

Exploring Competitive Strategies of Preschool Teacher Education Program Based on SWOT-QSPM: A Case Study of Zengcheng Vocational and Technical School in Guangzhou City

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Abstract: This paper employs the SWOT-QSPM (Strength, Weakness, Opportunity, Threat-Quantitative Strategic Planning Matrix) analytical framework to conduct a strategic study on the preschool teacher education program, taking the preschool teacher major of Zengcheng Vocational and Technical School in Guangzhou City as an example. Through in-depth interviews and qualitative and quantitative analysis methods, the current external opportunities and threats, internal strengths, and weaknesses faced by the major are assessed. Alternative strategies are proposed, and then the QSPM method is used to quantitatively evaluate these alternative strategies. It is concluded that a differentiation strategy should be adopted as the competitive strategy for the preschool teacher education program. The research findings have significant reference value for the development and planning of similar preschool teacher majors in higher vocational colleges. The practical significance lies in the fact that the research conclusions can be directly applied by education providers. The innovative significance lies in providing career planning references for current preschool teacher major students and their parents through strategic analysis.

Keywords: Higher vocational colleges; Preschool teacher education; Differentiation strategy; SWOT-QSPM

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1. Introduction

In the context of emerging new forms of productivity, the high-quality development of the early childhood education industry imposes increasingly stringent quality requirements on preschool teachers. Consequently, competition for the prospects of graduates from preschool education majors has intensified. Faced with fierce employment market competition and evolving industry demands, students majoring in preschool education at Zengcheng Vocational and Technical School need to formulate scientific and reasonable career development plans. This paper aims to provide strategic decision-making support for the discipline construction of the

preschool education major by employing the SWOT-QSPM (Strength, Weakness, Opportunity, Threat-Quantitative Strategic Planning Matrix) analysis framework, integrating the curriculum design of the major with the cultivation of students' individual strengths. This is to assist graduates of this major in better adapting to the employment market and achieving their personal career goals.

2. Review of relevant theories and related research

2.1. Theory of competitive strategy

Michael Porter established a research framework in his book *Competitive Strategy*, arguing that firms should determine their strategies based on external competitive dynamics, primarily encompassing overall cost leadership, differentiation strategy, and focus strategy^[1-3].

- (1) Cost leadership strategy: The cost leadership strategy emphasizes gaining a competitive advantage by providing low-priced products or services through cost reduction, characterized by efficient production, strict control, and continuous innovation. Its implementation requires consideration of risks such as market demand and competitor counterattacks.
- (2) Differentiation strategy theory: The differentiation strategy leverages unique advantages to differentiate positioning from competitors in terms of products, brands, services, channels, creating sustained competitive advantages, enhancing customer recognition and loyalty, and promoting sales and profit growth. This includes differentiation in products, brands, services, channels, costs, image, personnel, etc.
- (3) Focus strategy theory: The focus strategy involves a series of actions to produce products or provide services to meet the needs of specific competitive market segments. It is characterized by a clear target market, concentrated resources, specialized services, and the establishment of barriers. The key elements of implementing a focus strategy are market segmentation, product or service specialization, resource optimization, and concentrating resources on selected target markets to achieve efficient operation and management.

2.2. Foundation of related research

In 2012, He proposed an application model for blended learning in the professional teaching system of vocational education based on the theory of blended learning^[4], providing a solution for the strategic implementation of preschool education programs. In the practice of the blended learning model, He conducted educational experiments using Java programming as an example and verified the correctness of the proposed model, offering a case solution for the strategic implementation of preschool education majors^[5]. Kong and Zhang pointed out that the main misconception in current preschool teacher education in China is the blurred positioning of educational goals and designed a “trinity” talent training model and construction strategy for higher vocational preschool education^[6]. Zhang proposed that the professional growth of novice kindergarten teachers should follow specific principles based on Vygotsky's zone of proximal development theory, and corresponding measures should be taken, including providing professional support, assigning professional mentors, and establishing growth platforms^[7]. He proposed a large-scale data clustering processing method, providing a rapid computer processing approach for data handling before decision-making at the business level strategy^[8]. Yang, after surveying male undergraduate students in preschool education, proposed multiple measures to improve their professional identity and employment rate, aiming to optimize the teacher structure in kindergartens^[9]. Sun reviewed rural preschool education, summarizing

the seven stages of development of rural preschool education policies in China under the leadership of the Communist Party of China over the past century, and proposed that the future trend of preschool education should focus on supporting rural early childhood care, urban-rural preschool teacher team building, and quality supervision ^[10]. He systematically proposed a strategic research model based on competitive strategy theory for the first time, using Company V as an example to formulate a competitive strategy for professional art education business, creating an integrated solution from strategic positioning to strategic implementation for the art education business ^[11].

These related studies, directly or indirectly, provide an academic foundation and perspective for the in-depth research of this paper.

3. External environment analysis

3.1. Macro-environment analysis

In the context of the macro-environment, education is influenced by economic cycles and national policy orientation. Here, a PEST analysis is employed.

- (1) Political: The country has increasingly emphasized the importance of early childhood education, issuing a series of policies and regulations to support its development, such as the “Opinions on Deepening Educational and Teaching Reforms to Comprehensively Improve the Quality of Compulsory Education,” providing policy guarantees for the preschool teacher profession. The education sector has continuously raised the requirements for preschool teachers’ qualification certification and continuing education, promoting the standardized and professional development of the industry.
- (2) Economic: According to the latest data from the National Bureau of Statistics, the market size of the early childhood education industry continues to expand, with families increasing their investment in early childhood education. As residents’ income levels rise, the early childhood education market is expected to maintain stable growth in the future.
- (3) Sociocultural: Society’s expectations for the quality of early childhood education have increased, raising the requirements for preschool teachers’ professional competence and comprehensive abilities. Families have a growing demand for personalized early childhood education services, leading to an increased demand for preschool teachers with special skills, such as those proficient in music, dance, and art.
- (4) Technological: The rapid development of educational technology, including online and intelligent education, has provided new teaching models and tools for early childhood education. The continuous updating of early childhood education software and teaching tools requires preschool teachers to continuously learn and adapt to new technologies, improving teaching efficiency and quality.

3.2. Industry environment analysis

The early childhood education industry is experiencing rapid development, with the country increasing its emphasis and investment in this field. As society’s expectations for the quality of early childhood education rise, so do the requirements for preschool teachers’ professional competence and comprehensive abilities. The early childhood education industry is gradually moving towards diversification and specialization, with an increased demand for preschool teachers with individual expertise.

In terms of employment market demand, competition in the job market for preschool education majors is intense, but those with unique individual expertise and higher overall quality are more popular. When recruiting, kindergartens not only focus on preschool teachers' basic professional competence but also increasingly value their special skills in art, science and technology, sports, etc. With the emphasis on family education, the demand for preschool teachers who can provide personalized family education guidance is also increasing.

3.3. Competitor analysis

Although vocational colleges compete directly for students, education, at the national level, does not involve the cutthroat red ocean competition seen in corporate warfare. Therefore, this section's analysis of competitors is omitted in this context. However, for school administrators or individual students, to provide more practical guidance for personal employment and help schools develop their unique characteristics, this section's analysis can be added independently to obtain a more accurate strategic positioning and make precise tactical responses.

3.4. External factor evaluation matrix

Based on the qualitative analysis presented in sections 3.1. and 3.2., further segmentation, and data analysis, the external factor evaluation (EFE) matrix can be derived, as shown in **Table 1**.

Table 1. EFE analysis table for preschool teacher education business

Key factors	Weight	Rating (1–4)	Weighted score
External opportunities			
O1: Stable growth of preschool education market over five years	0.15	4	0.6
O2: Enhanced government support for preschool education policies	0.15	4	0.6
O3: Increasing household investment in preschool education	0.1	4	0.4
O4: Rising demand for personalized preschool education services	0.1	4	0.4
O5: Rapid development of educational technology	0.1	3	0.3
Subtotal for opportunity factors			2.3
External threats			
T1: Intense competition in the preschool teacher industry	0.1	2	0.2
T2: Heightened requirements for preschool teacher qualifications and continuing education	0.1	2	0.2
T3: Increased economic uncertainty	0.05	2	0.1
T4: Risk of policy changes in education	0.05	2	0.1
T5: Elevated societal expectations on preschool teachers	0.1	3	0.3
Subtotal for threat factors			0.9
Total score	1		3.2

4. Internal environment analysis

4.1. Tangible resources

- (1) Teaching facilities: The school boasts modern teaching buildings, laboratories, libraries, etc., providing excellent conditions for students' learning and living.
- (2) Practical training bases: The school has established partnerships with multiple kindergartens, offering students ample internship opportunities. Both the quantity and quality of these practical training bases are among the best in the region.
- (3) Current student body: The school has a stable enrollment of preschool education majors, with students of high caliber who have a keen interest in early childhood education. The quality of the student body is recognized by society.

4.2. Intangible resources

- (1) In terms of faculty strength, the school possesses a highly professional and experienced teaching staff capable of providing high-quality instruction and guidance to students.
- (2) Regarding the school's reputation, it enjoys a high standing in the local area, with a high employment rate for graduates and widespread recognition from employers.
- (3) In terms of campus culture, the school emphasizes the cultivation of professional qualities such as responsibility, compassion, and patience, fostering a positive campus culture that contributes to the comprehensive development of students.

4.3. Internal factor evaluation matrix

Based on the qualitative analysis of the internal environment outlined above, a condensed data analysis was conducted, resulting in the internal factor evaluation (IFE) matrix presented in **Table 2**.

Table 2. IFE analysis of career development in preschool education majors

Key factors	Weight	Rating (1-4)	Weighted score
Internal strengths			
S1: Well-equipped teaching facilities	0.1	4	0.4
S2: Leading number and quality of practical training bases	0.15	4	0.6
S3: High and stable quality of student enrollment	0.1	4	0.4
S4: Strong faculty strength	0.2	4	0.8
S5: Good reputation of the school	0.15	4	0.6
Subtotal			2.8
Internal weaknesses			
W1: Campus culture needs further enrichment	0.05	3	0.15
W2: Students' international perspective needs broadening	0.05	3	0.15
W3: Comprehensive quality of some students needs further improvement	0.05	3	0.15
W4: Educational technology application skills need strengthening	0.05	3	0.15
W5: Proportion of talented students needs increasing	0.1	3	0.3
Subtotal			0.9
Total score	1		3.7

5.2. SWOT quadrilateral strategic focus analysis

The SWOT quadrilateral analysis is a method that visually presents the four dimensions of strengths, weaknesses, opportunities, and threats, aiding researchers in clearly seeing the possible paths for business development. In this quadrilateral image, each vertex represents one aspect of the SWOT analysis—strengths, weaknesses, opportunities, and threats, while the lines connecting these vertices reveal their interrelationships and influences. Through this intuitive graphical representation, it is possible to comprehensively examine the strategic environment in which the art education business operates, providing strong support for formulating targeted development strategies.

Based on the external opportunity score of $O = 2.3$ and external threat score of $T = 0.9$ derived from the EFE matrix, as well as the internal strength score of $S = 2.8$ and internal weakness score of $W = 0.9$ from the IFE matrix, a data image analysis was conducted using the SWOT quadrilateral. The combined effect of key factors in the external and internal environments is represented by the center of gravity, with the coordinates of the center of gravity calculated using Formula 1. **Figure 1** shows that the education business of the preschool education major currently lies in the SO quadrant, indicating that the strategic decision is an SO growth strategy.

$$P(x,y) = \left(\frac{\sum x_i}{4}, \frac{\sum y_i}{4} \right) \quad (\text{Formula 1})$$

$$\text{Calculation: } P(x,y) = [(2.3-0.9+0+0)/4, (2.8-0.9+0+0)/4] = (0.35, 0.475)$$

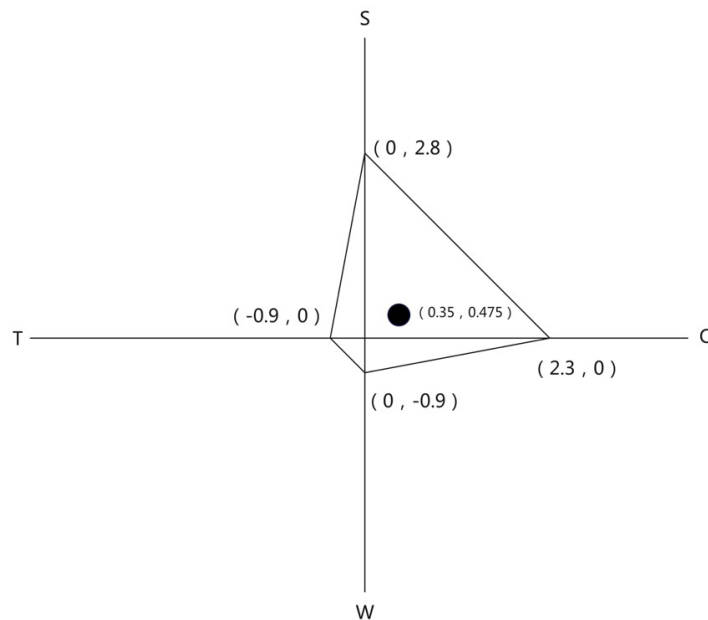


Figure 1. SWOT quadrilateral strategic focus chart for the preschool education major

5.3. Alternative strategies

From **Table 3**, 24 alternative strategies are identified. Based on competitive strategy theory, these 24 alternative strategies are further categorized into three types: overall cost leadership strategy, differentiation strategy, and focus strategy, as presented in **Table 4**.

Table 4. Alternative competitive strategies for the education business of the preschool education major

Types	Alternative strategies
Cost leadership strategy	ST1, WT5
Differentiation strategy	SO1, SO2, SO3, SO4, SO5, SO7, SO8, WO1, WO2, WO3, ST2 ST3, ST4, WT1, WT2, WT3
Focus strategy	SO6

6. QSPM

The QSPM (Quantitative Strategic Planning Matrix) is a tool utilized for evaluating and selecting strategies. It integrates external opportunities and threats, internal strengths and weaknesses, and assigns scores based on the attractiveness of strategies towards key success factors, leading to the development of **Table 5**.

Table 5. QSPM matrix for the competitive strategies of preschool teacher education business

Project	Key factors	Weight	Cost leadership strategy		Differentiation strategy		Focus strategy	
			AS	TAS	AS	TAS	AS	TAS
Opportunities	O1: Stable growth of preschool education market over five years	0.15	2	0.3	4	0.6	3	0.45
	O2: Enhanced government support for preschool education policies	0.15	2	0.3	4	0.6	3	0.45
	O3: Increasing household investment in preschool education	0.1	4	0.4	4	0.4	3	0.3
	O4: Rising demand for personalized preschool education services	0.1	4	0.4	4	0.4	4	0.4
	O5: Rapid development of educational technology	0.1	4	0.4	4	0.4	4	0.4
Threat	T1: Intense competition in the preschool teacher industry	0.1	2	0.2	3	0.3	3	0.3
	T2: Heightened requirements for preschool teacher qualifications and continuing education	0.1	3	0.3	4	0.4	3	0.3
	T3: Increased economic uncertainty	0.05	2	0.1	4	0.2	2	0.1
	T4: Risk of policy changes in education	0.05	3	0.15	4	0.2	3	0.15
	T5: Elevated societal expectations on preschool teachers	0.1	3	0.3	4	0.4	2	0.2
Strengths	S1: Well-equipped teaching facilities	0.1	4	0.4	4	0.4	3	0.3
	S2: Leading number and quality of practical training bases	0.15	4	0.6	4	0.6	3	0.45
	S3: High and stable quality of student enrollment	0.1	4	0.4	4	0.4	4	0.4
	S4: Strong faculty strength	0.2	4	0.8	4	0.8	4	0.8
	S5: Good reputation of the school	0.15	2	0.3	4	0.6	4	0.6
Weaknesses	W1: Campus culture needs further enrichment	0.05	3	0.15	4	0.2	3	0.15
	W2: Students' international perspective needs broadening	0.05	3	0.15	4	0.2	3	0.15
	W3: Comprehensive quality of some students needs further improvement	0.05	4	0.2	4	0.2	3	0.15
	W4: Educational technology application skills need strengthening	0.05	4	0.2	2	0.1	4	0.2
	W5: Proportion of talented students needs increasing	0.1	3	0.3	3	0.3	2	0.2
Total score		2	6.35		7.7		6.45	

The differentiation strategy scored 7.7, the highest among all, therefore, the competitive strategy for the preschool teacher education business should be the differentiation strategy.

7. Strategy implementation and decoding

The preschool teacher education business should adopt an SO growth-oriented differentiation strategy. Specific measures are as follows:

- (1) Service differentiation: Utilizing improved teaching facilities to expand enrollment scale, providing high-quality educational services, and meeting families' demand for high-quality education. Personalized services serve as a point of differentiation.
- (2) Curriculum differentiation: Enhancing the utilization of practical training bases, developing personalized practical courses to meet market demands, and introducing personalized courses as a means of differentiation.
- (3) Brand differentiation: Providing high-end educational services to enhance the school's brand.
- (4) Educational technology innovation differentiation: Leveraging educational technology to improve teaching efficiency and quality, leading educational innovation, strengthening teacher training, enhancing teaching quality, and guiding educational innovation.

8. Conclusion

This paper conducted a strategic study on the education business of the preschool teacher major at Zengcheng Vocational and Technical School through the SWOT-QSPM analysis framework. The study indicates that the preschool teacher major is currently in a growth phase and is suitable for adopting a differentiation strategy. The specific implementation of this strategy can be achieved through improving teaching quality, providing personalized courses and services, strengthening brand building, emphasizing educational technology innovation, and enhancing career planning education, among other efforts, to enhance students' comprehensive quality and professional competitiveness. In the future, the school should continue to deepen cooperation with kindergartens, expand practical channels, and timely update the strategic decision-making model based on industry changes, providing more scientific and reasonable career development planning guidance for preschool teacher major students.

Disclosure statement

The author declares no conflict of interest.

References

- [1] Porter ME, 1980, *Competitive Strategy*, Oxford University Press, Oxford, 89–92.
- [2] Porter ME, 1985, *Competitive Advantage: Creating and Sustaining Superior Performance* [Chen L, Trans.], CITIC Publishing House, Beijing.
- [3] Hitt MA, Ireland RD, Hoskisson RE, 2022, *Strategic Management: Concepts and Cases*, Renmin University of China Press, Beijing.
- [4] He Y, 2012, *A Study on the Application of Blended Learning Theory in Practical Teaching of Program Design*,

Springer Berlin, Heidelberg.

- [5] He Y, 2012, Research on the Application of Blended Learning Theory in Java Practical Teaching. *Science and Technology Economic Market*, (05): 86–88.
- [6] Kong B, Zhang Y, 2016, Construction of the “Trinity” Talent Training Mode of “Teaching, Learning, and Doing” in Higher Vocational Preschool Education Majors. *Education and Vocation*, (24): 87–89.
- [7] Zhang L, Jiang G, 2021, Strategies for Promoting the Professional Growth of Novice Preschool Teachers through “Scaffolding” from the Perspective of ZPD. *Education Theory and Practice*, 41(11): 38–41.
- [8] He Y, 2017, Research on Numerical Data Clustering Algorithms in Large-Scale Databases with Mixed Data Types *Microelectronics & Computer*, 34(02): 119–122 + 127.
- [9] Yang F, 2016, Professional Identity and Career Choice: An Analysis of Factors Influencing Male Undergraduates’ Choice of Preschool Education Majors. *Journal of Shandong University (Philosophy and Social Sciences Edition)*, (06): 138–145.
- [10] Sun X, 2022, The Historical Logic of the Communist Party of China’s Century-Long Rural Preschool Education Policies. *Ethnic Education Research*, 33(02): 16–28.
- [11] He Y, 2024, Research on the Competitive Strategy of V Company’s Art Education Business, dissertation, Guilin University of Electronic Technology.

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