ISSN:2790-167X Volume-11-(2024)

Research on Business Talents Cultivation and Employment Issues in Universities under the Background of Digital Economy

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Abstract. The digital economy is injecting new vitality and opportunities into the global economic recovery, and high-quality digital economy talents have become the key competitiveness to promote industrial development. Colleges and universities are the breeding grounds for talent supply for regional economic development. During the critical period when the digital economy is reshaping the industrial chain and changing the world economic landscape, enhancing the digital literacy of business talents is crucial for all regions and universities. Taking business graduates in Zhejiang Province as the research object and using questionnaires and interviews as the main survey methods, this paper studies the relationship between the integration of digital education and employment competitiveness. The survey found that the participation of business graduates in the digital economy is relatively low, indicating that this field can provide more development space for business students. The research results show that the integration of digital education, mastery of professional skills, and practical application of knowledge all have a positive impact on enhancing the employment competitiveness of business students. Improving the professional skills and practical application abilities of business talents in the digital field can effectively enhance their employment competitiveness.

Keywords: digital economy; employment competitiveness; talent cultivation mode.

1. Introduction

In December 2021, the State Council issued the "14th Five-Year Plan for the Development of the Digital Economy," explicitly stating that data should be considered as a core element, with the deep integration of digital technology into the real economy as the core thread. The aim is to continuously strengthen, enhance, and expand the scale of China's digital economy, thereby providing solid support and momentum for building a comprehensive digitalized new type of country. With the rapid development of the digital economy, the government's promotion of digital transformation in the education sector has become an inevitable trend to adapt to talent cultivation and social development [1]. This process not only compels the education system to undergo digital reform and innovation, but also imposes higher demands on the digital literacy of business talents [2].

In the era of the digital economy, business talents are facing unprecedented challenges and opportunities. On one hand, business talents need to keep pace with technological innovation, not only mastering cutting-edge technologies such as data analysis, artificial intelligence, and blockchain, but also possessing interdisciplinary comprehensive analytical capabilities and innovative thinking to adapt to globalization competition and the rapid evolution of business models [3]. On the other hand, the digital economy provides new development opportunities for business talents. The extensive application of digital technology in teaching has greatly enhanced the interactivity and practicality of teaching, providing broader career development space and diversified employment choices for business students [4]. Although there is a strong market demand for digital economy talents, there is still a mismatch between talent supply and demand. The proportion of digital economy courses in talent cultivation has increased, but there is still a gap between the existing teaching content and the technical requirements of actual job positions. Although student social practice is gradually being valued, the availability of practical opportunities

and the depth and breadth of school-enterprise cooperation have not yet reached the desired state. The current imperfect talent cultivation system not only constrains the employment quality and efficiency of business talents, but also limits the construction of comprehensive digital talent teams with multi-disciplinary integration. Therefore, under the background of the digital economy, it is of utmost significance to delve deeply into the issues of business talent cultivation and employment.

2. Research Status

In recent years, with the rapid development of digital technology, digital education integration has become a significant topic in the field of education. William F. Crittenden's (2018) research emphasized the crucial role of curriculum digitization in enhancing teaching quality and student development. Maria-Luisa Schmitz (2023) discussed the necessity of integrating digital technology with traditional education from a macro perspective, as well as its role in enhancing learners' digital literacy. In the field of vocational education, Chengming Yang's (2023) research revealed the importance of digital transformation in enhancing professional skills. Additionally, Xiang Wang's (2023) study highlighted the enabling role of digital technology in the integration of industry and education, while Anthonysamy Lilian (2022) explored motivation strategies for enhancing digital literacy from the perspective of educators. Gunay Kibrit's (2022) research showed that digital education integration can not only enhance the mastery of professional skills but also improve the teaching quality of educators, thus promoting the comprehensive development of students. These research findings collectively reveal the significant impact of digital education integration on education quality and student development, providing valuable theoretical support and practical guidance for the digital transformation of the education industry, marking the important position and role of digital education integration in contemporary educational practice.

Scholars have also conducted in-depth discussions on the research of digital education integration and students' employment competitiveness. Maren Oberländer (2020) first proposed a multi-dimensional digital competence framework, which not only enhances our understanding of the concept of digital competence in the workplace but also emphasizes its core role in personal employment development. Based on this, Esin Mukul (2023) and Issah Baako and W. K. Abroampa (2023) further emphasized the importance of digital transformation in education and the significance and development dynamics of ICT in the field of education. Bruno Siano R ˆ ego's (2023) research pointed out that digital transformation is driving the demand for new professional skills, but higher education institutions are insufficient in cultivating these skills, providing both theoretical and practical urgent foundations for business education reform. Piotr Hetma ń czyk's (2023) research directly confirmed the profound impact of digitization on the labor market and the education system, thus providing a direct perspective for us to understand how digital education integration affects employment competitiveness. Andreas Kornelakis (2020) analyzed employability skills in British higher education, highlighting the impact of the digital revolution on the labor market and emphasizing the necessity for higher education institutions to integrate employability skills into their curricula. Finally, Inge Römge's (2020) comprehensive study of higher education and the labor market deeply analyzed the concept of employability and revealed the complex relationship between digital education integration and enhancing employment competitiveness.

In summary, these studies not only demonstrate the multi-faceted dimensions of digital education integration's impact on students' employability, but also provide empirical support for understanding the crucial role of digital skills in enhancing employment competitiveness. To deepen the reform and innovation of talent cultivation models in universities, future research should focus on exploring the application effectiveness of digital education at various educational levels and disciplines. At the same time, attention should be paid to how policies and specific practices can effectively enhance students' employability.

3. Research Hypothesis

3.1 Digital Education Integration and Professional Skill Acquisition Have a Significant Positive Impact on Knowledge Application in Practice.

The integration of digital education, by providing advanced technological tools and rich online resources, creates an interactive and personalized learning environment for learners. This not only enhances the learning experience but also enables students to practice and apply theoretical knowledge in a digitalized environment by simulating real-world business scenarios, thus improving their professional skills. On the one hand, the advancement of digitalization in education has brought new opportunities for the acquisition of professional skills and knowledge application in practice. Digitalization not only facilitates the learning and acquisition of professional skills but also enhances the efficiency and effectiveness of applying these skills in practice[5]. These platforms strengthen students' understanding and application of knowledge by providing rich resources and tools, making the educational process more efficient and interactive. The core of educational digital transformation lies in the shift from mere technological integration to human-machine integration. Through this transformation, the educational process is no longer confined to traditional teaching models but instead incorporates advanced technologies, enabling collaboration between talents and digital tools, thus effectively promoting the development of students' professional skills and the enhancement of their knowledge application abilities [6].

On the other hand, practical teaching plays a crucial role in applied universities, having a decisive impact on students' mastery of professional skills and significantly enhancing their ability to apply knowledge in practice [7]. The innovative application of the new PBL model in interdisciplinary and cross-cultural projects further strengthens this perspective, emphasizing the cultivation of innovative practical abilities to ensure the reinforcement of the positive relationship between professional skill acquisition and knowledge application in practice [8]. Additionally, the "digitally intelligent ecological teaching field" constructed by the national smart education platform serves as a typical case, demonstrating how digital education integration promotes professional skill acquisition and knowledge application in practice in actual scenarios. This impact is multifaceted and multidimensional, involving innovations in the educational process, the development of professional skills, and the promotion of knowledge application in practice. Based on the above, this paper proposes Hypothesis H1:

Hypothesis H1: Digital education integration and professional skill acquisition have a significant positive impact on knowledge application in practice.

3.2 The mastery of professional skills and the practice of knowledge application have a significant positive impact on employment competitiveness.

The mastery of professional skills is crucial in enhancing employment competitiveness, directly related to job performance and productivity. Through the integration of practical teaching and digital education, students can apply and strengthen these skills in simulated work environments and real-world projects, improving their problem-solving abilities and adaptability to new challenges [9]. The ability to apply knowledge in practice is equally crucial, requiring students to transform theoretical knowledge into problem-solving skills, especially in the rapidly changing labor market.

However, there exists a mismatch between talent cultivation in universities and social employment demands, especially the imbalance between theory and practice, which highlights the importance of professional skills in meeting social employment needs [10]. Professional knowledge and application ability are core dimensions of employability, especially the advantages of applied talents in vocational and technical skills, which have a significant impact on improving employment

ability [11]. For instance, professional practice is a key factor in enhancing the comprehensive quality and employment competitiveness of nutrition students [12].

In summary, the mastery of professional skills and the ability to apply knowledge in practice are essential in enhancing the employability of university students and meeting social employment demands [13]. Therefore, the following hypothesis H2 can be established:

Hypothesis H2: The mastery of professional skills and the ability to apply knowledge in practice have a significant positive impact on enhancing personal employment competitiveness.

3.3 The integration of digital education has a significant positive impact on the mastery of professional skills.

Firstly, through the construction of digital curricula and teaching reforms, educators can leverage digital technologies to enhance teaching standards, creating more interactive and personalized learning experiences, thus facilitating students' better mastery of professional skills [14]. Secondly, the integration of digital technologies with traditional education not only contributes to enhancing learners' digital literacy and capabilities but also drives educational innovation and progress on a broader scale [15]. In the field of vocational education, digital transformation and digital technology empowerment in the integration of industry and education have further emphasized the importance of professional skills [16], providing learners with learning resources and practical opportunities that are synchronized with industrial development [17]. Finally, educational institutions and policymakers should strive to enhance educators' digital literacy and skills to ensure they can effectively utilize new technologies in the process of digital education integration, thus guiding students more effectively in mastering professional skills [18]. In summary, digital education integration has positively impacted the mastery of professional skills through various avenues, providing strong support for learners to adapt to the development trends of the digital era. Therefore, the following hypothesis H3 can be established:

Hypothesis H3: Digital education integration has a significant positive impact on the mastery of professional skills.

In conclusion, this paper constructs a path model, as shown in Figure 1.

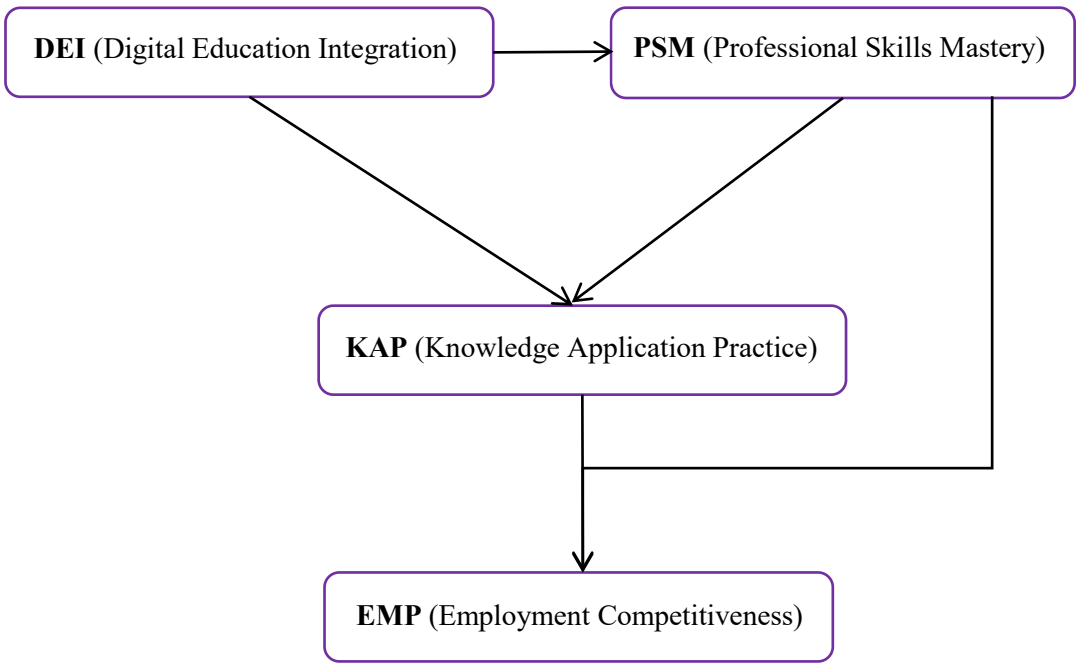

Fig.1 Model Hypothesis

4. Research Approach and Methodology

The purpose of this paper is to conduct a survey on the evaluation and feedback of business graduates from colleges and universities regarding the digital literacy courses they have experienced, with the aim of thoroughly exploring the relationship between the improvement of digital literacy and student employment outcomes. Through feedback surveys based on the graduates' practical experiences, the paper seeks to understand how digital literacy courses align with corporate needs and the challenges students face during the teaching process, while also proposing targeted suggestions for improvement.

This study was carried out at five universities in Zhejiang Province, where a random sample of 500 business graduates was selected as the survey population. Among them, 193 graduates are employed in fields related to the digital economy, accounting for 38.6% of the total. After the completion of the questionnaire survey, the researcher utilized SPSS17.0 software for statistical analysis of the results. The overall reliability of the scale, as predicted by SPSS17.0, reached 0.912, which exceeds the acceptance standard of 0.7, indicating that the questionnaire scale has good reliability. This result provides solid data support for the study, ensuring the validity and accuracy of the research findings.

5. Research Results and Analysis

The core objective of this survey is to deeply analyze and understand the impact of digital literacy on the employment prospects of business students in the context of the digital economy, as well as the role played by various specific digital literacy skills in enhancing employment outcomes. Firstly, we focus on how the improvement of digital literacy can open up broader employment opportunities and better career development paths for business students. In the digital economy era, possessing high-level digital skills and knowledge can not only help students better adapt to rapidly changing work environments, but also enable them to stand out in the job market, increasing their employment competitiveness.

Secondly, this survey aims to analyze the cultivation and enhancement of various specific digital literacy skills, such as data analysis, artificial intelligence understanding, blockchain technology application, and more. We seek to clarify which digital skills are most critical for business students' employment and how these skills can be effectively enhanced through education and training.

Lastly, this survey will also explore how universities should reform and innovate business talent cultivation models in the context of the digital economy to meet the needs of society and the market for high-quality digital economy talents. Through this survey, we hope to provide valuable insights and guidance for universities, education policymakers, and business students themselves, helping them better adapt to the challenges of the digital era and seize the new opportunities brought by the digital economy.

5.1 Description of Sample Characteristics

As can be seen from the survey results in Table 1, the distribution of majors and employment statuses reflects the sample distribution of this survey. The mean values represent the central tendency, while the standard deviations represent the degree of fluctuation. Based on the analysis of the frequency of each variable, the distribution generally meets the requirements of sampling surveys. Among the results, approximately 81% of the respondents indicated that their first choice of major was economics or management, indicating that the survey results are biased towards business graduates who chose business as their first choice. This suggests that the research focuses primarily on business students, which is valid for this survey. The survey results on whether respondents are employed in the digital economy field show that graduates from non-digital economy majors account for a larger proportion of the sample, indicating that the participation of

business talents in the digital economy field is currently relatively low. From another perspective, this emerging field of the digital economy can provide more development opportunities for business students.

Table 1. Frequency Analysis of Survey Participants' Majors and Employment Statuses

Variable	Option	Frequency	Percentage	Mean	Standard Deviation
Is your first choice of major in university an economics or management major?	Yes	403	81%	1.19	0.40
	No	97	19%		
Does your industry belong to the digital economy field?	Yes	148	30%	1.72	0.62
	No	351	70%		

5.2 Reliability and Validity Analysis

5.2.1 Reliability Analysis

In assessing reliability, Cronbach's alpha is the most commonly used indicator of internal consistency reliability. Its coefficient values range from 0 to 1, with higher values indicating better internal consistency of the scale, i.e., a higher degree of agreement among the items in the scale when measuring the same concept. The AVE value typically needs to be greater than 0.5, indicating that most of the variance is explained by the observed variables. A higher composite reliability (CR) value indicates a higher internal consistency of the questionnaire, and a value greater than 0.7 indicates good reliability of the latent variable.

The overall reliability coefficient of this survey, after standardizing the changes, is 0.912 for Cronbach's alpha. Generally speaking, a coefficient greater than 0.7 proves acceptable reliability, and the result indicates that the overall credibility of the questionnaire is very high. This study utilizes SPSS 17.0 statistical software to conduct reliability analysis on the 16 observed variables of the four latent variables: PSM (Professional Skill Mastery), DEI (Digital Education Integration), KAP (Knowledge Application Practice), and EMP (Employment Competitiveness), as shown in Table 2. The Cronbach's alpha coefficients for all four latent variables are greater than 0.7; the CR values of the observed variables in the questionnaire are all greater than 0.7, indicating good composite reliability of the questionnaire. Therefore, the questionnaire survey data in this study have passed the reliability test.

Table 2. Items Corresponding to the Observed Variables in the Survey Questionnaire

Observed Variables	Estimate	CR	AVE
PSM (Cronbach's alpha = 0.882)			
P4 How strong do you consider the multimedia processing ability of business administration graduates from your alma mater?	0.755	0.8852	0.6591
P7 How strong do you think the organizational coordination skills of graduates from your alma mater's business management program are?	0.816		
P8 How strong do you think the ability to learn new knowledge of graduates from your alma mater's business management program is?	0.789		

P10 How strong do you think the ability to capture new information of graduates from your alma mater's business management program is?	0.882		
DEI (Cronbach's α = 0.908)			
D1 Do you think the proportion of digital technology courses should be increased?	0.89	0.9108	0.6726
D2 Do you think the digital economy is a field with great potential?	0.853		
D3 Do you think business students should pay more attention to the development trends and processes of digital technology?	0.841		
D4 Do you think integrated courses should be offered across colleges and disciplines?	0.794		
D5 Do you think the digital economy industry has a very promising future?	0.711		
KAP (Cronbach's α = 0.824)			
K1 Do you think the knowledge and skills learned in school are sufficient?	0.687	0.8298	0.5506
K2 The relationship between social work participation during school and post-graduation promotion is:	0.69		
K3 Do you think the curriculum matches the employment requirements well?	0.817		
K4 Do you think the foundational knowledge taught in your major helps you to competently perform your job?	0.766		
EMP (Cronbach's α = 0.749)			
E1 How do you assess the current employment situation for students majoring in business management?	0.814	0.7699	0.5305
E2 How do you assess the employment prospects for students majoring in business management?	0.742		
E3 Do you think the curriculum setup is reasonable?	0.615		

5.2.2 Validity Analysis

Validity typically reflects the effectiveness of questionnaire design, which simply means that the questionnaire design and the results of various questions can achieve the researcher's research objectives. The KMO value ranges from 0 to 1. Generally speaking, a KMO value greater than 0.6 is considered acceptable for factor analysis, and the higher the value, the more common factors there are between variables, and the better the effect of factor analysis. As shown in Table 3, the KMO value of this article is 0.881, significantly higher than 0.6, indicating that the sample data have a good commonality and are suitable for factor analysis. Bartlett's Sphericity Test is used to test whether the variables in the data are independent of each other. If the p-value of this test is less

than 0.05, the null hypothesis of independence between variables is rejected, indicating that factor analysis is appropriate. The results show that the p-value of Bartlett's Sphericity Test is 0, much less than 0.05, further confirming the rationality of conducting factor analysis.

Table 3. KMO Measure Value and Bartlett's Test of Sphericity

KMO and Bartlett's Test		
KMO Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO MSA)		0.881
Bartlett's Test of Sphericity	Approximate Chi-Square	1223.179
	Degrees of Freedom	120
	Significance	0.000

In this study, the present paper adopts two indicators, namely the standardized factor loading values and the average variance extracted (AVE), to evaluate the validity of the survey questionnaire data. The closer the standardized factor loading value is to 1, the better the validity of the questionnaire. Generally, the standardized factor loading values of each item in the questionnaire should exceed 0.5 to ensure that the validity of the questionnaire reaches an acceptable level. According to the data in Table 2, we can see that the standardized factor loading values of all observed variables in this study's questionnaire range from 0.615 to 0.89, all exceeding the benchmark of 0.5, indicating that these observed variables have significant explanatory power for the latent variables.

Discriminant validity is crucial for the explanatory power and predictive accuracy of the model. Ideally, the correlation coefficients between factors should be lower than the square root of their respective AVEs to ensure sufficient discrimination between factors. In this study, as shown in Table 4, the AVE values of all observed variables exceed 0.5, and the correlation coefficients between factors are all lower than the square root of their respective AVEs. Specifically, PSM and DEI are 0.169 (lower than 0.8118 and 0.8201), DEI and KAP are 0.311 (lower than 0.8201 and 0.7420), KAP and EMP are 0.383 (lower than 0.7420 and 0.7284), PSM and EMP are 0.201 (lower than 0.8118 and 0.7284), indicating good discriminant validity between the factors. These results further confirm that the survey data is valid and can achieve the research objectives.

Table 4. Results of the Validity Test for the Latent Variables of the Survey Questionnaire

	PSM	DEI	KAP	EMP
PSM	0.6591			
DEI	0.169***	0.6726		
KAP	0.311***	0.189***	0.5506	
EMP	0.383***	0.201***	0.403***	0.5305
AVE Square Root	0.8118	0.8201	0.7420	0.7284

5.3 Correlation Analysis

The correlation analysis in Table 5 indicates that there exist significant positive relationships between the four dimensions of Professional Skill Mastery (PSM), Digital Education Integration

(DEI), Knowledge Application Practice (KAP), and Employment Competitiveness (EMP). Specifically, the correlation coefficient between PSM and DEI is 0.386, between DEI and KAP is 0.410, between KAP and EMP is 0.615, and between PSM and EMP is 0.593. These moderate to strong positive correlation coefficients suggest that digital education integration, professional skill mastery, and knowledge application practice all have positive impacts on enhancing employment competitiveness. These results support the research hypotheses and emphasize the importance of professional skill mastery and knowledge application for enhancing the employment competitiveness of business students in the digital economy era, as well as the crucial role of digital education integration in this process.

Table 5. Correlation Analysis Among Different Dimensions

Correlation	PSM	DEI	KAP	EMP
PSM	1			
DEI	.386**	1		
KAP	.572**	.410**	1	
EMP	.593**	.360**	.615**	1
** The correlation is significant at the 0.01 level (two-tailed).				

5.4 Confirmatory Factor Analysis

Structural equation modeling (SEM) is a crucial method in multivariate statistical analysis, capable of evaluating the associations between latent variables in survey questionnaires. Generally, a strong association between latent variables indicates a high level of consistency between the proposed theoretical model and the actual collected data. Among the fit indices in Table 6, the value of CMIN/DF is 1.566, lower than the commonly acceptable threshold of 3, indicating no significant inconsistency between the model and the data, thus representing a better fit. The RMSEA value is 0.066, significantly below the commonly used threshold of 0.08, suggesting a small error term in the model and a fairly accurate fit of the model to the data. IFI=0.953, TLI=0.942, CFI=0.952, and GFI=0.873 indicate a good overall fit.

In summary, the results of this analysis demonstrate that the digital literacy CFA model has good adaptability. All key fit indices indicate a good consistency between the model and the data.

Table 6. Goodness-of-Fit Test Results

Indicator	Reference Standard	Actual Result
CMIN/DF	1-3 Excellent, 3-5 Good	1.566
RMSEA	<0.05 Excellent, <0.08 Good	0.066
IFI	>0.9 Excellent, >0.8 Good	0.953
TLI	>0.9 Excellent, >0.8 Good	0.942
CFI	>0.9 Excellent, >0.8 Good	0.952
GFI	>0.9 Excellent, >0.8 Good	0.873

5.5 Path Analysis

This study utilized AMOS software to empirically test the structural equation model (SEM), which involves four key latent variables comprising 16 observed variables. Through analysis, the interactive effects among these variables were revealed, and the path analysis results and statistical data of path coefficients of the model were obtained, as detailed in Figure 2 and Table 7.

Figure 2 displays the relationship paths among the four latent variables in the questionnaire. Specifically, DEI has a positive impact on PSM and KAP, PSM has a positive impact on KAP, KAP has a positive impact on EMP, and PSM also has a positive impact on EMP. This indicates that digital education integration and professional skill mastery have positive effects on knowledge application practice, and professional skill mastery and knowledge application practice have positive effects on employment competitiveness, thus preliminarily validating the research hypotheses.

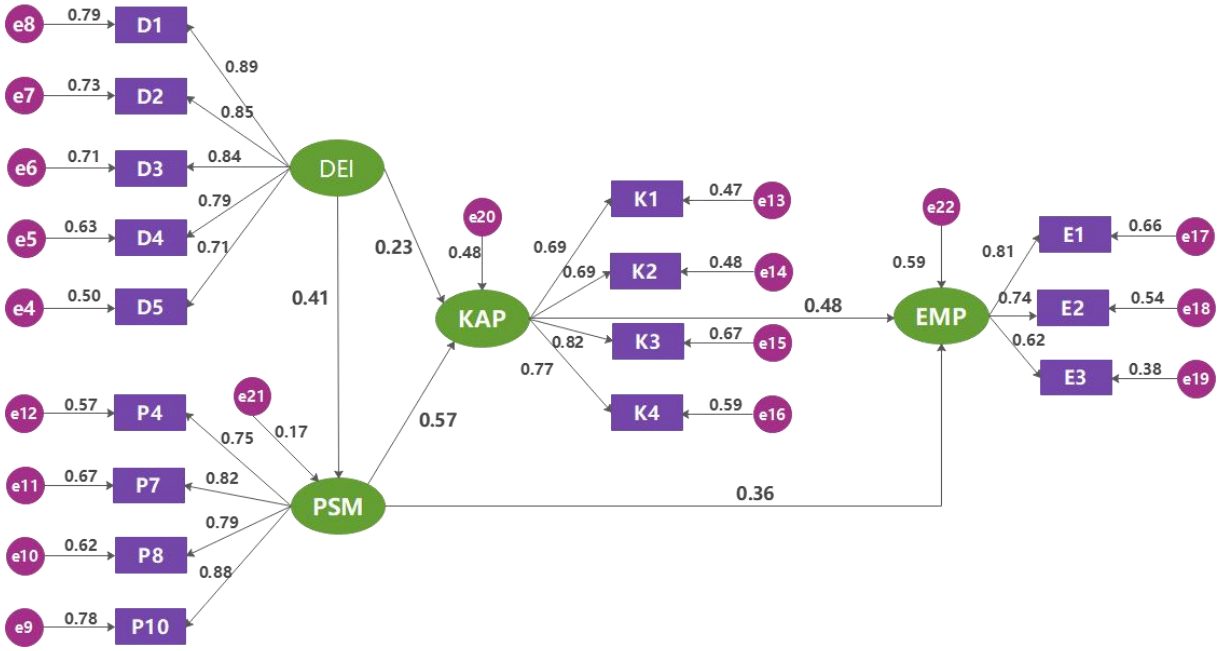

Fig. 2 Results of the Impact Path Analysis of the Structural Equation Model

As shown in Table 7, the CMIN/DF value, or chi-square to degrees of freedom ratio, is 1.553, which is below 3 and is generally considered a good fit criterion, indicating that the difference between the model and the data is within an acceptable range. Furthermore, the Root Mean Square Error of Approximation (RMSEA) is 0.066, falling within the range of 0.05 to 0.08, suggesting that the model fits the data relatively precisely. Additionally, we examined several other indices, including the Incremental Fit Index (IFI), the Tucker-Lewis Index (TLI), the Comparative Fit Index (CFI), and the Goodness-of-Fit Index (GFI). These indices have values of 0.954, 0.943, 0.953, and 0.872, all exceeding the threshold of 0.9, which is typically viewed as an indication of excellent model fit. Specifically, a CFI value close to or above 0.95 is often considered strong evidence of a well-fitting model.

The consistency of these indicators indicates a high degree of consistency between the adopted structural equation model and the actual data. Therefore, we can believe that the current model is not only reasonable in terms of theoretical assumptions but also robust statistically, providing a solid foundation for further research.

Table 7. Model Fit Test Results

Indicator	Reference Standard	Actual Result
CMIN/DF	1-3 Excellent, 3-5 Good	1.553
RMSEA	<0.05 Excellent, <0.08 Good	0.066

IFI	>0.9 Excellent, >0.8 Good	0.954
TLI	>0.9 Excellent, >0.8 Good	0.943
CFI	>0.9 Excellent, >0.8 Good	0.953
GFI	>0.9 Excellent, >0.8 Good	0.872

5.6 Hypothesis Testing of Path Relationships

As shown in Table 8, the estimated value of DEI -> PSM is 0.41, with a critical ratio of 4.146, which is significant at the 0.1% level of significance. This indicates that digital education integration has a significant positive impact on professional skill mastery, supporting Hypothesis 3. The estimated value of DEI -> KAP is 0.227, with a critical ratio of 2.43, significant at the 5% level of significance, indicating that digital education integration has a significant positive impact on knowledge application practice. The estimated value of PSM -> KAP is 0.57, with a critical ratio of 5.251, significant at the 0.1% level of significance, suggesting that knowledge application practice has a significant positive impact on professional skill mastery, thus validating Hypothesis 1. The critical ratio of KAP -> EMP is 3.614, indicating that knowledge application practice has a significant positive impact on employment market analysis. The estimated value of PSM -> EMP is 0.363, with a critical ratio of 2.998, indicating that professional skill mastery has a significant positive impact on employment competitiveness, thereby confirming Hypothesis 2.

Table 8. Results of Path Relationship Testing in the SEM Model

Path Relationships			Estimate	S.E.	C.R.	P
PSM	<---	DEI	0.41	0.185	4.146	***
KAP	<---	DEI	0.227	0.146	2.43	*
KAP	<---	PSM	0.57	0.09	5.251	***
EMP	<---	KAP	0.479	0.16	3.614	***
EMP	<---	PSM	0.363	0.122	2.998	**

Note: *** indicates $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

6. Conclusions and Recommendations

This study analyzed the relationships between digital education integration (DEI), professional skill mastery (PSM), knowledge application practice (KAP), and employment competitiveness (EMP) through structural equation modeling (SEM). The model fitness test indicates an overall good fit, and the results of the path relationship test support the research hypotheses, demonstrating significant positive impacts among these variables. This suggests that digital education integration is a crucial factor in enhancing professional skill mastery, which has a significant impact on the employment competitiveness of business students. The mastery of professional skills and knowledge application practice are two important dimensions for improving personal employment competitiveness. Knowledge application practice serves as a bridge between digital education integration and professional skill mastery, further strengthening employment competitiveness. These findings provide empirical support for how universities can reform and innovate business talent cultivation models in the digital economy era, highlighting the importance of practical

teaching and the integration of digital technology in improving students' employment competitiveness. Based on the above findings, this study proposes the following recommendations:

6.1 Enhance the Integration of Digital Technology and Business Education

Universities need to keep up with the development trends of the digital economy, update and expand the existing curriculum system, and integrate digital technology with teaching elements such as teaching content, knowledge dissemination, and knowledge instruction to achieve comprehensive integration of digital education in business education [19]. Specifically, universities should develop digital module courses covering cutting-edge fields such as big data analysis, cloud computing, and artificial intelligence, utilizing computer and internet technologies to cultivate students' ability to use digital tools to solve practical problems. In addition, universities should encourage teachers to participate in digital teaching training to enhance their teaching and guidance skills in a digital environment, better adapting to the new educational requirements of the digital economy era.

6.2 Establish a Knowledge Application Practice-Oriented Teaching Model

Faced with the rapid development of the digital economy, universities should adopt the C-P-S teaching model, which integrates multi-dimensional teaching methods such as case-based learning, problem-solving, and seminars. This model effectively enhances students' participation and enthusiasm for learning through practical resources such as school-enterprise cooperation projects and award-winning competition projects. Its core goal is to cultivate students' critical thinking and innovative abilities through in-depth case analysis, practical problem-solving, and sufficient discussion and exchange, enabling them to adapt to the rapid changes in the digital economy.

6.3 Implement Industry-Education Integration to Strengthen Professional Skills Training

Currently, single disciplines and traditional majors have become insufficient to meet the diversified talent needs of society. In professional training, universities should keep up with industry frontiers and emphasize cultivating students' specialized and general skills [20]. Through close cooperation with enterprises, universities should provide students with internship and practical training opportunities, allowing them to participate in real-world work projects [21]. This enhances their professional skills and adaptability to job positions, not only helping students gain a deeper understanding of industry needs but also shortening their transition period from school to the workplace. Furthermore, universities should integrate digital professional groups with digital industry clusters to cultivate talent with high-level technical skills, achieving synergistic development between education and the digital economy [22].

6.4 Promote Multi-disciplinary Integrated Education

To cultivate compound business talents, universities need to break through disciplinary boundaries and build a collaborative education system involving multiple colleges. For example, interdisciplinary research centers can be established to promote exchanges and cooperation between different disciplines, especially the integration of liberal arts and science and engineering, aiming to cultivate new liberal arts talents with comprehensive abilities [23]. Universities should adopt an "one-axis, multi-core" education model, expanding diversified learning paths around core courses to stimulate students' enthusiasm for learning. Through this model, universities can cultivate innovative talents with both professional depth and broad vision, meeting the high standards for talent in the new era.

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