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Bridging the Gap: Link-and-Match Strategy for Sharia Economics Graduates in Islamic Non-Bank Financial Institutions

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ABSTRACT
Purpose:
This study examines the link and match strategy in higher education to bridge the gap between graduates' skills and industry demands, particularly in the Islamic Non-Bank Financial Industry (IKNB Syariah). By adopting Human Capital Theory, this research highlights the importance of aligning university curricula with labor market needs to enhance graduates' employability.
Design/Methodology:
A qualitative research approach with an inductive methodology was used to explore the effectiveness of link and match policies. Data were collected through semi-structured interviews and focus group discussions (FGD) with 40 respondents, including students, government officials, education experts, and industry practitioners
Findings:
The study identifies curriculum misalignment, limited industry engagement, inadequate internship programs, and a lack of technology integration as key barriers to the effectiveness of link and match. However, competency-based curricula, industry partnerships, graduate involvement, and digital learning adoption significantly support graduate readiness for the workforce
Practical Implications:
Strengthening university-industry collaboration, implementing professional certification programs, and integrating technology into learning are crucial strategies to enhance the effectiveness of link-and-match policies
Originality/Value:
This research provides a comprehensive analysis of the link and match strategy in Sharia economics education, emphasizing the role of Islamic finance industry collaboration in improving graduate employability
Keywords: Link and match, Higher Education, Employability, Sharia Economics, Islamic Non-bank Finance, Human Capital Theory, Digital Learning

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A. INTRODUCTION

Higher education is strategically shaping competitive human resources prepared to navigate the job market dynamics (Prabowo et al., 2021). In the era of globalization and the Fourth Industrial Revolution, the gap between graduates' competencies and industry needs presents a significant challenge(Saryadi et al., 2024). Many university graduates struggle to enter the workforce because the skills acquired during their studies do not always align with the rapidly evolving industry demands (Bai et al., 2022).This mismatch results in high levels of educated unemployment and the rising phenomenon of overeducation, where graduates possess higher academic qualifications than required for available jobs (Gelbgiser & Alon, 2024). According to Statistics Indonesia (BPS), as of February 2025, the open unemployment rate among university graduates reached 6.23%, significantly higher than the national average of 4.76%. The data suggest that more than 6% of graduates encounter challenges in obtaining jobs that match their academic qualifications. Such a condition underscores the urgent need to develop comprehensive strategies that effectively align higher education outcomes with labor market expectations.

To address these challenges, the concept of link and match has emerged as a strategic approach connecting education with labor market needs (Karlsson et al., 2024).This concept ensures that higher education curricula align with industry demands, facilitating graduates' smoother transition into the workforce (Yerger, 2017). Various countries have adopted this policy in their education systems, including Indonesia, which implements the link-and-match strategy through vocational and academic education programs (Saryadi et al., 2024). Initiatives under this policy include industry-based curriculum development, internship programs, and collaborations between universities and industries to ensure graduates possess relevant skills for the labor market (Saryadi et al., 2024). However, despite its implementation, several challenges remain, such as weak coordination between educational institutions and industries, insufficient adaptation to technological advancements, and the limited availability of widely recognized skill certification programs (Yasdin & Muksins, 2024).

One sector facing significant challenges in workforce readiness is the Islamic financial industry, including the Islamic Non-Bank Financial Institutions (IKNB Syariah). Compared to conventional financial institutions, which benefit from mature regulatory ecosystems and well-established talent development pipelines, the Islamic financial sector must overcome a dual challenge: ensuring technical expertise while maintaining strong adherence to Sharia principles. As the Sharia-based economy grows, the demand for skilled professionals in Islamic finance is increasing. However, the availability of human resources with in-depth knowledge of Sharia principles and Islamic finance remains limited (Rukiah, 2015). Consequently, professionals from the conventional financial industry fill many positions in this sector, often lacking a comprehensive understanding of Islamic economics and law (Otoritas Jasa Keuangan, 2023).

The Islamic financial industry, including Islamic Non-Bank Financial Institutions (IKNB Syariah), continues to face substantial challenges in workforce readiness. Alongside the expansion of the Sharia-based economy, the demand for professionals with specialized expertise in Islamic finance is increasing steadily. Nevertheless, the availability of talent with comprehensive knowledge of Sharia principles and Islamic financial practices remains limited. Empirical studies reveal that only a small proportion of employees in this sector possess an educational background in Islamic economics and finance, whereas the majority come from the conventional financial industry and lack sufficient literacy in Islamic law and economics (Irsyadi, 2025; Sembiring, 2021). Such conditions pose significant risks to Sharia compliance and may hinder the industry's sustainable development. This concern is even more critical in the case of IKNB Syariah, which operates under distinct regulatory frameworks and encompasses high-growth segments such as microfinance, insurance (takaful), and Islamic capital markets. However, these institutions remain underrepresented in academic curricula and professional training initiatives, highlighting the urgency of a stronger link-and-match strategy between higher education and industry needs

Several previous studies have examined the importance of link and match in enhancing graduates' employability, particularly in vocational education (Saryadi et al., 2024), vocational education policy regulations in Indonesia (Yasdin & Muksins, 2024), and curriculum mapping strategies to improve the alignment between graduate competencies and industry needs (Okojie et al., 2022). Moreover, some studies highlight that the issues of academic mismatch and overeducation remain significant challenges in graduate employability (Gelbgiser & Alon, 2024), causing an imbalance between education levels and labor market demands (Khalil et al., 2023). However, most of these studies have focused on vocational education or generalized policy analysis, while research on the application of link and match in academic higher education remains limited. In addition, the role of innovative mechanisms such as micro-credentialing and curriculum mapping in enhancing employability continues to be underexplored. Only a few studies have addressed how higher education institutions must adapt to technological advancements and increasingly dynamic labor market conditions (Karlsson et al., 2024). Furthermore, researchers have overlooked sector-specific challenges in Islamic financial institutions, despite their unique ethical, spiritual, and regulatory requirements.

This study offers a novel contribution by integrating the link and match strategy within academic higher education aimed at Islamic finance, a sector often overlooked in higher education-industry alignment discourse. By focusing on the IKNB Syariah context and incorporating recent frameworks such as micro-credentialing, this research extends current models and responds to calls for a more nuanced and industry-specific implementation of educational policy. Furthermore, this research aims to identify the key factors influencing the successful implementation of this strategy and propose evidence-based approaches to strengthen collaboration between universities and industries in producing more employable graduates. We seek to provide new insights that help academics, policymakers, and education practitioners better understand how to implement link and match policies more effectively at the higher education level. Additionally, the study seeks to offer concrete recommendations for universities in designing more industry-responsive curricula and assisting businesses in finding talent that better matches their needs. Ultimately, this research strives to address the issue of graduate skill mismatches, enhance human resource competitiveness in the era of globalization and digital transformation, and support the growth and sustainability of the Islamic financial industry, including IKNB Syariah.

B. LITERATURE REVIEW

1. Human Capital Theory

Human Capital Theory is a foundational framework for analyzing the relationship between education, competency development, and labor market outcomes. Rooted in neoclassical economic thought, the theory posits that individuals invest in education and training to obtain higher economic returns over time (Tan, 2014). Learning is a personal endeavor and a social process that enhances human productivity and societal well-being (Holland et al., 2013; Rüber et al., 2018; Schugurensky & Myers, 2003). Researchers have applied this theory to explain how formal education contributes to skill formation and ultimately translates into labor market rewards (Spurk et al., 2019). Moreover, learning involves political and cultural dimensions, offering individuals pathways to escape economic adversity and improve their socioeconomic conditions (Walters, 2006). In higher education, Human Capital Theory explains how participation in structured academic environments enables students to recognize skill deficiencies and adopt effective strategies for improving job-readiness and productivity (Jepsen & Montgomery, 2012).

Human capital theory must be reinterpreted through a moral and Sharia-compliant lens when applied to Islamic economics and finance. In this view, human capital is not merely an economic resource but a divinely entrusted amanah (trust), whose development must uphold ethical, spiritual, and legal values rooted in Islamic teachings (Chapra, 1992; Dusuki & Bouheraoua, 2011). Education in Islamic finance must therefore emphasize not only technical competence but also integrity, transparency (*shafā'*), fairness (*'adl*), and the rejection of exploitative elements such as riba (*usury*) and *gharar* (excessive uncertainty). As such, investing in human capital within Islamic financial institutions involves producing professionals who are equally versed in Sharia principles and economic practice, aligning employability goals with the preservation of *maqāṣid al-sharīʿah* (the higher objectives of Islamic law).

Several empirical efforts in Islamic economies provide insight into the successes and challenges of link-and-match initiatives. In Malaysia, the Islamic Banking and Finance Institute Malaysia (IBFIM), under the guidance of Bank Negara Malaysia, developed the Future Skills Framework (FSF), which outlines industry-driven competencies for Islamic finance professionals. Integrated into university curricula and professional training schemes, FSF has contributed to improved graduate absorption in the Islamic banking and takaful sectors, particularly through certified programs in muʿāmalāt, zakat management, and Sharia-compliant financial technologies (IBFIM, 2024).

The challenge of aligning higher education outcomes with industry needs is not unique to Indonesia but is also evident in other Islamic financial hubs. In the United Arab Emirates, for instance, despite Dubai's aspiration to position itself as a global leader in Islamic finance, significant skill mismatches remain. A workforce planning study by Dubai International Academic City (DIAC & Deloitte, 2013) revealed that more than half of surveyed employers experienced difficulties recruiting graduates with adequate Sharia literacy, particularly at entry-level positions. Subsequent analyses further emphasize that while Dubai actively promotes Islamic fintech, the available talent pool often lacks integrated expertise that combines Sharia principles with digital financial innovations such as blockchain, RegTech, and Islamic fintech operations (Gulf News, 2015). These findings reinforce the urgency of a robust link-and-match strategy to prepare Sharia-compliant economics graduates for roles in Islamic non-bank financial institutions, where religious compliance and technological adaptability are increasingly indispensable.

These comparative experiences highlight the urgency for Indonesia—particularly in the Islamic Non-Bank Financial Institutions (IKNB Syariah) sector—to adopt a holistic human capital development approach grounded in Islamic ethics and guided by Human Capital Theory. Universities must ensure that graduates are technically proficient, spiritually anchored, ethically committed, and digitally adaptable. Drawing lessons from Malaysia's FSF model and the UAE's fintech challenges, Indonesian institutions can enhance curriculum design, establish micro-credentialing pathways, and promote industry-academia partnerships that preserve Islamic financial education's ethical integrity and global relevance.

2. Link and Match

The link and match strategy in higher education highlights the critical alignment between academic outputs and labor market demands. Dedi Supriadi (2002) defines the concept as ensuring that graduate competencies align with current industry requirements. The term link emphasizes interactive and collaborative processes among key stakeholders, while match refers to the compatibility of educational outcomes with professional expectations. More than a curriculum-focused intervention, link and match requires systemic coordination between universities, industries, and government actors to produce graduates who meet market needs in quantity, specialization, quality, and timing (Dedi Supriadi, 2002). Within this framework, higher education institutions act as suppliers of human capital, while industries serve as demand generators and skill evaluators.

However, the persistent gap between graduate capabilities and industry expectations results in low labor market absorption. Industry stakeholders often argue that graduates lack practical, job-ready skills, while universities aim to develop well-rounded individuals beyond narrow employment objectives (Asmawi, 2005). Both sectors must reconcile these contrasting views and establish shared priorities to enable constructive and sustainable collaboration. Implementing the link and match strategy requires ongoing, institutionalized partnerships among universities, industries, and the government. However, structural constraints frequently disrupt this synergy, including rigid curricula, poorly aligned learning outcomes, and minimal practitioner involvement in academic delivery (Disas, 2018).

Prabowo et al. (2021) reported that link-and-match policies effectively increased graduate employment rates in Indonesian private universities. Alam et al. (2024) argued that ineffective institutional support for student skill development contributes to graduate unpreparedness and ultimately hinders sustainable job creation. Romanò and Nazio (2025) found that internships help graduates secure employment, but often fail to match their qualifications. Yasdin & Muksins (2024) emphasized that industry support should not be limited to curriculum development but must also encompass long-term implementation and evaluation. Bol et al., (2019) demonstrated that the alignment between education and employment significantly influences earnings and unemployment risk. Workers whose jobs align with their education level and field of study tend to earn higher incomes than those experiencing qualification mismatches.

A growing body of literature suggests that achieving effective alignment requires addressing institutional and systemic barriers. Higher education institutions must therefore reorient their focus toward achieving a balanced integration of academic and professional competencies. While academic capabilities emphasize theoretical mastery and knowledge development, professional competencies involve technical skills, workplace readiness, and adaptability. Kellermann (2000) outlines several institutional factors that directly shape graduate employability. First, universities must enforce rigorous admissions standards to prioritize student capability over enrollment volume. Second, lecturer quality plays a vital role educators must possess both academic depth and industry-relevant experience. Third, assessment methods should evaluate theoretical understanding, applied skills, and critical thinking. Fourth, curricula and instructional materials should adopt a competency-based framework aligned with professional and industrial benchmarks. Fifth, educational infrastructure must support hands—on skill development, including laboratories, digital tools, and work-based learning environments. Finally, university-industry partnerships must extend beyond symbolic memoranda by integrating collaborative curriculum design, structured internships, mentoring systems, and dual-training models that reinforce sustainable and mutual growth in industrial transformation.

3. Islamic Non-Bank Financial Industry

The Islamic Non-Bank Financial Industry (IKNB Syariah) plays a vital role within the broader Islamic financial system by encompassing institutions that operate under Sharia principles without holding banking licenses. These include Islamic insurance (takaful), pension funds, financing companies, and other Sharia-compliant financial service providers. In Indonesia, IKNB Syariah contributes strategically to expanding the Islamic financial ecosystem by offering access to financing for businesses often excluded from both conventional and Islamic banks (Otoritas Jasa Keuangan, 2023). Recent data from the Financial Services Authority (OJK) shows a steady increase in assets, particularly in Islamic insurance and pension sectors, indicating positive growth.

Despite this progress, the industry continues to face persistent challenges such as limited market penetration and low levels of Islamic financial literacy among the public (Kasri et al., 2024). The acceleration of digitalization demands ongoing innovation to develop inclusive financial products that respond to evolving consumer needs. In this context, digital financial services become a critical enabler for growth, calling for stronger collaboration among Islamic financial institutions to build an integrated and responsive financial ecosystem. Technology-driven innovations are essential to enhance competitiveness, expand outreach, and improve operational efficiency (Trimulato & Mustamin, 2022). With robust regulatory support and continued technological development, IKNB Syariah holds significant potential for expansion. Its long-term sustainability, however, relies on coordinated efforts among government, regulators, and industry actors to formulate policies that ensure inclusive growth. Ultimately, this sector can become a key driver of a more inclusive Islamic financial system and a contributor to national economic resilience (Mauleny et al., 2021).

C. METHOD

This study employs a qualitative research design grounded in a phenomenological approach, emphasizing exploring lived experiences rather than measuring variables or causal relationships. According to Alam et al. (2024) Qualitative methods enable researchers to understand a phenomenon's nature, context, and complexity, including its emergence, influencing factors, and the diversity of individual interpretations. Rather than seeking generalizable patterns, this approach allows for deep contextual insight into the meanings that individuals attach to their experiences. Sofaer (1999) further argues that qualitative inquiry reduces ambiguity during early-stage research, particularly when the problem is not yet well-defined.

To explore the research problem comprehensively, this study employed an inductive approach with purposive sampling, a widely accepted strategy in qualitative inquiry (Michael Quinn Patton, 2015). Participants were selected based on two specific inclusion criteria: (1) direct academic or professional engagement with Islamic economics or Islamic financial institutions, and (2) their representational relevance as either end-users (i.e., students) or system-level stakeholders (i.e., experts). This purposive dual grouping allowed for experiential depth and thematic variation, enabling a multidimensional understanding of the issues studied. The researchers recruited 40 participants, including 34 undergraduate students majoring in Sharia Economics (17 males and 17 females), and six expert informants drawn from local government, academia, and the Islamic non-bank financial industry, aged between 26 and 52. The sample size aligns with established qualitative research standards, suggesting that saturation—the point at which no new themes emerge—typically occurs between 20 and 30 interviews for homogeneous groups (Guest et al., 2006). In this study, thematic saturation was reached after approximately 30 interviews, particularly among the student group, while the remaining interviews helped validate findings and reinforce analytical robustness through expert triangulation. The deliberate inclusion of expert voices added macro-level insight, enriching the interpretive depth of the study.

Table 1 presents the breakdown of participant categories and the data collection instruments used. Semi-structured interviews were conducted with students to elicit personal reflections, challenges, and perceptions of educational preparation and employment readiness. The interview guide included open-ended questions focusing on skill development, curriculum relevance, and career expectations, with flexibility to pursue emerging themes. The researchers conducted three Focus Group Discussions (FGDs) with expert participants by grouping them homogeneously to ensure shared vocabulary and facilitate critical discourse. Each session lasted approximately 90–120 minutes and followed a semi-structured protocol. Discussions centered on curriculum-industry alignment, institutional coordination, and systemic challenges in workforce preparation for the Islamic financial sector. Trained facilitators moderated the FGDs and recorded the sessions—with participant consent—for transcription and thematic analysis.

The researchers achieved data triangulation through multiple strategies: (1) they compared insights across participant categories (students vs. experts) for source triangulation, (2) they combined interviews and FGDs for method triangulation, and (3) they conducted collaborative coding and analysis for investigator triangulation. This triangulation process enhanced the findings' trustworthiness, credibility, and interpretive depth. A detailed breakdown of participant composition is presented in Table 1, which categorizes the sample based on specific criteria.

Table 1. Participant Selection Details in the Study

Participant Category	Number of Participants	Instrument
Students	34	Semi-Structured Interviews
Local Government Officials	1	Focus Group Discussion (FGD)
Education Experts	2	Focus Group Discussion (FGD)
Islamic Non-Bank Financial Industry Practitioners	3	Focus Group Discussion (FGD)

Source: Authors' work (2025)

Data collection in this study was conducted through semi-structured interviews, allowing researchers to explore information in greater depth. This approach allowed respondents to freely express their experiences and perspectives while enabling the researcher to steer discussions toward the research objectives. To enhance the validity and credibility of the data, this study employed data source triangulation by engaging multiple stakeholders. Specifically, the research interacted with two main groups:

1. Government Officials – Providing insights into lifelong learning policies and regulations related to skill development.
2. Islamic Non-Bank Financial Industry Representatives – Offering perspectives on the relevance of skill development programs to workforce readiness and competitiveness in the labor market.

Through this approach, the study presents a comprehensive analysis, integrating diverse viewpoints to examine the link and match strategy in higher education, particularly enhancing graduates' employability and competitiveness in the digital era.

D. RESULT AND DISCUSSION

1. RESULT

Higher education faces significant challenges in ensuring graduates possess skills aligned with industry demands in the growing globalization and digitalization era. Many graduates struggle to secure jobs that match their fields of study, primarily due to the gap between the skills acquired during their studies and the actual requirements of the labor market. This phenomenon highlights the need for higher education systems to be adjusted to adapt to labor market changes.

Table 2. Thematic Analysis of Challenges and Supporting Factors in Implementing the Link and Match Strategy in Higher Education

No	Subtheme	Key Findings	Respondent Quotes
A.	**Challenge**		
1	Lack of Industry Involvement	Businesses are not sufficiently engaged in curriculum development and internship programs.	"We need more industry involvement in curriculum development." (Respondent 7, 2025)
2	Infrastructure Limitations	Universities lack adequate facilities to support industry-based learning.	"Our Islamic finance laboratory is limited and insufficient for real-world simulations." (Respondent 11, 2025)
3	Limited Internship and Certification Programs	Students have limited access to quality internships and industry-recognized certifications.	"We struggle to find internship programs that match our field of study." (Respondent 14, 2025)
4	Lack of Technology Integration	Digital learning is not yet optimized to support students' job readiness.	"We still learn conventionally and do not use much technology." (Respondent 20, 2025)
B.	**Supporting Factor**		
5	Competency-Based Curriculum	The implementation of Merdeka Belajar-Kampus Merdeka (MBKM) helps students acquire more practical skills.	"We have started adopting an industry-based curriculum, but more integration with the workforce is needed." (Respondent 9, 2025)
6	Industry Partnerships	Faculties have established partnerships with Islamic non-bank financial institutions.	"Internships in Islamic non-bank financial institutions provide valuable real-world experience." (Respondent 15, 2025)
7	Graduate Engagement	Graduate play an increasing role in mentoring students.	"We often receive insights from alumni who have succeeded in the Islamic finance industry." (Respondent 18, 2025)

8	Awareness of Digitalization	Faculties are developing digital and e-learning-based education.	“Digital learning makes us more prepared for the digital finance era.” (Respondent 22, 2025)

Source: Authors' work (2025)

Table 3. Thematic Analysis of Strategies to Improve Link and Match in Higher Education

No	Subtheme	Recommended Strategies	Respondent Quotes
1	Enhancing Internship and Certification Programs	Universities should establish more partnerships with industries to provide high-quality internships and professional certifications.	“We hope for more certification programs to improve graduate competitiveness.” (Respondent 25, 2025)
2	Technology Integration in Learning	Developing e-learning platforms and utilizing digital-based financial industry simulations.	“Technology-based simulations help us understand real-world work environments.” (Respondent 28, 2025)
3	Industry-Based Curriculum Development	Involving practitioners from the Islamic non-bank financial sector in curriculum design.	“Industry practitioners understand workplace skill requirements better than academic lecturers alone.” (Respondent 30, 2025)
4	Expanding Partnership Networks	Universities should build more collaborations with Islamic financial institutions and companies.	“We need more partnerships with Sharia-based companies to ensure graduates are absorbed into the workforce.” (Respondent 35, 2025)

Source: Authors' work (2025)

One of the main challenges that arises is the misalignment between academic curricula and industry demands. While university curricula uphold high academic standards, they often fail to incorporate the practical skills required in the workforce. As a result, graduates struggle to adapt to work environments that require technical expertise, problem-solving abilities, and practical communication skills. Respondent (R) 7 emphasized during the interview that the industry has not been sufficiently involved in curriculum development and internship programs, leaving many graduates unprepared to enter the workforce.

Another significant barrier to implementing the link-and-match strategy is infrastructure limitations. Many universities lack the facilities necessary to support industry-based learning. R11 noted that their Islamic finance laboratory was inadequate for real-world simulations, preventing students from gaining practical experience relevant to industry needs. Additionally, students face difficulties accessing quality internship programs and obtaining widely recognized industry certifications. The lack of structured university-industry collaboration hinders students from gaining direct experience relevant to their field of study. R14 expressed frustration, explaining that finding an internship aligned with their major was challenging due to weak partnerships between universities and industries.

The integration of technology in education is also a significant concern. Despite the Fourth Industrial Revolution, many universities have yet to incorporate digital learning fully. R20 mentioned that while digital technology has become the standard in the workforce, their education still relies on conventional teaching methods. This technological gap leaves students feeling unprepared for the digital skills required by modern industries. On the other hand, several factors support the successful implementation of the link-and-match strategy. Adopting competency-based curricula through the Merdeka Belajar-Kampus Merdeka (MBKM) program gives students greater flexibility to develop applicable skills. R9 stressed that despite implementing industry-based curricula, further integration with the workforce is still necessary to ensure graduates are fully job-ready.

Partnerships with businesses also play a crucial role in supporting this strategy. Some faculties have collaborated with Islamic non-bank financial institutions, enabling students to gain valuable internship experiences. R15 described the internship as highly beneficial in understanding industry operations and applying theoretical knowledge. Graduates have also played an essential role in preparing students for the workforce. Respondent R18 noted that mentoring from successful graduates in the Islamic finance sector provided valuable career insights, helping them map their professional paths after graduation. Furthermore, awareness of digitalization in universities is increasing, leading to developing digital and e-learning platforms. R22 highlighted that digital learning has made them feel more prepared for the digital finance sector, where technological proficiency is a key factor in career success.

To enhance the effectiveness of the link-and-match strategy, universities need to expand internship and certification programs by strengthening collaborations with industries. R25 expressed the need for more professional certification programs to enhance graduate competitiveness in the job market. In addition, integrating technology into learning must be reinforced by developing e-learning platforms and digital finance simulations, providing a more immersive and practical learning experience. R28 emphasized that developing such platforms would significantly improve student readiness. The development of industry-based curricula must also be prioritized by involving practitioners from Islamic non-bank financial institutions, ensuring that coursework aligns with industry expectations. R30 explained that this involvement would guarantee stronger curriculum relevance. Lastly, expanding university-industry partnerships, particularly with Islamic financial institutions and Sharia-based companies, is crucial to increasing employment opportunities for graduates. R35 highlighted that such partnerships directly enhance graduates' absorption into the labor market.

2. DISCUSSION

Higher education is central to preparing human resources to enter the industrial world (Prabowo et al., 2021). However, the reality in the field shows that many university graduates face challenges securing jobs relevant to their fields of study. The gap between the skills taught in educational institutions and the demands of the workforce has become a persistent issue (Gelbgiser & Alon, 2024). Educational institutions have adopted the link and match concept as a strategic solution to bridge the gap between academia and industry, ensuring that graduates integrate more easily into an increasingly competitive job market (Yasdin & Muksins, 2024). Scholars examine the link and match concept through the lens of Human Capital Theory, which emphasizes that investing in education and training enhances individual productivity and competitiveness in the labor market (Tan, 2014). Within this theoretical framework, education is not merely seen as an academic process but also as a mechanism for developing skills and competencies that lead to higher economic returns in the future (Schugurensky & Myers, 2003). An effective higher education system delivers learning experiences that align with industry needs and facilitates the development of practical skills applicable directly in the workplace (Holland et al., 2013; Spurk et al., 2019).

Although link and match are not new, their implementation still faces various challenges. One major obstacle is the imbalance between university academic curricula and the skills required by industries. Many universities focus on theoretical approaches without offering sufficient practical experiences for students (Alam et al., 2024). As a result, graduates often struggle to adapt to work environments that demand applied skills (Karlsson et al., 2024). From the perspective of Human Capital Theory, this condition suggests that higher education must innovate in teaching methods to create a balance between theory and practice. Universities that focus solely on academic aspects without considering the relevance of skills to industry needs risk producing graduates who are not workforce-ready (Walters, 2006). Universities must take strategic steps to strengthen skill-based curricula, implement project-based learning, and increase industry involvement in teaching. In addition to curriculum imbalance, limited industry participation in curriculum development hinders alignment with labor market demands.

In many cases, companies act only as employers rather than actively participating in designing curricula that meet their needs. In reality, closer collaboration between educational institutions and industries would allow curricula to be more flexible and responsive to shifts in economic and technological trends (Bol et al., 2019). When companies are involved in curriculum design and development, students can receive learning experiences that are more relevant and tailored to labor market needs. The industry's role in higher education can take various forms, including participation in curriculum development, provision of professional certifications, and collaboration in internship programs. However, regulatory constraints and weak communication between industries and academic institutions often hinder this synergy (Jepsen & Montgomery, 2012).

Data from the Financial Services Authority in 2023 indicates that 80–90% of human resources in the Islamic financial industry do not come from a Sharia or related background (Kasri et al., 2024). Such a lack of Sharia-qualified professionals reflects the mismatch between graduates' competencies and the industry's specific needs, further underscoring the importance of industry involvement in curriculum development to better align with labor market requirements. Thus, regulations encouraging industries to participate more actively in higher education and policies supporting professional certifications relevant toindustry needs are essential. Digital transformation and technological advancements are also accelerating changes in the job market. Industries today demand digital skills, complex problem-solving abilities, and adaptability to fast-paced and dynamic work environments (Okojie et al., 2022). However, many universities have yet to incorporate technology-based learning into their curricula. Students not accustomed to using the latest technologies will struggle to compete with graduates from institutions that have already adopted digital learning models (Khalil et al., 2023). Therefore, integrating technology into the education system is imperative to ensure graduates are better prepared for the increasingly digital workforce.

Within the Human Capital Theory framework, leveraging technology in education is an investment in enhancing workforce competence to be more competitive in the global market (Tan, 2014). Universities that implement digital-based learning, such as e-learning platforms, industry simulations, and artificial intelligence (AI)-driven instruction, will be more capable of producing highly competitive graduates(Schugurensky & Myers, 2003). Consequently, governments and educational institutions must strengthen technological infrastructure to accelerate digital transformation in learning. This analysis highlights the crucial role of the link-and-match strategy in preparing higher education graduates to meet the dynamic demands of the industry. By adopting an approach based on Human Capital Theory, universities can enhance the relevance of education to labor market needs by developing skill-based curricula, increasing industry engagement in education, and utilizing technology for learning. However, several challenges must still be addressed, such as the misalignment between academic curricula and industry requirements, the lack of industry participation in higher education, and insufficient technological infrastructure to support digital learning. Therefore, a strategic approach involving multiple stakeholders—including universities, industries, and government bodies—is necessary to ensure that higher education systems adapt to changing times and produce graduates with superior competencies in the global labor market.

In the context of the Islamic Non-Bank Financial Industry, implementing the link-and-match strategy becomes even more critical. This sector, which encompasses institutions such as Islamic insurance (Takaful), Islamic pension funds, and Sharia-compliant financing companies, faces a growing demand for qualified professionals with specialized knowledge in Islamic finance principles and modern financial technologies. Data from the Financial Services Authority in 2023 indicates that 80–90% of employees in this sector do not possess a background in Sharia or related fields (Kasri et al., 2024). This misalignment between graduate competencies and the specific needs of the IKNB Syariah industry highlights the importance of addressing this gap through curriculum development and industry engagement. The lack of Sharia-compliant financial expertise in the workforce further exacerbates the challenge. Universities actively integrate Sharia finance principles into finance and economics curricula to equip students with essential knowledge of Islamic financial products such as Murabaha, Ijarah, and Sukuk, along with a solid understanding of Islamic law.

In addition, they must internalize the normative ethical foundations of Islamic finance—transparency (shafā'), justice (ʿadl), and trust (amanah)—which are crucial in shaping curriculum direction and skill expectations. Islamic financial professionals must not only perform technical tasks but also embody values that uphold the maqāṣid al-sharīʿah (the higher objectives of Islamic law). This ethical dimension imposes unique skill demands not found in conventional finance, requiring universities to go beyond generic financial training by incorporating modules on Sharia compliance, ethical decision-making, and anti-riba (usury) practices. Industry partnerships with Islamic non-bank financial institutions are essential to offer students practical exposure to the real-world operations of these institutions. Collaborations between universities and Sharia-compliant financial companies can include internships, mentorship programs, and certification opportunities that specifically cater to Islamic finance.

Moreover, the technological transformation of the IKNB Syariah sector calls for a new generation of graduates who are not only well-versed in Islamic finance principles but also proficient in digital financial technologies. Universities must integrate technological advancements—such as Islamic FinTech and blockchain—into their curricula as Islamic finance increasingly embraces digitalization, to ensure graduates are well-prepared for the future of finance. Universities must focus on digitally-enabled learning platforms, such as e-learning, industry simulations, and AI-driven instructional models, to equip students with the skills necessary for digital financial services in the Islamic finance sector. Higher education can help IKNB Syariah institutions meet their growing demand for qualified professionals by fostering stronger industry-academic partnerships and adopting innovative digital learning methods. Ultimately, this will lead to better alignment between educational outcomes and industry expectations, preparing graduates to thrive in the rapidly evolving world of Islamic non-bank financial services

E. CONCLUSION

This study underscores the critical role of the link-and-match strategy in addressing the persistent disconnect between higher education outcomes and labor market demands. Grounded in Human Capital Theory, it highlights that higher education must offer theoretical knowledge and function as a strategic investment in workforce development and national economic competitiveness. Despite policy efforts, several implementation challenges remain, including curriculum misalignment, insufficient industry involvement in educational policy design, and limited technology integration in the learning process. The skills mismatch is especially evident in the Islamic financial sector, where 80–90% of professionals lack formal backgrounds in Islamic finance or related fields. These conditions reinforce the need for stronger, more operational collaborations between universities, industries, and governments.

To address these issues, higher education institutions must redesign curricula in close coordination with industry stakeholders, ensuring alignment with real-world skills requirements. Such curriculum reform efforts should include embedding practical workplace experiences such as internships and applied projects, and integrating industry-recognized skill certifications into formal academic pathways. Specifically, in Islamic finance, regulatory bodies and universities should mandate Sharia certification for lecturers teaching core Islamic finance subjects to uphold doctrinal and pedagogical integrity. Industry actors must also transition from passive advisors to active partners, contributing to curriculum development, mentoring, and on-the-job training. Government policy should incentivize these partnerships through performance-based funding models, tax incentives, and regulatory frameworks that promote labor market responsiveness.

At the individual level, students must adopt a proactive learning orientation, engaging in professional certifications, digital skills training, and real-world experiences that complement academic learning. Such approaches enhance competitiveness and resilience in increasingly dynamic employment landscapes. However, this study has several limitations. Its focus on the Islamic financial industry may limit generalizability to other sectors. Moreover, it does not evaluate the long-term employment outcomes of link-and-match initiatives or capture the voices of graduates navigating their school-to-work transition. Future research should adopt longitudinal approaches to assess sustained impacts on employment and income trajectories. Researchers and policymakers can tailor link-and-match strategies more effectively by conducting comparative studies across conventional finance and other sectors, thereby gaining broader insight into diverse industry needs. Additionally, exploring the role of educational technologies—such as AI-based learning platforms and industry simulation tools—can enhance the practical relevance of academic programs.

This research contributes to the ongoing discourse on graduate employability by demonstrating how Human Capital Theory can guide education-industry alignment, particularly within specialized sectors. Moreover, its policy recommendations offer scalable lessons for other domains, including conventional financial education, where similar misalignments persist between academic output and industry needs.

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