of provincial universities and building applied universities with Chinese characteristics. In the process of transformation and development, the focus is on building a high-level teaching team. Focus on Tongren University is located in Tongren City, Guizhou Province, a famous city in western China. The university was established in 1920. In 2006, the Ministry of Education approved the establishment of a full-time undergraduate university. In 2013, the Ministry of Education passed the undergraduate teaching evaluation. In 2015, the first batch of applied pilot universities in Guizhou Province was completed. In 2016, it was China's 100 Applied Transformation University. In 2017, education was a first-class construction and cultivation discipline in the Guizhou Province. Also, in recent years, the university has made many developments in teaching, scientific research, and serving local economic construction.

The key to building a high-level applied university is to have a high-level teaching team. Among them, the age qualification and scholarship structure are challenging to build teachers. Taking Tongren University as an example, the status quo and problems of age qualification and scholarship structure in the faculty are analyzed. In response to these problems, countermeasures have been put forward to promote the optimization and development of the teaching staff to promote Tongren University to establish a national first-class university at an early date.

Establishing a well-structured faculty is not only the focus of the construction of the faculty of provincial universities in China but also the only way for the survival and development of the university. The construction of the faculty of the university needs to draw on the excellent experience of other universities in and outside the province, but it is more necessary to combine the situation of the university and propose corresponding measures and methods according to the current situation of the faculty of the university. The age structure of teachers can reflect whether the layout of the echelon construction is reasonable. A complete and reasonable age structure of the university faculty should be a reasonable proportion of the combination of old, middle and young, and in a dynamic balance of continuous development. It is the key to the "intrinsic" development path of provincial universities. The age structure of teachers is an essential factor for the stability of the teaching staff. Starting from the characteristics of the university, we should introduce teachers clearly and reasonably, optimize the age structure of teachers, and pay attention to the training and training of young teachers with goals and in batches, and train a group of high-quality backbone teachers to become the backbone of university teachers.

The number of graduates from foreign institutions is 22, accounting for 3.06% of the total number of teachers. The number of Chinese university graduates is 697, accounting for 96.94% of the total. Among the accredited institutions in China, there are 300 universities in Guizhou Province, accounting for 44% of the total number of teachers. Among them, Guizhou University has the most significant number of graduates, 91 people, accounting for 30% of the total number of university graduates in the province, Guizhou, China. There are 397 colleges and universities outside the

province, accounting for 56% of the total number of teachers. It can be seen that Tongren University has a single scholarship structure, and the proportion of graduated universities in Guizhou Province in China is too large, which is not conducive to the development of the university's disciplines and professional construction. To a large extent, teachers are limited to academic innovation and professional construction. Not conducive to the construction and development of the teaching team. Only the diversity of teachers' sources can effectively promote academic integration and improvement.

This paper mainly studies how to optimize the teacher's age structure and how to optimize the teacher's scholarship structure. At present, it is a crucial period for China's higher education to comprehensively promote the transformation of provincial-level undergraduate colleges to the training of applied talents and the transformation of universities themselves into applied technology universities. This paper takes Tongren University in Guizhou Province as an example and is a typical representative of the transformation of new provincial universities to applied universities. At present, Guizhou provincial undergraduate colleges and universities face many problems to be solved. The key issues are the age structure of the teaching staff and the construction of the scholarship structure of teachers. At present, Guizhou Province urgently needs to conduct academic discussions on this issue. Through the research on the teachers of Tongren University in Guizhou, it will help to provide policy theory support for the development of western China and the training of "One Belt, One Road"; it will help to provide a reference for the transformation and development of other provincial-level undergraduate teachers in Guizhou Province. It will help to provide a reference for teachers in other provincial universities.

2. Literature Review

The first half of this review reviews the literature on attribution theory and two-factor theory, providing a theoretical basis for this study, while another section reviews recent literature. Recent literature has focused on the age structure, scholarship structure, institutions, and the development of the faculty. Besides, the literature review begins with a theoretical review of research phenomena. Firstly, the attribution theory is mainly a theory that can guide people to find internal and external factors in their daily life. The fundamental problem of attribution theory research is the causal relationship, social inference problem, behaviour expectation and prediction of people's psychological activities (Azam and Moha Asri, 2015; Tham et al., 2017; Udriyah et al., 2019; Al Shehhi and Azam, 2019a). First, the causal relationship includes two aspects of analysis: direct and indirect causes, internal and external factors. Secondly, the social inference problem is to reasonably infer the stable psychological characteristics, quality and personality differences of the actors through the analysis of people's behaviours and results. Finally, behavioural expectations and predictions are based on past typical behaviours and outcomes, inferring what behaviours might occur under certain conditions.

The role of attribution in the process of teacher motivation is particularly important. When teachers encounter setbacks in the teaching process, managers should actively guide them to help them objectively analyze and identify failure attributions in time, re-establish and maintain Self-confidence, while taking effective measures to prepare teachers for their success again adequately. Applied universities will undergo an unprecedented transformation in terms of teacher structure, discipline construction, professional construction, and talent training goals. For some teachers, they will face enormous challenges in the face of personal, professional development. In this process, there will be many difficulties and even setbacks that have not been encountered. This requires the analysis of the reasons from the perspective of attribution theory, scientific analysis of the causes, and the solution of problems from the perspective of external and internal factors so that teachers can adapt to the new situation as soon as possible.

Besides, the theory states that factors that bring positive, satisfying, and stimulating effects to work are called “incentives”. People who bring negative work, working conditions and atmosphere are “health factors” such as system management, remuneration, wages and benefits, work environment, and interpersonal relationships. When employees do not object to these factors, they only play a role in eliminating dissatisfaction, but they do not play a role in motivating employees. These factors are equivalent to the most basic physiological needs and safety requirements of the Maslow hierarchy theory. Feel the need to wait for lower levels of demand. Improving “health factors” will only reduce employee dissatisfaction, but it cannot be an incentive. It will only reduce dissatisfaction. To motivate employees’ initiative, attention must be paid to “incentives”. For any organization, the enthusiasm of the members of the organization is the core driving force and a critical factor in achieving organizational goals (Haque et al., 2014; Rachmawati et al., 2019; Tarofder et al., 2019; Al Shehhi and Azam, 2019b). For newly-built places, provincial-level colleges and universities, the establishment of “double-type” teacher teams needs to attach great importance to “incentives.” The critical role of “factors” has attracted more “double-type” teachers, which has injected new strength and strength into the development of university teachers, and provided teacher protection for the transformation of universities into applied technology universities.

From an empirical point of view, it is difficult to recruit young and middle-aged teachers. Ma Ting (2014) believed that the backbone teachers of excavation schools are not attractive enough for the young and middle-aged teachers who have recruitment experience because of the lack of overall strength of the school. According to Zhang Xiaoxu (2014), the newly established undergraduate colleges in China are geographically and at the school level, teaching level, welfare treatment, scientific research environment and other aspects have a big gap with the old undergraduate colleges, so the recruitment of young and middle-aged teachers is facing many difficulties; (Yang Yuhua, 2011) that China’s new local undergraduate colleges in the region, fame The academic environment and treatment are in a competitive

disadvantage, and it is difficult to take the young and middle-aged teachers from the foreign schools.

Recruiting new graduates is relatively easy (Ma Ting, 2016), and it is relatively easy to recruit new graduates in the current situation of difficult employment in China and the pressure of employment of recent graduates. Compared with teachers who have experience in excavating schools, the recruitment cost is lower. From the perspective of college teacher management, most colleges and universities in the recruitment of teachers believe that young teachers who have just entered the school are well managed and well-trained. They are more enthusiastic and energetic than the old teachers in terms of work status. The proportion of young teachers is quite large. (Zhang Jie, 2016) The age structure of teachers in local universities in China is unreasonable; especially the new job-oriented youth is particularly prominent, lacking teaching experience and scientific research ability.

The loss of young and middle-aged teachers, among the middle-aged teachers, there is a department of teachers who continue their training through their efforts and improve their academic qualifications. After graduation, the teachers' value has been improved, and they are attracted by the prosperous conditions of international school recruitment. Teaching in other better universities is a great loss of teachers' resources for the application technology universities with high academic qualifications; Fan Lin (2010) pointed out that most of the new undergraduate colleges are located in small and medium-sized cities. The local economic development level is not enough, the investment is insufficient, the school conditions are relatively weak, so the lack of attractiveness to the young and middle-aged teachers and the school has trained some teachers to obtain senior professional qualifications, resulting in the loss of talents due to the welfare of the school and other reasons. Chen Yumei (2008) stated that the traditional old-fashioned colleges and universities use the school's geographical, fame, academic environment, and the advantages of the treatment, recruiting talents, recruiting talents, constantly replenishing teachers, and reserve teachers, so that China's new provincial-level outstanding teachers are continually losing.

Scholars who have made significant contributions to Chinese education have achieved very high achievements in the study of educational theory. The editor-in-chief of Higher Education has laid the foundation for a new discipline in higher education. Teacher educational title system, the appointment system, and retirement system were discussed and analyzed; (Huang Jianxiong, Zhang Jiping, 2013) that the faculty of Chinese universities currently has some problems in structure, mainly the age structure is irrational, and the young teachers are more important. Reform the teacher's qualifications, employment standards and other systems to optimize the structure of the faculty; (Qian Haiting, 2009) that there is a significant gap in the proportion of teachers between different age groups in China's new provincial-level teachers.

The source of recruiting teachers is single. (Wang Liping, Rowan, Zhao Baoyun, 2017) Changing the recruitment of teachers in the transformation of the teaching staff, and finally giving the countermeasures and suggestions for the construction of the

teaching staff in the transition from provincial to applied technology universities in China; (Huang Jianxiong, Zhang Jiping, 2013) that the current faculty of Chinese universities The existence of scholarship structure is too single, and it is necessary to harden the close relatives recruitment thinking mode to optimize the scholarship structure.

The recruitment of teachers is not perfect. (Yao Xu, 2016) That is the context of transformation and development, in the face of the single source of teachers and the unreasonable knowledge structure of teachers, the construction of the teaching staff of local, new undergraduate colleges in China needs to formulate a long-term plan for the construction of teachers and expand the channels for the introduction of teachers. To establish a sound teacher training system and establish an effective teacher evaluation system with full-time teachers who are equipped to meet the needs of transformation and development. (Li Chaoyou, Qiao Pengchao, Liu Chaoyang, Fu Yuan, 2016) Proposed to deepen the reform of the university education system, establish an open university teacher recruitment system, promote the “scholarship reengineering” of college teachers, improve the employment standards of full-time college teachers and learn from international experience — moreover, other measures to promote the quality of the full-time teaching staff of Chinese universities.

A particular historical reason for the establishment of a new provincial university (Yao Xu, 2016), which because the application technology university is a unique historical reason for the new provincial level (Azam et al., 2014; Haur et al., 2017; Tarofder et al., 2017; Katukurunda et al., 2019; Chong et al., 2019), compared with the research university when recruiting teachers, there is less room for recruitment. China’s new provincial level is relatively lagging in terms of social recognition, school strength, and teacher development prospects. It is gradually being built and perfected (De Silva et al., 2017; Kuruwitaarachchi et al., 2019; Pambreni et al., 2019). This is unattractive for many graduates from well-known foreign universities and universities outside the province. It is rare to be able to recruit such graduates, or to recruit graduates from the province under the same conditions of recruitment, thereby increasing the localization of graduates. The school’s academic resources are limited, which severely hinders the academic exchanges of the school and the post-employment development of teachers.

The influence of the system enhances the sustainable development of the teaching staff. (Han Fubin, 2016; Jayasuriya and Azam, 2017; Dewi et al., 2019; Nguyen et al., 2019) The transformation requires Chinese local undergraduate colleges to formulate a set of policy systems for teacher recruitment, talent introduction and senior professional title evaluation, formulate or revise relevant systems, and optimize the structure of the teaching staff; Wang Yiding, Wang Weiyang (2015) considered application technology The construction of the university’s faculty is of great importance to the transformation and development of local undergraduate colleges. It requires not only the efforts of the school but also the support of the government and society. The school needs to reform its personnel management system and teacher

training system. The government must be qualified for talents. We will give strong support to schools and enterprises to jointly create a faculty with new characteristics that meet the requirements of the University of Applied Sciences, so as to cultivate applied professional and technical talents; Jinquan (2009) mentioned that the teacher management system is a teacher The primary factor in team building plays a fundamental and long-term impact on the promotion of higher education. In order to improve the existing teacher management system, we should start from four aspects: accurately constructing institutional issues, improving the system to formulate the participant mechanism, and coordinating the relationship between the systems and improving the importance of the system implementation (Maghfuriyah et al., 2019; Pushpakumara et al., 2019; Al Shehhi and Azam, 2019c).

A review of the research on the sustainability of the faculty is reviewed. Fan Qing & Qiu Hui (2018) stated that speeding up the transformation of local university teachers and ensuring the quality of transformation, local universities should improve the employment and access system, strengthen the teacher training system, establish a teacher transfer and retraining system, and promote diversification. According to Ge Linbo (2017), taking the newly established undergraduate colleges in China as an example, this paper analyzes the dilemma and connotation of the construction of applied faculty in local, new undergraduate colleges, and proposes standards based on thinking renewal, connotation construction, collaborative cooperation, and teacher performance appraisal. Innovative means such as methods, promote the transformation of the teaching staff to adapt to the needs of the development of applied undergraduate colleges and universities; Zhong et al. (2016) assumed in clarifying concepts, clarifying connotations, overcoming utilitarian tendencies, and deepening models Reform, adhere to the rule of law, rule the school according to law, scientifically draw on international experience, pay attention to localization practice, teacher selection, hiring and dismissal related systems, etc., put forward suggestions for guiding the development of local ordinary undergraduate institutions to achieve rapid development; Liu Xiaoge (2013) stated that the new situation of China's higher education transition from elite to popular, proposes to ensure the stable and sustainable development of higher education, the key is the performance evaluation and promotion mechanism of the teaching staff construction of colleges and universities.

Based on the research, the four indicators of age structure, scholarship structure, system and teacher team were selected for quantitative investigation. Among them, the age structure and scholarship structure are the core indicators reflecting the current situation of the construction of teachers. Therefore, a review of the theoretical framework and empirical work in the previous section helps identify the critical variables required for the current study. The following sections will be based on the findings of the literature, clearly explaining each relationship between variables and the definitions that are appropriate for the current study. Besides, Figure 1 shows the conceptual framework presented in this study.

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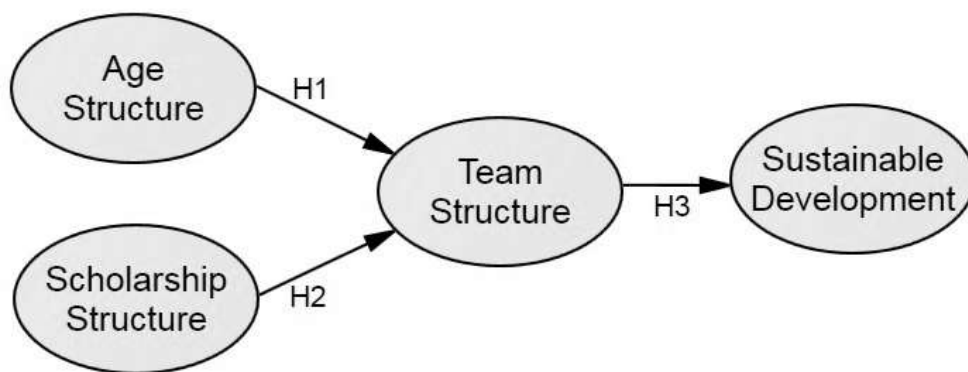


Figure 1: Conceptual framework

Given the above and previous empirical studies, several assumptions have been made. After that, considering the results of previous studies, this study established the following assumptions.

Hypothesis 1 (H1): The age structure has a significant positive impact on the team structure of Tongren University in Guizhou.

Hypothesis 2 (H2): The scholarship structure has a significant positive impact on the team structure of Tongren University in Guizhou.

Hypothesis 3 (H3): The team structure has a significant positive impact on the sustainable development of Tongren University in Guizhou.

3. Research Methodology

This research is a quantitative research that followed a descriptive research design. As a research technique, survey method has been used to collect primary data through a structured questionnaire. In the structured questionnaire, the multiple choice questions were used to collect the demographic data. The five points Likert scale varying from 1 = 'Strongly disagree' to 5 = 'Strongly agree' has been used. The secondary data were collected from the published materials such as; journals, books, articles and computerized databases. Two independent variables were proposed for the model in this study. In selecting respondents, the simple random sampling method was

followed, and primary data were collected from the teachers. To input the data and carry out the required analysis on it, SPSS version 21.0 was used. Descriptive analysis of the respondents' demographic attributes as well as the reliability analysis of the study variables was performed in this study. AMOS version 21.0 was used to perform Structural Equation Modeling (SEM) to test the hypotheses developed for this study.

4. Data Analysis and Findings

This section starts with the respondents' profile. According to the respondents' responses to the items in the questionnaire, Table 1 provides the average scores of four aspects: Age structure, scholarship structure, system optimisation, and sustainable development of the lecturer team. The scores in the interval [0-4), [4-4.5], and [4.5-5] indicate that the degree of recognition has low, medium, and high levels, respectively. The status quo of the construction of the lecturer team is reflected in two aspects: Age structure, scholarship structure.

Table 1: Levels of the indicators of the lecturer team

	Mean	Standard deviation	Level
Age structure	4.529982	0.2626387	High
Scholarship Structure	4.498926	0.2566621	Medium
System	4.688976	0.1372236	High
Sustainable Development	4.550306	0.4713314	High

The higher the score, the more restrictive conditions exist for the construction of the lecturer team. Table 2 exhibits the surveyed status of the lecturer team, the system optimisation, and the average score of the sustainable development of the lecturer team with different professional qualifications and different levels of education.

Table 2: Average scores of respondents with different professional qualifications and different levels of education

	N	The status quo of the lecturer team	Policy	Improving the sustainable development of lecturers
Assistant Teacher	34	4.78	4.92	4.72
Lecturer	76	4.61	4.74	4.60
Deputy Senior Professional Qualification	105	4.40	4.58	4.45
Positive Professional Qualification	39	4.55	4.67	4.57
Bachelor	143	4.59	4.74	4.59
Master's Degree	91	4.45	4.60	4.48
Doctor	20	4.58	4.74	4.61

Besides that, Hair et al. (2009) have mentioned that it is essential to conduct factor analysis, as it helps researchers in summarising the information gathered from a particular set of data. However, before proceeding with EFA, two tests, namely, Kaiser-

Meyer-Olkin (KMO) and Bartlett's Test of Sphericity, should be verified for checking the factorability of data (Pallant, 2007). Tabachnick et al. (2001) have indicated that the value of the first test (KMO) ranges from 0 to 1, and for an appropriate analysis it is essential to have at least a value of 0.6, and for the latter (Bartlett's Test of Sphericity) it is essential to attain a significant p-value ($p < .05$). After running both of these several tests through SPSS, it was observed that the results of both fell within the acceptable range, indicating that the researcher can run EFA. The outcomes of the tests are shown below in Table 4. From EFA, certain items have been derived, and all the items are considered to be significant as they managed to load with a value higher than 0.50, and any loading above this value is considered to be practically significant by Hair et al. (2009). It shows that the total variance accounted for approximately 72.824% per cent, which is highly adequate. A higher variance is explained when eight components are retained. Cronbach's alpha has also been calculated for all the items of the four variables. It can be seen in Table 4, all items under each of the variables are reliable as they all have surpassed the minimum value of .60 suggested by Hair, Black, Babin, and Anderson (2010).

Table 3: Kaiser-Meyer-Olkin (KMO) & Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.769
Bartlett's Test of Sphericity	Approx. Chi-Square	5431.760
	Df	
	Sig.	.000

Descriptive statistics help to interpret data consequentially by summarizing the data set of the population or sample (Malhotra, 2011). To achieve the basic features of the data set, the following methods of descriptive statistics have been applied to the data of this study.

Table 4: Descriptive statistics and reliability measures

Variables	Mean (Item)	SD (Item)	Cronbach Alpha
Age Structure	3.7358	.69605	.893
Scholarship Structure	3.6667	.70288	
Team Structure	3.80	1.003	
Sustainable Development	3.62	1.142	

It can be noted from the above table that all constructs have a mean score of more than three. Age Structure, Scholarship Structure, Team Structure, Sustainable Development, Team Structure and norms and values have mean scores 3.74, 3.67, 3.87, 3.64, and 3.41, respectively. As each of the values drops below 4.0, a corresponding value equivalent to agree on the five-point Likert scale, the concluding remark is that there is a need for some consideration to increase satisfaction on these cultural factors. The dependent construct, teacher satisfaction's mean value of 3.80 indicates that teachers are intimately satisfied with the mentioned variables. The mean value of Sustainable Development represents that this strategy is higher effective in the tourism market. The standard

deviation of the first six constructs indicates that the responses on average were a little below 1 point away from the mean. It reflects the fact that the mean of the sample more accurately portrays the mean of the actual population. All of the constructs used in the study are reflective. In an attempt to calculate measurement errors, each of the latent constructs was measured by multiple observed items (See Table 5).

Table 5: Results of reliability and validity

Key Factors (Constructs)	Sub-Factors (Item)	Communalities	Factor Loadings	Mean	S.D	Cronbach's α
Age Structure	AS 1	.723	.779	3.39	1.059	0.903
	AS 2	.739	.763	3.56	1.270	
	AS 3	.687	.767	3.67	1.180	
	AS 6	.623	.514	3.93	.984	
Scholarship Structure	SS 1	.714	.555	3.65	1.051	
	SS 2	.666	.656	3.72	1.053	
	SS 3	.739	.793	3.73	1.165	
	SS 4	.620	.515	3.64	1.039	
	SS 5	.677	.537	3.73	1.078	
	SS 6	.800	.748	3.50	1.168	
	SS 7	.603	.680	3.70	1.092	
Team Structure	TS 1	.563	.718	3.71	.951	
	TS 2	.674	.563	3.94	.996	
	TS 3	.757	.798	3.67	1.104	
Sustainable Development	SD 1	.769	.755	3.50	1.103	
	SD 2	.831	.688	3.23	1.339	
	SD 3	.765	.671	3.52	1.168	

This study adopted a two-step technique of model through SME analysis recommended by Anderson and Gerbing, (1988). In this technique, data was analyzed initially through factor analysis, which provides an assessment of measurement reliability, convergent and discriminant validity. Then, the structural equation model was conducted to test the model fit and to understand the hypothesized relationships. Before the model test, the correlation matrix for all constructs of the proposed model was examined. The results of and correlations among the variables are shown in Table 6.

Table 6: Summary of correlations among constructs

Constructs	Correlations			
	Age Structure	Scholarship Structure	Team Structure	Sustainable Development
Age Structure	1			
Scholarship Structure	.692**	1		
Team Structure	.680**	.626**	1	
Sustainable Development	.474**	.577**	.305**	1
Development	.621**	.735**	.525**	.664**

** Correlation is significant at the 0.01 level (2-tailed)

The correlations estimates indicated that the scales are empirically distinct from each other. The correlation matrix indicates there are positive correlations among all of the study variables. Besides, this study represented that all of the variables are significant at the 0.01 level. Table 6, the Pearson Correlations co-efficient is 0.692 between Age Structure and Scholarship Structure factors, which indicates a positive moderately high linear relationship and this relationship exists at the significant level of 0.01. The correlations co-efficient between Age Structure and Team Structure, Team Structure and Scholarship Structure, as well as Scholarship Structure and Team Structure, are 0.680, 0.626 and 0.735 respectively which indicate there is the moderate relationship among them. These relationships are also significant at 0.01 level. Relationships between other constructs are also significant at 0.01 level.

5. Assessing Reliability and Validity

The estimates of structural relationships can be biased unless the measurement instrument is reliable and valid. Therefore, reliability and validity should be measured to make this study authentic. Reliability of each construct has been assessed through a degree of internal consistency. This analysis was conducted before other analyses. For data to be considered reliable, the value of its Cronbach's alpha should be >0.7 (Nunnally, 1978). The reliability analysis of this paper sample produced a Cronbach's alpha of 0.903 (Table 5), meaning that all items used in the questionnaire were reliable.

Next, the construct validity was calculated by the factor analysis. Where the Principle Component Analysis with Varimax rotation has been applied to minimize the number of variables with extreme loadings on a factor. After the rotated component matrix, it is assumed that variables are loaded onto factors. Convergent validity means that the variables within a single factor are highly correlated. This is evident by the factor loadings in Table 5.

Communality means the extent to which an item correlates with all other items that indicate higher communalities are better. If communalities for a particular variable is low (between 0 - .4), then that variable may struggle to lead significantly on any factor. So, the values of communalities are more than 0.5 estimates that all items have a pretty good quality of influence in all.

Discriminant validity refers to the extent to which factors are distinct and uncorrelated. To meet the discriminant validity, the variable should relate more strongly to their factor than to another factor. Two primary methods help to determine discriminant validity. The first method is to examine the rotated component matrix. Variables should load significantly only on one factor. The rest of the items were, and the discriminant validity is assumed.

Another method for validity testing is to examine the factor correlation matrix and correlations between the key strategic factors which should not exceed 0.8 (Kenneth, 1988). Thus, in this method, Table 6 presented that all of the correlation values between factors are below 0.8, which provide support to the discriminant

validity. Overall, according to the evidence of reliability, convergent validity and discriminant validity, the measurement model was believed to be appropriate.

6. Model Fit

In this phase, a confirmatory factor analysis (CFA) using AMOS 21 was conducted to evaluate the model fit. The fit of the model was evaluated based on several fit indices. The fitness of the model was considered not only through the absolute model fit but also incremental model fit. Incremental fit indices, also known as comparative (Miles and Shevlin, 2007) or relative fit indices (McDonald and Ho, 2002), are a group of indices that do not use the chi-square in its raw form but compare the chi-square value to a baseline model. At first, the author determined the absolute model fit in below. Absolute fit indices determine how well a priori model fits the sample data (McDonald and Ho, 2002) and demonstrate which proposed model has the most superior fit. Included in this category are the Chi-Squared tests, DF, P value, RMSEA, GFI, AGFI, and the RMR.

Table 7: Results of the Absolute Model Fit

χ^2	DF	χ^2/DF	P value	RMSEA	GFI	AGFI	RMR
67.172	14	4.798	.000	.069	.861	.821	.066

The Chi-Square value (χ^2) is the traditional measure for evaluating overall model fit and, 'assesses the magnitude of discrepancy between the sample and fitted covariance's matrices' (Hu and Bentler, 1999). Table 7 shows that, the chi-square is 67.172 (DF= 14, $P < 0.01$). In an absolute model fit, the P value should be less than 0.01. In this table, the P value is 0.000, so, this model is better fit according to the P value indicator.

The RMSEA is the other fit indices reported in the LISREL program and was first developed by Steiger and Lind (1980, cited in Steiger, 1990). The RMSEA indicate how well the model and its cut-off points value, which should be less than 0.08. Table 7 represents that the RMSEA value is .069 (smaller than .08), which means a good model fit. Jöreskog and Sorbom created the Goodness-of-Fit (GFI) as an alternative to the Chi-Square test and calculated the proportion of variance that is accounted for by the estimated population covariance (Tabachnick and Fidell, 2007). According to Diamantopoulos and Siguaw, (2000), the ranges for GFI and AGFI from 0 to 1 with larger samples increasing its value. The results showed in Table 7 indicate that the value of both GFI and AGFI are more substantial than 0.800, that measures a generous fit of the model. On the other hand, the lower RMR (0.078) and RMSEA indicate a better fit of the model. This model is known as comparative (Miles and Shevlin, 2007) or relative fit indices (McDonald and Ho, 2002) and use only NFI, TLI and CFI rather than Chi-square.

Table 8: Results of Incremental Model Fit

NFI	CFI	TLI
.859	.866	.798

Values for NFI, CFI and TLI range between 0 and 1 with Bentler and Bonnet, 1980 recommending values higher than 0.09, indicating a good fit. Most recent suggestions state that the cut-off criteria should be ≥ 0.95 (Hu and Bentler, 1999). The following table shows that values for NFI, CFI and TLI are more than 0.80 and only TLI is less than 0.80. These results state that this model should be considered a flexible fit. According to the fit indices from CFA, the model provided evidence of satisfactory fit. Therefore, the proper measure of the model is met.

7. Hypothesis Testing

After the model was found to be acceptable by examining the model fit indices, the proposed hypotheses were tested using Structural Equation Modeling (SEM) technique with Maximum Likelihood Estimation. Within the overall model, the estimates of the structural coefficients provide the basis for testing the proposed hypotheses. Hypotheses are tested by examining the significance level, direction and magnitude of the standardized estimates of paths that link independent variables with the dependent variable. The summarized results are presented in Table 9.

Table 9: Results of path analysis

Hypothesis				Estimates	P value	Result
H1	Age Structure	→	Team Structure	0.787	***	Accepted
H2	Scholarship Structure	→	Team Structure	0.918	***	Accepted
H3	Team Structure	→	Sustainable Development	0.694	***	Accepted

Source: AMOS output by analyzing primary data

The result shows that the estimated value for Age Structure in the prediction of Team Structure is 0.787 and p-value is less than 0.01. This indicates a positive relationship found between Age Structure and Team Structure. The p-value is .000, which means this relationship is significant at a level of .01 (Table 9). The result presents that, the estimated value for one of cultural factor which is Scholarship Structure and Team Structure is 0.918 and p-value is less than 0.01. This means there is a significant relationship found between Scholarship Structure and Team Structure. The p-value is .000, which means this relationship is significant at a level of .01 (Table 9). The result shows that the estimated value for Team Structure in the prediction of Sustainable Development is .694 and p-value is less than .01. This means there is a positive relationship found between Team Structure and Sustainable Development. The p-value is .000, which means this relationship is significant at a level of .01 (Table 9). The hypothesized relationships between exogenous and endogenous variables are significant at .01 level. The directional relationships between them are statistically

established (Table 7). So, H1, H2, and H3 hypotheses are accepted at .01 levels. All hypotheses are established through this study.

8. Discussion and Conclusion

By referring to the age structure revealed in the current research, the relationship between scholarship structure and institutional optimization, and the sustainable development of the teaching staff, it can be concluded that it is necessary to increase the construction of the provincial university teachers. The level of faculty construction not only requires the optimization of the university system but also requires the government to provide institutional protection in many aspects.

Strengthen teacher training and optimize the Structure of Consanguinity of Scholars of the teaching staff. At present, the pre-job training of newly-established Chinese provincial universities in various provinces in China is mostly the traditional Chinese provincial-level university teacher training, which is not suitable for the needs of university transformation and development. Relevant departments should establish a pre-post for application-oriented teacher training as soon as possible. Teachers are less motivated in teaching because of outdated knowledge. In today's knowledge information age, there are many ways for students to acquire knowledge. The knowledge that teachers teach in the classroom cannot cause interest in learning, and the enthusiasm for learning is not high, which leads to teacher teaching. The enthusiasm is not high, resulting in frustration.

Improve the introduction of talent system and optimize the Structure of Consanguinity of Scholars. China's provincial-level universities should open up channels to break the old recruitment system, stand on the discipline construction, improve the academic level, strengthen academic exchanges, continuously improve the introduction model, attract more high-quality academic academics, and enrich the diversity of academic and academic schools. Sexuality, continually optimize Structure of Consanguinity of Scholars, provide the necessary conditions and teachers for the development of university disciplines.

For the original formal admission form, academic qualifications and professional qualifications are no longer the primary standard system. It is necessary to fully consider the needs of practical teaching and introduce practical talents. At the same time, we must vigorously improve the introduction of high-level talents through improved treatment, and we can also introduce part-time teachers through appropriate channels. In the management mode of the faculty, there may be a long-term employment system, a medium-term system, a short-term employment system, or a part-time system. In terms of the composition, there may be formal methods such as editing and personnel agency. With long-term full-time teachers as the mainstay and multiple modes of employment coexisting, this not only ensures the vitality and competitiveness of the teaching team but also promotes the diversity of Structure of Consanguinity of Scholars. It can also form a positive pressure on formal teachers.

Improve the salary and welfare system for teachers at provincial universities in China. The University should conduct in-depth research on the treatment of teachers in various provincial universities in China. According to the principle of combining the actual situation of the university with the treatment of teachers in other Chinese provincial universities, the university will gradually increase the salary of teachers in schools and try not to be lower than the provincial universities in China. The average salary level of teachers will ensure the protection and improvement of teachers' lives. For retired teachers with high academic qualifications and high professional qualifications, the university should implement a re-employment system, and encourage the old teachers who are willing to stay in school to re-employ, effectively use the teachers in the school to ensure the rationalization of the structure of the teaching staff.

Moreover, this study is limited to Tongren University and may not provide similar findings at different universities. However, it has very high reference value for the construction of the university's faculty in the future, and it has particular reference significance for other universities. This research can be used as a guide for other factors in future research, and these factors will affect the development of the university faculty.

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