

# Research on the Teaching Reform Path of Civic and Political Education in Financial Management Professional Course Based on Structural Equation Modeling

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**Abstract:** The concept of “course-based ideological and political education” represents a new requirement for university teachers in the contemporary era. By integrating this concept into professional courses, the latent educational functions of financial management courses can be fully leveraged to help students establish correct value systems, thereby achieving the unity of ‘teaching’ and “educating” through subtle course instruction. A questionnaire was designed to measure the factors influencing the effectiveness of ideological and political education in financial management courses. It was distributed and collected among college students at a certain college in City S. After conducting factor analysis on the questionnaire, structural equation modeling was applied to explore the factors influencing the development of financial management courses. The results showed that course implementation, teacher-related factors, student-related factors, and teacher-student interaction all have a positive impact on ideological and political education outcomes, with path coefficients of 0.168, 0.529, 0.188, and 0.168, respectively. Therefore, financial management faculty members in higher education institutions should actively engage in course-based ideological and political education reforms to enhance students' learning interest and classroom participation, thereby improving the effectiveness of course-based ideological and political education.

**Keywords:** factor analysis; structural equation; financial management major; ideological and political education in courses

## 1. Introduction

In recent years, the state has placed great emphasis on the positive impact of ideological and political education on student development, stressing that teachers of all disciplines must not only deliver high-quality professional courses but also actively engage in ideological and political education within their courses, guiding every student to achieve simultaneous improvement in both professional competence and ideological and political capabilities [1-2]. In June 2020, the Ministry of Education issued the “Guiding Opinions on the Construction of Ideological and Political Education in Higher Education Courses,” explicitly stating that all types of courses should align with ideological and political courses, integrating explicit and implicit education, to create a synergistic effect.

Financial management is one of the core components of business management. It employs scientific methods and tools to organize corporate financial activities in a reasonable manner and coordinate financial relationships with all stakeholders, providing a solid foundation for corporate development [3-4]. As market competition intensifies, the role of financial management professionals becomes increasingly prominent. They not only require a solid foundation in theory and practical skills but also must possess a high level of professional ethics, approaching financial transactions and matters with a positive, honest, and objective attitude [5-6]. In financial management course instruction, university teachers must not only focus on knowledge transmission but also emphasize cultivating students' moral character and professional ethics. The value-oriented approach in the talent cultivation objectives of the



financial management program embodies educational ideals such as fostering virtue, upholding objectivity and fairness, integrity and trustworthiness, and assuming social responsibility, aligning with the educational direction of course-based ideological and political education and integrating it into course instruction [7-8]. Through course-based ideological and political education reforms, incorporating ideological and political education elements into professional knowledge instruction enables students to develop correct values and moral perspectives while learning professional knowledge, thereby enhancing their professional ethics. This approach aims to cultivate more financial management professionals with noble moral qualities and professional integrity, contributing to the healthy development of the market economy [9-10].

In recent years, the construction of course-based ideological and political education has been widely implemented across the country, with many universities actively exploring and practicing it in financial management professional education. Reference [11] takes the course of Financial Regulations and Accounting Professional Ethics as the object, and proposes seven ways to construct and reform the ideological and political education of the course, namely, to enhance the ideological and political awareness of course teachers, develop high-quality curriculum resources, and formulate supporting teaching objectives, methods, contents, practice platforms, and assessments. Reference [12] designed a new ideological and political education teaching model for financial management courses, integrating ideological and political education with financial management through modern information technology and cloud platforms. This model aims to facilitate students' online learning, communication, and resource sharing, thereby promoting their development. However, in financial management, which involves risk control management and capital operations, the integration of ideological and political elements with the corresponding knowledge system is low, and the mechanism through which ideological and political education contributes to talent cultivation remains unclear.

Structural equation modeling (SEM) originated from path analysis invented by geneticist Eswall Wright in the 1920s. It began to be applied in fields such as psychology and sociology in the 1970s, became closely linked with econometrics in the early 1980s, and is now widely used in numerous disciplines [13-14]. Literature [15] used SEM to validate the positive responses of students' ideological and political levels to knowledge, environment, activities, and careers, and proposed corresponding talent cultivation suggestions based on these four points. Literature [16] used SEM to explore the impact of course-based ideological and political education and learning interest on learning outcomes, with self-efficacy, learning perseverance, and learning anxiety serving as mediators, and course-based ideological and political education achieving a total effect of 0.24 on learning outcomes. SEM is a statistical analysis technique that represents a causal theory based on existing causal theories, a statistical analysis technique that represents causal theories using corresponding linear equation systems. Its purpose is to explore causal relationships between phenomena and express these relationships through causal models, path diagrams, and other forms [17-18]. It is precisely this characteristic that provides reform support for the “element integration-teaching transformation-effective education” model of course-based ideological and political education.

This paper uses structural equation modeling to explore the factors influencing the effectiveness of ideological and political education in financial management courses, taking financial management courses as an example. It establishes a model of factors influencing the effectiveness of ideological and political education in financial management courses based on four factors: teacher-related factors, student-related factors, teacher-student interaction, and course implementation. Furthermore, SPSS and AMOS software are used to test, analyze, and revise the questionnaire and model, thereby improving the accuracy and reliability of the research results. Finally, based on the research results, corresponding ideological and political education teaching reform paths are explored.

## **2. Assumptions for teaching and research on ideological and political education in financial management courses**

This paper aims to study the main factors affecting the teaching effectiveness of ideological and political education in courses, using financial management courses as an example. Through extensive literature review, four potential influencing factors were identified: course implementation, teachers, students, and teacher-student interaction.

### *2.1. Course Implementation*

Course implementation has a direct impact on the effectiveness of ideological and political education in courses. The more thoroughly ideological and political elements are explored, the more reasonable the assessment methods are, and the clearer the course objectives are, the better the teaching outcomes will be. Other influencing factors primarily affect the effectiveness of ideological and political education in

courses by influencing the preparation and implementation process prior to course implementation. Therefore, course implementation is a direct antecedent influencing teaching outcomes. Based on this, the following hypothesis is proposed:

**H1:** Course implementation has a significant positive impact on teaching outcomes.

## *2.2. Teachers*

Teachers play a crucial role in teaching activities and are the primary implementers of such activities. Additionally, teachers must possess the necessary qualities to successfully carry out teaching activities, as their teaching abilities and attitudes directly influence the implementation of the curriculum and, consequently, teaching outcomes. Compared to traditional teaching methods, course-based ideological and political education not only requires students to master professional knowledge effectively but also demands that teachers integrate ideological and political elements into professional instruction to enhance students' overall quality. This places higher demands on teachers' capabilities. Based on this, the following hypothesis is proposed:

**H2:** Teachers have a significant positive impact on course implementation.

## *2.3. Students*

The effectiveness of course teaching is closely related to various aspects of students. Students are the main participants in course ideological and political education activities. Students' personal qualities, abilities, attitudes, etc. will influence the course implementation process and, in turn, the final teaching results. The higher the students' enthusiasm for learning and the more energy they invest, the better the course implementation results will be. Based on this, the following hypothesis is proposed:

**H3:** Students have a significant positive impact on course implementation.

## *2.4. Teacher-student interaction*

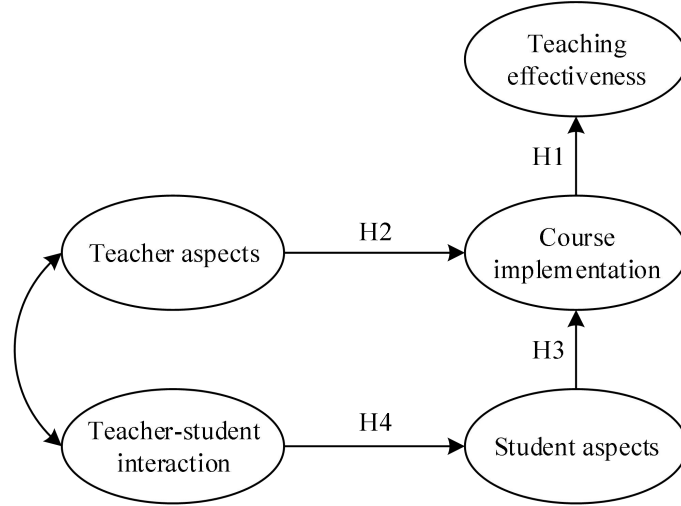
Teacher-student interaction refers to the process of communication and interaction between teachers and students in educational activities. Teachers' teaching methods and behaviors can influence changes in students' abilities, cognition, and values, while changes in students' learning abilities and value systems can also impact teachers' teaching practices. In course-based ideological and political education, the effectiveness of the interaction process between teachers and students determines the learning outcomes of students in such courses. Based on this, the following hypothesis is proposed:

**H4:** Teacher-student interaction has a significant positive impact on students.

Generally speaking, the main factors influencing course teaching effectiveness include:

- 1) Teacher-student interaction and teacher-teacher interaction have a reciprocal relationship. Teachers' teaching abilities and teaching methods influence the effectiveness of teacher-student interaction, and positive teacher-student interaction can alter teachers' teaching methods and attitudes.
- 2) Teacher-student interaction can change students' learning methods, enhance their learning abilities, and thereby influence the effectiveness of course-based ideological and political education.
- 3) Teachers' teaching abilities and students' learning attitudes can influence course implementation, which in turn affects teaching outcomes.

Through literature review and considering the characteristics of ideological and political education in financial management courses, this paper constructs a conceptual model comprising five factors: student-related factors, teacher-related factors, teacher-student interaction, course implementation, and teaching outcomes, as shown in Figure 1.



**Figure 1.** The concept model of the teaching effect of the course.

### 3. Building a teaching model for ideological and political education in financial management courses

#### 3.1. Structural equation model

Structural equation modeling (SEM) [19] analyzes the relationships between variables based on the covariance matrix of variables, including measurement models and structural models. Measurement models aim to evaluate the relationships between observed indicators and latent variables, while structural models seek to determine the relationships between latent variables. The analysis steps of structural equation modeling generally include the following four: design, fitting, evaluation, and modification. If the model fits well after testing, no further modification is necessary.

Measurement equations reflect the relationships between observed variables and latent variables. The expression for a measurement equation is:

$$X = \Lambda_x \xi + \delta \quad (1)$$

$$Y = \Lambda_y \eta + \varepsilon \quad (2)$$

Where  $X$  is the exogenous observed variable, corresponding to the relevant questions in the questionnaire regarding the four dimensions of course-based ideological and political education influence factors;  $Y$  is the endogenous observed variable, composed of the relevant items in the questionnaire related to course-based ideological and political education;  $\xi$  is the exogenous latent variable, composed of the factors influencing course-based ideological and political education after factor analysis;  $\eta$  is an endogenous latent variable, derived from the factor analysis of the four dimensions of course-based ideological and political education;  $\Lambda_x$  and  $\Lambda_y$  are the coefficient matrices of the equation, and  $\delta$  and  $\varepsilon$  are the error terms.

The structural equation for the mutual influence relationship between exogenous latent variables and endogenous latent variables is:

$$\eta = B\eta + \Gamma \xi + \zeta \quad (3)$$

Among them,  $B$  is the matrix of relationships between endogenous latent variables,  $\Gamma$  is the matrix of the influence of exogenous latent variables on endogenous latent variables, and  $\zeta$  is the residual term of the model.

Structural equation modeling, by introducing the concepts of latent variables and manifest variables, can identify potential path relationships between variables based on their endogeneity, making it well-suited for analyzing different path relationships in course-based ideological and political education.

## 3.2. Scale Design and Validation

### 3.2.1. Scale Design

The questionnaire design focuses on the influencing factors in the process of course-based ideological and political education. Existing research indicates that course-based ideological and political education primarily involves integrating ideological and political elements into course instruction to help college students establish correct worldviews, values, and perspectives on life. Therefore, this paper primarily explores the construction pathways of course-based ideological and political education from the perspective of university students. The model for constructing course-based ideological and political education is relatively complex, involving both objective influences from teachers and subjective influences from students. Based on existing literature and relevant course theory knowledge, this paper identifies five latent variables as influencing factors for course-based ideological and political education: course implementation, teacher-related factors, student-related factors, teacher-student interaction, and teaching outcomes. Each latent variable is associated with observable variables (i.e., manifest variables), totaling 22 items. The teacher-related manifest variables include teaching methods, teaching approach, theoretical proficiency, and teaching attitude. The student-related manifest variables include student expectations, student cognition, learning attitude, learning objectives, and learning summaries. The teacher-student interaction-related manifest variables include teacher-student discussions, teacher concern, targeted teaching, and problem-solving. Course implementation includes ideological and political elements, evaluation systems, assessment methods, and teaching tasks and educational objectives. Teaching effectiveness includes four manifest variables: professional knowledge, comprehensive abilities, moral values, and teaching satisfaction. Table 1 shows the model indicators and variable settings.

**Table 1.** Model and variable Settings.

Potential variable	Symbol	Observed variable	Symbol
Teacher aspect	TA	Teaching mode	TA1
		Teaching idea	TA2
		Theoretical level	TA3
		Teaching attitude	TA4
Student aspect	SA	Student expectation	SA1
		Student cognition	SA2
		Learning attitude	SA3
		Learning goal	SA4
		Learning summary	SA5
Teacher student interaction	TS	Teacher and student discussion	TS1
		Teacher care	TS2
		Targeted teaching	TS3
		disenchant	TS4
Curriculum implementation	CD	Thinking element	CD1
		Evaluation system	CD2
		Assessment mode	CD3
		Teaching task	CD4
		Education target	CD5
Teaching effect	TE	Professional knowledge	TE1
		Comprehensive ability	TE2
		Moral philosophy	TE3
		Teaching satisfaction	TE4

### 3.2.2. Factor analysis

Factor analysis [20] is a statistical method that reduces the dimensionality of data by extracting latent common factors. Its purpose is to extract a small number of important indicators from a large amount of raw data, which can best represent the original information. In the actual data analysis process, there are often many complex indicators that can comprehensively reflect the characteristics of the object being studied. However, in the actual process of model building, these excessive variables can lead to information overlap issues, affecting the computational efficiency of the model. Factor analysis effectively addresses these shortcomings by calculating the correlations among the original variables, grouping highly correlated variables into clusters with high intra-group correlation and low inter-group

correlation, and extracting composite factors that represent the original data for dimensionality reduction, thereby minimizing the loss of original information.

Factor analysis can address statistical issues involving complex correlations among numerous original indicators. The first step involves calculating the correlation matrix, eigenvalues, and eigenvectors of the original data. Next, principal component analysis is used to solve the factor loadings of the model, and an orthogonal transformation is applied to rotate the coordinate system, facilitating factor interpretation.

The mathematical model of factor analysis is as follows:

Suppose there are  $n$  sample data points, each with  $p$  observable indicators, and there are correlations between the indicators. We can use  $m$  ( $m < p$ ) common factors  $F_1, F_2, \dots, F_m$  to represent the various indicators. Suppose the model satisfies the following conditions:

(1)  $X = (X_1, X_2, \dots, X_p)$  is an observable random variable, and the mean vector  $E(X) = 0$ , where the covariance matrix  $Cov(X) = \Sigma$  is equal to the correlation matrix  $R$ ;

(2)  $F = (F_1, F_2, \dots, F_m)'$  ( $m < p$ ) is an unobservable variable, the mean vector  $E(F) = 0$ , the covariance matrix  $Cov(F) = 1$ , i.e., the components of the vector  $F$  are mutually independent;

(3) The special factor  $\varepsilon = (\varepsilon_1, \varepsilon_2, \dots, \varepsilon_p)'$  is independent of  $F$ , and  $E(\varepsilon) = 0$ , the covariance matrix  $\Sigma_\varepsilon$  of  $\varepsilon$  is a diagonal matrix, whose mathematical formula is given by equation (4):

$$Cov(\varepsilon) = \Sigma_\varepsilon = \begin{bmatrix} \sigma_{11}^2 & & & 0 \\ & \sigma_{22}^2 & & \\ & & \ddots & \\ 0 & & & \sigma_{pp}^2 \end{bmatrix} \quad (4)$$

Furthermore, the components of  $\varepsilon$  are independent of each other. The model in formula (5) is a factor model:

$$\begin{cases} X_1 = a_{11}F_1 + a_{12}F_2 + \dots + a_{1m}F_m + \varepsilon_1 \\ X_2 = a_{21}F_1 + a_{22}F_2 + \dots + a_{2m}F_m + \varepsilon_2 \\ X_3 = a_{31}F_1 + a_{32}F_2 + \dots + a_{3m}F_m + \varepsilon_3 \\ \dots \\ X_p = a_{p1}F_1 + a_{p2}F_2 + \dots + a_{pm}F_m + \varepsilon_m \end{cases} \quad (5)$$

The matrix form of model (5) can be summarized by equation (6).

$$X = AF + \varepsilon \quad (6)$$

Matrix  $A$  is represented by equation (6):

$$A = \begin{bmatrix} a_{11} & a_{12} & a_{1m} \\ a_{21} & a_{22} & a_{2m} \\ & \ddots & \\ a_{p1} & a_{p2} & a_{pm} \end{bmatrix} \quad (7)$$

The larger the absolute value of the element  $a_{ij}$  in matrix  $A$ , the higher the correlation between  $X_i$  and  $F_j$ , i.e., the greater the loading of common factor  $F_j$  on variable  $X_i$ .

### 3.3. Survey subjects

A cross-sectional survey was conducted on college students at a certain college in City S through completely random sampling to understand the influencing factors in the implementation of course-based ideological and political education and to provide insights for optimizing the construction of course-based ideological and political education. The questionnaire adopted a 5-point Likert scale

scoring method, where “1” indicates “completely disagree” and ‘5’ indicates “completely agree.” The higher the score, the more the respondent agrees with the scenario described in the question. A total of 212 questionnaires were distributed using Questionnaire Star, with 12 invalid questionnaires excluded, leaving 200 valid questionnaires, resulting in a validity rate of 94.34%. The criteria for excluding questionnaires were: failure to meet the filling conditions, incomplete filling, failure to fill in according to requirements, 90% of responses selecting the same option, and outliers.

#### 4. Analysis of the Pathways for Teaching and Learning Reform in Ideological and Political Education in Financial Management Courses

##### 4.1. Questionnaire validity and reliability testing

##### 4.1.1. Reliability testing

Reliability represents the stability and consistency of the measurement results of a scale. Questionnaires with high reliability yield measurement results with smaller standard errors. In this study, Cronbach's  $\alpha$  was used to test the reliability of each factor in the questionnaire. A value below 0.6 indicates unacceptable reliability, 0.60–0.65 indicates nearly acceptable reliability, 0.65–0.70 indicates acceptable reliability, 0.70–0.80 indicates reliability meeting expectations, 0.80–0.90 indicates good reliability, and a value greater than 0.9 indicates excellent reliability. For the factors involved in this study, reliability testing was conducted using SPSS 27.0. The results of the questionnaire reliability testing are shown in Table 2. All Cronbach's  $\alpha$  values for the questionnaire items were greater than 0.8, indicating good reliability for the factors of the questionnaire. The overall Cronbach's  $\alpha$  value for the questionnaire was 0.912, indicating excellent overall reliability.

**Table 2.** Questionnaire reliability test.

Potential variable	Symbol	Cronbach' $\alpha$	Observed variable	Cronbach' $\alpha$
Teacher aspect	TA	0.905	TA1	0.957
			TA2	0.859
			TA3	0.958
			TA4	0.874
Student aspect	SA	0.889	SA1	0.966
			SA2	0.867
			SA3	0.924
			SA4	0.93
			SA5	0.894
Teacher student interaction	TS	0.909	TS1	0.92
			TS2	0.893
			TS3	0.972
			TS4	0.904
Curriculum implementation	CD	0.922	CD1	0.933
			CD2	0.973
			CD3	0.931
			CD4	0.882
			CD5	0.939
Teaching effect	TE	0.935	TE1	0.952
			TE2	0.906
			TE3	0.866
			TE4	0.861

##### 4.1.2 Validity testing

###### (1) KMO and Bartlett's Sphericity Test

Validity analysis assesses the effectiveness of a measurement tool in measuring variables, as well as the degree of alignment between the intended content to be measured and the test results. A higher degree of alignment indicates greater effectiveness. Conducting validity tests on a questionnaire is to determine whether it is suitable for empirical research and whether the structure and categorization of the questionnaire are reasonable. Here, KMO and Bartlett's Sphericity Test are used for analysis.

The validity analysis results primarily focus on the KMO value and significance level. The KMO coefficient ranges from 0 to 1, with values closer to 1 indicating that the questionnaire results are suitable for factor analysis. When  $KMO > 0.7$ , it indicates that the factors designed in the questionnaire are

interconnected, and the questionnaire is valid; when the significance level  $< 0.001$ , it indicates that the questionnaire is suitable for factor analysis. The KMO and Bartlett's sphericity test data for this study are shown in Table 3. Validity testing was conducted using SPSS 27.0. The overall KMO test coefficient for the questionnaire was 0.888, which is greater than 0.8. The approximate chi-square value for the Bartlett sphericity test was 7676.425, with 200 degrees of freedom and a significance level approaching 0, indicating that the questionnaire results are suitable for factor analysis.

**Table 3.** KMO and Bartlett test.

KMO sampling availability number		0.888
Bartlett sphericity test	Approximate card	7676.425
	freedom	200
	significance	0.000

(2) Exploratory factor analysis

To extract factors, the Kaiser-Guttman method was used to perform principal component analysis on the 22 indicator items. As can be seen from the scree plot, the eigenvalues of the first four points show significant changes, while the eigenvalues after the fifth point tend to stabilize, indicating that the inflection point is at the fifth point. Therefore, four common factors can be extracted. The factor loadings of each item are shown in Table 4. It can be seen that the eigenvalues of the first four principal components are greater than 1, and the cumulative variance contribution rate of the first four principal components reaches 66.75%, further indicating that the structural validity of the questionnaire indicators is good. The exploratory factor analysis validates the rationality of the four main factors: implementation of "course-based ideological and political education," teacher-related factors, student-related factors, and teacher-student interaction factors.

**Table 4.** The factor of the item is the load.

	Initial eigenvalue			Extracting load			Rotational load squared		
	Total	Variance	Cum%	Total	Variance	Cum%	Total	Variance	Cum%
1	7.541	34.28	34.28	7.541	34.28	34.28	6.037	27.44	27.44
2	3.448	15.67	49.95	3.448	15.67	49.95	3.319	15.09	42.53
3	2.438	11.08	61.03	2.438	11.08	61.03	3.859	17.54	60.07
4	1.258	5.72	66.75	1.258	5.72	66.75	1.47	6.68	66.75
5	0.987	4.49	71.24						
6	0.742	3.37	74.61						
7	0.703	3.2	77.81						
8	0.666	3.03	80.84						
9	0.489	2.22	83.06						
10	0.432	1.96	85.02						
11	0.413	1.88	86.9						
12	0.377	1.71	88.61						
13	0.359	1.63	90.24						
14	0.339	1.54	91.78						
15	0.307	1.39	93.17						
16	0.284	1.29	94.46						
17	0.263	1.2	95.66						
18	0.236	1.07	96.73						
19	0.222	1.01	97.74						
20	0.193	0.88	98.62						
21	0.173	0.79	99.41						
22	0.13	0.59	100						

(3) Confirmatory Factor Analysis (CFA)

1) Composite Validity Analysis

Composite validity refers to the fact that items measuring the same variable fall under the same factor. It aims to emphasize that items originally belonging to the same factor are confirmed to be under the same factor through actual testing. That is, the correlation between items under the same factor must be very high. There are typically two methods for assessing convergent validity: (1) standardized loadings and (2) average variance extracted (AVE) and composite reliability (CR). Standardized loadings above

0.7 are considered good, those between 0.5 and 0.7 are acceptable, and those below 0.5 are unacceptable. An AVE above 0.5 and a CR above 0.7 indicate high convergent validity. Table 5 presents the composite validity analysis. It can be seen that all scales have standardized loadings above 0.7, all factor AVE coefficients are above 0.55, and all factor CR coefficients are above 0.75, indicating that the composite validity of this questionnaire meets the standards.

**Table 5.** Combination validity analysis.

Potential variable	Observed variable	Standardized load factor	AVE	CR
Teacher aspect	TA1	0.898	0.598	0.766
	TA2	0.788		
	TA3	0.858		
	TA4	0.829		
Student aspect	SA1	0.724	0.662	0.789
	SA2	0.874		
	SA3	0.861		
	SA4	0.798		
	SA5	0.767		
Teacher student interaction	TS1	0.826	0.658	0.801
	TS2	0.849		
	TS3	0.763		
	TS4	0.828		
Curriculum implementation	CD1	0.791	0.601	0.752
	CD2	0.895		
	CD3	0.835		
	CD4	0.818		
	CD5	0.782		
Teaching effect	TE1	0.776	0.702	0.766
	TE2	0.841		
	TE3	0.716		
	TE4	0.874		

### (3) Confirmatory Factor Analysis (CFA)

#### 1) Composite Validity Analysis

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**Table 6.** Differential validity analysis.

	TA	SA	TS	CD	TE
Teacher aspect	0.811				
Student aspect	0.676	0.851			
Teacher student interaction	0.711	0.695	0.888		
Curriculum implementation	0.708	0.723	0.755	0.811	
Teaching effect	0.628	0.633	0.659	0.708	0.795

### (3) Confirmatory Factor Analysis (CFA)

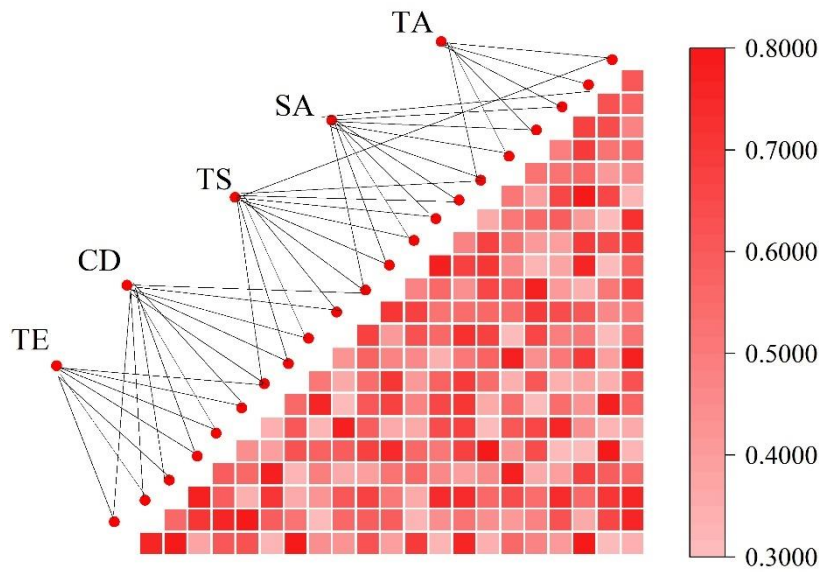
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#### 4.2. Descriptive Statistics and Correlation Analysis

Descriptive statistics and correlation analysis were conducted on five dimensions: course implementation, teacher aspects, student aspects, teacher-student interaction, and teaching effectiveness. The results of the Mantel analysis between latent variables are shown in Figure 2. Descriptive statistics and correlation analysis for different variables are shown in Table 7. Course implementation, teacher aspects, student aspects, teacher-student interaction, and teaching effectiveness were all significantly and positively correlated with each other.



**Figure 2.** The Mantel analysis of the latent variables.

**Table 7.** Descriptive statistics and correlation analysis of different variables.

Latent variable	M±SD	TA	SA	TS	CD	TE
Teacher aspect	4.725±1.111	0.811				
Student aspect	4.985±1.322	0.676	0.851			
Teacher student interaction	4.092±1.058	0.711	0.695	0.888		
Curriculum implementation	4.788±1.033	0.708	0.723	0.755	0.811	
Teaching effect	4.893±0.959	0.628	0.633	0.659	0.708	0.795

#### 4.3. Structural equation testing

##### 4.3.1. Model Fit and Correction

This paper will report the following model fit indices: chi-square test ( $\chi^2$ ), chi-square to degrees of freedom ratio ( $\chi^2 / df$ ), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). Model fit was adjusted using the Bolle-Stine bootstrapping method, and the results are shown in Table 8. All fit indices meet the standards, indicating that the data are highly reliable and that the model fits well.

**Table 8.** The model is appropriate and the correction is corrected.

Fitness index	Ideal requirement	Actual value	Corrected value
$\chi^2$	The smaller the better	255.185	122.857
$\chi^2 / df$	<3	2.88(ideal)	1.68(ideal)
GFI	>0.9	0.95(ideal)	0.97(ideal)
CFI	>0.9	0.96(ideal)	0.98(ideal)
AGFI	>0.9	0.88(general)	0.94(ideal)
RMSEA	<0.08	0.07(ideal)	0.04(ideal)

### 4.3.2. Path coefficient analysis of factors influencing the construction of course-based ideological and political education

Using AMOS to construct a structural equation model, maximum likelihood estimation was applied to the data to explore the relationships and causal pathways among the factors influencing the political development of financial management courses. Table 9 presents the standardized path coefficients of different factors in the fitted model.

Teacher-related factors have a positive influence on course implementation, with a standardized path coefficient value of 0.723 ( $P < 0.001$ ). Student-related factors also have a positive influence on course implementation, with a standardized path coefficient value of 0.476 ( $P < 0.001$ ). Teacher-student interaction has a positive impact on course implementation, with a standardized path coefficient of 0.063. Additionally, course implementation, teacher-related factors, student-related factors, and teacher-student interaction all have a positive impact on ideological and political education outcomes, with path coefficients of 0.168, 0.529, 0.188, and 0.168, respectively. Hypotheses 1–4 are all supported.

**Table 9.** Standardized path coefficient of different factors in the fitting model.

Path	Standardized estimate	Nonstandardized estimate	Standard error	C.R.	$P$
CD←TA	0.723	0.834	0.069	10.785	<0.001
CD←SA	0.555	0.476	0.085	5.555	<0.001
CD←TS	0.063	0.048	0.066	0.681	0.555
TE←TA	0.168	0.152	0.051	3.052	0.001
TE←SA	0.529	0.455	0.081	5.783	<0.001
TE←TS	0.188	0.141	0.039	2.761	0.008
TE←CD	0.168	0.133	0.045	2.821	0.006

## 4.4. Pathways for the Reform of Ideological and Political Education in Financial Management Courses

In order to better promote the organic integration of course-based ideological and political education with the teaching of financial management in higher education institutions, teachers should explore practical pathways for course-based ideological and political education reform from the following aspects.

### 4.4.1. Enhancing the comprehensive ideological and political literacy of professional teachers

The teaching staff is the “main force” in the reform of professional course-based ideological and political education. Therefore, efforts should be made to enhance teachers' capabilities by understanding the essence of course-based ideological and political education and adjusting the evaluation criteria for teachers' professional competencies, thereby continuously improving professional teachers' ideological and political awareness and their teaching proficiency in course-based ideological and political education. First, strengthen learning and collaboration to deepen teachers' understanding of ideological and political education in courses and enhance their awareness of such education. Second, incorporate ideological and political education into the evaluation criteria for teachers' professional competencies, requiring them to integrate ideological and political elements into their classroom teaching. Teachers must meet these requirements to pass the evaluation, thereby further increasing their emphasis on ideological and political education. Additionally, universities can organize ideological and political education teaching competitions, allowing teachers to improve their teaching skills through competition and optimize the quality of ideological and political education.

#### 4.4.2. Build a resource library for ideological and political education in courses to enrich teaching content

To truly resonate with students on an emotional and intellectual level, the integration of ideological and political elements into courses must be closely aligned with students' actual thoughts, daily lives, and academic progress.

First, professional course instructors should integrate ideological and political elements related to current events and policies into specific knowledge points, ensuring that ideological and political education in professional courses fully reflects the unity of explicit and implicit education. This means that while teaching professional knowledge, instructors should also focus on cultivating students' ideological and moral qualities. For example, in the “Corporate Strategic Management” course, instructors can analyze the current economic situation and policies to guide students in understanding the nation's development strategies and goals, thereby strengthening their patriotic feelings and sense of social responsibility. Second, professional course instructors can present ideological and political education content through various new media formats such as news broadcasts and TV shows. For example, by utilizing popular TV shows and variety programs that students are interested in, such as “Let's Talk!,” ideological and political education can be made more timely and closely aligned with students' lives. This approach allows students to receive ideological and political education in a relaxed and enjoyable atmosphere, thereby enhancing their learning motivation and participation.

#### 4.4.3. Implementing a diversified teaching model

Financial management faculty members can reform teaching methods and enrich teaching tools to conduct research on the application of teaching methods such as “participatory, project-based, and task-driven” approaches in professional course ideological and political education. By integrating online teaching platforms such as the Course Ideological and Political Education Resource Library, SuperStar, and Yu Classroom, they can implement “Internet+” modern teaching methods and conduct blended online and offline teaching to enhance students' classroom participation and course satisfaction.

#### 4.4.4. Reforming the assessment methods for specialized courses

Teachers should actively explore reforms to the assessment methods for professional courses, integrating course-based ideological and political education content into the formative assessment process of the course. Teachers can design assessment content from both online and offline perspectives. The online component includes watching ideological and political education videos and reading documents, aiming to guide students in independent learning and deep thinking; the offline component includes presenting the outcomes of group discussions related to ideological and political education, interactive classroom activities, and participating in social practice activities, to cultivate students' teamwork, communication and expression skills, as well as a sense of social responsibility. Teachers can set the calculation methods and standards for each assessment component based on actual circumstances. Specifically, the assessment criteria for video viewing can be calculated based on the ratio of the student's viewing time to the total video duration; the assessment for document reading is based on the ratio of the number of documents read by the student to the total number of documents; the score for group discussions is determined by the ratio of the number of times the student participated in discussions to the total number of discussions; the score for classroom participation is based on the ratio of the number of times the student participated in classroom activities to the total number of classroom activities; and the social practice component is assessed based on the score of the social practice report. Additionally, teachers should assign weights to each assessment component based on the course's unique characteristics. This not only facilitates a comprehensive and objective evaluation of students' learning outcomes but also further promotes the deep integration of course-based ideological and political education into higher education.

### 5. Conclusion

As an integral part of economic management activities, the role of financial management professionals in driving socio-economic development has become increasingly prominent. This paper employs structural equation modeling to analyze the factors influencing course-based ideological and political education. The results indicate that teacher-related factors, teacher-student interaction, and course implementation are the most significant determinants of teaching effectiveness. Therefore, integrating ideological and political education elements into the teaching process of professional knowledge not only cultivates students' solid theoretical foundation and excellent professional skills but also helps them establish correct values, thereby enhancing the professional ethics of financial

management professionals, preventing the occurrence of dishonesty and financial fraud, and promoting the healthy development of China's market economy. To this end, financial management faculty members in higher education institutions should actively engage in course-based ideological and political education reform to improve the effectiveness of such teaching.

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