

A Trinity Teaching Mode Grounded in the MOA Framework: Insights from Wuhan University's Internet Marketing Course

Minxue Huang^a, Yangyi (Eric) Tang^a, Yuan Liu^a, Qiyuan Wang^b

^a Economics and Management School, Wuhan University, Wuhan 430072, China

^b Faculty of Business, The Hong Kong Polytechnic University, Hong Kong 999077, China

© Higher Education Press 2025

Abstract In the era of the digital economy, the Internet marketing course, a core component of the marketing curriculum in higher education, has become increasingly critical. However, the traditional teaching practices of the course have faced challenges, including insufficient depth in theoretical understanding, limited flexibility in translating theory into practice, inadequate alignment with contemporary trends, and a lack of adaptability to rapidly evolving environments. To address these issues, the teaching team at Wuhan University redesigned the course across five dimensions, including depth, rigor, intensity, breadth, and resilience. Leveraging a “four-in-one” teaching resource system, the course adopted an innovative teaching methodology grounded in the motivation, opportunity, and ability (MOA) framework. This method stimulated students' intrinsic learning motivation, fostered collaborative creativity, and promoted mutual growth. It empowers students to develop self-management capabilities and establishes a student-centered learning paradigm characterized by shared responsibility, co-creation, and collective ownership. The teaching model ultimately seeks to cultivate high-quality and interdisciplinary talents in online marketing who are equipped with the entrepreneurial, innovative, and creative competencies necessary to meet the demands of the digital economy.

Keywords MOA framework, digital intelligence education, innovative teaching model, Internet marketing

1 Introduction

Propelled by the rapid development of information

technologies, such as AI, Big Data, the Internet of Things, and blockchain, the digital economy has become a pivotal driver of the modernization of economic systems. It plays a prominent role in fostering economic growth and societal progress. In 2023, China's digital economy reached a scale of 53.9 trillion CNY, contributing 42.8% of the national GDP and accounting for 66.45% of GDP growth ([China Academy of Information and Communications Technology, 2023](#)). As the nation's digitalization strategy deepens, the demand for highly skilled, innovative, and interdisciplinary digital talent surges. Higher education institutions, as pivotal hubs for scientific research, talent cultivation, and technological innovation, play a central role in aligning their educational and research agendas with the evolving needs of economic and social development. These institutions provide support for the development of new quality productive forces ([Ministry of Education of the People's Republic of China, 2023](#)). Against the backdrop of the rapid expansion of the digital economy, higher education institutions should adopt more effective measures to nurture creativity–innovation–entrepreneurship (CIE) talents who are equipped with creative thinking abilities, innovation implementation skills, and entrepreneurial management capabilities ([Shu et al., 2020](#)).

This study, grounded in the innovative teaching practices of the Internet marketing course at Wuhan University, proposes an intrinsic-driven and comprehensive model for teaching innovation. The primary aim is to explore both the theoretical foundations and the practical pathways for cultivating high-quality CIE talents within the context of a rapidly evolving digital economy. As advanced information technologies increasingly permeate marketing practices, the Internet marketing course has become a cornerstone of marketing curricula in higher education. A survey of marketing programs in higher education institutions across China found that many incorporated Internet

Received January 12, 2025; revised February 8, 2025; accepted February 18, 2025

Yangyi (Eric) Tang (✉)

E-mail: tangyangyi@whu.edu.cn

marketing-related courses, such as digital marketing, Big Data marketing, and new media marketing, into curriculum frameworks (Chinese Marketing Association of Universities, 2024).

However, the traditional teaching model presents three significant challenges for students. First, students often lack a nuanced understanding of Internet marketing theories, hindering their ability to approach real-world problems from a systematic perspective and limiting their capacity to propose holistic solutions. Second, many students struggle to master Internet marketing technologies and apply theoretical concepts in practice flexibly. This difficulty often leads to either rigid adherence to theoretical frameworks or their complete disregard marketing performance. Third, insufficient awareness of emerging technologies and rapid shifts in knowledge leave students ill-prepared to tackle new marketing challenges and adapt to dynamic and uncertain environments.

To address these challenges, the Internet marketing course team at Wuhan University adopted a student-centered pedagogical approach underpinned by the triadic dimensions of motivation, opportunity, and ability (MOA). Utilizing a “four-in-one” teaching resource platform, the team designed a pedagogical framework to reconstruct the course across five key aspects, including theoretical depth, technical rigor, intensive practical application, expansive knowledge, and ideological resilience, as shown in Figure 1. This

framework not only addresses current challenges in Internet marketing education but also fosters the development of interdisciplinary and high-caliber CIE business professionals who are well-equipped to meet the demands of the digital economy.

2 Analysis of Traditional Teaching Methods Based on the MOA Framework

According to the MOA framework, motivation, opportunity, and ability are three key determinants of individual behavior (MacInnis & Jaworski, 1989). The interaction of these factors shapes the occurrence likelihood of specific behaviors. The MOA framework has been widely applied to structure and evaluate innovative teaching models (Bajaber, 2024). The research suggests that students’ motivation, cognitive abilities, and learning environment collectively shape their engagement, knowledge acquisition, and skill development (González-Mohino et al., 2024; Jepson & Ryan, 2018; Qu & Wang, 2023). Given the persistent challenges in traditional marketing education, such as low student engagement, insufficient practical skill application, and difficulty adapting to evolving industry demands, the MOA framework provides a robust theoretical foundation for designing a more student-centered and application-driven teaching approach.

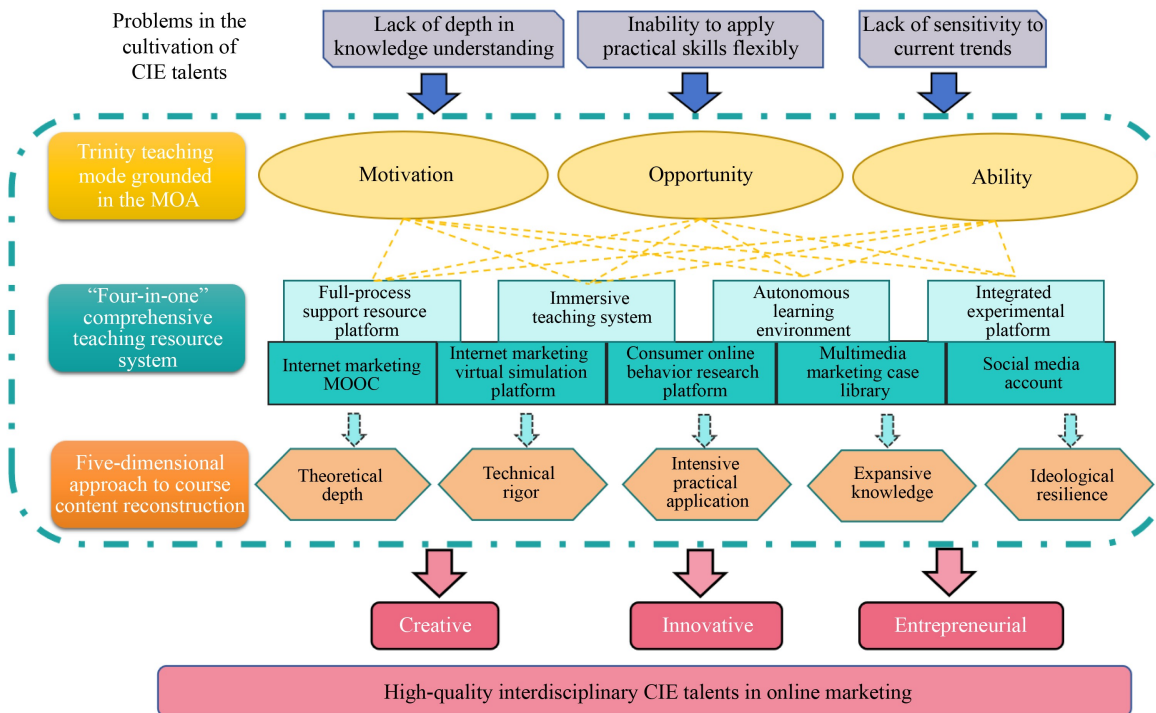


Figure 1 Overall framework of the proposed trinity teaching mode. MOA: motivation, opportunity, and ability; CIE: creativity–innovation–entrepreneurship.

Motivation acts as the internal driving force that guides individuals to pursue specific goals and engage in particular behaviors, directly leading to behavior implementation (Hoyer & MacInnis, 1997). Within the learning process, intrinsic motivation plays a critical role in fostering active learning. Self-determination theory asserts that when an activity and environment support an individual's fundamental psychological needs, it activates intrinsic motivation and triggers goal-directed behaviors (Ryan & Deci, 2000). Traditional teaching models typically standardize assignments and evaluation criteria without considering students' interests and future career aspirations. As a result, students often experience external pressure in their learning, while their internal motivation to engage actively with learning materials remains insufficient. This gap contributes to a superficial understanding of Internet marketing theories.

The opportunity factor refers to individuals' subjective perceptions of the external factors that influence their behaviors (Ou-Yang et al., 2014). Facilitating environmental factors enhances the perception of opportunity, while restrictive factors reduce it (MacInnis & Jaworski, 1989). In the context of the rapidly evolving digital economy, new marketing realities continually emerge. However, traditional marketing education tends to prioritize theoretical knowledge over the integration of these emerging realities and modern information technologies. This focus limits students' opportunities to apply theory to real-world marketing problems. Moreover, traditional teaching methods often lack collaborative and multidimensional learning platforms, further restricting students' ability to master Internet marketing technologies and apply theories effectively.

The ability factor refers to individuals' beliefs in their possession of the necessary resources, such as knowledge and skills, to successfully perform a behavior (Jepson & Ryan, 2018). Research on self-efficacy suggests that individuals assess their ability to achieve specific goals based on prior related experiences, which in turn influences their choices and behaviors (Bandura, 1978). Traditional teaching methods emphasize content mastery but often overlook the development of students' self-learning capabilities. In an era marked by rapid technological advancement and constant knowledge updates, the absence of a comprehensive innovation capacity prevents students from effectively adapting to and solving emerging marketing challenges.

To address these challenges, the Internet marketing teaching team at Wuhan University proposed an innovative, triadic, self-motivated, all-scenario teaching approach grounded in the MOA model.

3 A Trinity Teaching Method with Core Elements of the Innovative Teaching Mode

In response to the challenges faced by the Internet marketing course in cultivating CIE talents, the Internet marketing teaching team at Wuhan University has developed an innovative teaching approach MOA based on three core dimensions, including motivation, opportunity, and ability. This method is designed to meet students' specific learning characteristics and aims to foster the development of high-quality and interdisciplinary Internet marketing professionals with skills in entrepreneurship, innovation, and creativity.

3.1 | Motivation

In the motivation dimension, the teaching method focuses on stimulating students' motivation and transforming external pressure into intrinsic motivation. The teaching team offers three types of comprehensive assignments, including practical application-based assignments, management analysis-based assignments, and research-oriented assignments. These three kinds of assignments are tailored to student's interests and career aspirations, all of which are completed in team settings.

The first type is practical application-based assignments which address real-world marketing problems requiring innovative and actionable solutions. The second type is management analysis-based assignments which tackle marketing management challenges and encourage students to propose creative strategies. The third type is research-oriented assignments which facilitate in-depth exploration of Internet marketing theories and academic literature to prepare students for future research pursuits.

To foster engagement, assignments are evaluated primarily through peer feedback during online presentations. This peer-driven assessment not only enhances students' domain-specific skills but also stimulates their motivation and encourages deeper learning (Huisman et al., 2019; Pope, 2001). This effective practice transforms external course requirements into intrinsic motivation, promoting students' long-term academic growth.

3.2 | Opportunity

In the context of MOA theory, the opportunity dimension indicates the conditions that enable individuals to engage actively in the participation process (Jepson & Ryan, 2018). The teaching method

studied in this research emphasizes creating diverse learning opportunities and promoting collaborative learning to facilitate mutual progress. The “four-in-one” comprehensive teaching resource platform provides students with a seamless and full-spectrum learning experience that combines online and offline access to both theoretical and practical content and is available anytime and anywhere.

Students work in teams of 4 to complete assignments that include 4 collaborative activities, developing solutions to 5 practical marketing problems, presenting 5 successful business cases, analyzing 5 failed business cases, and reviewing 5 cutting-edge academic papers.

These collaborative activities foster a dynamic learning environment that enriches students’ knowledge while stimulating collective growth and peer-driven advancement.

3.3 | Ability

Ability refers to the resources and skills that individuals should possess to achieve desired outcomes (Hoyer & MacInnis 1997). Regarding the ability dimension, the teaching method studied in this research focuses on developing comprehensive innovative abilities that empower students to achieve self-directed learning and professional growth. By engaging in comprehensive assignments, students develop 6 aspects of competencies: first, 6 goal-oriented task abilities through project completion; second, teamwork skills through collaborative communication and coordination; third, self-learning abilities via problem identification, information gathering, and practical knowledge application; fourth, technical competencies through data analysis and problem-solving tasks; fifth, writing and presentation skills through assignment presentations; sixth, critical thinking reinforced by peer evaluations and question-and-answer sessions. Moreover, the process instils self-management skills and enables students to become self-directed learners

and innovative professionals with well-rounded capabilities.

Grounded in the MOA framework, the proposed trinity teaching method redefines the traditional teacher-centered classroom, transforming it into a student-centered, collaborative, and co-created learning environment. This approach transitions students from passive recipients of knowledge to active practitioners, fostering engagement in and ownership of the learning process. By seamlessly integrating theoretical concepts with practical applications, it addresses effectively the needs of advanced undergraduate education.

4 “Four-in-One” Comprehensive Teaching Resource System

The successful implementation of innovative teaching methods relies on a well-designed teaching resource environment that influences learners’ motivation, satisfaction, and outcomes. To address this need, the Internet marketing course at Wuhan University has developed a “four-in-one” comprehensive teaching resource system that leverages various modern technologies, such as AI, Big Data, and cloud computing. This system integrates full-process support resources, an immersive experience, autonomous learning, and integrated interaction, catering to both theoretical and practical learning needs.

4.1 | Full-Process Support Resources

The teaching resource platform supports students through the following five distinct learning stages in the Internet marketing course, including the cognitive learning stage, simulated practice stage, application enhancement stage, knowledge expansion stage, and outcome presentation stage, as shown in Figure 2.

First, in the cognitive learning stage, students

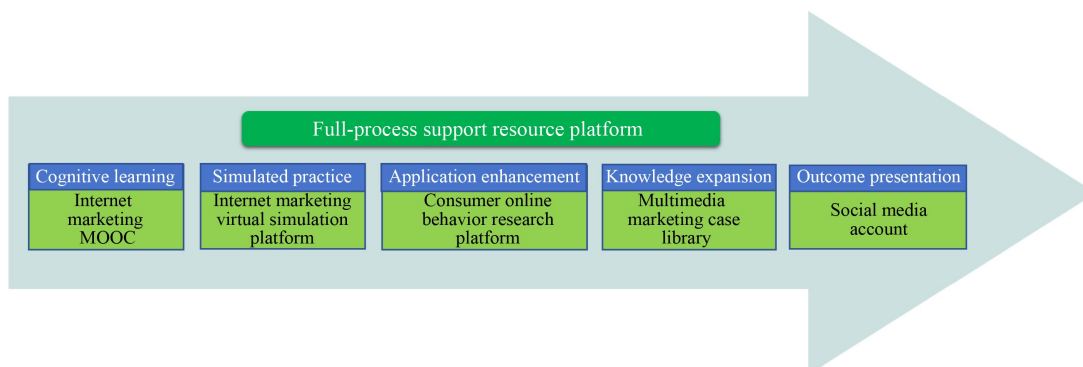


Figure 2 Full-process support resource. MOOC: massive open online courses.

gain foundational knowledge of theoretical concepts through in-class lectures and the freely available Internet marketing massive open online courses (MOOC) and iCourse. This platform allows students to independently learn and watch anytime and anywhere, which facilitates students to timely review, fill knowledge gaps, and build an understanding of online marketing theory. Moreover, students can learn on both desktop and mobile devices to complete online class discussions, homework exercises, and theoretical exams.

Second, the simulated practice stage is an Internet marketing virtual simulation platform which provides realistic settings for students to engage in marketing management and decision-making. Using virtual simulation technologies and real market data, the platform provides terminal market scenarios that allow students to engage in practical operations through mobile devices, take on different roles, and analyze marketing decisions through the back end. The platform guides designing consumer survey questionnaires, offers platform support for consumer psychology testing, and assists in conducting consumer research activities and data analysis.

Third, the application enhancement stage is a consumer behavior research platform which deepens students' understanding of consumer psychology and behavior in online contexts, analyzes the reasons behind marketing effectiveness from the consumer's perspective, and better adapts to market changes to enhance their adaptability.

Fourth, in the knowledge expansion stage, a multimedia marketing case library offers abundant localized, digitalized, and up-to-date real-world marketing cases to broaden students' perspectives and deepen their knowledge. The platform applies a "theory + case + experiment + activity" teaching approach to effectively enhance the comprehensive marketing management and decision-making abilities of undergraduates across various majors.

Fifth, in the outcome presentation stage, the course team prepares a social media account that allows students to showcase their projects, summarize research trends, and explore future development priorities and sociopolitical insights. The platform, relying on the Research Center for Marketing Engineering and Innovation, provides students and the public with cutting-edge marketing information, relevant teaching resources, analytical methods, and related courses.

4.2 | Immersive Teaching System

The teaching team employs a mobile Internet marketing cloud platform powered by real-time Big Data and virtual simulation technologies to provide an immersive experimental learning experience. This

system includes realistic market scenarios, market simulations, and practical operations. Realistic market scenarios provide real market data that are used to create diverse environments for marketing management activities. The market simulations are based on real-world data to enhance the authenticity of market judgments and decision-making. Practical operations allow students to participate in real-world marketing activities and analyze their decisions using back-end data analytics by utilizing web application interfaces.

4.3 | Autonomous Learning Environment

Recognizing the trends in mobile learning of today's university learning, the teaching resource platform emphasizes a seamless learning environment that bridges guided simulations and real-world practice. The platform provides device integration, data utilization, and scenario design for students to learn effectively. First, the platform leverages real-market data-driven cloud marketing systems and partnerships with businesses to enable students to solve real-world problems using mobile devices. This effective integration with the device facilitates students to transform theories into problem-solving skills. The second function of the platform is to provide students with more opportunities to utilize data. The open data analysis platform allows students to build decision-making models and apply them to practical scenarios. The third function is scenario design. A variety of decision-making scenarios, each with clearly defined goals, allow students to benchmark their decisions against established standards, refine their judgments, and strengthen their analytical capabilities.

4.4 | Integrated Experimental Platform

Focusing on the marketing value chain, from identifying customers' needs to satisfying their needs, the teaching resource platform incorporates real industry cases and Big Data insights into experimental teaching. Students are exposed to the entire marketing chain and multiple roles, such as marketing managers and sales personnel. They have to make corresponding marketing decisions, such as investment analysis and sales management. By combining market data analysis platforms with actual business cases, the Internet marketing teaching team at Wuhan University extends practice training from specialized experiments to comprehensive ones involving real-world economic systems. This approach combines depth in professional expertise with breadth in application, fostering a seamless integration of professional knowledge, applied skills, and entrepreneurial innovation.

5 A Five-Dimensional Approach to Course Content Reconstruction as Fundamental Pillars of the Innovative Teaching Model

The successful implementation of innovative teaching methods is anchored in a well-structured curriculum. In response to the demand for CIE talent in the digital era, the Internet marketing teaching team at Wuhan University developed a five-dimensional teaching solution. This approach reconstructs the curriculum to integrate theoretical depth, technical rigor, practical application intensity, knowledge breadth, and ideological resilience.

Theoretical depth focuses on fostering creativity by equipping students with a solid grounding in marketing theories. This approach sharpens their sensitivity to real-world problems while providing the conceptual tools needed to generate innovative ideas. Through in-depth lectures and critical analysis of foundational literature, students develop the ability to bridge theory with practice and enhance their capacity to produce creative, strategic, and impactful marketing solutions.

In the realm of technical rigor, the emphasis shifts to innovation by ensuring that students gain hands-on experience through team-based experiments and iterative learning processes. The panoramic teaching resource platform serves as a dynamic environment in which students identify marketing challenges, propose actionable solutions, and refine strategies through continuous experimentation. This iterative engagement not only reinforces their technical skills but also fosters the integration of theoretical knowledge with practical problem-solving.

Intensive practical application is addressed by embedding entrepreneurial elements into the course structure. Comprehensive assignments, designed to reflect real-world complexities and guide students in applying theoretical concepts to actual business challenges. These assignments are categorized into three streams, including application-focused tasks to address marketing problems, managerial analysis exercises to promote strategic thinking, and research-based projects to explore academic insights. These activities encourage students to approach marketing issues with a multidimensional perspective and prepare them for entrepreneurial pursuits and leadership roles in the industry.

The dimension of expansive knowledge ensures that students are attuned to the rapidly evolving marketing landscape. By incorporating cutting-edge technologies, such as AI, Big Data, and cloud

computing, the course broadens their understanding of contemporary trends and emerging business models. This exposure is not only further enriched by the integration of real-world business cases and academic research but also enables students to develop the forward-looking mindset essential for navigating future challenges in the digital economy.

Last but not least, ideological resilience serves as a cornerstone for shaping professionalism among students. By integrating sociopolitical themes into the curriculum, the course instills values, such as patriotism, historical responsibility, scientific integrity, and professional ethics. These elements encourage students to adopt a service-oriented perspective that blends technical expertise with a commitment to societal and customer welfare. This holistic approach not only enhances their professional demeanor but also cultivates a sense of accountability and purpose, equipping them to make meaningful contributions to their fields.

6 Critical Support for the Innovative Teaching Model to Reform Teaching Evaluation

A well-designed evaluation system serves as a cornerstone for fostering student motivation and ensuring the successful implementation of innovative teaching methodologies. The teaching team for Wuhan University's network marketing course has reformed its evaluation practices, introducing a dynamic and multifaceted framework. These reforms focused on peer-based formative assessment, differentiated assignments, and the integration of ideological and political education to enhance learning outcomes, cultivate practical skills, and promote ethical values.

The first reform is the introduction of peer-based formative assessment, which replaces the traditional teacher-driven model. Students present their assignments in an online format, engaging in collaborative discussions and peer review. This approach allows them to identify gaps in their understanding and refine their work through constructive feedback. The collaborative nature of the process encourages knowledge sharing, critical reflection, and marketing principle exploration from diverse perspectives. By transforming students into active participants and knowledge explorers, this participatory model cultivates a culture of co-creation and innovation. Compared to conventional evaluation methods, this approach significantly boosts student engagement, initiative, and the ability to learn independently.

The second reform centers on differentiated assignments tailored to students' developmental goals

and career aspirations. These assignments are categorized into three types, practice-oriented assignments, management analysis-oriented assignments, and research-intensive assignments. Practice-oriented assignments are designed for students pursuing frontline roles in network marketing and equip them with the tools to tackle practical marketing challenges. Management analysis-oriented assignments target students aspiring to strategic decision-making roles, and these assignments offer opportunities to analyze business cases and understand the implications of managerial choices. Research-intensive assignments are aimed at those planning academic careers and focus on the integration of cutting-edge theoretical frameworks with practical applications. By aligning assignments with students' interests and future trajectories, the course not only motivates them but also cultivates the multidimensional skills required to address complex marketing problems. This structure enhances teamwork and problem-solving abilities, fostering a holistic and well-rounded learning experience.

The third component of the reform embeds ideological and political education within the evaluation system. By incorporating modules on network marketing laws, regulations, and professional ethics, the assessment framework emphasizes the importance of legal compliance, professional responsibility, and digital media literacy. These components encourage students to adopt ethical practices, support fair competition, and value honesty and integrity. Moreover, this reform nurtures critical thinking, creativity, and a result-oriented mindset while fostering teamwork and a commitment to societal welfare. By aligning professional competencies with social responsibility, the course team guides students to become ethical and accountable professionals in the field of network marketing.

Through these comprehensive reforms, the evaluation system supports the integration of theoretical knowledge, practical skills, and ethical principles. It creates an environment in which students are not only equipped to succeed in their careers but are also inspired to meaningfully contribute to their communities and industries. This multifaceted approach ensures that innovative teaching methods are grounded in a robust and student-centered framework, paving the way for long-term educational and professional success.

7 Impact and Outcomes of the Trinity Teaching Mode in the Internet Marketing Course

The innovative teaching methodology implemented in

Wuhan University's Internet marketing course has led to significant positive outcomes, demonstrating the effectiveness of the trinity teaching model. This teaching model impacts four aspects throughout the learning process: first, student satisfaction and skills development; second, career readiness and employment outcomes; third, graduate school admission and excellence in competitions; fourth, popularity of the online course.

7.1 | Student Satisfaction and Skill Development

At the end of the semester, students expressed high levels of satisfaction with the course. Many students reported that the course had enhanced their critical thinking and broadened their perspectives. One student marked that they had developed a forward-thinking mindset and a networked approach to problem-solving. Others appreciated the personalized nature of assignments, which were customized to align with future career goals. This personalized learning approach provided students with tangible results and many emphasized that the course laid a solid foundation for both academic and professional success. One student reflected that the marketing principles taught in this course would continue to grow in our minds and become a key part of our professional development.

7.2 | Career Readiness and Employment Outcomes

The integration of theoretical knowledge and practical skills in Internet marketing course has notably increased the employability of graduates of Wuhan University's marketing program. Over the past five years, the employment rate has consistently reached 100%, with a substantial number of graduates securing positions in prestigious companies, such as Huawei Technologies Co., Ltd. and Tencent. These outcomes highlight the course's effectiveness in equipping students with the skills necessary to thrive in a competitive digital economy.

7.3 | Graduate School Admission and Excellence in Competitions

The course combines academic theory and practical marketing analysis, which supports students' academic advancement and success in external competitions. Some students have undertaken independent research projects, which have led to their acceptance into graduate programs at top universities, such as Peking University and Tsinghua University. Moreover, students have excelled in national marketing competitions, including securing provincial awards and

national recognition. These excellent performances demonstrate the practical application of the course content.

7.4 | Popularity of the Online Course

The course was launched on the MOOC platform in December 2020 and gained widespread acclaim from both students and educators. With over 7,000 participants, the course maintained a high rating of 4.8 out of 5. Students have actively engaged in discussions, finished the exercises, and attended summative assessments. The course's high rating and students' active engagement reflect the high quality of the course content and design.

8 Conclusions

Amid the ongoing technological revolution, China has strategically positioned the development of the digital economy as a central driver of industrial transformation. This strategic focus has created a pressing need for highly skilled individuals who possess data-driven thinking and innovative capabilities (Qi & Ning, 2024; Wu et al., 2024). However, the current educational model faces significant challenges, including students' limited understanding of complex knowledge structures, a misalignment between skill sets and the evolving demands of the digital economy, and a deficit in comprehensive innovation abilities. Addressing these issues calls for a reimagining of educational philosophies, curriculum content, and learning pathways to enable rapid adaptation to technological advancements and talent cultivation which means that individuals should excel in creativity, innovation, and entrepreneurial management.

This study not only analyzes the teaching innovations implemented at Wuhan University's network marketing course but also proposes a trinity and full-scenario teaching model grounded in the MOA framework. This study delves into the construction of resource platforms, the restructuring of course content, and the reform of evaluation systems, all of which are key to the successful implementation of this model. Moreover, the study explores the internal foundations and safeguards necessary for its effective execution and offers practical strategies for cultivating talents required in a digital economy.

The proposed curriculum restructuring focuses on five key dimensions, including theoretical depth, technical rigor, intensive practical application, expansive knowledge, and ideological resilience. Supported by a "four-in-one" comprehensive teaching resource environment, the innovative teaching method

based on the MOA framework aims to enhance students' intrinsic motivation, foster collaborative learning, and promote self-directed development. The trinity teaching mode offers a flexible and practical approach to addressing common challenges in marketing education and provides valuable insights for institutions seeking to improve their marketing curricula. Moreover, the methods employed in this course are both feasible and adaptable, making them easily applicable to other business-related courses. This approach promotes the integration of theory and practice, offering a more applied learning experience. Furthermore, the teaching environment and resources are highly transferable, with the model's straightforward design and minimal reliance on advanced technological resources ensuring its broad applicability, even for institutions with varying levels of technological infrastructure.

From a broader perspective, this study advances the theoretical understanding of talent cultivation in the digital economy, with a particular emphasis on integrating creativity, innovation, and entrepreneurial competencies. It also offers actionable insights for reforming higher education curricula to better address the evolving demands of the digital era. The findings are instrumental in shaping a talent cultivation system that not only meets the requirements of the digital economy but also fosters the innovative development of digital skills and capabilities. By embedding theory, experimentation, and practical application within a tiered knowledge structure, the proposed teaching method bridges the gap between conceptual learning and practical application. This alignment ensures that students are well-equipped to apply their knowledge in real-world contexts. Consequently, this study contributes significantly to China's national digital economy strategy by laying the groundwork for cultivating a highly skilled workforce capable of driving industrial transformation.

Conflict of Interest The authors declare that they have no conflict of interest.

Ethics Statement The authors declare that their Institutional Ethics Committee confirmed that no ethical review was required for this study. Written informed consent for participation was not required because all participants' data was anonymized before the statistical analyses were conducted.

Data Availability Statements The authors confirm that all data generated or analyzed during this study are included in this published article.

References

Bajaber, S. S. A. (2024). Factors influencing students willingness

- to continue online learning as a lifelong learning: A path analysis based on MOA theoretical framework. *International Journal of Educational Research Open*, 7, 100377.
- Bandura, A. (1978). Self-efficacy: Toward a unifying theory of behavioral change. *Advances in Behaviour Research and Therapy*, 1(4), 139–161.
- China Academy of Information and Communications Technology. (2023). *Research report on the development of China's digital economy*. Beijing: CAICT. (in Chinese).
- Chinese Marketing Association of Universities. (2024). *The development report of marketing disciplines in Chinese universities (2024)*. Beijing: CMAU. (in Chinese).
- González-Mohino, M., Ramos-Ruiz, J. E., López-Castro, J. A., & García-García, L. (2024). Maximizing student satisfaction in education: Instagram's role in motivation, communication, and participation. *The International Journal of Management Education*, 22(3), 101045.
- Hoyer, W. D., & MacInnis, J. D. (1997). *Consumer behavior*. 1st ed. Boston: Houghton Mifflin Harcourt.
- Huisman, B., Saab, N., Van Den Broek, P., & Van Driel, J. (2019). The impact of formative peer feedback on higher education students' academic writing: A meta-analysis. *Assessment & Evaluation in Higher Education*, 44(6), 863–880.
- Jepson, A., & Ryan, W. G. (2018). Applying the motivation, opportunity, ability (MOA) model, and self-efficacy (S-E) to better understand student engagement on undergraduate event management programs. *Event Management*, 22(2), 271–285.
- MacInnis, D. J., & Jaworski, B. J. (1989). Information processing from advertisements: Toward an integrative framework. *Journal of Marketing*, 53(4), 1–23.
- Ministry of Education of the People's Republic of China. (2023). *Notice on recommending new engineering research and practice projects*. Retrieved from MOE website. (in Chinese).
- Ou-Yang, H. Y., Ariphongphokin, R., & Trung, N. H. (2014). Adopting the motivation-opportunity-ability model to evaluate the intentions of Thai students to study abroad. *International Journal of Social Science & Education*, 4(2), 502–515.
- Pope, N. (2001). An examination of the use of peer rating for formative assessment in the context of the theory of consumption values. *Assessment & Evaluation in Higher Education*, 26(3), 235–246.
- Qi, C., & Ning, S. (2024). Embracing the trend of educational digitalization to enhance the quality and effectiveness of basic mathematics teaching. *Frontiers of Digital Education*, 1(2), 153–158.
- Qu, Y., & Wang, L. (2023). Analysis of influencing factors of college students' volunteer service brand based on MOA model. *Frontiers in Educational Research*, 6(2), 44–50.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54–67.
- Shu, Y., Ho, S. J., & Huang, T. C. (2020). The development of a sustainability-oriented creativity, innovation, and entrepreneurship education framework: A perspective study. *Frontiers in Psychology*, 11, 1878.
- Wu, D., Wang, J., & Che, Z. (2024). Digital education: Connotation, pathway, and trend. *Frontiers of Digital Education*, 1(1), 59–68.