

Informatization of Educational Management in Private Colleges of Guangdong Province: Challenges, Investments, and Infrastructure Improvements

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Abstract:- This study explores the state of informatization in educational management within private colleges in Guangdong Province, using H College as a case study. Despite recent advancements, the informatization process faces significant challenges, including misconceptions about digital management, insufficient investment, a lack of digital sharing mechanisms, and suboptimal user experiences for both students and faculty. Through a comprehensive analysis of educational indicators, investment patterns, and the current status of digital resources, this paper highlights the critical need for a strategic approach to educational management informatization. The findings underscore the importance of fostering a service-oriented framework that prioritizes the needs of teachers and students while advocating for increased investment in infrastructure and digital platforms. Ultimately, the research aims to contribute to the ongoing efforts to modernize educational governance in private higher education institutions, ensuring they can effectively meet the demands of the evolving educational landscape.

Keywords:- *Informatization; Educational Management; Infrastructure Improvements; Challenges and Investments.*

I. INTRODUCTION

The rapid shift towards digitalization has transformed modern educational systems, reshaping how institutions handle academic, administrative, and financial operations. Within this transformation, the informatization of educational management—the integration of digital technologies into management practices—has emerged as a critical area for development, particularly in private colleges. In China, where educational modernization is a national priority, informatization is essential for improving institutional efficiency and aligning with the country's goal of becoming a global education leader by 2035 [13]. However, despite these efforts, many private colleges in Guangdong Province face persistent challenges, such as

insufficient financial investment, misconceptions about digital management, and a lack of cohesive data-sharing mechanisms.

This study examined the current state of educational management informatization in private colleges, with H College serving as a case study. Unlike the abundant research on digitalization in classroom instruction, this study highlights the relatively underexplored domain of management informatization. Investigating the barriers that impede effective implementation aims to offer insights into how digital tools can streamline administrative processes, enhance resource allocation, and improve overall institutional performance. The study proposed practical solutions to overcome these barriers, including strategies for improving user experience, optimizing digital resource usage, and fostering interdepartmental collaboration. Informatization is essential for improving institutional efficiency and aligning with the country's goal of becoming a global education leader by 2035 [23]. However, despite these efforts, many private colleges in Guangdong Province face persistent challenges, such as insufficient financial investment, misconceptions about digital management, and a lack of cohesive data-sharing mechanisms.

This research fills a critical gap in the literature and offers actionable recommendations for stakeholders striving to advance digital transformation in the private education sector, with broader implications for national educational goals.

II. RELATED LITERATURE AND STUDIES

Infrastructure challenges and investment needs are prevalent across developing regions. In East and South Asia, rapid economic growth has highlighted infrastructure shortfalls, particularly in India, which are seen as constraints to further acceleration [8]. Latin America faces similar issues, with recent years showing a need for increased public and private investment in economic infrastructure

[11]. Indonesia, as an archipelago, struggles with high domestic shipping costs and requires improvements in both hard and soft infrastructure, as well as regulatory reform and better policy coordination [20]. Africa's infrastructure gap is particularly acute, affecting competitiveness, trade, and human development outcomes. Energy supply inadequacies correlate with poor education and health indicators. While opportunities for private sector investment exist, they are hindered by unfavorable business environments and regulatory frameworks. Development of systems requires intensive set up and study [2]. Addressing these challenges requires not only increased financing but also capacity building and appropriate policy reforms [10].

The informatization of education presents both opportunities and challenges. Universities face complex processes in implementing IT systems, requiring careful decision-making and organizational changes [24]. In Kazakhstan, the shift towards visual learning and interactive teaching methods necessitates new research approaches and scientific schools focused on educational informatization [16]. For small and medium-sized enterprises in China, informatization is crucial for survival in the global market, requiring integration of IT into management and operations [7]. While information technologies in education offer new possibilities, they also pose risks, significantly transforming traditional educational processes and impacting cognitive, motivational, and emotional spheres [5]. These challenges demand adaptations in pedagogical approaches and educational systems to effectively leverage the benefits of informatization while addressing potential drawbacks.

China's higher education system has undergone significant expansion and reform in recent decades, driven by the desire to develop world-class universities and cultivate innovative talent [25]. However, challenges persist, including central control and the Gaokao system, which hinder innovation [25]. The rapid economic reforms have created a high demand for educated employees and qualified professionals in various sectors, including construction. To address these challenges, China has implemented policy changes, increased funding, and restructured organizations in higher education. Technology and data infrastructures are seen as potential solutions to accommodate changing student needs and learning styles [19]. Despite these efforts, there is a gap between the massive input for innovation and the results achieved [25]. To combat rising unemployment, the government should encourage graduates to develop innovative and creative skills [3].

➤ *Statement of the Problem*

- What misconceptions exist regarding the concept and scope of educational management informatization among faculty and administration in private colleges in Guangdong Province, particularly at H College?
- How does insufficient financial investment in digital infrastructure impact the effectiveness of educational management informatization in private higher education institutions?

- What are the existing barriers to creating a cohesive digital sharing mechanism among departments in private colleges, and how do these barriers contribute to information silos?
- How does the current user experience with digital platforms affect faculty and student engagement and satisfaction in the context of educational management at H College?
- What strategies can be proposed to enhance digital resource allocation and utilization to improve educational management informatization in private colleges?

III. METHODOLOGY

This study employed a mixed-methods approach to evaluate the informatization of educational management in private colleges in Guangdong Province, focusing on H College as a case study. Quantitative data were collected from institutional records, government reports, and surveys administered to faculty and students, covering various aspects of educational management, infrastructure, and resource utilization. Key performance indicators were analyzed, including student enrollment figures, graduation rates, and the allocation of resources per student. The graduation rate was calculated using the formula:

$$\text{Graduation Rate} = \left(\frac{\text{Number of Graduates}}{\text{Enrollment Number}} \right) \times 100$$

This formula allows for the determination of the percentage of enrolled students who successfully graduate within a specified timeframe. Additionally, average values such as books per student and instruments value per student were inferred using the equations:

$$\text{Books per Student} = \frac{\text{Total Number of Books}}{\text{Total Number of Students}}$$

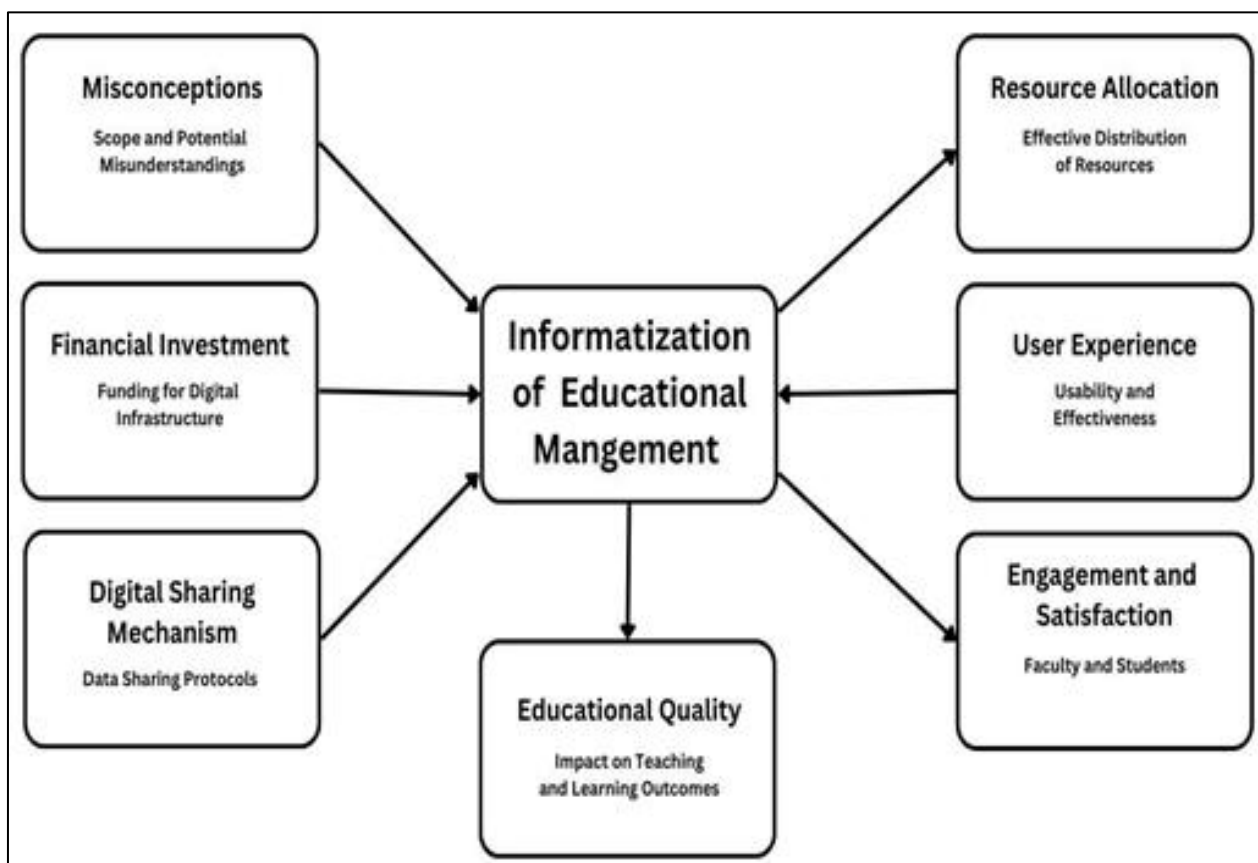
$$\text{Instruments Value per Student} = \frac{\text{Total Instruments Value}}{\text{Total Number of Students}}$$

These calculations provided insights into the resource allocation and infrastructure effectiveness in enhancing the educational experience. Qualitative data were analyzed through thematic analysis, focusing on interviews and open-ended survey responses to identify trends and challenges faced by faculty and students regarding informatization efforts. This comprehensive approach allowed for a holistic understanding of the current state of educational management informatization in the context of private higher education.

IV. CONCEPTUAL FRAMEWORK

The Informatization of Educational Management illustrates a complex interplay of factors and outcomes. At its core is the integration of digital tools and processes into educational management practices. This concept is influenced by four key factors: misconceptions about informatization, the level of financial investment, the effectiveness of digital sharing mechanisms, and the quality of user experience with digital platforms. These factors

shape how informatization is implemented and perceived within educational institutions. In turn, the informatization process impacts three primary outcomes: the efficiency of resource allocation, the levels of engagement and satisfaction among faculty and students, and the overall quality of education. This framework emphasizes that successful informatization in educational management is not solely about technology adoption, but rather a holistic process that considers human factors, organizational structures, and educational goals.



A. Development of Private Higher Education in Guangdong Province

➤ *Scale of Education*

Since 1993, the private education sector in Guangdong has expanded significantly. By the end of 2020, there were 50 private higher education institutions, representing 32.5% of the province's total universities. These institutions account for 33.5% of the total number of graduates and serve over 780,000 students. Table 1 presents this significant growth over a 15-year period. From 2005 to 2020, the number of schools increased from 24 to 50, while

the number of graduates surged from 12,384 to 184,338, reflecting the sector's expansion. Enrollment numbers saw a substantial rise from 57,578 in 2005 to 289,263 in 2020, with the total number of students growing from 120,700 to 780,398. To accommodate this growth, the number of staff increased from 11,568 to 42,819, and full-time teachers more than quadrupled, from 7,481 to 34,161. These figures illustrate the growing role of private universities in Guangdong's higher education system and their increasing capacity to serve a large student population with more faculty and staff.

Table 1 Basic Information of Teachers and Students in Private Universities in Guangdong Province (2005-2020)

| Year | Number of Schools | Graduates | Enrollment Number | Number of Students | Number of Staff | Full-time Teachers |
|------|-------------------|-----------|-------------------|--------------------|-----------------|--------------------|
| 2005 | 24 | 12,384 | 57,578 | 120,700 | 11,568 | 7,481 |
| 2010 | 47 | 94,411 | 132,047 | 404,632 | 27,951 | 19,875 |
| 2015 | 52 | 147,235 | 193,501 | 618,020 | 37,257 | 28,053 |
| 2020 | 50 | 184,338 | 289,263 | 780,398 | 42,819 | 34,161 |

➤ *The Breakdown of Full-time Teachers by Department*

Table 2 provides a detailed overview of the distribution of full-time faculty across various academic departments within private universities in Guangdong Province. In total, there are 34,000 full-time teachers reported in this breakdown. The Engineering department employs the largest number of faculty, with 12,000 teachers, which constitutes 35% of the total, highlighting the emphasis on technical and applied sciences within these institutions. The Humanities department follows, with 8,000 teachers, accounting for 23% of the total, indicating a significant commitment to liberal arts education. The Social Sciences department employs 7,000 teachers, representing 20%, while the Business department has 5,000 teachers, comprising 15% of the total faculty. Lastly, the Fine Arts department has the smallest number of full-time teachers, with 2,000, which is just 7% of the total. This table effectively illustrates the varying levels of faculty allocation across different disciplines, reflecting institutional priorities and the academic focus of private universities in the region. The data also underscores the importance of engineering and humanities in shaping the educational landscape of Guangdong Province.

Table 2 Breakdown of Full-time Teachers by Department (2020)

| Department | Number of Full-time Teachers | Percentage of Total Full-time Teachers |
|-----------------|------------------------------|--|
| Engineering | 12,000 | 35% |
| Humanities | 8,000 | 23% |
| Social Sciences | 7,000 | 20% |
| Business | 5,000 | 15% |
| Fine Arts | 2,000 | 7% |

➤ *Comparison of Graduation Rates and Enrollment Rates*

Table 3 presents a comprehensive analysis of the relationship between student enrollment and graduation rates over a 15-year period in private universities in Guangdong Province. The data reveals significant trends in both enrollment numbers and graduation outcomes. In **2005**, there were **57,578** enrolled students, with only **12,384** graduating, resulting in a low graduation rate of **21.5%**. This rate indicates early challenges faced by these institutions in ensuring student completion. However, by **2010**, the enrollment surged to **132,047**, and the number of graduates increased dramatically to **94,411**, leading to a remarkable graduation rate of **71.5%**. This significant improvement suggests enhancements in educational practices and support systems during that period. The trend of increasing graduation rates continued, with **147,235**

graduates from an enrollment of **193,501** in **2015**, yielding a graduation rate of **76.1%**. However, by **2020**, despite the highest enrollment of **289,263**, the graduation rate dropped to **63.7%**, indicating a potential issue with retention or completion amidst growing student numbers. This data presents the evolving dynamics of enrollment and graduation, reflecting both successes and challenges in the private higher education landscape in Guangdong Province over the years.

Table 3 Graduation Rates vs Enrollment (2005-2020)

| Year | Enrollment Number | Number of Graduates | Graduation Rate (%) |
|------|-------------------|---------------------|---------------------|
| 2005 | 57,578 | 12,384 | 21.5% |
| 2010 | 132,047 | 94,411 | 71.5% |
| 2015 | 193,501 | 147,235 | 76.1% |
| 2020 | 289,263 | 184,338 | 63.7% |

B. Enhanced Infrastructure

Recent years have witnessed notable improvements in infrastructure, with expansions in campus areas, educational facilities, and digital resources. The ongoing development of these facilities has strengthened the overall operational capacity of private institutions. Table 4 presents critical data on the physical and resource-related infrastructure of private universities over a six-year period. From 2015 to 2020, the total campus area remained relatively stable, with a slight decrease from 3,639.69 hectares in 2015 to 3,798.96 hectares in 2020. However, the campus area per student showed a decreasing trend, dropping from 58.59 m² per student in 2015 to 47.83 m² in 2020, indicating increasing student enrollment and potentially higher density on campuses. The school building area increased from 1,419.02 million m² in 2015 to 1,829.40 million m² by 2020, while the school building area per student varied, reflecting changes in student numbers. The total teaching and administrative housing also saw growth, reaching 1,089.45 hectares by 2020, which is essential for accommodating faculty and staff needs. Additionally, the number of books available in libraries rose significantly, from 4,383.24 thousand volumes in 2015 to 6,133.59 thousand volumes in 2020, illustrating improved access to educational resources. The instruments value, an indicator of the investment in educational technology and equipment, increased from 29.27 million yuan to 45.05 million yuan over the same period, highlighting a commitment to enhancing the learning environment and academic quality. This data illustrates the ongoing developments in infrastructure and resource allocation that support the educational mission of private universities in Guangdong Province.

Table 4 Main Educational Indicators of Private Universities in Guangdong Province (2015-2020)

| Year | Campus Area (10,000 m ²) | Campus Area per Student (m ²) | School Building Area (million m ²) | School Building Area per Student (m ²) | Teaching/Admin Housing (10,000 m ²) | Books (10,000 volumes) | Instruments Value (100 million yuan) |
|------|--------------------------------------|---|--|--|---|------------------------|--------------------------------------|
| 2015 | 3,639.69 | 58.59 | 1,419.02 | 22.96 | 749.07 | 4,383.24 | 29.27 |
| 2016 | 3,631.12 | 56.38 | 1,472.55 | 22.86 | 836.27 | 4,715.99 | 31.96 |
| 2017 | 3,529.91 | 53.61 | 1,574.99 | 23.92 | 835.94 | 4,962.82 | 33.70 |
| 2018 | 3,778.79 | 55.53 | 1,646.78 | 24.20 | 892.56 | 5,242.80 | 37.43 |
| 2019 | 3,729.25 | 54.25 | 1,735.64 | 25.25 | 951.43 | 5,606.02 | 41.14 |
| 2020 | 3,798.96 | 47.83 | 1,829.40 | 23.04 | 1,089.45 | 6,133.59 | 45.05 |

C. Current Status of Informatization in Private College

➤ *Institutional Support*

Most private universities in Guangdong have established dedicated information centers or departments. These units are tasked with managing campus networks, coordinating digital services, and supporting the teaching and research activities of both faculty and students. However, staffing levels vary, with some institutions employing fewer than ten IT professionals. Table 4 provides a detailed analysis of key educational metrics on a per-student basis across private universities in Guangdong Province over a six-year period. Campus area per student shows a decline from 58.59 m² in 2015 to 47.83 m² in 2020, suggesting increasing student enrollments and a potential strain on available space. Conversely, the school building area per student initially decreased from 22.96 m² in 2015 to 22.86 m² in 2016, before rising to 25.25 m² in 2019, reflecting some improvement in facilities amidst growing

student numbers. The teaching and administrative housing per student varied slightly over the years, starting at 12.12 m² in 2015 and fluctuating around 14 m², indicating relatively stable accommodation for faculty and staff. Additionally, the number of books per student increased steadily from 70.92 volumes in 2015 to a peak of 80.16 volumes in 2019, highlighting enhanced access to educational resources. The instruments value per student, which reflects the investment in educational technology, also showed a general upward trend, increasing from 4,736 yuan in 2015 to 5,881.63 yuan in 2019, before slightly declining to 5,405.22 yuan in 2020. This data indicates a commitment to improving educational quality through resource allocation, even as the student population grows. The table illustrates the evolving landscape of private higher education in Guangdong, emphasizing the importance of space, resources, and investment in enhancing the educational experience.

Table 4 Comparison of Education Indicators per Student (2015-2020)

| Year | Campus Area per Student (m ²) | School Building Area per Student (m ²) | Teaching/Admin Housing per Student (m ²) | Books per Student (Volumes) | Instruments Value per Student (Yuan) |
|------|---|--|--|-----------------------------|--------------------------------------|
| 2015 | 58.59 | 22.96 | 12.12 | 70.92 | 4,736.00 |
| 2016 | 56.38 | 22.86 | 14.70 | 71.14 | 4,821.48 |
| 2017 | 53.61 | 23.92 | 14.21 | 73.13 | 4,966.06 |
| 2018 | 55.53 | 24.20 | 14.77 | 74.60 | 5,325.13 |
| 2019 | 54.25 | 25.25 | 14.92 | 80.16 | 5,881.63 |
| 2020 | 47.83 | 23.04 | 13.72 | 73.59 | 5,405.22 |

➤ *Network Infrastructure*

The majority of private colleges have upgraded their campus networks. Most now offer comprehensive wireless coverage and have adopted technologies such as IPv6 and 5G. However, the integration of these technologies varies widely among institutions. Table 5: Informatization Progress of Private Colleges (2020) provides a comprehensive snapshot of the state of digital infrastructure and security measures across private colleges in Guangdong Province. It evaluates four key components: wireless network coverage, IPv6 implementation, 5G coverage, and network security systems. Wireless network coverage, ranging from 85% to 100%, indicates the extent to which each campus has deployed Wi-Fi, a critical element for ensuring that students and faculty can access digital resources from anywhere on campus. The IPv6 implementation column shows whether

each university has adopted this new internet protocol standard, which is essential for future-proofing digital infrastructure, with some universities fully embracing it, while others lag behind. Similarly, the 5G coverage column reflects the degree to which institutions have implemented next-generation mobile network technology, with some universities having deployed it and others yet to adopt it. Lastly, the network security systems column identifies whether universities have implemented essential cybersecurity measures, such as firewalls and intrusion detection systems, to safeguard their digital environments in a hybrid and cloud settings [1]. While some institutions, like Zhuhai College of Science and Technology and Guangzhou City University of Technology—H College, demonstrate strong progress in all areas, others, such as Zhanjiang University of Science and Technology and Nanfang College

Guangzhou, show gaps in IPv6 adoption, 5G implementation, and security infrastructure, highlighting

areas where further investment is needed to realize the benefits of digital transformation fully.

Table 5 Informatization Progress of Private Colleges

| University Name | Wireless Network Coverage (%) | IPv6 Implementation (Y/N) | 5G Coverage (Y/N) | Network Security Systems Implemented (Y/N) |
|---|-------------------------------|---------------------------|-------------------|--|
| Zhuhai College of Science and Technology | 100% | Y | Y | Y |
| Guangdong University of Science and Technology | 90% | Y | N | Y |
| Zhanjiang University of Science and Technology | 85% | N | Y | Y |
| Nanfang College Guangzhou | 100% | Y | N | N |
| Guangzhou City University of Technology—H College | 95% | Y | Y | Y |

D. Challenges in Informatization

➤ *Misunderstanding of Informatization*

Many institutions perceive informatization merely as the application of digital tools, neglecting the broader shift toward modern educational governance. This narrow view limits the potential of informatization to transform educational management.

➤ *Insufficient Investment*

Private colleges primarily rely on tuition fees, limiting their capacity to fund long-term projects like informatization. As a result, digital systems often suffer from inadequate maintenance, leading to discrepancies between available data and real-time institutional needs. Table 6 provides a comprehensive overview of the financial commitments made by private universities in Guangdong Province towards enhancing their digital capabilities. Each university's total investment in digital infrastructure is presented alongside its annual maintenance costs and

expenditures on digital equipment. Nanfang College Guangzhou leads the way with the highest total investment of **25 million RMB**, along with an annual maintenance cost of **2 million RMB** and **2.5 million RMB** allocated for digital equipment. This significant investment reflects a robust commitment to advancing its technological infrastructure. Conversely, Zhanjiang University of Science and Technology has the lowest total investment at **10 million RMB**, with an annual maintenance cost of **800,000 RMB** and digital equipment expenditure of **1.2 million RMB**. The varying levels of investment across these universities indicate differences in prioritization and resource allocation for digital infrastructure, with larger institutions like Zhuhai College of Science and Technology and Nanfang College Guangzhou appearing to invest more heavily in their digital ecosystems. The data emphasizes the critical role that financial investment plays in the successful implementation and maintenance of digital infrastructure within private higher education institutions.

Table 6 Investment in Digital Infrastructure and Maintenance (2020)

| University Name | Total Investment in Digital Infrastructure (RMB) | Annual Maintenance Cost (RMB) | Digital Equipment Expenditure (RMB) |
|---|--|-------------------------------|-------------------------------------|
| Zhuhai College of Science and Technology | 20,000,000 | 1,500,000 | 2,000,000 |
| Guangdong University of Science and Technology | 15,000,000 | 1,000,000 | 1,800,000 |
| Zhanjiang University of Science and Technology | 10,000,000 | 800,000 | 1,200,000 |
| Nanfang College Guangzhou | 25,000,000 | 2,000,000 | 2,500,000 |
| Guangzhou City University of Technology—H College | 12,000,000 | 900,000 | 1,500,000 |

➤ *Lack of Digital Sharing Mechanisms*

Most institutions have not established effective data-sharing protocols, resulting in fragmented systems and inefficiencies. The absence of unified standards further exacerbates this issue, creating data silos that hinder collaboration and decision-making.

➤ *Poor User Experience*

Informatization efforts often fail to address the needs of teachers and students, leading to cumbersome processes and dissatisfaction with digital platforms. Without a user-centered approach, digital initiatives will not realize their full potential in improving educational management. Table 7 illustrates the adoption of various digital platforms among private universities in Guangdong Province, highlighting both the number of institutions utilizing each platform and their respective percentages of the total universities

surveyed. The **Superstar Online** platform is the most widely adopted, with **22 universities** using it, representing **88%** of the total institutions, indicating its prominence as a preferred digital teaching resource. Following closely is the **Smart Tree** platform, which is utilized by **15 universities**, accounting for **60%** of the total, suggesting a solid endorsement among institutions. The **Cloud Teaching** platform has a lower adoption rate, with only **10 universities** (or **40%**) employing it, while **Custom-built**

Systems are used by **12 universities**, making up **48%** of the total. This table provides valuable insights into the digital landscape of private universities, showing that while some platforms enjoy widespread use, others are less commonly adopted. The data reflects the varying levels of engagement with digital resources, which is critical for understanding how private universities are leveraging technology to enhance educational delivery and administration.

Table 7 Digital Resource Usage by Private Universities (2020)

| Platform | Number of Universities Using Platform | Percentage of Total Universities |
|----------------------|---------------------------------------|----------------------------------|
| Superstar Online | 22 | 88% |
| Smart Tree | 15 | 60% |
| Cloud Teaching | 10 | 40% |
| Custom-built Systems | 12 | 48% |

V. RECOMMENDATIONS

A. Establishing a Service-Oriented Framework

H College’s experience suggests that placing teachers and students at the center of informatization efforts can significantly enhance the effectiveness of digital initiatives. The college has implemented several phases of its smart campus project, improving service quality through personalized, data-driven platforms.

B. Strategic Planning for Long-Term Development

Strategic planning is critical for sustainable informatization. H College’s “Fourteenth Five-Year Plan” outlines the integration of 5G technologies and enhanced network infrastructure, aiming to create a fully digitized and service-oriented smart campus [22].

C. Strengthening Organizational Support

Institutions should create dedicated leadership teams to oversee informatization projects. H College’s establishment of a specialized working group for smart campus development serves as a model for other institutions seeking to prioritize digital transformation.

practices, and inadequate communication between departments. These issues result in fragmented systems where departments maintain their own isolated data sets, making it difficult to share information, collaborate on projects, or leverage collective resources effectively.

- Poor user experience, characterized by complicated navigation, slow performance, and inadequate support services, negatively impacts engagement and satisfaction. Both faculty and students report frustration with digital platforms that fail to meet their needs, leading to lower participation rates in digital initiatives and diminished overall educational experiences.

- Proposed strategies include increasing financial investment in digital infrastructure, implementing standardized data-sharing protocols across departments, providing comprehensive training for faculty and staff on using digital tools effectively, and developing user-centered platforms that prioritize the needs of faculty and students. Additionally, creating a dedicated task force to oversee the implementation of these strategies could facilitate ongoing assessment and adaptation of digital resources.

VI. FINDINGS OF THE STUDY

- Many faculty and administrative staff perceive educational management informatization as merely the implementation of technology or software solutions, rather than a comprehensive approach that integrates data management, decision-making processes, and strategic planning. This limited understanding often results in underutilization of available digital resources and ineffective management practices.
- Insufficient financial investment leads to inadequate infrastructure, such as outdated hardware and software, which hampers the development and implementation of effective digital management systems. Consequently, this results in poor data integration, limited functionality of digital tools, and ultimately a negative impact on the quality of educational services offered to students.
- Barriers include a lack of standardized data protocols, insufficient training for staff on data management

VII. CONCLUSION

The study of educational management informatization in private colleges in Guangdong Province, with a particular focus on H College, reveals critical challenges and opportunities for improvement. The misconceptions surrounding the concept and scope of informatization hinder the effective implementation of digital solutions, as faculty and administration often view these initiatives merely as technological upgrades rather than integral components of strategic management. This limited perspective results in underutilization of digital resources and inefficient management practices.

Furthermore, insufficient financial investment significantly impacts the effectiveness of educational management informatization. The lack of adequate infrastructure undermines the development and integration of essential digital tools, resulting in poor data management

and diminished educational quality. Additionally, barriers to creating a cohesive digital sharing mechanism among departments exacerbate information silos, limiting collaboration and resource sharing.

The user experience with current digital platforms also plays a pivotal role in faculty and student engagement. A suboptimal user experience characterized by complexity and inadequate support leads to frustration and disengagement, further hampering the adoption of digital initiatives.

To address these challenges, the study proposes several strategies aimed at enhancing digital resource allocation and utilization. Increasing financial investment in digital infrastructure, implementing standardized data-sharing protocols, and providing comprehensive training for faculty and staff are critical steps toward effective informatization. Additionally, developing user-centered platforms that prioritize the needs of faculty and students can significantly improve satisfaction and engagement.

By adopting these strategies, private colleges in Guangdong Province can better leverage informatization to modernize educational management, ultimately improving governance and the overall quality of education. Addressing these issues not only aligns with national educational priorities but also positions private institutions to respond effectively to the evolving demands of the educational landscape.

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