



## DOES TEACHING EXPERIENCE MODERATE TEAM STRUCTURE AND OPTIMIZE THE FACULTY? EMPIRICAL EVIDENCE FROM GUIZHOU UNIVERSITY IN CHINA

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### **Abstract:**

Establishing a well-structured faculty is not only the focus of the construction of college faculty but also the only way for the survival and development of the university. The current research is based on quantitative research methods through a measurement model and tries to gain further understanding. After that, the primary data required is collected according to the survey strategy by providing self-administered questionnaires and interviews. Full-time lecturers who teach at Guizhou University in China were selected as the sampling frame for this study. Using Structural Equation Modelling (SEM), moderating effects were observed to test the hypotheses. The results indicate that there are moderating effects of lecturers' teaching experience on team structure towards optimizing the faculty. Optimizing the structure of the faculty of Guizhou University not only requires Guizhou University to introduce policies that are conducive to the construction of faculty but also requires the government to give team structure support to the faculty of the university. Finally, this research brings some implications to the policymakers and regulators as well.

**JEL:** I20, I23, J24

**Keywords:** professional title structure, degree structure, team structure, optimize the faculty, Guizhou University, China

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## 1. Introduction

Guizhou University has been listed as one of the 100 key “211” universities in China in the 21st century. It is a first-class discipline-building University in China and a middle school. The Ministry of Education, in cooperation with the people’s government of Guizhou Province, has jointly established the State Key Universities and the best critical comprehensive universities in Guizhou Province, which are high-level universities in the critical construction of the western region. In October 1950, it was named Guizhou University. In August 1997, it merged with Guizhou Agricultural College and other universities. In August 2004, it merged with Guizhou University of Technology. In December 2012, the Ministry of Education and the Guizhou Provincial People’s Government jointly built colleges and universities. In April 2016, it was listed as the national “one province, one school” key support for the construction of universities. In November 2017, he was awarded the title of the first Chinese Civilization Campus.

The university has a wide range of subjects, including literature, history, philosophy, science, engineering, agronomy, medicine, economics, management, law, education, and art. There are 40 colleges and 33,064 full-time undergraduate students.

Lecturers are the main body of the university. Whether the Professional Title structure and Degree structure of the teaching staff are reasonable, directly affects the overall quality of the teaching staff, affects the development of the university, and how to establish a well-structured teaching staff, which is the reform and development of higher education institutions. This paper analyzes and analyzes the professional title structure and Degree structure of the three-year faculty of Guizhou University finds out some problems existing in the construction of the faculty of the school and proposes corresponding optimization measures, which is exceptionally high for the future construction of the university faculty. The reference value will lead the construction of the optimization faculty of other universities in Guizhou, which has important reference significance for other universities in China and abroad.

Among the full-time lecturers of the school, there are 1006 doctoral students, accounting for 39.88% of the total number of lecturers; 1284 with master’s degrees, accounting for 50.89% of the total number of lecturers. There are 233 bachelor’s degrees, accounting for 9.23% of the total number of lecturers. The proportion of lecturers with master’s degrees is large. From 2016 to 2019, the academic level of the faculty is gradually increasing. The number of lecturers with a master’s degree or above is increasing year by year, and the proportion of lecturers with bachelor’s degrees is gradually narrowing. The Ministry of Education of the People’s Republic of China stipulates that the proportion of doctors in key universities should be greater than or equal to 50% in the evaluation index system of the new national undergraduate colleges. The school should increase the proportion of doctors in full-time lecturers from 39.88% in a short period.

The degree structure mainly determines the academic foundation of the teaching staff. The Professional Title structure mainly determines the academic strength of the team. This paper mainly studies how to optimize the lecturer’s Professional Title

structure and how to optimize the lecturer's academic degree structure. At present, China's higher education is in the stage of significant reform, great development, and a vast improvement. It is in the critical link from scale expansion to quality improvement. The structural adjustment will inevitably become the core of higher education reform, and the best Guizhou University lecturer team structure will be developed in Guizhou Province. Research is of great significance. Through the research of this thesis, it can bring some enlightenment to other universities in Guizhou Province when choosing the structural adjustment measures of lecturers. It provides countermeasures for the adjustment of the structure of lecturers in other universities in Guizhou Province and formulates relevant higher education policies for the Chinese Ministry of Education and the government. Provide a theoretical reference.

## 2. Literature Review

The primary theoretical basis of this thesis includes structural function theory, system optimization theory and mutual benefit symbiosis theory.

### **A. Structural Function Theory (American sociologist T. Parsons, R. Merton, 1950)**

It is mainly about the relationship between the constitutional state of things and the overall functional state of things. Later, scholars extended and supplemented the theories of T. Parsons and R. Merton. The main points are as follows.

The structure is the primary way of existence of things. The history of human science has been proven that everything has a specific structure, certain things and certain structures coexist, and everything is formed, expressed and integrated as a whole by a given structure. There are no unstructured things, no structure without things. Whether it is a macroscopic cosmic star, a mesoscopically visible object, or a microscopic science, the smallest particle ever discovered - quark, whether it is the universe in the natural world, the human organization of the social world, or the language and thinking of the spiritual world, One is not the existence of structure. The structure is omnipresent and inseparable from things. From a dynamic perspective, structural changes will inevitably lead to changes in things, and the development of things depends on structural optimization.

Structural analysis is a fundamental way to understand things. Structural analysis is the primary method for human beings to understand the world. It is inherently consistent with analytical synthesis. The most common way to analyze things inside is to split the things into multiple parts, and then carefully examine the characteristics of each part, the relationship between each part, and the way each part constitutes the whole thing.

There is a high degree of correlation between structure and function. The theory of structural function considers that the structure and function of things are closely related. A specific structure corresponds to a particular function. Under the same conditions, the structure determines the function. At the same time, there are four

relationships between structure and function: one-to-one, one-to-many, many-to-many, and many-to-one. The connection between structure and function is complex, and often has many forms such as isomorphism, different isomorphism, and isomorphism. First of all, the university lecturer team is a structured system. The structure of lecturers in different universities (or university systems) or the same university (or university system) in different periods are often different, even massive. Secondly, structural analysis is the most fundamental way to understand things. We know the team of college lecturers and cannot do without the in-depth analysis of their structure. Thirdly, the structure and function of college lecturers are highly correlated; the structure determines the function, the different combinations and different connections of the members of the university lecturers, the members will have different characteristics of mutual birth, mutual gram, phase checks, phase transformation, and phase neutrality. Therefore, the university lecturers team has the functions and functions of different natures and sizes. It can be seen that the theory of structural function not only lays down and enhances the significance of this research in theory, but also provides methodological guidance for the study, especially the discussion of structural optimization standards.

### **B. System Optimization Theory (Wei Hongsen, Zeng Guoping, 1995)**

It is mainly an essential branch of general system science. It is the crystallization of system theory and evolutionary cross-infiltration. It focuses on exploring and revealing the general laws of system change and development. The main points are as follows:

Any system is a system that continues to evolve. The system is composed of elements, the constant changes like the elements themselves, and the constant changes in the relationship between the elements, causing constant changes in the structure, functions, and features of the system. According to the dialectical materialism, any system has an objective existence. Things are in constant change, movement is eternal and absolute, and rest is temporary and relative, and everything must go through the process of creation, development, and extinction. Therefore, any system is a constantly changing system that may be positive, maybe negative, or may behave in another form of stagnation. Among them, the forward evolution system is what we call the optimized system.

System optimization is a performance state in system evolution. The system will show different states in the long-term evolution, with optimization and non-optimization. The optimized system is in the positive evolution, the interaction between the elements is good, the part and the whole are coordinated, the energy and potential are enormous, the function and the system in the extended state.

System structure optimization is the basis and performance of system optimization. The realization of system optimization is reflected by the improvement of system organization, structure and function. The optimization of the structure is the crucial aspect and key link, that is, system optimization must include the structural optimization of the system. At the same time, system structure optimization is the overall optimization of the system. Therefore, system optimization is inseparable from the

optimization of the structure. It is precise because of the continuous positive adjustment of the structure that the system is continuously optimized. It is unthinkable that a structural imbalance is the overall optimization system. At the same time, structural optimization is the specific performance of system optimization. In a significant sense, system optimization refers to the optimization of system structure.

### **C. Mutual Benefit Symbiosis Theory (Dale. S. Weis, 1879)**

First appeared in the field of biology, proposed by the protozoologist Dale. S. Weis. Later, scholars extended and supplemented the theory of Dale. S. Weis. The main points are as follows:

In social organizations, only individuals can coordinate, help each other, and benefit each other, and individuals can be fully developed, and the functional role of the organization can be expanded and enhanced (Azam and Moha Asri, 2015; Tham et al., 2017; Udriyah et al., 2019; Al Shehhi and Azam, 2019a; Tao et al., 2019). In a real market economy society, everyone can only make a profit by contributing to others, and only through mutual benefit can promote market prosperity, wealth growth, and social progress. The market mechanism is a typical mutual benefit.

Mutual benefit and symbiosis are essential rules for group survival (Haque et al., 2014; Rachmawati et al., 2019; Tarofder et al., 2019; Al Shehhi and Azam, 2019b). Individuals in a group do not mutually benefit each other, and the individual will continue to decline into a mutation, and the group will become degenerate, deformed and even die. Therefore, mutual benefit and symbiosis is the individual's life from an individual point of view. It is the whole life from the group or the system. Because the individual and the group are interdependent, the individual's life supports the group or system, and the group or system is the individual. Students provide space and opportunities.

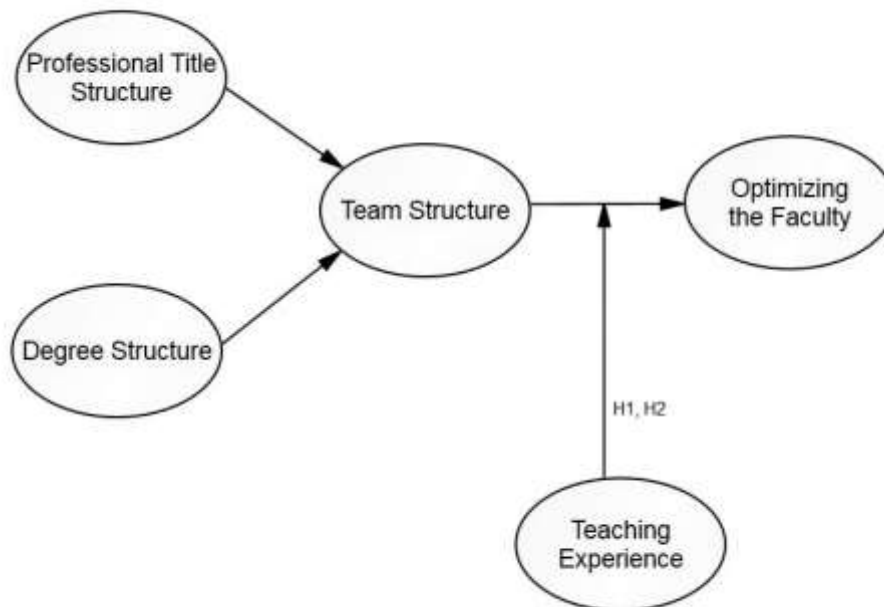
Mutually beneficial symbiosis is the exchange of information, complementing each other's strengths, complementing each other's strengths, and achieving win-win development (Azam et al., 2014; Haur et al., 2017; Tarofder et al., 2017; Katukurunda et al., 2019; Chong et al., 2019).

Mutually beneficial symbiosis and structural optimization are inherently consistent. The theory of mutual benefit and symbiosis focuses on the essential characteristics of structural optimization from the interconnection and complementary relationship between elements. The mutual symbiosis between individuals within the system is conditional, and the effect of mutual benefit and symbiosis is limited by the relationship between system elements and system elements, that is, the overall structure of the system. If the individual functions of the system are similar, then only the functions will be accumulated, and the mutual symbiosis will not be generated. Then, there will be no mutually beneficial symbiosis or mutual benefit symbiosis effect; if the individuals in the system are loosely isolated, mutually closed, the connection mode is single, or the connection relationship is broken, then the mutual symbiosis effect is also challenging to produce. The above series of "if" are related to the structural problems of the system

itself. Therefore, there is internal consistency between mutual benefit and structural optimization, structural optimization promotes mutual benefit and symbiosis, and mutual benefit and symbiosis reflect structural optimization. From the mutual benefit symbiosis between the individual systems, the optimization of the system structure can be judged to some extent.

### 3. Research Framework and Method

This study believes that the structure of the teaching staff of Guizhou University has achieved initial results after many years of adjustment, but there are still many problems. This paper proposes the following three research hypotheses. Figure 1 shows the conceptual framework presented in this study.



**Figure 1:** Research Framework

To meet the research objectives and based on the conceptual framework presented above, two hypotheses are constructed as follows:

**H1:** There is a moderating effect of lecturers' teaching experience (2 years and less) on Team structure towards Optimize the Faculty.

**H2:** There is a moderating effect of lecturers' teaching experience (more than 2 years) on Team structure towards Optimize the Faculty.

This thesis takes the lecturers of Guizhou University as a sample. This study uses a combination of questionnaires and interviews to investigate the Professional Title structure and academic degree structure of the lecturers in Guizhou University. 254 individual questionnaires were distributed, 250 valid questionnaires were returned, and the effective questionnaire recovery rate was 98.4%. The demographic characteristics of

the respondents were descriptively analyzed using SPSS and AMOS; the reliability of the study variables was analyzed.

#### 4. Data Analysis and Findings

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 1. 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 1:** Kaiser-Meyer-Olkin (KMO) & Bartlett's test

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</b>		0.797
	<b>Approx. Chi-Square</b>	5391.86
<b>Bartlett's Test of Sphericity</b>	<b>df</b>	
	<b>Sig.</b>	0

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 2:** Descriptive Statistics and Reliability Measures

<b>Variables</b>	<b>Mean (Item)</b>	<b>SD (Item)</b>	<b>Cronbach Alpha</b>
Professional Title Structure	3.8368	0.68905	0.889
Degree Structure	3.7167	0.71288	
Team Structure	3.81	1.103	
Optimize the Faculty	3.65	1.132	

As can be seen from Table 2 above, the occupational structure, degree structure, team structure, optimization of the faculty, Team Structure and norms and values have mean scores 3.84, 3.72, 3.81 and 3.65. As respective 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 standard deviation of the first six constructs indicates that the responses on average were the same deviation of the first six constructs indicating that the responses on average were a small 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 3).

**Table 3: Results of Reliability and Validity**

Key Factors (Constructs)	Communalities	Factor Loadings	Mean	S.D	Cronbach's $\alpha$
Professional Title Structure	0.723	0.779	3.39	1.059	0.903
	0.739	0.763	3.56	1.27	
	0.687	0.767	3.67	1.18	
	0.623	.514	3.93	0.984	
	0.714	0.555	3.65	1.051	
	0.666	0.656	3.72	1.053	
Degree Structure	0.739	0.793	3.73	1.165	
	0.62	0.515	3.64	1.039	
	0.677	0.537	3.73	1.078	
	0.8	0.748	3.5	1.168	
Team Structure	0.603	0.68	3.7	1.092	
	0.563	0.718	3.71	0.951	
	0.674	0.563	3.94	0.996	
	0.757	0.798	3.67	1.104	
Optimize the Faculty	0.769	0.755	3.5	1.103	
	0.831	0.688	3.23	1.339	
	0.765	0.671	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 4.



**Table 4:** Summary of Correlations among Constructs

Constructs	Correlations			
	Professional Title Structure	Degree Structure	Team Structure	Optimize the Faculty
Professional Title Structure	1			
Degree Structure	.692**	1		
Team Structure	.680**	.626**	1	
Optimize the Faculty	.474**	.577**	.305**	1
	.621**	.735**	.525**	.664**

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

The correlations indicate indicated that the scales are empirically distinct from each other. The correlation matrix indicates that are positive correlations among all of the study variables. Pearson Correlations coefficient is 0.689 between Professional Title structure and Degree structure, which indicates a positive moderately high linear relationship and this relationship exists at a significant level of 0.01. The correlations co-efficient between Professional Title structure and team structure, team Structural and Degree structure, as well as team structure, are 0.790, 0.636 and 0.745 respectively which indicate there is that moderate relationship among them. These relationships are also significant at 0.01 level. Relationships between other constructs are also significant at 0.01 level.

#### 4.1 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 minimizes 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 load significantly on any factor. So, the values of commonalities 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.

## 4.2 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. In SEM, it is essential to decipher whether, besides the primary model, any other alternative or competing models cause of the moderating effects highlighting different speculative relationships among the latent constructs, offers better explanations of the phenomenon under study. The singular purpose is to compare these competing models derived by modifying the relationships either through segregating the groups or omission of paths (Hair *et al.*, 2010). For this, the difference in Chi-Square ( $\chi^2$ ) test between two competing models is used to calculate improvements over competing models; significant results for the Chi-Square ( $\chi^2$ ) difference test indicate that the model with smaller Chi-Square ( $\chi^2$ ) has a statistically better fit (Azam and Moha Asri, 2015). This is done, where the Chi-Square ( $\chi^2$ ) fit statistic is compared by difference in Chi-Square ( $\chi^2$ ) statistic such that ' $\Delta\chi^2_{(df1 - df2)} = \chi^2_{(df1)} - \chi^2_{(df2)}$ , which is distributed as a chi-square distribution with  $df = df_1 - df_2$ ' (Mueller and Hancock, 2007, p. 501). To check the moderating effect of these, the hypotheses were placed earlier being referred.

**H1:** There is a moderating effect of lecturers' teaching experience (2 years and less) on Team structure towards Optimize the Faculty

**H2:** There is a moderating effect of lecturers' teaching experience (more than 2 years) on Team structure towards Optimize the Faculty

These hypotheses, have been principally examined by the following Figure 2 (a) and Figure 2 (b), which expose the unique response of the two groups of respondents in terms of lecturers teaching experience among teaching staff of Guizhou University, such as '2 years and less' and 'more than 2 years'. According to Zainudin (2012), if the Chi-Square ( $\chi^2$ ) value differs between constrained and unconstrained models by more than 3.84 for 1 Degree of Freedom (df), then the moderation occurs in that particular path. In this particular study, nevertheless, a parameter constraint is placed on the selected path (Team Structure→Optimize the Faculty) to be equal to 1, as recommended by Zainudin (2012). As a result, the Figure 2 (a) and Figure 2 (b) show the output for the constrained

model and unconstrained model respectively for the length of operation of the enterprise for '2 years and less'.

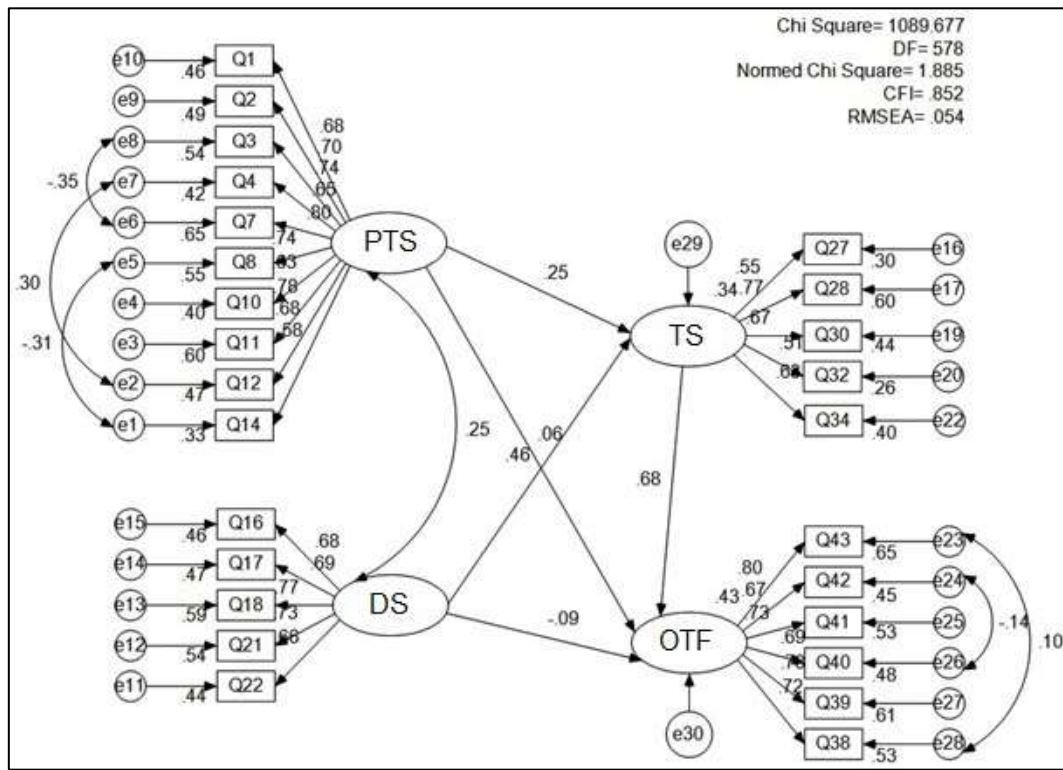


Figure 2 (a): Output of the Constrained Model for '2 Years and Less'

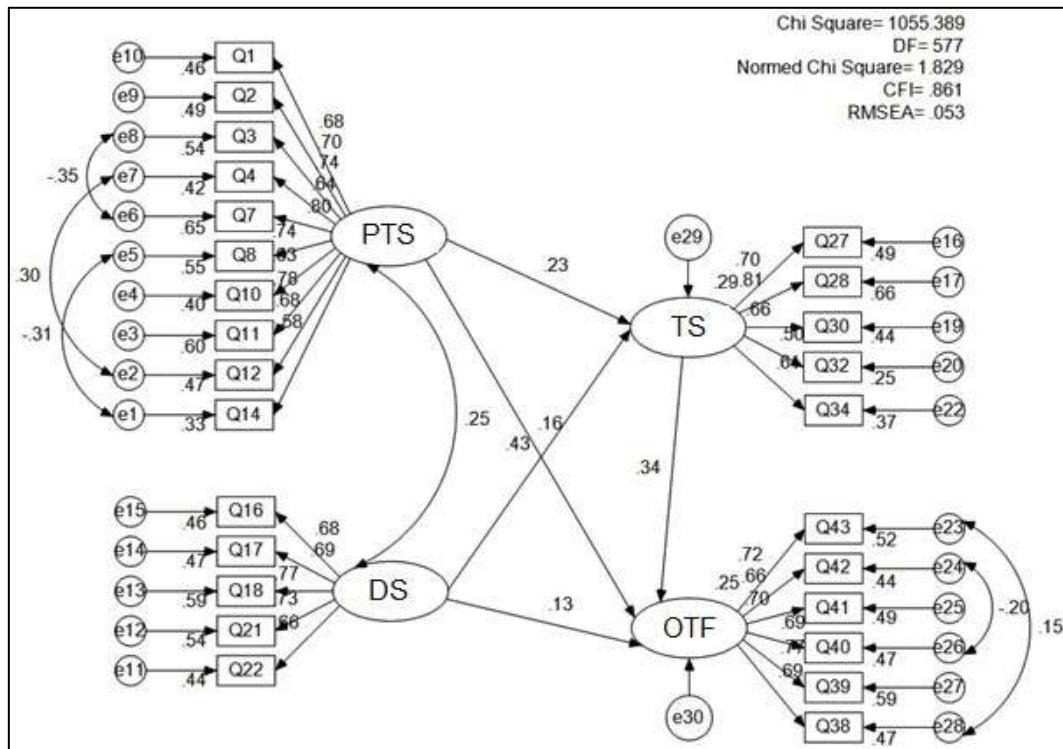


Figure 2 (b): Output of the Unconstrained Model for '2 Years and Less'

The constrained model and unconstrained model are shown in Figure 2 (a) and Figure 2 (b), has been observed that the different Chi-Square ( $\chi^2$ ), Degrees of Freedom (df), Normed Chi-Square ( $\chi^2/df$ ), CFI and RMSEA values are noticed. As a rule of thumb set by Zainudin (2012), the moderation should be realized in a particular path if the Chi-Square ( $\chi^2$ ) value changes above than 3.84 for 1 Degree of Freedom (df) from the constrained model to the unconstrained model. However, Table 5 shows the moderation test for the number of years of experience among teaching team at Guizhou University, which is for '2 years and less'.

**Table 5:** Moderation Test for the Teaching Experience of Teaching Staff of Guizhou University for '2 Years and Less'

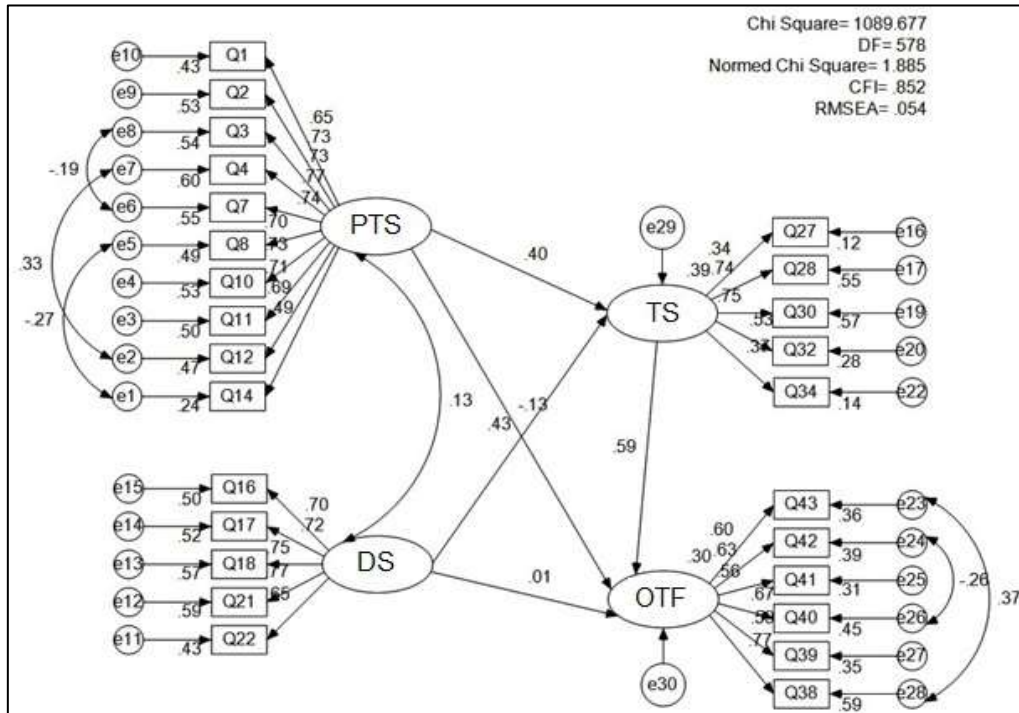
	Constrained Model	Unconstrained Model	Chi-Square Difference ( $\Delta \chi^2$ ) [ $\chi^2_{(df1)} - \chi^2_{(df2)}$ ]	Result on Moderation	Result on Hypothesis
Chi-Square ( $\chi^2$ )	1089.677	1055.389	34.288	Significant	Supported
Degrees of Freedom (df)	578	577	1		
Normed Chi-Square ( $\chi^2/df$ )	1.885	1.829			
CFI	0.852	0.861			
RMSEA	0.054	0.053			
The Hypothesis Statement: H1: There is a moderating effect of Teaching Experience (2 years and less) on Team structure towards Optimize the Faculty					Supported

Source: Author's Computation.

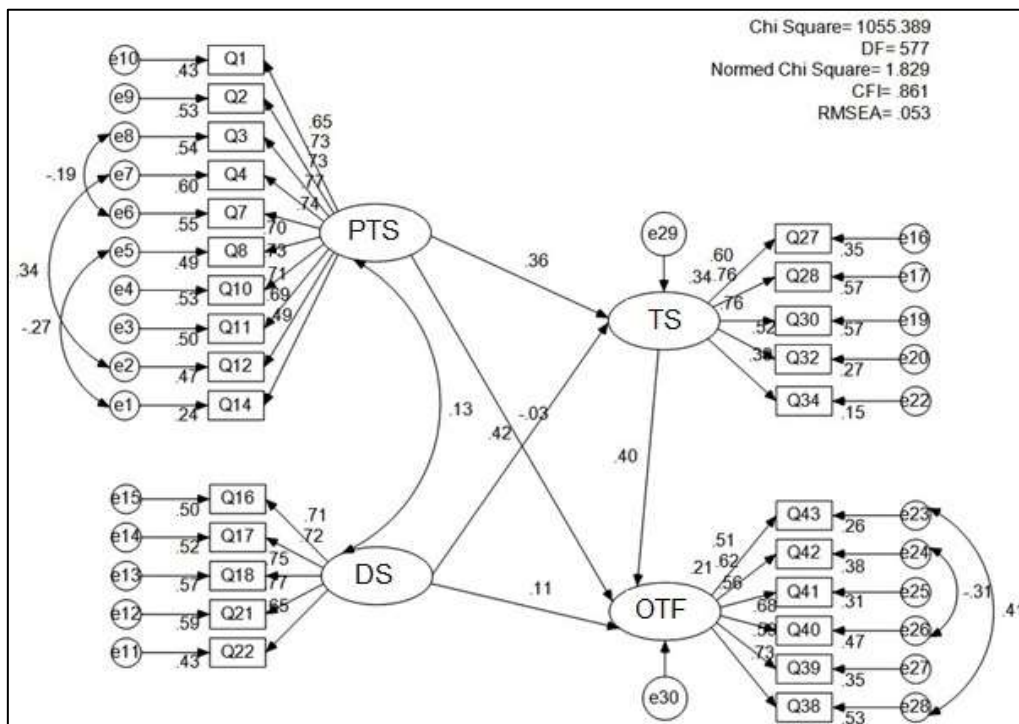
Table 5 specifies that the moderation test is significant since the difference in Chi-Square ( $\Delta\chi^2$ ) value between the constrained and unconstrained model is higher than 3.84. The difference in Chi-Square ( $\chi^2$ ) value is 34.288 (1089.677 – 1055.389), while the difference in Degrees of Freedom is 578 – 577 = 1. Hence, the hypothesized statement is supported. This phenomenon can be defined through the statements of Guzman-Cuevas et al. (2009) and Santos and Bode (2012), where they mentioned that the experience does matter. They defined the experience as one of the demographic features for the enterprise. However, Kamal and Flanagan (2012) also slightly focused this issue on Malaysian perspective.

Alternatively, the unconstrained model for the Teachers' Teaching Experience for 'more than 2 years' has been plotted in Figure 3 (a) and Figure 3 (b), the length of Teaching Experience for 'more than 2 years' constrained model and unconstrained model require to be tested afterwards because no clear sign of moderation was noted in Figure 3 (a) and Figure 3 (b), considering that the Chi-Square ( $\chi^2$ ), Degree of Freedom (df), Normed Chi-Square ( $\chi^2/df$ ), CFI and RMSEA values were same between the groups. As like the previous one, it requires for further progress to the next stage of invariance analysis (Zainudin, 2012), addressing the both constrained and unconstrained models to observe whether the change of Chi-Square ( $\chi^2$ ) and the Degrees of Freedom (df) are significant.

For that reason, a parameter constraint is put on the selected path (Team structure→Optimize the Faculty) in the same way done before, where the parameter was fixed equal to 1 as suggested by Zainudin (2012). However, the Figure 3 (a) and Figure 3 (b) present the output for the constrained model and an unconstrained model for the Teaching Experience of Teachers for ‘more than 2 years’ correspondingly.



**Figure 3 (a):** Output of the Constrained Model for ‘More than 2 Years’



**Figure 3 (b):** Output of the Unconstrained Model for ‘More than 2 Years’

Much the same as the previous investigation focused the teaching experience of the enterprise for '2 years and less', this step (more than 2 years) of constrained model and unconstrained model also shows the different values for the Chi-Square ( $\chi^2$ ), Degrees of Freedom (df), Normed Chi-Square ( $\chi^2/df$ ), CFI and RMSEA as shown in Figure 3 (a) and Figure 3 (b). The following Table 6 shows the moderation test for the teaching team for '2 years and less' group data.

**Table 6:** Moderation Test for the Teaching Experience of Teaching Staff of Guizhou University for 'More than 2 Years'

	Constrained Model	Unconstrained Model	Chi-Square Difference ( $\Delta \chi^2$ ) [ $\chi^2_{(df1)} - \chi^2_{(df2)}$ ]	Result on Moderation	Result on Hypothesis
Chi-Square ( $\chi^2$ )	1089.677	1055.389	34.288	Significant	Supported
Degrees of Freedom (df)	578	577	1		
Normed Chi-Square ( $\chi^2/df$ )	1.885	1.829			
CFI	0.852	0.861			
RMSEA	0.054	0.053			
<b>The Hypothesis Statement:</b> H2: There is a moderating effect of Teaching Experience (more than 2 years) team structure towards Optimize the Faculty					Supported

**Source:** Author's Computation.

Although Table 5 and Table 6 exhibit the associated results as well as given four figures such as Figure 2 (a), Figure 2 (b), Figure 3 (a) and Figure 3 (b) look like similar. Nevertheless, these all are unique since their path coefficients are different. From those path coefficients, the influences of the constructs can understand respectively. However, detecting the values from Table 4 above, it can be supposed that the moderation test is significant since the difference in Chi-Square ( $\Delta \chi^2$ ) value between the constrained and unconstrained model is higher than 3.84 (Zainudin, 2012). Notably, the difference in Chi-Square ( $\chi^2$ ) value is 34.288 (1089.677 – 1055.389), while the difference in Degrees of Freedom is 578 – 577 = 1. Therefore, the hypothesized statement is supported. However, the recent work conducted by Darcy *et al.* (2014) also focused on the consideration of Optimizing Lecturers team in Guizhou University context. They pointed out on the teaching experience as an optimizing tool as well as the key to Optimizing the lecturer team.

Moreover, the issue concerning the teaching experience can be linked with the teaching approach of a teaching staff, which has described earlier. Structural Function Theory, System Optimization Theory and Mutual Benefit Symbiosis Theory are a considerable theory for illustrating the succession and development of teaching team through various phases (Hill, 2007). In this particular study, moderation occurs on the way from team structure to optimizing lecturers' team where the teaching experience is found as a moderating factor. Thus, the Structural Function Theory, System Optimization

Theory and Mutual Benefit Symbiosis Theory shed light on Guizhou University. Usually, teaching experience and exposure are assumed in an introduction stage during the first two years of teaching since this is the primary stage for the teaching team. Vitally, the product is introduced in the education at this stage in a determined and robust initial effort to establish a clear identity. As it has been observed during casual discussions with the respondents, many experimental and trial purchases take place at this stage. For the educational perspective, this stage depends on teachers' personal experience and teaching exposure. Same goes to the other service industry, the expected number of services provided is met somehow, and any organization or in this expect, Guizhou University may expect for increased student enrollment in this stage. Hence, the moderating effect of teachers' experience has rationales at Guizhou University.

## 5. Discussion and Conclusion

This study attempts to assess the moderating effect to test whether teaching experience plays different roles in team structure towards optimizing teaching team at Guizhou University. The early phase is specified via the length of teaching experience of the educational team. To accomplish the research objective, thus, the current study performs structural invariance to test the presence of any moderating effects of teaching experience ('2 years and less' and 'more than 2 years') in Guizhou University. The moderating effect of teachers' teaching experience on team structure towards optimizing teachers' team was identified through invariance analysis. More specifically, it has been found that the moderating effect does exist at Guizhou University. Precedent literature supports this. Few academic authors, such as Guzman-Cuevas et al. (2009) and Santos and Bode (2012) mentioned about the early phase in higher education, which does matter for a university to get succeed. Kamal and Flanagan (2012) also pointed out on the early phase, especially on Guizhou perspective. The succession and development of optimizing teachers' team can be viewed from the different growth phases (Hill, 2007; Jayasuriya and Azam, 2017; Dewi et al., 2019; Nguyen et al., 2019; Kanapathipillai and Azam, 2019; Gunasinghe et al., 2019). This can be linked with the findings from this research. Typically, a higher learning educational institution or a university is understood as an infant during the first several years of its operation.

By referring to the Professional Title structure, degree structure and team structure optimization revealed in the current research and optimizing the relationship between the faculties; it can be concluded that the faculty structure of Guizhou University needs to be further optimized. To optimize the structure of the teaching staff of Guizhou University, it is necessary to prescribe the right medicine and choose effective measures. The level of faculty construction not only requires Guizhou University to introduce policies that are conducive to the construction of faculty but also requires the government to give team structure support to the faculty of the university.

Improve the Professional Title review system and optimize the Professional Title structure. Many factors affect the irrational structure of the Professional Titles of college

lecturers. The unreasonable vocational qualification review system is an important aspect, so this situation should be changed as soon as possible. First of all, moderately improve the academic qualifications for the qualifications of college lecturers. By adjusting or formulating relevant policies, it is stipulated that in the future, hiring lecturers must first have a master's degree or above, and gradually improve the overall level of the teaching staff by improving the qualifications of professional titles. Secondly, university administrators should vigorously tap potential resources, scientifically allocate existing resources, and should be inclined to the construction of lecturers in the use of funds. Attract and recruit more doctoral students by improving the treatment of lecturers, changing management methods, and creating a pleasant atmosphere. Health. Once again, increase the academic qualifications of in-service lecturers. At present, the proportion of lecturers with only a master's degree or below is still relatively large. To optimize the academic qualification structure of the teaching staff, in addition to vigorously recruiting highly educated lecturers, another way out is to select or encourage lecturers to pursue doctoral degrees and gradually increase lecturers.

The government has appropriately raised the relevant policies for professional titles and higher education standards, and strictly established the minimum academic qualifications for the promotion of professional titles for professors and deputy lecturers. Second, the government and universities should adjust the development orientation of higher education with an emphasis on scale expansion and light structure adjustment (De Silva et al., 2017; Kuruwitaarachchi et al., 2019; Pambreni et al., 2019; Fernando et al., 2019).

The government scientifically formulates macroeconomic policies to guide colleges and universities to attach importance to and adjust the structure of the teaching staff. By tapping potential resources and integrating existing forces, universities adjust the matching relationship of elements, promote academic exchanges among lecturers, and optimize the structure of lecturers. Strengthen the rational regulation and control of the government, and guide the university to adjust and optimize the structure of the teaching staff through scientifically formulating and strictly implementing various relevant academic, professional policies. The government increased funding, expanded opportunities for lecturers to exchange and cooperate, and provided more opportunities for lecturers to study abroad, visits, and academic cooperation. The university itself increased special funds and vigorously introduced various high-level talents that are conducive to adjusting the structure of the original lecturers. In short, sufficient school funding is an essential basis for optimizing the structure of local undergraduate college lecturers. With the same tune of the current findings, the recent literature (Minna, 2014; Maghfuriyah et al., 2019; Pushpakumara et al., 2019; Al Shehhi and Azam, 2019c) also revealed that, the innovation capability and teachers teaching ability and experience depend upon professional title structure and degree structure and optimization of teaching team where the duration and/or the teaching experience play an essential role in team structure to teaching success. Therefore, this study significantly contributed to the methodological development in Guizhou University, which will increase the



efficiency that would be the ultimate step for the teaching team success among teaching staff at Guizhou University.

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