

Strategy and Path Innovation for High-Quality Development of First-Class Private Application-Oriented Universities

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Abstract: Due to the changes in the development environment of private universities and the gradual expansion of the autonomy of private universities in running schools, most first-class private application-oriented universities (FCPAOU) should rethink their own development goals and development paths, and formulate new development strategies. Taking the high-quality development of FCPAOU as the research direction of this paper, by analyzing the changes in the teacher-student ratio of local public college students in a FCPAOU in a province, it is concluded that the student-teacher ratio of FCPAOU is higher and is increasing overall. The trend shows that the FCPAOU are seriously lacking in teacher resources, and the age structure of teachers also shows that the teaching team is younger and the structure of teachers is unreasonable. In view of these factors hindering the development of FCPAOU, this paper proposes development strategies and paths, hoping that these types of universities can achieve high-quality development on the road of higher education.

1. Introduction

With the development of our country's economy and society, especially under the guidance and requirements of the Scientific Outlook on Development, all colleges and universities (CAU) are faced with the task of changing the teaching development model. The teaching tasks of private universities are more arduous. To build a FCPAOU, we should abandon the concept of "self-centeredness", change the closed school model, and use our own talents and technological advantages to deliver applications with strong comprehensive competitiveness to the society.

Many scholars have discussed the strategy and path innovation of high-quality development of FCPAOU, and achieved good results. For example, a scholar proposed the development strategy of FCPAOU from the perspective of the government and the school. For example, the organizer should actively correct the guiding ideology of running schools in accordance with the characteristics of the times, and adhere to the principle of public welfare of education. Therefore, a FCPAOU should set up disciplines in accordance with the needs of the market, and at the same time

have diversified teaching modes and flexible and efficient management mechanisms [1]. A researcher believes that the government is an important external organization of high-quality private universities, and there is a strong resource dependence on FCPAOU. In order to better promote the construction of high-quality private universities, the government should provide abundant policy resources, financial resources and institutional resources [2-3]. Although many scholars have studied the development strategy of FCPAOU, how to promote the implementation of the strategy and promote the development of FCPAOU is still the focus of education reform.

This paper first puts forward the concept of FCPAOU, then analyzes the obstacles to the high-quality development of FCPAOU, and analyzes the current situation of teachers in a FCPAOU in a province in recent years. In view of the high-quality development of first-class private application-oriented universities, development strategies and development paths are proposed.

2. Overview of Private Applied Universities

2.1 Private Applied Universities

The orientation of PAOU is to cultivate technical talents [4]. Compared with the concept of academic public undergraduate education, PAOU meets the needs of social talent training and social and economic development, and plays a positive role in promoting the popularization of higher education. FCPAOU focus on building “first-class” institutions, which have advantages over other private universities in terms of faculty, scientific research level, and teaching funds, and are exemplary universities for other private universities [5-6].

2.2 Key Technologies of BP Neural Network

BP neural network is an adaptive neural network [7]. If the number of neural network inputs is denoted as L and the number of outputs is denoted as P, it means that the sum formula of the input and output of node i in the output layer is as follows:

$$y_i = \sum_{j=1}^L w_{ij} x_j - \zeta \quad (1)$$

$$w_{ij}(t+1) = w_{ij}(t) + \mu(d_i - y_i) x_j(t) \quad (2)$$

Among them, the connection weight of the two nodes i and j is w_{ij} , d_i is the expected output value of the i node, y_i is the actual output value of the i node, x_j is the threshold control constant of the j node, and μ is the learning rate constant.

3. Obstacles to the High-Quality Development of FCPAOU

3.1 Failure to Implement School-Running Autonomy

The flexible school-running mechanism is the simplest form and advantage of a PAOU. However, it is difficult to exert this advantage of PAOU. Private schools have many restrictions, and the independence of running schools cannot be achieved [8]. For example, in the professional organization, the process of "taking the profession as the market" is largely supported by professional schools that are highly recognized by experts and managers, but there are many restrictions on the professional setting; The university hopes to introduce some high-quality middle

and high-level management personnel. However, because they cannot enjoy the same treatment as public university personnel in various aspects such as personnel file management, award evaluation, and application for civil servants, some people who think about the development of private universities are worried about the future. ; In terms of internal management, logistics services, etc., private schools have some requirements to follow the route of public schools, and the benefits of private schools are significantly reduced [9].

3.2 The Structure of Teachers is Unreasonable

PAOU face problems such as shortage of funds, lack of teachers, and insufficient teaching and management systems. Different schools have different management of teachers in private application-oriented universities, and even the management of teachers in different departments of the same school is different, which directly leads to the unevenness of teacher management level among PAOU [10] . For example, some schools are recruiting freshmen and graduate students as teachers, and the management of knowledge and training for these teachers needs to be improved. There are also some CAU that adopt the same formal screening procedures as the national CAU for the selection of teachers in their own schools, strictly control the hardware conditions such as teachers' academic qualifications, age and professional knowledge matching, as well as the standard assessment 3-6 months after the internship. There are more detailed explanations for the promotion of different degrees after the standard internship period. However, some private schools do not have strict standards for teacher selection applications, and the academic requirements do not meet the national standards. There is no specific and clear standard for the assessment of teachers' professional knowledge, which seriously affects the overall education and teaching level of PAOU [11-12].

Taking 16 private universities in a province as an example, there are only 3 FCPAOU among the private universities. From the data analysis in Figure 1, it can be concluded that the province's FCPAOU are in a serious shortage of teachers, and there is no stable improvement trend. And compared with the local public universities in the province, from 2016 to 2020, the number of students and teachers in the province's FCPAOU has always been higher than that of the public universities, and the five-year gaps are 7.15, 7.07, 1.89, 4.08, and 7.37 respectively.

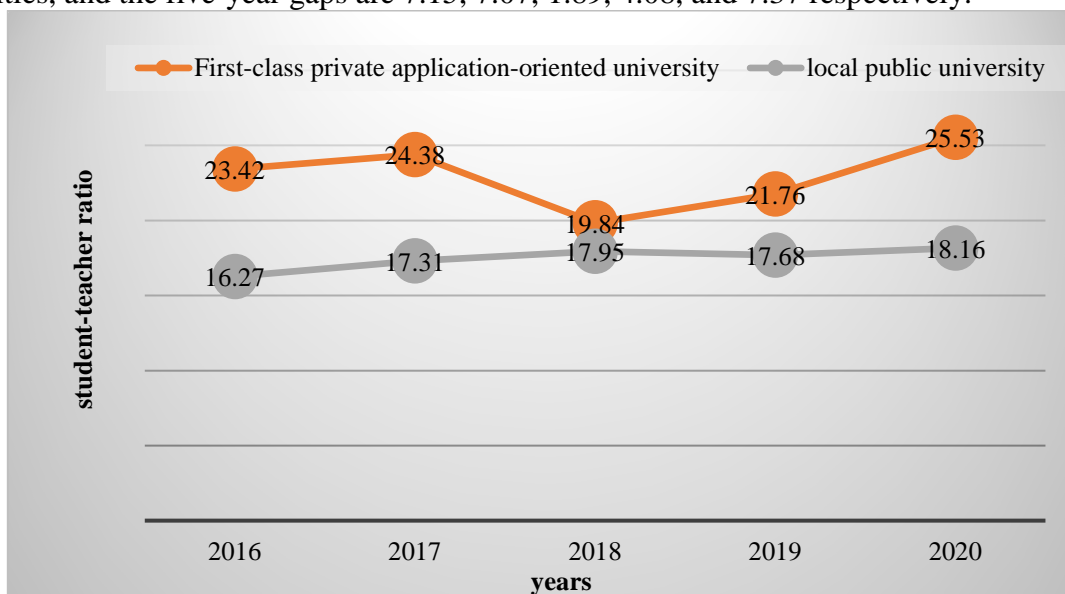


Figure 1: Student-teacher ratio of the province's FCPAOU and public universities

From the data in Figure 2, we can also see the growth rate of the student-teacher ratio in the past five years compared with the previous year. In 2018, the student-teacher ratio of the province's FCPAOU showed a negative growth, with a growth rate of -18.62%. In 2020, the student-teacher ratio grew the fastest, reaching 17.33%. The ratio shows an upward trend, indicating that the number of students in private universities is increasing, and the number of teachers is declining. In 2019, the student-teacher ratio of public universities in the province had a negative growth. Generally speaking, the student-teacher ratio of public universities in the province was declining, indicating that the lion power of public universities in the province is gradually becoming stronger. This is also the gap between private universities and public universities.

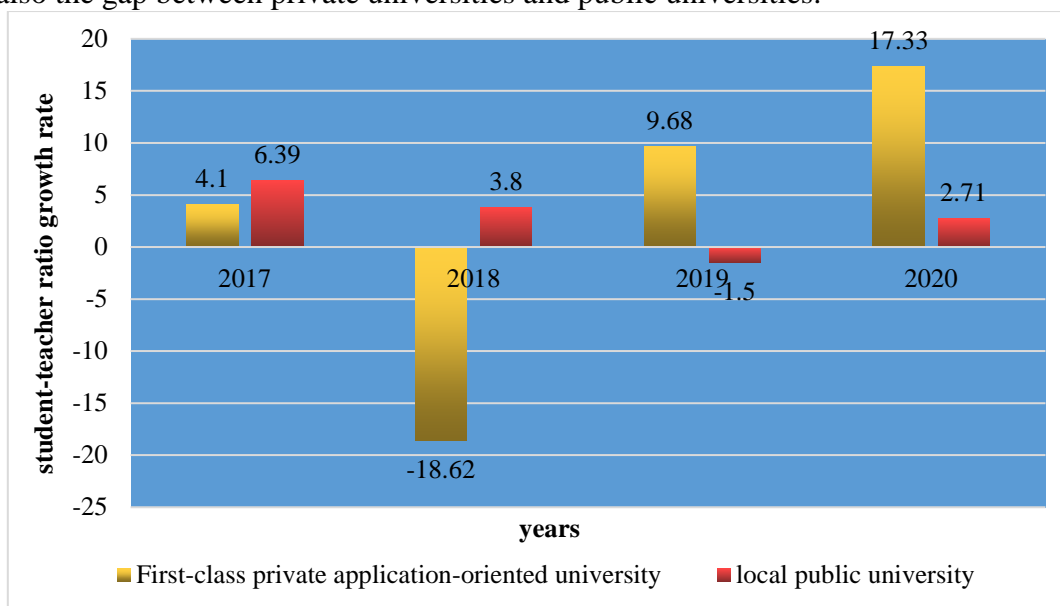


Figure 2: Growth rate of student-teacher ratio

Judging from the age structure of teachers in 2020 in Table 1, the teachers of the province's FCPAOU are mainly young teachers, most of whom are 30 years old and below. Teachers with rich teaching experience are in the minority.

Table 1: Age structure of teachers in FCPAOU in the province

	30 and below	31-40	41-50	51-60	61 and above
number of people	462	183	65	21	8
Proportion(%)	62.52	24.76	8.80	2.84	1.08

4. Strategies and Paths for High-Quality Development of FCPAOU

4.1 Development Strategy

(1) Brand strategy

By cultivating various qualities of students, establish a good reputation and brand image of the school's "graduates", the main product, among students' parents and employers, and improve the school's reputation or a strategic form of brand. There are also colleges and universities that increase the visibility and reputation of the school through a positive image of the school industry. First-class private CAU need to have a certain scale of running schools, otherwise they will not be able to survive. But it's not that the bigger the better, it depends on its own support ability. If the scale of enrollment and the scale of running schools exceeds the scope of what it can support, it is

about the quality of education and learning, and about the image and quality and reputation of the school. At present, FCPAOU need to implement the scientific concept of development, strengthen the responsibility of enhancing the reputation of the university and building the brand of the university.

(2) Human resource strategy

Talent is the first resource, every university needs and wants to be able to bring together a team of the best tutors and counselors, and all hope to get a good source of students, so in this sense, the strategy of strengthening the university with talents is a general strategy. To improve the selection, tenure and compensation system of presidents and administrators of private universities, in order to maintain the core faculty team and balance the teaching style and teaching ability of teachers with the greatest strength, we need to use a systematic and strategic approach to solve the problem of teacher retention, reduce the teacher mobility. The remuneration of this part of the teachers can be divided into two parts: cash and shares, so that property rights play an incentive role, let them be the masters of the family, and increase the sense of responsibility for running a school. There are advances and retreats in running a school, and everyone has a share.

(3) Open school strategy

Although PAOU cannot be a substitute for public universities, they cannot rest on their laurels either. Although academic freedom and school-running autonomy are emphasized, with the development of society, PAOU will inevitably be included in the logic of the market, open schools, face the society, and face the market. Therefore, the open school strategy can also be regarded as a general strategy.

4.2 Development Path Innovation

(1) Strengthen the construction of full-time and part-time teachers in first-class private application-oriented universities

As an important support for the operation of CAU, the teaching staff plays an important role in the development of private CAU. Due to the special nature of private CAU, the mobility of professional or part-time teachers is higher than that of public colleges. Therefore, private CAU need to pay close attention to their full-time and part-time teachers. The so-called first-class schools are not because they have first-class hardware infrastructure, but because they have first-class teachers. Therefore, cultivating a group of excellent teachers and improving the quantity and quality of teachers are the primary tasks of FCPAOU. First, we must continuously optimize the structure of teachers. PAOU are in line with the public institutions of higher learning in terms of the recruitment and employment of teachers, and strive to expand the recruitment channels for private college teachers, and continuously introduce outstanding young teachers and talents from China in a planned and targeted manner, and improve the teaching staff of full-time teachers. At the same time, adopt preferential incentive policies to introduce outstanding enterprise talents with social prestige and social achievements to enrich the part-time teaching staff of private CAU, so as to realize the rational structure of teaching staff in private CAU. Second, we must vigorously cultivate young teachers' talents. Private CAU should practice the connection between new and old teachers in various ways, so that teachers have the opportunity to continue their studies in well-known universities at home and abroad, and improve teachers' work efficiency and knowledge level. Third, learn to use the "apprenticeship" training model, arrange for middle-aged and elderly teachers with rich education and teaching experience to guide young teachers, and focus on the curriculum arrangement of private universities, teaching experience imparting, and extensive teaching evaluation and exchange and other forms education, teaching and learning promotion platform. Fourth, the extensive use of incentive mechanisms to drive teachers' enthusiasm for teaching. Guide

and encourage teachers to widely participate in research projects such as education and scientific research, and award policy-oriented rewards such as material or job promotion, and study abroad to teachers or groups who have obtained projects.

(2) An order-based talent training model based on the combination of production and education

The so-called combination of production and education means that school education unifies enterprise production and school teaching. Private higher education provides a wide range of technologies and uses for national development. Due to the influence of the traditional education system, it has become a model for cultivating professional talents in a single discipline. With the continuous expansion of my country's economic system and the continuous improvement of higher education, the mode of combining production and education has emerged. It emphasizes that colleges and enterprises are united to provide education for students. Once students have the cultural background of CAU, they will go to CAU. Enterprises receive corresponding training and quickly learn the corresponding work skills, which can best meet the needs of employees of the enterprise. This new form of collaborative education not only sees the integration of colleges, majors and individuals, and promotes individuals to apply theory to practice, but also helps colleges and universities understand the specific needs of the social talent market, and guides private colleges and universities to carry out majors in a timely manner. Adjustment. For students in FCPAOU, cultivating personal training skills is the key to learning, and at the same time, it can also enable students to achieve smooth employment. For enterprises, it can help enterprises find excellent relevant talents to solve the problem of retaining talents in their industries.

5. Conclusions

By studying the development strategy for the high-quality development of FCPAOU, this paper shows that in order to make application-oriented universities based on higher education, it is necessary to focus on the application-oriented talent training strategy, to attract more students through an open school-running mechanism, and to improve PAOU. The quality of university faculty construction and the recruitment of teachers with scientific research ability and practical teaching experience can drive the development of PAOU and build first-class universities.

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