

# ***Strategic Management for Enrollment Service Optimization at Guangxi Transportation Technician College***

**Jiang Ni <sup>1</sup>, Nipaporn Khamcharoen <sup>2\*</sup>**

**<sup>1</sup> Educational Administration and Leadership, Dhonburi Rajabhat University,  
Thailand | 1739658370@qq.com**

**<sup>2</sup> Nipaporn Khamcharoen, Educational Administration and Leadership, Dhonburi  
Rajabhat University, Thailand | nipaporn.k@dru.ac.th**

**\* Corresponding Author: Nipaporn Khamcharoen, Educational Administration and  
Leadership, Dhonburi Rajabhat University, Thailand | nipaporn.k@dru.ac.th**

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**Abstract:** This research aims to investigate the current status and core issues of enrollment services at Guangxi Transportation Technician College and develop a strategic management plan for the optimization of its enrollment services. Using the Taro Yamane formula, 334 enrolled students, 80 enrollment managers and teachers, and 10 enterprise representatives from Nanning were selected as samples through random sampling. The research instruments include a structured questionnaire validated by experts through the Index of Item Objective Congruence, namely IOC, and a semi-structured interview form. For questionnaire data, descriptive statistics including frequency, percentage, mean and standard deviation were adopted for analysis, while content analysis was used for interview data. The findings reveal that the enrollment services of Guangxi Transportation Technician College have certain advantages, such as high awareness of school-enterprise cooperative order classes and a convenient admission process, but also face prominent problems including inefficient new media operation, insufficient depth of school-enterprise cooperation in enrollment, a low consultation conversion rate of less than 40%, inadequate career planning guidance, and low student awareness of order classes. The developed strategic management plan covers four core modules, omni-channel enrollment promotion optimization, deepened school-enterprise collaborative enrollment, intelligent enrollment data and process management, and enrollment team capacity building. This plan is targeted and feasible, and can effectively address the existing problems while improving the quality and efficiency of enrollment services.

**Keywords:** vocational college; enrollment service optimization; strategic management; school-enterprise cooperation; new media technology

## **1. Introduction**

Vocational education has become increasingly crucial in China, with the government emphasizing its equal importance to general education. National data shows vocational graduates' employment rate has exceeded 90% for five consecutive years, highlighting its role in cultivating skilled talents<sup>[1]</sup>. However, higher vocational colleges face severe enrollment pressures, especially in western provinces like Guangxi, where the college-age population is declining. As a key transportation-oriented technical college in Guangxi, Guangxi Transportation Technician College has experienced a 3.7% annual drop in single-enrollment applicants over three years, reflecting traditional enrollment model limitations.

The digital era has reshaped the enrollment environment. New media technologies (short videos, live broadcasts) outperform traditional channels in information reach, but the college's new media operations (Douyin, WeChat) remain inefficient with low interaction rates<sup>[2]</sup>. Offline recruitment activities are losing appeal, as traditional methods misalign with new-generation students' information acquisition habits. Enrollment publicity also suffers from homogenization, failing to highlight transportation industry characteristics and professional advantages.

Quality enrollment services directly influence student choices, yet the college faces slow inquiry responses and inaccurate information delivery. Its 2023 consultation conversion rate was less than 40%, far below the regional average<sup>[3]</sup>. Social recognition of vocational education remains low, with students and parents holding cognitive biases that regard vocational colleges as a "last resort"<sup>[4]</sup>, exacerbating enrollment difficulties.

Regional economic development imposes new demands. Guangxi's New International Land-Sea Trade Corridor construction has increased demand for talents in intelligent transportation and new energy vehicle maintenance<sup>[5]</sup>. However, the college's enrollment services lack effective vocational cognition guidance, leading to low major-industry alignment. These intertwined issues (declining enrollment, inefficient promotion, backward services, misaligned majors) constrain the college's development. This study addresses these gaps by analyzing enrollment service status and constructing a targeted optimization plan.

This research addresses these gaps by focusing on two core tasks. It investigates the current status and core issues of enrollment services at Guangxi Transportation Technician College and develops a strategic management plan for the optimization of the college's enrollment services. Through in-depth analysis and practical exploration, this research aims to provide feasible solutions to enhance the quality and efficiency of the college's enrollment services.

## **2. Literature Review**

### **2.1. Concepts and Related Theories**

Enrollment Service Optimization refers to systematic improvements to the entire enrollment process including information promotion, consultation and guidance. It enhances student source quality through resource integration and model innovation<sup>[6]</sup> and is characterized by systematicness, dynamism and precision.

Strategic Management is a closed-loop process that involves formulating, implementing, evaluating and adjusting cross-functional decisions. It aims to build competitive advantages and aligns institutional positioning with market demands in the context of enrollment services<sup>[7]</sup>.

SWOT Analysis is a strategic tool that evaluates internal strengths (S) and weaknesses (W) as well as external opportunities (O) and threats (T) to provide guidance for targeted strategies<sup>[8]</sup>.

New Media Technology encompasses internet-driven media forms such as Douyin and WeChat, featuring high interactivity that has revolutionized vocational college enrollment promotion<sup>[9]</sup>.

School-Enterprise Cooperation involves deep collaboration in talent cultivation and enrollment to achieve precision matching where "enrollment equals recruitment"<sup>[10]</sup>.

## **2.2. Related Research**

Enrollment service optimization studies show that multi-layer systems and intelligent consultation systems<sup>[11]</sup> improve efficiency. Enrollment strategy research emphasizes digital transformation and team training<sup>[12]</sup>. New media application studies highlight the need for professional teams and scenario-based content<sup>[13]</sup>. School-enterprise cooperation research confirms that order classes and enterprise participation enhance professional matching<sup>[14]</sup>.

## **2.3. Research Gaps**

Existing research focuses on general vocational colleges but lacks targeted studies on transportation-specific institutions. Few integrate SWOT analysis with multi-stakeholder empirical data to develop closed-loop strategic plans. This study fills these gaps by focusing on Guangxi Transportation Technician College, a representative regional institution.

## **3. Methodology**

### **3.1. Population and Samples**

The research population includes 2,000 enrolled students, 100 enrollment managers and teachers, and 10 enterprise representatives from Nanning at Guangxi Transportation Technician College.

The research samples consist of 334 students, 80 enrollment managers and teachers, and 10 enterprise representatives from Nanning, selected via random sampling using the Taro Yamane formula<sup>[15]</sup>.

### **3.2. Research Instruments**

The structured questionnaire is divided into three parts including general information, current status and core issues, and optimization strategies. It has been validated by three experts using the Index of Item Objective Congruence (IOC).

Semi-structured interviews were conducted with 4 students, 4 managers and teachers, and 2 enterprise representatives to supplement quantitative data.

### **3.3. Data Collection**

After obtaining permission from the college and enterprises, data were collected through questionnaires and interviews. Participants were informed of the research purpose and ensured confidentiality.

### **3.4. Data Analysis**

Questionnaire data were analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) with a 5-point Likert scale (1=lowest, 5=highest).

Interview data were analyzed via content analysis to extract core pain points and needs.

## **4. Research Results**

## 4.1. Sample General Information

The sample consists of 334 enrolled students, 80 enrollment managers and teachers, and 10 enterprise representatives. Key characteristics closely related to enrollment service research are summarized in table 1.

**Table 1.** Core Characteristics of the Sample

Group	Core Characteristics	Proportion/Key Data
Students	Gender distribution	Female: 59.88%; Male: 40.12%
	Regional origin	Guangxi: 93.41%; Outside Guangxi: 6.59%
	Major distribution	New Energy Vehicle Maintenance: 73.65%
	Academic entry level	Junior high school entry: 83.23%
Teachers	Gender distribution	Female: 53.75%; Male: 46.25%
	Enrollment work experience	3-5 years: 40.00%
	Position type	Subject teachers: 41.25%
Enterprise Representatives	Industry type	Manufacturing: 40.00%; Transportation: 30.00%
	Cooperation years	3-5 years: 50.00%
	Cooperation model	Internship bases: 50.00%

According to Table 4.1, the student group is dominated by local students from Guangxi (93.41%), with the New Energy Vehicle Maintenance major accounting for the highest proportion (73.65%), and most students being junior high school entrants (83.23%). Among teachers, 40.00% have 3-5 years of enrollment work experience, and subject teachers make up the largest share (41.25%). Enterprise representatives are mainly from the manufacturing industry (40.00%) and transportation industry (30.00%), 50.00% of enterprises have a cooperation period of 3-5 years, and the construction of internship bases is the main cooperation model. These characteristics provide a sample basis for the subsequent targeted analysis of enrollment service issues.

## 4.2. Core Issues of Enrollment Services

From the perspectives of three groups, the college's enrollment services have obvious advantages and prominent problems, with detailed evaluations shown in table 2.

**Table 2.** Evaluation of Core Issues in Enrollment Services

Group	Sample Size	Advantages ( $\bar{X} \pm S.D.$ )	Core Problems ( $\bar{X} \pm S.D.$ )
Students	334	1. Order Class Awareness (4.40 ± 0.78) 2. Convenient Admission Process (4.36 ± 0.80)	1. Low New Media Content Attractiveness (4.06 ± 1.08) 2. Insufficient Career Guidance (4.07 ± 1.04) 3. Shallow Offline Activities (4.08 ± 1.01)
Teachers	80	1. Professional Consulting Services (Qualitative Consensus) 2. Standardized Enrollment Procedures (Qualitative Consensus)	1. Insufficient Enterprise Participation (4.54 ± 0.63) 2. Declining Regional Competitiveness (4.53 ± 0.63) 3. Delayed Data Feedback (4.50 ± 0.65) 4. Over-Reliance on Traditional Channels (4.49 ± 0.65)

Enterprise Reps	10	1. Effective Order Class Enrollment (4.30 ± 0.61) 2. Clear Talent Demand Communication (4.30 ± 0.61)	1. Low Student Awareness of Order Classes (1.70 ± 0.90) 2. Insufficient Cooperation Depth (2.70 ± 0.67) 3. Lack of Corporate Elements in Promotion (2.80 ± 0.60)
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Table 2 quantifies the evaluations of advantages and core issues of enrollment services by the three groups using a five-point Likert scale. Students give the highest ratings to the awareness of school-enterprise cooperative order classes (4.40±0.78) and the convenience of the admission process (4.36±0.80), with core issues focusing on insufficient attractiveness of new media content (4.06±1.08) and inadequate career planning guidance (4.07±1.04). Teachers recognize the professionalism of consulting services and the standardization of enrollment procedures, while the prominent issues are insufficient enterprise participation (4.54±0.63) and declining regional competitiveness (4.53±0.63). Enterprise representatives affirm the effective enrollment effect of order classes (4.30±0.61) but consider that students have low awareness of order classes (1.70±0.90) and the depth of cooperation is insufficient (2.70±0.67).

### 4.3. Recognition of Optimization Strategies

All groups highly recognize the proposed optimization strategies, with significant differences in priority focus. Detailed results are shown in table 3.

**Table 3.** Evaluation of Recognition for Optimization Strategies

Group	Sample Size	High Recognition Strategies (Mean ≥ 4.50)	Low Attention Strategies (Mean ≤ 4.25)
Students	334	1. Publish Industry Demand White Paper (4.80) 2. Visualize Employment Data (4.70) 3. Corporate Mentor Online Consultation (4.62)	1. AI Intelligent Customer Service (4.10) 2. Personalized Major Recommendation (4.22)
Teachers	80	1. Develop Intelligent Enrollment System (4.66) 2. Enrollment-Employment Data Linkage (4.60) 3. Enterprise Expert Presentations (4.59)	1. Vocational Enlightenment Summer Camp (4.20) 2. Enrollment Performance Incentive Mechanism (4.25)
Enterprise Reps	10	1. Include Corporate-Certified Courses (4.80) 2. Customized Enterprise Enrollment Materials (4.50) 3. Enterprise Participation Incentives (4.50)	1. Talent Demand Forecasting Mechanism (3.60) 2. Order Class Enrollment Process Optimization (3.70)

This table presents the recognition of various optimization strategies by the three groups, all maintaining a high level of recognition but differing in priorities. Students highly recognize the publication of the Industry Demand White Paper (4.80) and the visualization of employment data (4.70). Teachers strongly support the development of an intelligent enrollment management system (4.66) and enrollment-employment data linkage (4.60). Enterprise representatives attach the greatest importance to including corporate-certified courses (4.80) and developing customized enterprise enrollment materials (4.50). Meanwhile, students show relatively low attention to AI-powered customer service (4.10), teachers to vocational enlightenment summer camps (4.20), and enterprises to the talent demand forecasting mechanism (3.60).

### 4.4. Supplementary Insights from Interviews

Interviews with 4 students, 4 teachers, and 2 enterprise representatives supplemented quantitative data, with core pain points summarized in table 4.

**Table 4.** Supplementary Core Pain Points from Interviews

Group	Core Pain Points
Students	<ol style="list-style-type: none"> <li>1. Vague details of professional courses and graduate salaries</li> <li>2. New media content lacks practical training scenes and graduate work status</li> <li>3. Slow response from official WeChat accounts (average 1 day)</li> </ol>
Teachers	<ol style="list-style-type: none"> <li>1. Three obstacles to new media transformation: insufficient skills, limited budget, lack of targeted content</li> <li>2. Enterprises lack return expectations, leading to low participation enthusiasm</li> <li>3. Enrollment team lacks industry trend interpretation capabilities</li> </ol>
Enterprise Reps	<ol style="list-style-type: none"> <li>1. Students have vague understanding of order class assessment standards and promotion paths</li> <li>2. Concerns about data leakage when sharing talent demand plans</li> <li>3. Need policy subsidies and honorary incentives to improve participation enthusiasm</li> </ol>

This table extracts the core pain points from semi-structured interviews, supplementing practical issues not covered by quantitative questionnaire data. Students report vague details of professional courses and graduate salaries, lack of practical training scenarios in new media content, and slow responses from official WeChat accounts. Teachers face obstacles in new media transformation, including insufficient skills, limited budgets, and lack of targeted content, as well as enterprises' lack of return expectations leading to low participation enthusiasm. Enterprise representatives point out that students have a vague understanding of the assessment standards for order classes, worry about the leakage of talent demand data, and need policy subsidies and honorary incentives to enhance participation enthusiasm.

#### 4.5. SWOT Analysis Based on Research Results

Combined with the aforementioned questionnaire data, interview findings and regional industrial background, a systematic analysis of the internal and external environment of the college's enrollment services is conducted as follows.

Internal strengths (S) lie in the high degree of matching between core majors and enterprise talent needs. Students' awareness of school-enterprise cooperative order classes reaches (4.40±0.78), and the employment-oriented characteristics are widely recognized. Eighty-five percent of teachers are "dual-qualified," enhancing the professionalism of enrollment consultations. The admission process is convenient, with a student rating of (4.36±0.80), and the basic services are standardized and orderly.

Internal weaknesses (W) include insufficient attractiveness of new media content, with a student rating of only (4.06±1.08). Most platform content consists of meeting records and campus environment displays, lacking practical training scenarios and industry trend interpretations. School-enterprise cooperation is superficial, and teachers report that the enterprise participation rating reaches (4.54±0.63), the highest pain point, with enterprises only participating in enrollment links formally. The enrollment process and data management are backward, with material review relying on manual work. The delayed data feedback scores (4.50±0.65), and there is a disconnect between enrollment and employment data. The enrollment team lacks new media operation and industry trend interpretation capabilities, and needs to refer students to professional teachers when facing professional technical consultations.

External opportunities (O) stem from the construction of Guangxi's New International Land-Sea Trade Corridor, which has created a talent gap in fields such as transportation and new energy, and cooperative enterprises have clearly put forward demands for early reserve of skilled talents. The new generation of students prefers visualized and interactive information acquisition methods, with recognition of VR training experiences and visualized employment data exceeding (4.70). The national policy of integrating industry and education provides incentives such as tax reductions and honorary certifications for enterprises participating in enrollment, reducing the cost of enterprise participation.

External threats (T) involve fierce competition among local similar vocational colleges, and teachers' ratings show that regional competitiveness has declined by (4.53±0.63). There is a cognitive bias towards vocational education in society, and students and parents still regard it as a "last resort for further study," with a vague understanding of the employment prospects of transportation-related majors. Enterprises' requirements for graduates' skills are upgrading, and students need to master both traditional technologies and intelligent equipment operation capabilities. Failure to clarify skill training standards during enrollment may easily lead to a disconnect between enrollment and employment.

Based on the four strategic directions derived from the aforementioned SWOT analysis and combined with the core problems identified in the research such as inefficient new media operations superficial school-enterprise cooperation backward process management and insufficient team capabilities four targeted optimization strategies for enrollment services are formed. Guided by leveraging strengths to seize opportunities an omni-channel enrollment promotion optimization strategy is constructed. Centered on utilizing opportunities to make up for weaknesses a deepened school-enterprise collaborative enrollment strategy is developed. Targeting improving weaknesses to avoid threats an intelligent enrollment data and process management strategy is created. Focusing on relying on strengths to address threats an enrollment team capacity building strategy is established ensuring each strategy accurately responds to internal and external environmental characteristics and core pain points.

## **5. Strategic Management for Enrollment Service Optimization**

### **5.1. Omni-Channel Enrollment Promotion Optimization (SO Strategy)**

Establish a professional new media team to focus on practical training scenarios and release 3 short videos monthly to enhance content attractiveness.

Launch the "Enterprise Professional Live Broadcast Week" after exams, inviting experts from cooperative enterprises to answer industry and career-related questions in real time.

Optimize the WeChat Mini Program by adding professional matching tests and VR training base tour functions.

Organize offline vocational experience activities every quarter, open practical training bases to set up hands-on operation sessions, and invite enterprise experts for on-site demonstrations.

### **5.2. Deepened School-Enterprise Collaborative Enrollment (WO Strategy)**

Jointly compile order class manuals with core enterprises, clarifying the proportion of enterprise teaching, assessment standards and salary ranges.

Build a school-enterprise enrollment data sharing platform where enterprises submit talent demands in advance, and the college synchronizes students' practical training results and certificate information.

Design enterprise participation incentive mechanisms, assist in applying for industry-education integration honors and tax reductions, and grant enterprises priority in selecting order class students.

Carry out joint school-enterprise enrollment lectures to display enterprise work scenarios and development paths.

### **5.3. Intelligent Enrollment Data and Process Management (WT Strategy)**

Develop an intelligent enrollment system to realize online registration, OCR automatic review (completed within 1 working day) and consultation record statistics.

Establish an enrollment-employment data linkage module, update professional employment rates and salary data monthly, and dynamically adjust enrollment plans.

Release the "Guangxi Transportation Industry Talent Demand White Paper" quarterly, presenting talent gaps and enterprise demands through visualized charts.

### **5.4. Enrollment Team Capacity Building (ST Strategy)**

Conduct "new media skills + industry trends" dual-track training and organize practical assessments every quarter.

Arrange enrollment teachers to participate in 1-month rotational training in cooperative enterprises annually to learn new industry technologies.

Compile a standardized consultation manual and carry out simulated consultation drills monthly.

Establish a KPI assessment mechanism, incorporating new media interaction rate and activity conversion rate into evaluation with corresponding incentives.

### **5.5. Implementation Guarantees**

Set up a special working group to hold monthly coordination meetings to solve implementation problems.

Allocate special funds and connect with education authorities to apply for innovation project funds.

Establish a dynamic monitoring mechanism, count key indicators monthly, and entrust third-party institutions to conduct satisfaction surveys every six months for plan optimization.

## **6. Discussions**

### **6.1. Current Status of Enrollment Services**

The current status of the college's enrollment services features coexisting strengths and weaknesses, consistent with general patterns of vocational college enrollment services. Its advantages in high awareness of school-enterprise order classes (e.g., BYD, Porsche) align with Xiao (2024) conclusion on the appeal of order classes' employment guarantees. The convenient admission process echoes Lai et al. (2022) view on the value of streamlined online procedures. However, insufficiently attractive new media content and inadequate career guidance are consistent with Ji et al. (2024) findings on homogeneous vocational college promotional content, while shallow school-enterprise cooperation resonates with Gong (2022)'s research on superficial industry-education integration.

### **6.2. Core Issues of Enrollment Services**

The core issues of the college's enrollment services align with existing research conclusions. Over-reliance on traditional channels and inefficient new media operations are

consistent with Wu (2019) and Ji et al. (2024), who noted similar inefficiencies in vocational college enrollment promotion. Shallow school-enterprise cooperation, manifested in low enterprise participation and students' vague understanding of order classes, echoes Gong (2022) and Qiu (2024) findings on superficial industry-education integration in enrollment.

### **6.3. Optimization Strategic Plan**

The proposed optimization plan is grounded in academic research. Omni-channel promotion optimization, emphasizing professional new media teams and online-offline integration, is supported by Ji et al. (2024) and Tang et al. (2022)'s advocacy for scenario-based content and channel synergy. Deepened school-enterprise collaboration, including standardized order classes and incentive mechanisms, aligns with Zhang et al. (2022) and Qiu (2024)'s recommendations on strengthening enterprise participation in enrollment.

## **7. Conclusions and Recommendations**

This study investigates the current status and core issues of enrollment services at Guangxi Transportation Technician College and develops a targeted strategic management plan. Results show the college's enrollment services have advantages (high order class awareness, convenient admission) but face prominent problems (inefficient new media operation, insufficient school-enterprise cooperation, low consultation conversion rate). The proposed plan, covering omni-channel promotion, deepened school-enterprise collaboration, intelligent management, and team capacity building, is feasible and effective.

Theoretical contributions include providing an empirical case for school-enterprise cooperation theory in enrollment, verifying SWOT analysis' practicality in enrollment management, and offering references for digital transformation in vocational college enrollment services. Practical recommendations include constructing a scenario-based new media mechanism, promoting standardized school-enterprise enrollment cooperation, achieving intelligent process management, and strengthening the enrollment team's industry cognition and service capabilities.

Future research can expand the sample to similar regional schools, add correlation analysis, conduct longitudinal tracking of strategies, and supplement parental cognition research.

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