Research on the Cultivation of Professional Talents in Hotel Management and Digital Operations under the Digital Background

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Abstract: The hotel industry is undergoing a profound structural transformation, and digital technologyis at the core of this transformation. In the next 3-5 years, the talents needed by the hotel industry will no longer be service executors with a single skill, but "value creators" with comprehensive professional qualities, digital capabilities, and sustainable development concepts. In the context of digitalization, higher vocational hotel talent cultivation should have the courage to innovate the curriculum system, construct multi-form teaching models, achieve objective, scientific and comprehensive teaching evaluation of vocational education, promote individualized development of students, further optimize the construction ofdual-gualified teacher teams, and build a modern talent cultivation system that resonates with and deeply integrates with industrial development.

1. Introduction

According to the World Travel and Tourism Council (WTTC), the industry's contribution to global GDP reached a record high of 11.1 trillion US dollars in 2024, accounting for 10% of global GDP. This strong momentum is expected to continue. On the one hand, the global tourism market continues to recover, bringing considerable growth expectations to the industry. Data shows that from 2022 to 2032, the global tourism industry is expected to grow at an average annual rate of 5.8%, significantly exceeding the global economic growth forecast of 2.7%, highlighting its strong development potential and resilience. On the other hand, beneath the facade of prosperity, the industry is undergoing a profound structural transformation, with technology being the core driving force behind this change[1]. Technology is no longer an auxiliary tool for the hotel industry, but a core variable reshaping its business model, operational logic and competitive landscape.Hotel managers are striving to effectively integrate numerous isolated technological systems such as property management systems (PMS), customer relationship management (CRM), Internet of Things (iot), and artificial intelligence (AI), to form a collaborative "digital ecosystem", with the expectation of achieving unprecedented intelligent operation and personalized services in hotels. From the front desk to the back office, from guest experience to operational efficiency, it comprehensively disrupts and reconstructs the modern hotel industry.

2. The core competence profile of future hotel talents

Against the backdrop of profound industry transformation, the talents needed by the hotel industry in the next 3 to 5 years will no longer be service executors with a single skill, but rather "value creators" who integrate comprehensive professional qualities, digital capabilities, and sustainable development concepts. Hotel talents need to shift from a "process-centered" approach to a "data and experience-centered" one, and from passive response to active innovation.

2.1 Comprehensive professional qualities are the cornerstone of creating an outstanding guest experience

As standardized and repetitive tasks in hotels are replaced by intelligence, the value of human employees is more reflected in the comprehensive professional qualities that intelligent devices cannot replace, which can provide guests with an unforgettable personalized stay experience. In

terms of emotional intelligence and empathy, future hoteliers must possess extremely high emotional intelligence, being able to keenly perceive and understand guests' emotions and potential needs, and respond in a sincere and warm manner. The ability to handle emergencies: Hotel operations are filled with all kinds of unexpected situations and unstructured customer complaints. Practitioners cannot merely rely on standard operating procedures (Sops), but need to possess strong abilities in analysis, judgment and creative problem-solving. They need to be able to quickly identify the root cause of the problem under pressure, integrate resources and propose solutions that can both satisfy guests and take into account the interests of the hotel[2].In the hotel industry, which is a miniature "global village", employees need to serve guests from all over the world and collaborate with colleagues from diverse cultural backgrounds. Therefore, having cross-cultural communication and collaboration skills is of vital importance. This not only refers to language proficiency but also encompasses an understanding and respect for different cultural customs, values, and communication styles, thereby avoiding cultural conflicts and providing more personalized services.

2.2 Digital capabilities have become an essential skill for hotel practitioners

Hotel operations in the future will be data-driven. For this reason, skilled practitioners should possess dual capabilities. On the one hand, hotel practitioners need to have the ability to operate hotel operation technology tools proficiently. These tools mainly include PMS, CRM, CRS, etc. On the other hand, hotel practitioners need to possess basic data analysis skills, be able to understand various operational reports, including occupancy rates, average room rates, RevPAR, etc, and identify problems and opportunities from the data. If one wants to grow into a higher-level talent in the hotel industry, especially a manager, they need to possess digital strategic thinking. They should not only understand what technologies such as AI,loT, and big data can do, but also consider how to integrate these technologies with the specific business scenarios of the hotel to solve practical problems and create new value. These highlight the urgency and great value of universities in cultivating students' digital capabilities.

2.3 The concept of sustainable development is the "key to the future" of the hotel industry

Starting from 2024, the hotel industry will generally carry out "Environmental protection and social responsibility awareness" training, covering energy conservation and consumption reduction, waste classification, green service processes, etc, emphasizing "practical operation + behavioral change". Practitioners need to understand how the ESG(Environmental, Social, and Corporate Governance) framework affects a hotel's brand reputation, financing capacity, and long-term value. They should be able to participate in the implementation of the hotel's ESG strategy and effectively integrate sustainable development practices into the brand story and marketing, communicating effectively with consumers who care about this issue. Thus, "green" can be transformed into tangible commercial value[3].Sustainable development has shifted from "industry advocacy" to "talent capability standards". Future hotel talents not only need to understand the concept of sustainability, but also possess the ability to transform it into specific practices such as green operation, low-carbon management, and social responsibility projects. This ability is being systematically constructed through education, training, certification and industry practice, and has become one of the core competencies for career development in the hotel industry.

3. New Directions for hotel talent Cultivation in the Digital Context

Under the background of digitalization, the hotel industry is undergoing unprecedented changes, which puts forward brand-new requirements for the cultivation of hotel professionals. Since 2021, the Ministry of Education has officially renamed the "Hotel Management" major in higher vocational education to "Hotel Management and Digital Operations", marking that digital capabilities have become a core component of this major. This means that the goal of talent cultivation has shifted from the traditional service skills-oriented approach to a compound ability structure of "service + technology + data". Against the backdrop of digitalization, hotel

professionals not only need to "understand service", but also "understand systems, data and users"[4].

3.1 Strengthen professional foundations and enhance cultural connotations

The upgrading of demands in the hotel industry has led to a sharp increase in the technical precision requirements for positions such as intelligent check-in, revenue management, and standardized catering. For instance, calculation errors in Opera systems and RevPAR can result in daily losses of tens of thousands of yuan for hotels. The younger generation (Generation Z) consumers pursue personalized and immersive experiences that can express their values and are willing to pay a higher price for cultural premium. For instance, the "Chang 'an Privilege" room type at W Xi 'an, which combines Tang Dynasty style and neon lights, is still fully booked at a premium of 35%. The 2023 "China Hotel Human Resources White Paper" shows that 85% of management trainees, due to their lack of cultural decoding ability, such as being unable to explain the Song Dynasty aesthetics behind "Tea and Opera" to foreign guests, have led to a 22% decline in high-end customer satisfaction. Therefore, the professional foundation and cultural connotation of hotel talents remain the strong core of hotel services. Continuing to strengthen students' professional foundation and skills and enhance their cultural literacy remain the top priorities in the cultivation of hotel management and digital talents.

3.2 Cultivate digital thinking and enhance practical abilities in digital technology

The hotel industry has a high degree of marketization and its development is changing rapidly. For practitioners to grasp the market characteristics of hotel development, data analysis is particularly important. Therefore, students should form a digital understanding of their occupations, positions, and service targets, have the ability to perceive and understand data, and develop a digital mindset[5].The practical ability of digital technology is not about "learning one more software", but about making "data" the "muscle memory" for making decisions every day. Combining the latest industry cases and policy orientations in 2025, "enterprise real-time data" is brought into the classroom, enabling students to skillfully operate digital devices, conduct data analysis, digital operation and maintenance, Internet marketing, and data-driven decision-making, and truly possess "digital capabilities" in practice.

3.3 Fully integrate the concept of sustainable development and establish a systematic sustainable development mindset

The three pillars of the hotel sustainable development (ESG) concept are environment, society, and governance. The 2025 "Tourism Planning & Development" systematic review points out that "green technology +ESG" has been listed alongside AI and big data as one of the three major technology clusters for hotel competitiveness, directly influencing RevPAR, financing interest rates and brand premiums. "Sustainable practice ability" has become a new hard currency that hotel talents must master. Sustainable development is integrated into all professional courses. The impact of ESG on brand value is taught. "Green micro-units" are added to courses such as front desk, guest rooms, and catering. Real hotel data is used for classroom exercises, and specific practices of energy conservation, emission reduction, and green operation are integrated. Lectures explore the returns on sustainable investment and students learn how to conduct effective green marketing. This "comprehensive integration" model, which turns "carbon" into courses, "ESG" into practical training, and "zero-carbon solutions" into graduation projects, can help students establish a systematic sustainable development mindset.

4. Optimization of the Talent Cultivation Path for Hotel Management and Digitalization Majors in Higher Vocational Colleges under the Background of Digitalization

4.1 The curriculum system innovation resonates with industry demands

Courses are the core carriers for talent cultivation. In line with the future development trends of the industry, the existing course system should be comprehensively upgraded and restructured. The

course content and skills should reflect the current development status of the industry, closely align with job requirements, and achieve the transformation of the course system from "service skills" to "digital skills + scene application".

In terms of course construction, the core professional courses are adjusted to two parts: "Core Professional Knowledge and Skills" and "Fundamentals of Digital Humanities and Data Management". Characteristic courses in the fields of digital intelligence such as fundamentals of digital humanities and data application management are developed. The names of core courses are partially optimized and dynamically adjusted. Traditional core courses such as front desk, guest rooms and catering should be infused with the latest industry elements and upgraded as "ability modules". New courses on cutting-edge technologies and strategies have been added, elevating digital content to core compulsory courses. Courses such as "Hotel Big Data Analysis and Application" and "Hotel Carbon Management and ESG" have been offered to cultivate students' abilities in data analysis, processing and interpretation, and to establish a macroscopic perspective on sustainable development.

4.2 Build a multi-form educational model

The generation of students we are facing is regarded as "digital natives", and digital technology will become their basic life rules and learning skills. Fang Xujun, Wang Yili. Reasonable Defense, Practical Challenges and Cultivation Paths of Digital Literacy for Vocational College Teachers [J]. Education and Occupation, 2024 (04) : 53-60. The growth of "digital natives" requires a more flexible and open space for success. Vocational education needs to provide abundant learning resources, diverse learning environments and learning paths that are in line with their cognitive patterns, to promote their continuous learning and all-round development. In terms of teaching mode, it centers on students and builds a multi-form "ability generation" model of "information technology + vocational education".

First, promote project-based learning. Teaching projects are designed around real problems or challenges in the industry. During the project execution, students complete a specific project by integrating multidisciplinary knowledge through teamwork, from market research, data analysis, solution design, cost accounting to final outcome presentation, fully simulating the real workflow. Student sresearch, analysis, innovation, communication and collaboration skills, and project management skills havebeen excellently developed.

Second, achieve intelligent teaching. By leveraging online education platforms such as Smart Vocational Education, create a flexible and open learning environment to enhance the accessibility and integrability of educational resources. By adopting teaching models such as flipped classrooms, blended online and offline teaching, remote interactive teaching, and deep learning, we can achieve student-centered inquiry-based learning, thereby enhancing learning efficiency and outcomes.

Third, carry out virtual simulation teaching. For practical teaching that cannot be completed in a contextualized manner on the spot, digital technologies in training rooms can be utilized to create situational teaching, such as VR training rooms, sand table training rooms, and digital training rooms,It can provide students with an immersive and low-risk decision-making training environment, ensuring that students can engage in immersive learning and practical training without being restricted by time and space. This enriches the embodied experience, enhances the vividness and accuracy of teaching, and enables students to improve their application ability of digital technology in the process of digital teaching[6], forming digital thinking and innovation capabilities.

Fourth, promote teaching that combines competitions with instruction. Based on the actual work projects of hotel operation and in accordance with the content and standards of the National Vocational Skills Competition, skills competitions are jointly held with closely cooperating enterprises. Each semester, one core professional course is selected as a skills competition project (counted towards credits).Teachers integrate hotel position operation projects into competitions, such as hotel reception events and beverage service events, break down teaching content into competition items, and convert course assessment standards into competition item scoring standards. Through competitions as practice and tests, students ultimately demonstrate and consolidate their

professional qualities and skills in the projects.

Fifth, deepen practical teaching. Select local five-star hotels and chain hotels with high cooperation closeness and good development of digital and intelligent technologies, and establish in-depth, systematic and mutually beneficial cooperative relationships with the industry to form a true "collaborative education community". Students' practical operation in a real hotel environment is a key link in deepening the integration of industry and education and enhancing vocational skills.

4.3 The personalized transformation of teaching evaluation

Teaching evaluation respects the individual development of students and pays attention to their growth trajectories, which is manifested as continuous, dynamic and comprehensive developmental evaluation[7].The digital development of the entire process of hotel professional teaching requires attention to each key link of daily teaching, including online and offline teaching, internship and practical training processes, etc. The evaluation content is not only the assessment of their knowledge, skills and qualities, but also includes the evaluation of job adaptability, career transfer ability, innovation and creation ability, lifelong learning ability and teamwork ability.

A data platform can accurately profile individual student development, design intelligent assessment strategies aligned with personalized growth, and generate visual analytical reports. These capabilities offer a scientific basis for teachers to refine instructional methods in a timely manner and provide adaptive learning guidance and services to students. Ultimately, this facilitates objective, scientific, and comprehensive teaching evaluation in vocational education, while promoting students' personalized development.

4.4 The improvement and optimization of the "dual-qualified" teaching staff

First, enhance the digital quality and capabilities of both teachers. Educational institutions have established three integrated platforms—'Teacher Development', 'Full-time and Part-time Faculty Sharing', and 'School–Enterprise Joint Training'—guided by the principle of 'simultaneous moral and technical advancement'. Teachers' intrinsic qualities are systematically cultivated across four dimensions: pedagogical ethics, instructional competence, professional expertise, and research capacity, thereby aligning the teaching corps with the emerging paradigm of 'digital + education'. Through close collaboration with regional industrial partners, institutions organise rotating on-the-job training, practical immersion, vocational skills competitions, and social-service projects that expose faculty to the hotel industry's latest technological evolution. These activities enrich disciplinary knowledge and progressively strengthen the faculty's practical proficiency, industry–education synergistic capacity, and cross-disciplinary integration ability.

Second, optimize the structure of the dual-qualified teacher team. Aligned with faculty development objectives, institutions proactively recruit seasoned enterprise engineers and technicians who possess extensive industry experience, robust operational expertise, and demonstrable innovation capacity, subsequently inducting them into the contingent of practice-oriented faculty and systematically equipping them with pedagogical and didactic competencies. By capitalising on the synergies inherent in industry–education integration, universities establish mechanisms for talent pooling, reciprocal training, and cross-employment with partner enterprises. Eminent master artisans, acclaimed skills mentors, hotel department heads or managers, together with high-performing frontline staff endowed with digital literacy, are appointed as adjunct lecturers to co-design curricula, develop content, and supervise experiential learning, thereby augmenting the overall calibre and vocational authenticity of the academic teaching corps.

5. Conclusion

Digital technology is an important driving force for the future high-quality and sustainable development of the hotel industry and will play a key role in the future development of the hotel industry. in the face of profound changes in the industry's demand for talent, teaching reform in higher vocational hotel management and related majors is now more urgent than ever. The key to

breaking through lies in breaking down the barriers of traditional education models and building a modern talent cultivation system that resonates with and deeply integrates with industrial development.

Acknowledgements

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