

Bridging the Competency Gap in Hospitality Management Education in the Digital Age: A Comparative Study of Undergraduate Curriculum Systems in Chinese and International Universities

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Abstract

The profound development of the digital economy has fundamentally transformed the landscape, operational models, and talent demands of the global hospitality industry, highlighting a "competency gap" between talent cultivation in traditional hospitality management education and industry requirements. Using "competency gap" and "curricular response" as core analytical concepts, this study constructs a three-dimensional analytical framework of "educational objectives - curriculum structure - teaching practices" to conduct a comparative study of undergraduate hospitality management curriculum systems from representative Chinese and international universities. The research finds that the core competency gaps for hospitality management talent in the digital age primarily lie in digital operations and management, strategic thinking and innovative insight, international communication and cross-cultural management, as well as comprehensive management and leadership. Leading international universities achieve a more proactive and effective "curricular response" to competency demands through systematic and forward-looking curriculum design, deeply integrated industry-academia collaboration practices, and student-centered teaching methods. In comparison, although Chinese universities have begun to respond actively, there remains room for improvement in the systematic restructuring of curriculum systems, deep integration of digital content, the effectiveness of practical teaching, and the digital literacy and industry experience of faculty. Based on these findings, this paper proposes optimization suggestions for the future development of undergraduate hospitality management curriculum systems in China, focusing on four dimensions: defining forward-looking educational objectives, systematically restructuring the curriculum system, deepening innovative practices in industry-academia collaboration, and promoting teaching reform and faculty development.

Keywords

Hospitality Management; Competency Gap; Curricular Response; Curriculum System; Digital Age; Comparative Study.

1. Introduction

1.1. Research Background and Problem Statement

With the rapid development of digital technologies such as big data, artificial intelligence, and the Internet of Things, the digital economy is profoundly reshaping the industrial ecosystem, operational models, and competitive landscape of the global hospitality industry [1]. Smart hotels, precision marketing, revenue management, and intelligent service processes have become the new industry norm, placing new and higher demands on the knowledge structure

and competency literacy of hospitality management talent [2]. However, compared to the industry's rapid digital transformation, the talent supply from higher education in hospitality management exhibits a certain degree of lag, particularly in China, where the rapidly developing hospitality industry faces severe challenges of a shortage of high-quality, compound talents [3].

In this context, higher education, as the main front for talent cultivation, faces the critical question of whether its curriculum systems can respond timely and effectively to the industry's new demands. Compared to top international institutions such as Cornell University and EHL (École hôtelière de Lausanne), undergraduate hospitality management education in Chinese universities still shows certain gaps in curriculum philosophy, content design, and practical components [4]. Therefore, this study aims to explore the following core questions: In the digital age, what new core competency requirements has the hospitality industry generated for management talent? How do the undergraduate curriculum systems of leading Chinese and international universities respond to these demands? What insights do the differences provide for the optimization and reform of undergraduate hospitality management education in China?

1.2. Research Significance

1.2.1. Theoretical Significance

By applying the "competency gap" theory to the field of hospitality management education in the digital age and constructing an analytical framework of "competency demand - curricular response," this study helps to enrich and expand hospitality education theory in the digital age, providing theoretical perspectives and analytical tools for subsequent related research.

1.2.2. Practical Significance

The research conclusions can provide specific and feasible path references for Chinese universities to diagnose problems in existing hospitality management undergraduate curriculum systems, identify core competency gaps, optimize curriculum design, and innovate teaching models, thereby helping to bridge the gap between talent cultivation and industry needs.

1.3. Research Approach and Methods

This study follows the logic of "theoretical framework construction → description of Chinese and international status quo → comparative difference analysis → gap identification → proposal of countermeasures." Methodologically, it primarily employs the comparative research method, systematically comparing typical Chinese and international cases to reveal their similarities, differences, and underlying reasons. This is supplemented by the case study method for in-depth analysis of specific institutional curriculum systems. Content analysis of training plans, course syllabi, and other textual materials from various universities is also conducted to objectively present the current state and characteristics of curriculum design.

2. Literature Review and Theoretical Framework

2.1. Transformation of Talent Demand in the Hospitality Industry in the Digital Age

Digital transformation is driving the hospitality industry's shift from a traditional labor-intensive service sector towards a technology-driven and data-driven industry. Its characteristics manifest as: operational intelligence (e.g., AI customer service, smart rooms), marketing precision (big data user profiling), data-driven management (revenue management, predictive analytics), and service personalization[5]. Correspondingly, industry demand for talent has shifted from traditional operational skills and service consciousness towards an emphasis on data analysis capabilities, digital marketing skills, intelligent operations

management capabilities, and humanistic literacy and innovative thinking that coexist with technology [6].

2.2. The Concept of "Competency Gap" and Its Application in Hospitality Education

The "competency gap" in this study is defined as "the disparity between the industry's competency requirements for talent and the actual competencies possessed by graduates" [7]. In the field of hospitality education, this concept is widely used to assess the match between educational outcomes and industry expectations. Previous research has identified gaps in areas such as communication skills, leadership, and financial knowledge within specific functional domains like food and beverage management or human resources [8]. However, research on gaps in new digital competencies within the digital age context remains underdeveloped.

2.3. Curriculum System and "Curricular Response"

The curriculum system is the core vehicle for talent cultivation in higher education, encompassing curriculum structure, teaching content, teaching methods, and practical components [9]. "Curricular response" refers to the proactive adjustment and reform of curriculum design and teaching practices by higher education institutions to address new challenges posed by changes in the external environment, particularly industry shifts, regarding talent demand [10]. An effective curricular response mechanism is key to ensuring educational relevance and advancement.

2.4. Analytical Framework Construction

To systematically examine how Chinese and international curriculum systems respond to competency demands in the digital age, this study constructs a three-dimensional comparative analytical framework. The framework includes the dimensions of Educational Objectives, Curriculum Structure, and Teaching & Assessment Methods. Educational Objectives examines whether the talent positioning of each institution reflects contemporary requirements such as digital literacy, internationalization, and innovativeness. Curriculum Structure is subdivided into the Content System (e.g., the setup and integration of digital courses, international courses, traditional management courses) and the Practical System (internships, practical training, projects, etc.). Teaching & Assessment Methods includes teaching methodologies (e.g., PBL, case-based teaching) and the Faculty Team (industry experience, digital literacy).

3. Status Quo and Case Selection of Undergraduate Hospitality Management Curriculum Systems in Chinese and International Universities

To ensure the representativeness and comparability of cases, this study selects two top international universities and two distinctive Chinese universities as research subjects.

3.1. International University Case Selection and Status Quo

Case 1: School of Hotel Administration, Cornell University, USA

The Cornell University School of Hotel Administration enjoys a global reputation, positioning itself as research-oriented and emphasizing management science, real estate finance, and data analysis. Its curriculum is closely linked to industry frontiers. Core courses include Hotel Data Analysis, Revenue Management, Information Technology and Hotel Systems, etc., systematically cultivating data analysis capabilities as a core literacy for modern hotel managers.

Case 2: EHL (École hôtelière de Lausanne), Switzerland

EHL is a paradigm of vocational orientation, renowned for its unique "EHL Model," emphasizing operational practice, the art of service, and humanistic literacy. Its curriculum design follows a spiral path of "theory-practice-re-theory," using frequent industry internships and simulated operations to enable students to deeply understand the essence of service and management practice. In recent years, its curriculum has significantly enhanced content on digital operations and innovation management.

3.2. Leading Chinese University Case Selection and Status Quo

Case 1: Guangdong University of Finance & Economics

The Hotel Management program under the School of Tourism Management and Planning at Guangdong University of Finance & Economics positions itself with an emphasis on "Greater Bay Area characteristics, integration of business and technology, bilingualism, and intelligence," aiming to cultivate internationalized, compound mid-to-high-level management talents. Its curriculum system has established digital course modules including Management Information Systems and Big Data Analysis and Application, alongside several bilingual professional courses (e.g., Service Management (Bilingual), Organization and Human Resource Management (Bilingual)). Its practical teaching system is distinctive, implementing a model of "Dual Supervisors, Triple Drive" (course experiments, professional internship, graduation internship).

Case 2: Beijing Union University, College of Tourism

The College of Tourism at Beijing Union University has long focused on cultivating application-oriented talents and has actively explored practical teaching. Its curriculum design emphasizes alignment with the Beijing regional hospitality industry, incorporating substantial credits for internships and practice. However, compared to research-oriented universities or top international institutions, there is still room for development in the systematic construction of digital course modules and the deep integration of cutting-edge theory.

4. Comparative Analysis of Chinese and International Curriculum Systems: Based on the "Educational Objectives - Curriculum Structure - Teaching Practices" Framework

4.1. Comparison of Educational Objectives

The educational objectives of international universities are generally more forward-looking and global in character. Cornell emphasizes cultivating "industry leaders" and "agents of change," while EHL is committed to training "pioneers in the hospitality field." Both explicitly emphasize international perspective, innovative spirit, leadership, and strategic thinking.

The educational objectives of Chinese universities emphasize the comprehensive development of quality, knowledge, and ability, while also beginning to focus on regional characteristics (e.g., Guangdong University of Finance & Economics' "Greater Bay Area characteristics") and smart direction. However, compared to top international universities, the expression of strategic foresight and emphasis on influence on the global industry landscape appear relatively weaker.

4.2. Comparison of Curriculum Structure and Content

4.2.1. Digital Course Modules

International: Courses such as Management Information Systems, Data Analysis, and Revenue Management are often core requirements and are deeply integrated into traditional courses like finance, marketing, and operations, forming a systematic chain for cultivating digital capabilities.

Chinese: Relevant courses have been introduced, but they often exist as professional electives or independent modules. Their systematic nature, currency (e.g., discussion of new

technologies like AI and blockchain), and deep integration with business scenarios need strengthening. For instance, a Chinese university might offer Management Information Systems but less frequently offer specialized advanced courses like Smart Hotel Technology Architecture or Hotel Data Mining.

4.2.2. Bilingual/International Discipline Courses

International: Leveraging a native international environment, courses, textbooks, cases, and faculty are highly internationalized.

Chinese: Some leading universities (e.g., Guangdong University of Finance & Economics) promote internationalization by building bilingual course clusters, which is a positive attempt. However, overall, the proportion of full-English instruction, the percentage of international faculty, and the breadth and depth of using cutting-edge international original textbooks and cases still have room for improvement.

4.2.3. Traditional Management Courses

Both Chinese and international institutions offer core courses like Management, Financial Management, and Marketing. Differences mainly manifest in the selection of teaching cases (localized vs. international) and the degree of integration with digital elements. International courses tend to prefer comprehensive cases involving technology application and data analysis.

4.3. Comparison of Practical Teaching Systems

International: Mature models of "alternating study and practice" and deep industry-academia integration have been formed. Taking EHL as an example, its multiple, long-cycle mandatory internships, coupled with strict internship reporting and reflection sessions, ensure the depth of learning from practice. Cornell connects theory and practice through industry consulting projects, business plan competitions, etc.

Chinese: A linear system of "social survey - professional internship - graduation internship" is commonly established. However, practical components can sometimes become formalities, with a tendency for "theory to significantly outweigh practice." The management and supervision of the internship process, along with the design of reflective learning components based on PBL, are often inadequate, preventing the learning outcomes of practice from being maximized.

4.4. Comparison of Teaching Methods and Faculty Teams

4.4.1. Teaching Methods

International universities widely and deeply employ student-centered teaching methods such as case-based teaching, Problem-Based Learning (PBL), and simulation teaching. Although Chinese universities advocate these in principle, the depth and breadth of their actual application in the classroom, as well as teachers' proficiency in them, still need enhancement, with the lecture method still occupying a considerable proportion.

4.4.2. Faculty Teams

Top international institutions generally emphasize faculty industry experience, with many professors possessing rich corporate employment or consulting backgrounds. Chinese universities are actively promoting the construction of "dual-qualified" (academic and industry) teaching teams, but the practical experience and digital literacy of the faculty remain key constraints. Introducing digital talent with both deep academic backgrounds and cutting-edge industry experience faces practical challenges.

5. Analysis of the "Competency Gap" for Hospitality Management Talent in the Digital Age and the Effectiveness of Curricular Response

5.1. Identification of Core Competency Gaps

Based on the foregoing comparison and analysis, this study identifies four core competency gaps for hospitality management talent in the digital age.

Digital Operations and Management Capability: Including data analysis, intelligent system application, digital marketing, and revenue management, this is currently the most prominent gap [6].

Strategic Thinking and Innovative Insight: The industry urgently needs managers capable of macro-level strategic thinking, business model innovation, and crisis management, rather than merely excelling in daily operations.

International Communication and Cross-Cultural Management Capability: Driven by both globalization and the internationalization of domestic markets, this competency is increasingly important.

Comprehensive Management and Leadership Capability: Particularly at the line manager level in non-HR departments, significant shortcomings exist in practice regarding how to effectively recruit, motivate, develop, and retain teams [11].

5.2. Assessment of the Effectiveness of Curricular Response

International universities demonstrate a more proactive and systematic curricular response. Their curricula are updated and iterated quickly, closely integrated with industry frontiers (e.g., the latest digital tools, business models), and effectively translate industry demands into students' core competencies through systematic curriculum design and strict practical requirements.

Chinese universities have shown a positive responsive posture, such as incorporating "intelligence" into educational objectives and adding big data and bilingual courses. However, the overall response still exhibits issues of lag and fragmentation. The systematic restructuring of the curriculum system is insufficient, and the integration of new courses with traditional ones is lacking. The innovation of teaching methods lags behind the update of course content. Simultaneously, the faculty's preparedness in terms of digital literacy and cutting-edge industry experience is still inadequate, constraining the ultimate effectiveness of the curricular response.

6. Discussion: Optimization Suggestions for China's Undergraduate Hospitality Management Curriculum System for the Future

6.1. Define Educational Objectives, Highlighting Distinctiveness and Foresight

It is recommended that Chinese universities, when revising educational objectives, move beyond generic expressions like "high-quality application-oriented talents." They should closely integrate with national strategies and regional economic development needs (e.g., the international sci-tech innovation center positioning of the Guangdong-Hong Kong-Macao Greater Bay Area, the tourism and consumption center positioning of the Hainan Free Trade Port), and explicitly propose the cultivation of future industry leaders possessing outstanding digital literacy, a global perspective and strategic thinking, and a spirit of continuous innovation.

6.2. Restructure the Curriculum System, Strengthening Digital Literacy and Interdisciplinary Competence

Systematically Embed Digital Courses: Avoid being content with offering courses sporadically. Instead, construct a digital course cluster ranging from foundational (Management Information Systems), to core (Hotel Data Analysis, Revenue Management), and finally to cutting-edge

(Artificial Intelligence and Hotel Service Innovation). Simultaneously, deeply integrate digital content (e.g., F&B cost control software, front office big data analysis) as mandatory modules into traditional core courses like Front Office Management, Food and Beverage Management, and Marketing.

Deepen the "Integration of Business and Technology": Within the economics and management curriculum system, significantly increase the credit weight and study requirements for information technology and data analysis courses, treating them as professional core competencies equally important as financial management and human resource management. Consolidate Bilingual and International Discipline Courses: Continuously build high-quality bilingual/full-English professional course clusters and actively explore international exchange and internship channels for students.

6.3. Deepen Industry-Academia Collaboration, Innovate Practical Teaching Models

Promote Spiral Progressive Practical Teaching: Learn from the "EHL Model" by designing a spiral path of "course learning - short-term practical training - theoretical enhancement - comprehensive internship," breaking the linear isolation of "theory - internship - thesis."

Construct Digital Industry-Academia Collaboration Platforms: Collaborate with enterprises to build "Smart Hotel Training Centers" or "Digital Operations Laboratories," simulating the entire real operational process from booking, check-in, and service to marketing and data analysis, allowing students to enhance their digital operational capabilities in a simulated environment.

Strengthen Internship Process Management: Introduce the Problem-Based Learning (PBL) model, assign academic and corporate mentors for internships, and require students to complete thematic reports based on real problems identified during their internships, such as how to improve the data-driven decision-making level of a specific department, thereby strengthening the reflective nature and learning depth of the internship.

6.4. Promote Teaching Reform and Faculty Team Development

Popularize Student-Centered Teaching Pedagogy: Promote the large-scale and deep-level application of case-based teaching, project-based learning (PBL), simulation management, and other teaching methods in professional courses, transforming the classroom from a knowledge transmission venue into a platform for capability forging.

Build "Dual-Qualified" and "Digital" Teacher Teams: Establish sound incentive and guarantee mechanisms for faculty to take temporary positions in or provide consulting services to leading industry enterprises. Simultaneously, break the "publication-only" tendency in talent introduction, actively recruit compound talents with both academic backgrounds and rich industry experience, especially in the digital field, to optimize the faculty structure.

7. Conclusion and Outlook

7.1. Main Research Conclusions

This study reveals that the core competency gaps for hospitality management talent in the digital age are reflected in digital operations, strategic thinking, international competency, and comprehensive leadership. Through comparison, it is found that top international universities achieve an effective response to competency demands through their forward-looking educational objectives, systematically integrated curriculum structure, deeply integrated industry-academia practical systems, and advanced teaching methods. Although Chinese universities have initiated reforms, significant gaps remain in the systematic nature of the curriculum system, the deep integration of digital content, the effectiveness of practical teaching, and faculty preparedness. Therefore, the optimization direction for China's

undergraduate hospitality management education lies in systematic, deep-level curriculum restructuring and teaching innovation, rather than piecemeal course additions.

7.2. Research Innovations and Limitations

The innovation of this study lies in constructing and applying the "competency demand - curricular response" analytical framework, conducting a multi-dimensional systematic comparison of Chinese and international curriculum systems, and focusing on the specific context of the digital age. The limitation of the study is the limited number of case selections, which does not cover all representative global institutions or all types of Chinese institutions. Future research could expand the sample scope or employ quantitative methods for larger-scale verification.

7.3. Future Research Outlook

Future research could conduct long-term tracking and evaluation of the effects of curriculum reform implementation. It could also conduct in-depth action research on specific digital courses like Hotel Data Analysis to explore their most effective teaching models. Furthermore, it is worth further exploring how flexible learning models such as "micro-degrees" or "certification programs" in hospitality management education can help bridge the competency gap.

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