

# Institutional Profile and Managers' Assessment of Risks and Business Performance of Private Higher Education Institutions

Fang,Xiaozhen<sup>1,2</sup>

1Central Philippine University, Iloilo City, 5000, Philippines

2Jiangxi University of Applied Science and Technology, Nanchang, Jiangxi, 330100, China

**Abstract:** This study aimed to determine the institutional profile and managers' assessment of risks and business performance of private higher educational institutions in China. Using the survey-correlational research design, 205 managers from 30 higher education institutions in China were surveyed for the profile, financial risks, non-financial risks, and performance of their institutions. The collected data was processed using SPSS and statistical tools such as frequency count, percentages, mean, independent samples t, One-Way ANOVA, Pearson's r, and ETA at .05 level of significance. Results revealed that the financial risks and non-financial risks of higher education institutions is moderate, while performance vary from poor to good. There are significant differences in the financial and non-financial risks of the higher education institutions when classified according to type of institution, number of degrees offered, and government recognition/accreditation. In addition, financial risks also vary with years in operation and enrolment size; while their performance differed significantly when classified according to type of institution, years in operation, number of degree programs offered, and government recognition/accreditation. Moreover, financial performance significantly differed when grouped according to enrolment size. Type of institution, government recognition/accreditation, years in operation, and number of degree programs offered, financial risks and non-financial risks are associated with performance.

**Keywords:** Financial risks; Non-financial risks; Performance; Higher education institutions

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## 1. Background of the Study

In recent years, the government and various levels of management departments have intensively introduced policies, regulations, and management methods to regulate the development of private higher education and have put forward higher requirements and more detailed management content for private higher education. According to Guo Peng, Director of the Development Planning Department of the Ministry of Education, at a press conference held by the Ministry of Education on March 1, 2024, the basic situation of national education development in 2023 was introduced. As of 2023, the number of students in private universities in China was 9.9438 million, accounting for 20.88% of the total number of students in universities. The multi-dimensional competition in the private higher education industry is becoming increasingly fierce. Under the dual pressure of strong supervision by regulatory authorities and high-quality development of schools, private higher education institutions are facing a variety of internal and external challenges, including financial and non-financial risks that directly impact their performance. It is important to understand the general situation and risks of private higher education institutions, and to explore the correlation between these factors and performance.

In the competitive education market, financial risks like credit, market, asset - liability, and operational risks threaten private higher education institutions' operation and development. Over the past 20 years, with the

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### About the Author

Fang,Xiaozhen (1978-), Gender: Female, Ethnicity: Han, Native Place: Jining, Shandong, Research Direction: Management, Academic Attainment: Currently pursuing a doctoral degree.

government's support, private higher education has grown, but risk management initially focused on financial liquidity from student-related borrowing. Now, non- financial risks such as technology, supply chain, and reputation risks are emerging as significant threats, often overlooked before but now having a profound impact on operation, reputation, and enrollment. Previous studies mainly concentrated on policy, internal control, and financial risks, highlighting the need to comprehensively consider both financial and non- financial risks for better institutional performance.

There are few studies on the correlation between financial and non-financial risks and the performance of private higher education institutions, so it is necessary to conduct an in-depth study to explore the correlation between financial and non-financial risks and the performance of private higher education institutions, and to obtain implications for risk management and reduction plans. This study can fill the gap in this research. It is helpful to improve the long-term competitiveness and sustainable development capacity of private higher education institutions. This study aims to fill the gaps in the existing research and provide new theoretical and practical implications for risk management in private higher education institutions.

### **(1) Objectives of the study**

This study aimed to determine the institutional profile and managers' assessment of risks and business performance of private higher educational institutions in China

Specifically, this study has the following objectives:

1) Describe the profile of the private higher education institutions in terms of type of institution, years in operations, enrolment size, number of degree programs offered, and government recognition/accreditation.

2) Determine the managers' assessment of financial risks being faced by private higher education institutions in terms of credit risks, market risks, liquidity risks, and operational risks as a whole and when grouped as to type of institution, years in operations, enrolment size, number of degree programs offered, and government recognition/accreditation.

3) Determine the managers' assessment of non-financial risks being faced by private higher education institutions in terms of climate risks, reputation risks, human resource risks, technological risks, compliance risks, supply chain risks, security risks, and competitive risks as a whole and when grouped as to type of institution, years in operations, enrolment size, number of degree programs offered, and government recognition/accreditation.

4) Determine the managers' assessment of the level of business performance in terms of financial, customer, process, and learning and growth perspectives as a whole and when grouped as to type of institution, years in operations, enrolment size, number of degree programs offered, and government recognition/accreditation.

5) Determine if there is a significant relationship between profile of the private higher education institutions and managers' assessment of the level of business performance in terms of financial, customer, process, and learning and growth perspectives.

6) Determine if there is a significant relationship between the managers' assessment of financial risks being faced by private higher education institutions in terms of credit risks, market risks, liquidity risks, and operational risks and level of business performance in terms of financial, customer, process, and learning and growth perspectives.

7) Determine if there is a significant relationship between the managers' assessment of non-financial risks being faced by private higher education institutions in terms of climate risks, reputation risks, human resource risks, technological risks, compliance risks, supply chain risks, security risks, and competitive risks and level of business performance in terms of financial, customer, process, and learning and growth perspectives.

8) Determine the profile of private higher education institutions, and managers' assessment of financial and non-financial risks are correlates to business performance.

(2) Hypotheses

- 1) There is no significant relationship between the profile of the private higher education institutions and managers' assessment of the level of performance in terms of financial, customer, process, and learning and growth perspectives.
- 2) There is no significant relationship between the managers' assessment of financial risks being faced by private higher education institutions in terms of credit risks, market risks, liquidity risks, and operational risks and level of business performance in terms of financial, customer, process, and learning and growth perspectives.
- 3) There is no significant relationship between the managers' assessment of non-financial risks being faced by private higher education institutions in terms of climate risks, reputation risks, human resource risks, technological risks, compliance risks, supply chain risks, security risks, competitive risks and level of business performance in terms of financial, customer, process, and learning and growth perspectives.
- 4) Profile of private higher education institutions, and managers' assessment of financial and non-financial risks are not correlated to business performance

(3) Theoretical framework of the study

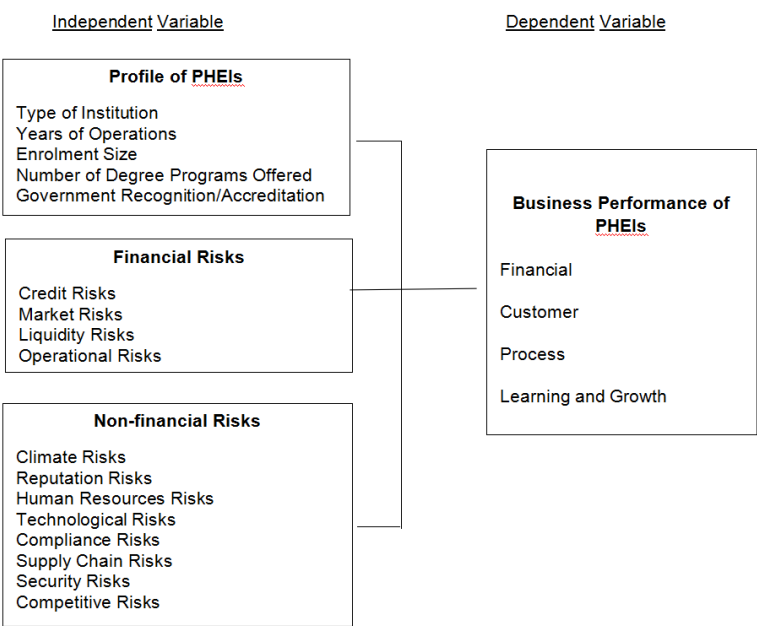
This study provides private higher education institutions with a systematic risk management framework and strategic advice, benefiting management, finance departments, and operations managers in enhancing risk management and financial stability, while also offering data for policy - making to the government, enriching academic study, improving educational quality for students, and promoting social progress, ultimately driving the holistic development of private higher education.

(4) Conceptual framework

This study in China aims to determine the correlation between factors related to private higher education institutions' (PHEIs) profiles and risks and their performance. Focusing on financial and non- financial risks, it evaluates their impact on multiple performance dimensions. The objectives involve assessing PHEIs' profiles and the significance of profiles, financial and non - financial risks on institutional performance. Hypotheses test differences in risks and performance by institutional characteristics and their correlations with performance outcomes, with the aim of identifying key performance determinants to improve PHEIs' strategic planning and risk management.

Figure 1 shows the conceptual framework of this study.

Figure 1 Profile and Risks as Correlates to Performance Among Private Higher Education Institutions



This study, conducted from January to October 2024, selected 30 representative private higher education institutions as research objects and randomly sampled 420 managers aged 30 - 60 in senior or intermediate positions from these institutions, obtaining 205 qualified questionnaire samples via Questionnaire Star. Sampling was divided by job level to ensure the representativeness of results. However, the study has limitations: only 30 institutions were selected, failing to cover different regions and policy scopes, and the online questionnaire survey may have biases as respondents might not truthfully answer questions unfavorable to their institutions. Thus, these limitations should be carefully considered when interpreting and applying the study results.

## **2. Review of Literature and Related Studies**

### **(1) Foreign research**

Foreign scholars have delved into private higher education institutions from diverse perspectives.

In the realm of financial risks, Gham, Houston et al. (2019) defined financial risk as the uncertainty that may lead to financial losses for enterprises, with factors like market changes and economic fluctuations. Holtermann et al. (2021) applied the ISO 31,000 risk management process to study risks in private higher education institutions, highlighting the significance of student satisfaction and enrollment in ensuring financial health. Regarding non - financial risks, Smith (2018), Hillson and Murray - Webster (2019) defined non - financial risks as uncertainties affecting an organization's operations, reputation, and stakeholder relations, covering areas such as compliance, reputation, and social responsibility risks. Habibi and Praetor (2022) explored the impact of organizational culture on the competitiveness of Indonesian Islamic universities and proposed an organizational culture building model. Galindo - Illanes et al. (2021) studied the impact of the free policy on student loyalty in Chilean higher education, filling a gap in comparative research. In terms of risk response strategies, Wang et al. (2019) advocated for the establishment of a comprehensive risk management framework that integrates financial and non - financial risks to enhance risk management effectiveness. Carvalho, Corbi and De - Loso (2021) examined the impact of school quality on vocational training and educational outcomes, providing theoretical support for improving education quality. Research has also been done on the correlation between various factors and performance. For example, studies have explored the impact of school size, years of operation, enrollment scale, degree program membership, and government recognition on financial and non - financial risks. Cheng & Lo (2020) found a mutual influence and correlation between financial and non - financial risks.

### **(2) Domestic research**

In China, research on private higher education institutions mainly focuses on policies, financial and non - financial risks, and corresponding response strategies.

The "Private Education Promotion Law" has been amended several times from 2002 to 2018, reflecting the dynamic changes in the policy environment, which has had a profound impact on the development of private higher education institutions.

In financial risk research, scholars have analyzed the financial risk points of private higher education institutions. Li Huadong (2019) pointed out problems such as limited revenue sources and restricted financing channels for private colleges in Henan. Zhang Qin (2021) proposed measures to optimize financial risk prevention in vocational colleges from the perspective of internal control.

For non - financial risks, Wang (2020) studied the impact of teacher stability on institutional performance, and Zhao and Li (2019) explored the role of student sources and enrollment strategies in institutional performance.

Scholars have put forward a series of risk response strategies. Establishing an internal control system, optimizing budget management, broadening financing channels, improving faculty and teaching quality, and strengthening brand building and marketing are considered effective means. Pan Jinlin (2024) proposed a diversified

collaborative model for innovative talent cultivation in private universities, providing new ideas for enhancing university competitiveness. IN addition, research has been carried out on financial performance evaluation and risk management in private higher education institutions. Studies have analyzed the impact of financial stability, tuition income, external financing, and financial management practices on institutional performance, and proposed corresponding improvement measures.

Overall, both domestic and foreign research indicates that financial and non - financial risks have a significant impact on the performance of private higher education institutions. Future research should focus on innovating risk identification technologies, optimizing risk management strategies, and improving the policy environment to promote the sustainable development of the private higher education industry.

3. Research Design

This study used survey-correlational research design. This design is often used in quantitative studies, especially when investigating the quantification of variables and their relationships. The aim is to systematically gather information and describe the phenomena under investigation. This method can explore the relationship between two or more variables without experimental manipulation or control.

In this study, data was collected only through questionnaires to facilitate understanding of the relationship between underlying profiles, financial risks, and non-financial risks.

(1) Participants of the study

This study selected 30 Chinese higher education institutions to analyze their financial and non-financial risks, as well as the correlation between these risks and the development of school performance. Based on the management structure design of Chinese universities, there are generally 4 senior management positions, and 10 intermediate management positions established to understand the overall operation, financial management, and academic affairs of the institutions. These management personnel are aged between 30-60 years old. According to their management positions, they are divided into two groups: Group A consists of 4 senior management position managers, and Group B consists of 10 middle-level management position managers.

There are a total of 420 participants to choose from. The participants were asked to understand the overall operation, financial management, and academic affairs of the institution.

Individuals who do not meet the above inclusion criteria are excluded from the study.

The sample size of 205 was determined using Slovin’s formula to provide a robust dataset to ensure the reliability and validity of the results, with a significance level of 5%. The sample size is denoted by n, the formula is as follows:

n =

1 + N e<sup>2</sup>

The computation is shown below:

Were,

n = Number of samples

N = Total population

e = Margin of error

420

n =

1 + 420 (0.05)<sup>2</sup>

420

n =

1 + 1.05

420

n =

2.05

136

Stratified random sampling was utilized to calculate the distribution of new generation employees in each stratum based on the sample size. Simple random sampling will be used in selecting respondents from each stratum. The formula is shown below on the computation of the subset of the population. Please see the table below.

$$\text{Stratified Random Sampling} = \frac{\text{Stratum Size}}{\text{Total Population}} \times \text{Sample Size}$$

Distribution of the Participants by Position

Group	Total Population	Sample Computation	Sample Size
Group A: senior executive	120	$120/420 \times 205 =$	59
Group B: middle-level managers	300	$300/420 \times 205 =$	146
Total:	420		205

This study focuses on private higher education institutions. It selects senior executives (including those in charge of overall management, finance, and teaching/academic affairs) and middle management (department managers and student affairs directors) as survey subjects. Their in-depth knowledge of different aspects such as overall operations, financial, non - financial risks, and department - specific matters helps comprehensively understand the institutions' risks and performance. The research instrument used is a self-designed questionnaire, as there are few relevant studies and reference questionnaires. The questionnaire is divided into two parts. Part 1 collects basic information of respondents like job titles, school type, years of operation, student body size, degree programs, and government accreditation status, which provides background for risk and performance analysis. Part 2 is a Likert - scale - based rating of financial risk, non - financial risk, and performance from multiple perspectives. This aims to quantify respondents' subjective views on the institutions' risk and performance, revealing the relationship between them and providing data support for risk management and performance improvement in private higher education institutions.

#### 4. Descriptive Data Analyses

The descriptive data analyses include the profile, financial risks, non-financial risks, and business performance of private higher education institutions in China.

This study focuses on the profile of 30 private higher education institutions. The data in Table 1 shows details such as institution type, years of operation, enrollment size, number of degree programs, and government recognition/ accreditation rating. Most institutions have operated for 21 years or more, have over 15,000 students, offer 41 or more-degree programs, and have received excellent government ratings, and are mainly undergraduate colleges. These findings are in line with the literature trends. Long - term operation is linked to institutional resilience due to developed infrastructure, experienced faculty, and strong networks. The focus on accreditation reflects the global trend towards quality assurance in higher education. Enrollment size matters as larger institutions enjoy economies of scale and better resource access. The diversity and quantity of degree programs demonstrate the adaptability of these institutions, which play an important role in meeting the increasing demand for accessible, flexible, and high - quality higher education.

Table 1 Profile of the Private Higher Education institutions

Category	f	%
<b>As a Whole Group</b>	30	100
<b>Type of Institution</b>		
Independent College	8	8
Private Undergraduate College	12	12
Private Higher Vocational College	10	10
<b>Years in Operations</b>		
20 years and below	14	47
21 years and above	16	53
<b>Enrolment Size</b>		
Small & Medium (15,000 students and below)	12	40
Large (more than 15,000 students)	18	60
<b>Number of Degree Programs Offered</b>		
20 or less	1	3
21 to 40	11	40
41 or more	18	60
<b>Government Recognition/Accreditation Rating</b>		
Excellent	19	64
Qualified	11	36

### (1) Managers' assessment of financial risks being faced by private higher education institutions

Managers' assessment of financial risks in Chinese private higher education institutions shows high levels across credit, market, liquidity, and operational risks. Independent colleges and institutions with more degree programs have very high credit risks, likely due to limited funding sources. Private higher vocational and institutions with fewer degree programs face very high market risks. High liquidity risks are widespread, mainly due to reliance on tuition and external funding. Operational risks are high, especially for independent colleges and institutions with many degree programs. Overall, financial risks are high, with independent colleges having extremely high risks, which aligns with recent research on factors like funding, enrollment, and accreditation affecting these risks.

Table 2 Manager's Assessment of Financial Risks Being Faced by Private Higher Education Institutions in terms of Credit Risk, Market Risk, Liquidity Risk, and Operational Risk as a Whole and when grouped as to Type of Institution, Years in Operations, Enrolment Size, Number of Degree Programs Offered, and Government Recognition/Accreditation Rating

Category (n=205)	Financial Risks														
	Credit Risk			Market Risk			Liquidity Risk			Operational Risk			Overall Financial Risk		
	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description
As a Whole Group	.99	3.70	High	.90	3.74	High	.63	4.26	Very High	.53	4.03	High	.33	3.93	High
Type of Institution															
Independent College															
Private Undergraduate College	.12	4.91	Very High	.45	2.57	High	.37	4.84	Very High	.21	4.53	Very High	.16	4.21	Very High
Private Higher Vocational College	.63	3.62	High	.73	3.84	High	.59	4.13	High	.39	4.01	High	.33	3.90	High
	.92	3.01	Moderate	.45	4.39	Very High	.57	4.03	High	.57	3.72	High	.31	3.79	High



Years in Operations 20 years and below 21 years and above	1.06 .91	3.48 3.89	High High	.73 .97	4.01 3.52	High High	.61 .64	4.20 4.32	High Very High	.54 .50	3.89 4.15	High High	.35 .31	3.89 3.97	High High
Enrolment Size Small & Medium (15,000 students & below) Large (more than 15,000 students)	1.0 .92	3.85 3.58	High High	1.0 .81	3.65 3.82	High High	.68 .59	4.29 4.25	Very High Very High	.60 .47	4.03 4.03	High High	.38 .28	3.96 3.92	High High
Number of Degree Programs Offered 20 or less 21 to 40 41 or more	.92 .85 .63	3.01 4.07 4.24	Moderate High Very High	.45 .83 1.0	4.39 3.44 3.10	Very High High Moderate	.57 .63 .57	4.03 4.45 4.24	High Very High Very High	.57 .38 .47	3.72 4.16 4.39	High High Very High	.31 .35 .17	3.79 4.03 3.99	High High High
Government Recognition/ Accreditation Rating Excellent Qualified	1.0 .91	3.88 3.47	High High	.89 .80	3.47 4.08	High High	.52 .66	4.47 4.00	Very High High	.49 .51	4.20 3.82	High High	.29 .36	4.01 3.84	High High

Note: 1.00-1.80 Very low 1.81-2.60 Low 2.61-3.40 Moderate 3.41-4.20 High 4.21-5.00 Very High

## (2) Non-Financial risks of private higher education institutions

Table 3.1 shows managers' assessment of non-financial risks in private higher education institutions. Climate risk is generally rated low as most institutions focus more on financial and operational risks. Reputation risk is assessed as very high across all groups, as it's crucial for financial performance and student enrollment. Human resource risk is high overall, with independent colleges and institutions with 21 - 40-degree programs having very high risk, while private higher vocational colleges and those with fewer programs have moderate risk. Technological and compliance risks are both rated moderate, with technological risks due to digital infrastructure challenges and compliance risks as institutions have established processes but smaller ones may struggle with regulatory changes.

Table 3.1 Non-Financial Risks of Private Higher Education Institutions in terms of Climate Risks, Reputation Risks, Human Resource Risks, Technological Risks, and Compliance Risks

Category (n=205)	Non-Financial Risks														
	Climate Risks			Reputation Risks			Human Resource Risks			Technological Risks			Compliance Risks		
	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description
As a Whole Group	.40	2.09	Low	.57	4.58	Very High	.69	3.79	High	.39	3.06	Moderate	.51	2.81	Moderate



Type of Institution															
Independent College	.32	2.26	Low	.20	4.91	Very High	.25	4.39	Very High	.29	3.05	Moderate	.25	2.85	Moderate
Private Undergraduate College	.42	2.11	Low	.59	4.63	Very High	.55	4.02	High	.42	3.06	Moderate	.40	2.96	Moderate
Private Higher Vocational College	.37	1.96	Low	.58	4.30	Very High	.49	3.16	Moderate	.41	3.07	Moderate	.67	2.62	Moderate
Years in Operations															
20 years and below	.42	2.01	Low	.54	4.50	Very High	.78	3.61	High	.36	3.06	Moderate	.60	2.68	Moderate
21 years and above	.37	2.16	Low	.59	4.63	Very High	.57	3.94	High	.41	3.05	Moderate	.40	2.91	Moderate
Enrolment Size															
Small & Medium (15,000 students & below)	.38	2.12	Low	.59	4.49	Very High	.76	3.82	High	.36	3.02	Moderate	.48	2.80	Moderate
Large (more than 15,000 students)	.41	2.07	Low	.54	4.65	Very High	.63	3.76	High	.41	3.09	Moderate	.54	2.81	Moderate
Number of Degree Programs Offered	.37	.37	Low	.58	4.30	Very High	.49	3.16	Moderate	.41	3.07	Moderate	.67	2.62	Moderate
20 or less	.41	.41	Low	.50	4.75	Very High	.50	4.22	Very High	.37	3.06	Moderate	.35	2.93	Moderate
21 to 40	.23	.23	Low	.52	4.68	Very High	.42	3.96	High	.39	3.13	Moderate	.35	2.87	Moderate
41 or more															
Government Recognition/ Accreditation Rating	.38	2.12	Low	.52	4.67	Very High	.71	3.82	High	.36	3.08	Moderate	.44	2.80	Moderate
Excellent	.42	2.06	Low	.62	4.46	Very High	.67	3.74	High	.43	3.03	Moderate	.60	2.82	Moderate
Qualified															

Note: 1.00-1.80 Very Low 1.81-2.60 Low 2.61-3.40 Moderate 3.41-4.20 High 4.21-5.00 Very High

Table 3.2 presents data on supply chain, security, and competitive risks in private higher education institutions, along with overall non- financial risks. Supply chain risk is very high across all groups due to PHEIs' reliance on external vendors, worsened by recent disruptions. Security risk is also very high, mainly because of campus safety and digital asset protection concerns. Competitive risk is moderate overall but high for independent colleges, varying with market and institutional strategies. Overall, non - financial risk is high, though moderate for private higher vocational colleges and those with fewer degree programs. The data indicates that supply chain and security risks need immediate attention, and strategies like strengthening supply chain resilience, investing in digital security, and enhancing competitiveness are crucial for risk mitigation.

Table 3.2 Non-Financial Risks of Private Higher Education Institutions in terms of Supply Chain Risks, Security Risks, Competitive Risks, and Overall Non-Financial Risks

Category (n=205)	Non-Financial Risks											
	Supply Chain Risk			Security Risk			Competitive Risk			Overall Non-Financial Risk		
	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description
As a Whole Group	.34	4.72	Very High	.55	4.22	Very High	.51	3.10	Moderate	.26	3.55	High

Type of Institution	.17	4.85	Very High	.34	4.57	Very High	.36	3.54	High	.10	3.80	High
Independent College	.20	4.86	Very High	.49	4.39	Very High	.34	3.06	Moderate	.17	3.64	High
Private Undergraduate College	.42	4.50	Very High	.49	3.83	High	.56	2.85	Moderate	.17	3.29	Moderate
Private Higher Vocational College												
Years in Operations	.41	.41	Very High	.54	.54	High	.53	3.08	Moderate	.27	3.45	High
20 years and below	.20	.20	Very High	.52	.52	Very High	.49	3.11	Moderate	.22	3.63	High
21 years and above												
Enrolment Size												
Small & Medium (15,000 students & below)	.31	4.69	Very High	.56	4.19	4.19	.55	3.07	Moderate	.29	.29	High
Large (more than 15,000 students)	.36	4.75	Very High	.55	4.25	4.25	.48	3.12	Moderate	.23	.23	High
Number of Degree Programs												
Offered	.42	4.50	Very High	.49	3.83	High	.56	2.85	Moderate	.17	3.29	3.29
20 or less	.19	4.85	Very High	.45	4.39	Very High	.40	3.26	Moderate	.16	3.70	3.70
21 to 40	.17	4.87	Very High	.38	4.67	Very High	.48	3.17	Moderate	.18	3.70	3.70
41 or more												
Government Recognition/ Accreditation Rating	.29	4.78	Very High	.52	4.38	Very High	.47	3.21	Moderate	.26	3.61	3.61
Excellent	.38	4.66	Very High	.54	4.03	High	.52	2.95	Moderate	.24	3.47	3.47
Qualified												

Note: 1.00-1.80 Very Low 1.81-2.60 Low 2.61-3.40 Moderate 3.41-4.20 High 4.21-5.00 Very High

### (3) Business performance of private higher education institutions

Table 4 presents managers' assessment of private higher education institutions' business performance. Overall, the performance is poor, except for private higher vocational colleges and those with 20 or fewer degree programs. From different perspectives, financial performance is poor across groups; customer performance varies from poor to good; process performance is very poor to poor; learning and growth performance is mostly poor, with exceptions. Recent studies support these findings, highlighting factors like financial instability, enrollment challenges, and internal inefficiencies for the poor performance, while vocational colleges and institutions with fewer programs perform better due to focused curricula and streamlined operations. Financial and customer - related performance are relatively better, while learning and growth, and process performance face significant challenges.

Table 4 Level of Performance in terms of Financial, Customer, Process, and Learning and Growth Perspectives as a Whole and when grouped as to HEI Profile

Category	Performance														
	Financial			Customer			Process			Learning and Growth			Overall Performance		
	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description
As a Whole Group	.51	2.30	Poor	.76	2.62	Good	.70	1.76	Very Poor	.63	2.23	Poor	.45	2.37	Poor
Type of Institution															
Independent College	.31	2.41	Poor	.37	.37	Poor	.29	1.36	Very Poor	.34	.34	Poor	.21	1.89	Poor
Private Undergraduate College	.43	2.04	Poor	.71	.71	Poor	.58	1.62	Very Poor	.59	.59	Poor	.36	2.05	Poor
Private Higher Vocational College	.57	2.50	Poor	.59	.59	Good	.80	2.16	Poor	.54	.54	Good	.39	2.62	Good
Years in Operations															
20 years and below	.57	2.47	Poor	.71	.71	Good	.81	1.91	Poor	.72	2.40	Poor	.52	2.40	Poor
21 years and above	.40	2.15	Poor	.75	.75	Poor	.57	1.63	Very Poor	.51	2.09	Poor	.35	2.08	Poor

Enrolment Size Small & Medium (15,000 students & below) Large (more than 15,000 students)	.47 .53	2.37 2.24	Poor Poor	.79 .72	2.52 2.71	Poor Good	.66 .72	1.63 1.86	Very Poor Poor	.62 .65	2.27 2.20	Poor Poor	.45 .47	2.20 2.25	Poor Poor
Enrolment Size Small & Medium (15,000 students & below) Large (more than 15,000 students)	.57 .44 .40	.57 .44 .40	Poor Poor Poor	.59 .67 .63	3.16 2.33 2.24	Good Poor Poor	.80 .44 .62	2.16 1.45 1.76	Poor Very Poor Very Poor	.54 .50 .60	2.69 1.93 2.07	Good Poor Poor	.39 .31 .38	2.62 1.98 2.03	2.62 1.98 2.03
Government Recognition/ Accreditation Rating Excellent Qualified	.49 .53	2.32 2.27	Poor Poor	.72 .77	2.49 2.79	Poor Good	.67 .73	1.66 1.87	Very Poor Poor	.58 .63	2.06 2.45	Poor Poor	.42 .49	2.13 2.34	2.13 2.34

Note: 1.00-1.80 Very Poor 1.81-2.60 Poor 2.61-3.40 Good 3.41-4.20 Very Good 4.21-5.00 Excellent

#### (4) Inferential data analyses

The inferential data analyses include the relationships among profile of private higher education institutions, and managers' assessment of financial risks, non-financial risks, and business performance of private higher education institutions in China.

#### (5) Relationships with institution profile and managers' assessment of the level of business performance

Table 5 indicates significant relationships between institution profiles and managers' assessment of private higher education institutions' business performance across financial, customer, process, and learning and growth perspectives. For example, the type of institution is related to customer, process, and learning and growth performance; government recognition/accreditation rating is associated with customer, process, and learning and growth aspects; enrolment size impacts process performance; and years in operations and number of degree programs offered are related to all four performance dimensions. All these relationships are positive and weak to a moderate degree. Recent studies, like those by Liu and Zhang (2022) and Chen et al. (2021), support these findings, highlighting the significant and positive, but not overly strong, associations between institutional profiles and business performance in private higher education.

Table 5 Relationships of Institution Profile in terms of Type of Institution, Years in Operations, Enrolment Size, Number of Degree Programs Offered and Government Recognition/Accreditation, and Business Performance in terms of Financial, Customer, Process, and Learning and Growth

Category (n=205)	Financial		Customer		Process		Learning and Growth	
	$\eta$	p	$\eta$	p	$\eta$	p	$\eta$	p
Type of Institution	.413	.098	.611**	.000	.463**	.000	.566**	.000
Enrollment Size	.126	.067	.126	.072	.168*	.016	.053	.446
	.308**	.000	.247**	.000	.201**	.004	.250**	.000
Number of Degree Programs Offered	.318**	.000	.545**	.000	.465**	.000	.557**	.000

Government Recognition/Accreditation Rating	.054	.444	.201**	.004	.149*	.033	.300**	.000
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\*p<.05 \*\*p<.01

#### **(6) Relationship between the managers' assessment of financial risks being faced by private higher education institutions level of business performance**

Table 6 data show that among different financial risks, only operational risk has a significant but negative and weak relationship with business performance from a financial perspective ( $r=-.180$ ,  $p<.010$ ), while the rest of the financial risks have no such significant relationship. Recent studies, like that of Li and Chen (2021), also highlight that operational risk, due to management and administrative inefficiencies, can negatively impact financial performance in private higher education institutions. In contrast, credit, liquidity, and market risks don't significantly affect financial performance, which aligns with the study's findings. This emphasizes that operational issues directly influence financial stability, while other financial risks have less direct impact on the financial outcomes of these institutions.

Table 6.1 The Relationship between the Managers' Assessment of Financial Risks being faced by Private Higher Education Institutions in terms of Credit Risk, Market Risk, Liquidity Risk, and Operational Risk and Level of Business Performance in terms of Financial Perspectives.

Category (n=205)	Business Performance in terms of Financial Perspectives	
	r	p
Credit Risk	.009	.894
Market Risk	-.024	.737
Liquidity Risk	-.028	.690
Operational Risk	-.180*	.010
Overall Financial Risks	-.094	.179

\*p<.05

Data in Table 6.2 revealed the significant relationships of all the types of financial risks to business performance in terms of customer perspective. The overall financial risk is negatively correlated with business performance ( $r=-.481$ ,  $p=.000$ ). Credit risk ( $r=-.333$ ,  $p=.000$ ), liquidity risk ( $r=-.315$ ,  $p=.000$ ), and operational risk ( $r=-.530$ ,  $p=.000$ ) are also negatively correlated with business performance, while market risk revealed a positive relationship ( $r=.228$ ,  $p=.001$ ). As noted, only the operational risk has a moderate relationship with business performance. The other financial risks showed weak relationships.

Table 6.2 The Relationship between the Managers' Assessment of Financial Risks being faced by Private Higher Education Institutions in terms of Credit Risk, Market Risk, Liquidity Risk, and Operational Risk and Level of Business Performance in terms of Customer Perspective.

Category (n=205)	Business Performance in terms of Customer Perspectives	
	r	p
Credit Risk	-.333**	.000
Market Risk	.228**	.001
Liquidity Risk	-.315**	.000
Operational Risk	-.590**	.000
Overall Financial Risks	-.481**	.000

\*\*p<.01

Table 6.3 revealed the significant relationships of financial risks to business performance in terms of process. As noted, overall financial risks showed a negative relationship with business performance in terms of process perspective ( $r=-.222$ ,  $p=.001$ ). Credit risk ( $r=-.269$ ,  $p=.001$ ), liquidity risk ( $r=-.149$ ,  $p=.033$ ), and operational risk ( $r=-.210$ ,  $p=.003$ ) are all negatively correlated with business performance, while market risk is positively correlated ( $r=.199$ ,  $p=.004$ ).

Table 6.3 The Relationship between the Managers' Assessment of Financial Risks being faced by Private Higher Education Institutions in terms of Credit Risk, Market Risk, Liquidity Risk, and Operational Risk and Level of Business Performance in terms of Process Perspectives.

Operational Risk and Level of Business Performance in terms of Process Perspective

Category (n=205)	Business Performance in terms of Process Perspectives	
	r	p
Credit Risk	-.269**	.000
Market Risk	.199**	.004
Liquidity Risk	-.149**	.033
Operational Risk	-.210**	.003
Overall Financial Risks	-.222**	.001

\*\*p<.01

Data in Table 6.4 showed the significant relationships exist between financial risks and business performance in terms of learning and growth. Generally, the different types of financial risks are negatively correlated with business performance, except for market risk which has a positive relationship with business performance ( $r=.150$ ,  $p=.031$ ). It is further noted that the relationship of operational risk with business performance is moderate ( $r=-.575$ ), while the rest showed weak correlations.

Table 6.4 The Relationship between the Managers' Assessment of Financial Risks being faced by Private Higher Education Institutions in terms of Credit Risk, Market Risk, Liquidity Risk, and Operational Risk and Level of Business Performance in terms of Learning and Growth Perspective

Category (n=205)	Business Performance in terms of Learning and Growth Perspectives	
	r	p
Credit Risk	-.205**	.003
Market Risk	.150*	.031
Liquidity Risk	-.288**	.000
Operational Risk	-.575**	.000
Overall Financial Risks	-.416**	.000

\*p<.05 \*\*p<.01

### **(7) Relationship between managers' assessment of non-financial risks faced by private higher education institutions and level of business performance**

Data in Table 7.5 showed that a significant, negative relationship exists between the overall non-financial risks and the business performance of institutions in terms of financial perspective ( $r=-.166$ ,  $p=.018$ ). Business performance also has significant negative relationships with human resource risk ( $r=-.318$ ,  $p=.000$ ), and security risk ( $r=-.182$ ,  $p=.009$ ). The other types of non-financial risks are not significantly related to business performance. Based on the correlation coefficients, however, such relationships are weak.

Table 7.1 The Relationship between the Managers' Assessment of Non-Financial Risks being faced by Private Higher Education Institutions in terms of Climate Risk, Reputation Risk, Human Resource Risk, Technological Risk, Compliance Risk, Supply Chain Risk, Security Risk, and Competitive Risk in terms of Financial Perspective

Category (n=205)	Business Performance in terms of Financial Perspectives	
	r	p
Climate Risk	.012	.860
Reputation Risk	-.080	.252
Human Resource Risk	-.318**	.000
Technological Risk	.081	.250
Compliance Risk	-.036	.610
Supply Chain Risk	-.114	.103
Security Risk	-.182**	.009
Competitive Risk	.085	.226
Overall Non-Financial Risks	-.166*	.018

\*p<.05 \*\*p<.01

Data in Table 7.2 revealed a significant, negative and moderate relationship between the overall non-financial risks and business performance in terms of customer ( $r=-.611$ ,  $p=.000$ ). With significant but negative relationships with business performance in terms of customer are reputation risk ( $r=-.389$ ,  $p=.000$ ), human resource risk ( $r=-.575$ ,  $p=.000$ ), compliance risk ( $r=-.139$ ,  $p=.047$ ), supply chain risk ( $r=-.262$ ,  $p=.000$ ), security risk ( $r=-.440$ ,  $p=.000$ ), and competitive risk ( $r=-.464$ ,  $p=.000$ ). As noted, all these relationships are weak.

Table 7.2 The Relationship between the Managers' Assessment of Non-Financial Risks being faced by Private Higher Education Institutions in terms of Climate Risk, Reputation Risk, Human Resource Risk, Technological Risk, Compliance Risk, Supply Chain Risk, Security Risk, and Competitive Risk in terms of Customer Perspective

Category (n=205)	Business Performance in terms of Customer Perspectives	
	r	p
Climate Risk	-.128	.068
Reputation Risk	-.389**	.000
Human Resource Risk	-.575**	.000
Technological Risk	.102	.144
Compliance Risk	-.139*	.047
Supply Chain Risk	-.262**	.000
Security Risk	-.440**	.000
Competitive Risk	-.464**	.000
Overall Non-Financial Risks	-.611**	.000

\* $p<.05$  \*\* $p<.01$

Table 7.3 revealed a significant but negative relationship between the overall non-financial risks and business performance in terms of process ( $r=-.494$ ,  $p=.000$ ). Also with significant but negative relationships with business performance in terms of process are reputation risk ( $r=-.262$ ,  $p=.000$ ), human resource risk ( $r=-.587$ ,  $p=.000$ ), compliance risk ( $r=-.325$ ,  $p=.000$ ), supply chain risk ( $r=-.308$ ,  $p=.000$ ), security risk ( $r=-.220$ ,  $p=.002$ ), and competitive risk ( $r=-.231$ ,  $p=.001$ ). While climate risk is not significantly related to business performance in terms of process, technological risk has a significant, positive relationship with business performance ( $r=.230$ ,  $p=.001$ ).

Table 7.3 The Relationship between the Managers' Assessment of Non-Financial Risks being faced by Private Higher Education Institutions in terms of Climate Risk, Reputation Risk, Human Resource Risk, Technological Risk, Compliance Risk, Supply Chain Risk, Security Risk, and Competitive Risk in terms of Process Perspective

Category (n=205)	Business Performance in terms of Process Perspectives	
	r	p
Climate Risk	-.130	.064
Reputation Risk	-.262**	.000
Human Resource Risk	-.587**	.000
Technological Risk	.230**	.001
Compliance Risk	-.325**	.000
Supply Chain Risk	-.308**	.000
Security Risk	-.220**	.002
Competitive Risk	-.231**	.001
Overall Non-Financial Risks	-.494**	.000

\* $p<.05$  \*\* $p<.01$

The overall non-financial risks and business performance in terms of learning and growth ( $r=-.533$ ,  $p=.000$ ) are significantly and negatively correlated but to a moderate degree.

Reputation risk ( $r=-.396$ ,  $p=.000$ ), human resource risk ( $r=-.623$ ,  $p=.000$ ), compliance risk ( $r=-.216$ ,  $p=.002$ ), supply chain risk ( $r=-.147$ ,  $p=.036$ ), security risk ( $r=-.266$ ,  $p=.000$ ), and competitive risk ( $r=-.364$ ,  $p=.000$ ) have significant, negative relationship with business performance, while technological risk has a significant, positive relationship ( $r=.167$ ,  $p=.017$ ). These relationships are noted to be weak except for human resource risk which has a moderate relationship with business performance in terms of learning and growth.

Table 7.4 The Relationship between the Managers' Assessment of Non-Financial Risks being faced by Private Higher Education

Institutions in terms of Climate Risk, Reputation Risk, Human Resource Risk, Technological Risk, Compliance Risk, Supply Chain Risk, Security Risk, and Competitive Risk in terms of Learning and Growth Perspective

Category (n=205)	Business Performance in terms of Learning and Growth Perspectives	
	r	p
Climate Risk	-.058	.408
Reputation Risk	-.396**	.000
Human Resource Risk	-.623**	.000
Technological Risk	.167*	.017
Compliance Risk	-.216**	.002
Supply Chain Risk	-.147*	.036
Security Risk	-.266**	.000
Competitive Risk	-.364**	.000
Overall Non-Financial Risks	-.533**	.000

\*p<.05 \*\*p<.01

### (8) Institution profile, financial Risks, and non-financial risks as correlated of business performance

Data in Table 8.1 revealed that type of institution ( $\eta=.673$ ,  $p=.000$ ), years in operations ( $\eta=.673$ ,  $p=.000$ ), number of degree programs offered ( $\eta=.673$ ,  $p=.000$ ), and government recognition/accreditation rating ( $\eta=.226$ ,  $p=.001$ ) are significantly related to business performance. These findings highlight the critical role of institutional characteristics in improving university performance and suggest that resource allocation and governance strategies need to be optimized for different types and sizes of institutions.

Table 8.1 Institution Profile in terms of Type of Institution, Years in Operations, Enrolment Size, Number of Degree Programs Offered and Government Recognition/Accreditation as Correlates of Business Performance

Category (n=205)	Overall Business Performance	
	$\eta$	p
Type of Institution	.673**	.000
Enrollment Size	.061	.382
Years in Operations	.347**	.000
Number of Degree Programs Offered	.661**	.000
Government Recognition/Accreditation Rating	.226**	.001

\*p<.05 \*\*p<.01

In Table 8.2, the data revealed that the different financial and non-financial risks are related to the business performance of private higher education institutions. For financial risks, all the types of risks are significantly related to business performance with market risk showing a weak, positive relationship ( $r=.213$ ,  $p=.002$ ). Credit risk ( $r=.305$ ,  $p=.000$ ), liquidity risk ( $r=-.292$ ,  $p=.000$ ), and operational risk ( $r=-.566$ ,  $p=.000$ ) have negative relationships with business performance. Among these identified financial risks, the operational risk showed the strongest relationship with business performance.

In terms of non-financial risks, only climate risk ( $r=-.118$ ,  $p=.093$ ) showed no significant relationship with business performance. All other types of non-financial risks have significant and negative relationships with business performance. As observed, the human resource risk has the strongest negative relationship with business performance ( $r=-.758$ ,  $p=.000$ ).

Table 8.2 Financial and Non-financial Risks as Correlates of Business Performance

Category (n=205)	Business Performance	
	r	p
Financial Risks		
Credit Risk	-.305**	.000
Market Risk	.213**	.002
Liquidity Risk	-.292**	.000
Operational Risk	-.566**	.000



Non-financial Risks		
Climate Risk	-.118	.093
Reputation Risk	-.415**	.000
Human Resource Risk	-.758**	.000
Technological Risk	.208**	.003
Compliance Risk	-.263**	.000
Supply Chain Risk	-.305**	.000
Security Risk	-.404**	.000
Competitive Risk	-.378**	.000

\*\*p<.01

## 5. Summary

This study aims to determine the profile and risks as correlates to performance among private higher education institutions in China.

Specifically, it sought to:

(1) Describe the profile of the private higher education institutions in terms of type of institution, years in operations, enrolment size, number of degree programs offered, and government recognition/accreditation.

(2) Determine the managers' assessment of financial risks being faced by private higher education institutions in terms of credit risks, market risks, liquidity risks, and operational risks as a whole and when grouped as to type of institution, years in operations, enrolment size, number of degree programs offered, and government recognition/accreditation.

(3) Determine the managers' assessment of non-financial risks being faced by private higher education institutions in terms of climate risks, reputation risks, human resource risks, technological risks, compliance risks, supply chain risks, security risks, and competitive risks as a whole and when grouped as to type of institution, years in operations, enrolment size, number of degree programs offered, and government recognition/accreditation.

(4) Determine the managers' assessment of the level of business performance in terms of financial, customer, process, and learning and growth perspectives as a whole and when grouped as to type of institution, years in operations, enrolment size, number of degree programs offered, and government recognition/accreditation.

(5) Determine if there is a significant relationship between profile of the private higher education institutions and managers' assessment of the level of business performance in terms of financial, customer, process, and learning and growth perspectives.

(6) Determine if there is a significant relationship between the managers' assessment of financial risks being faced by private higher education institutions in terms of credit risks, market risks, liquidity risks, and operational risks and level of business performance in terms of financial, customer, process, and learning and growth perspectives.

(7) Determine if there is a significant relationship between the managers' assessment of non-financial risks being faced by private higher education institutions in terms of climate risks, reputation risks, human resource risks, technological risks, compliance risks, supply chain risks, security risks, and competitive risks and level of business performance in terms of financial, customer, process, and learning and growth perspectives.

(8) Determine the if profile of private higher education institutions, and managers' assessment of financial and non-financial risks are correlates of business performance.

Using survey-correlational research design, 205 managers of the selected 30 representative private higher education institutions were surveyed on the profile of their institution, the financial and non-financial risks, and performance. The data were analyzed using frequency count, percentage, mean, standard deviation, Pearson's *r*, and ETA correlation ratio. The level of significance was set at .05.

## 6. Findings

The major findings of the study are:

(1) Most of the private higher education institutions are private undergraduate colleges, while majority are offering 41 or more-degree programs, and have been operating for 21 years and above and have excellent government recognition/accreditation rating.

(2) There is generally a high level of financial risks faced by private higher education institutions as assessed by the managers. Similarly, credit, market, liquidity, and operational risks are also assessed as high.

(3) The non-financial risks faced by private higher education institutions are high, but reputation, supply chain, and security risks are assessed by the managers as very high.

(4) The managers' assessment of the business performance of the schools varies from poor to good with the financial performance found to be consistent across groups, while very poor in terms of process.

(5) Among the institutional profile, type of institution, government recognition/accreditation, years in operation, and number of degree programs offered are associated with business performance in terms of financial, customer, process, and learning and growth perspectives.

(6) The financial risks in terms of credit, liquidity, and operational risks are negatively related to business performance in terms of financial, customer, process, and learning and growth perspectives, while market risk is positively related to business performance across the four perspectives. Moreover, operational risk has the strongest correlation with business performance in terms of customer and process.

(7) Generally, the different types of non-financial risks are significantly related to business performance in terms of customer, process, and growth and learning. For business performance in terms of financial perspective, only human resource and security risks are related. All the relationships are negative but would range from weak to moderate. Among all the non-financial risks, the human resource risks showed the strongest relationship with business performance across the four perspectives.

(8) Institution profile, financial risks, and non-financial risks are significant correlations of the private higher education institutions' overall business performance with the type of institution, number of degree programs offered, operational risk, and human resource risk topping the list.

## 7. Conclusions

Drawn from the above findings are the following conclusions:

(1) Private higher education institutions in China appears to have been in existence for quite some time, catering to a large number of students, and has been recognized by the government for excellence.

(2) Operating an academic institution appears to be a high-risk venture regardless of the school profile.

(3) Similarly, the education sector appears to be in a high-risk endeavor even in non-financial terms with much vulnerability in terms of their reputation, supply chain, and security.

(4) The school managers appear to find the school operations not a very profitable one. In the business of education, financial gain is not as promising as other ventures.

here are several reasons for this:

(5) Type of institution, years in operation, number of degree programs offered, and government recognition/accreditation are significant correlations of the higher education institutions' business performance in terms of

financial, customer, process, and learning and growth perspectives.

(6) The increase in financial risks tends to decrease business performance in terms of financial, customer, process, and learning and growth, especially those risks that pertain to school operations.

(7) The higher the non-financial risks, the lower would be the business performance of private higher education institutions in terms of financial, customer, process, and learning and growth perspectives.

(8) The business performance of private higher education institutions is connected to their institutional profile, financial and non-financial risks, especially the human resources and operational risks.

## **8. Recommendations**

The following recommendations are advanced based on the aforementioned findings and conclusions.

The text provides guidance for various stakeholders related to private higher education institutions. Institution management should use study insights for strategic and risk - management decisions. Finance departments need to seek ways to improve the school's financial situation, offer input for strategies to mitigate risks and enhance performance. Operations managers should review and optimize school processes considering risk management. Government and regulators can use the study to understand institution operations and risks for policy - making and regulatory purposes. Academics and researchers are encouraged to conduct more research. Students and parents should provide objective feedback on school processes and security, as their input can help schools improve and become more stable.

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