The Gap Between the FinTech Education and the industrial needs: The Case of Bahrain

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Abstract: The rapid growth of financial technology (FinTech) has transformed global financial services, generating strong demand for a workforce with both financial literacy and technological expertise. This study examines the alignment between FinTech education in Bahrain and the evolving needs of its FinTech sector. Although Bahrain has emerged as a regional FinTech hub—supported by progressive regulation and institutional initiatives—concerns remain about the ability of academic programs to prepare graduates for industry demands. Adopting a qualitative, exploratory-descriptive design, this research draws on secondary data and thematic analysis to evaluate curriculum relevance, technological integration, and industry-academic collaboration. The findings reveal that while Bahraini institutions have integrated FinTech topics such as blockchain, digital payments, and RegTech into their programs, significant gaps persist. These include insufficient practical training, uneven access to advanced tools, and limited structured engagement between academia and industry. Survey responses confirm a generally positive perception of curricular relevance, yet highlight a widely acknowledged skills gap in areas requiring hands-on application. Correlation analysis further indicates that stronger industry partnerships are positively associated with perceptions of educational adequacy. The study concludes by recommending targeted curriculum reforms, greater investment in educational technologies, and the institutionalization of internships and co-designed projects. By offering evidence-based insights, the research contributes to the broader discourse on workforce readiness in digital economies and provides a replicable framework for strengthening FinTech education in emerging markets.

1. Introduction

The rapid evolution of financial technology (FinTech) is reshaping the global financial services industry, transforming how consumers, institutions, and governments interact with money. From blockchain and digital payments to artificial intelligence and open banking, FinTech has become a catalyst for innovation and disruption across markets (Schueffel, 2016; Al Hudithi & Siddiqui, 2021). As this transformation accelerates, the demand for a workforce equipped

with both financial literacy and technological expertise has grown substantially—prompting a parallel shift in how FinTech education is conceived, delivered, and assessed. Globally, educational institutions are under increasing pressure to align curricula with emerging FinTech trends. Beyond teaching foundational finance or computer science, effective FinTech education requires interdisciplinary approaches, practical training, and integration of real-world tools such as API platforms, blockchain systems, and RegTech frameworks. As such, educators and policymakers are challenged not only to keep pace with technological developments but also to ensure that graduates are workforce-ready. In the Gulf Cooperation Council (GCC), Bahrain has emerged as a regional FinTech leader. Backed by initiatives such as the Bahrain FinTech Bay, open banking regulations, and a proactive regulatory sandbox developed by the Central Bank of Bahrain, the country has witnessed the establishment of over 120 FinTech startups since 2018 (Traif et al., 2021). Educational institutions—including the University of Bahrain, Ahlia University, and the Bahrain Institute of Banking and Finance (BIBF)—have responded by developing specialized FinTech programs and forming international partnerships.

Despite these advances, significant concerns persist regarding the effectiveness of Bahrain's FinTech education system. While students show growing interest in FinTech careers, many lack adequate exposure to contemporary industry tools and technologies (Statista, 2022). Furthermore, collaboration between educational institutions and FinTech firms remains inconsistent, limiting opportunities for internships, project-based learning, and curriculum co-development (Al Rahma & Al-Alawi, 2023; Hazarika et al., 2024). These gaps raise concerns about graduate employability and Bahrain's ability to sustain innovation-driven growth in the FinTech sector. Theoretically, this study draws on the Technology Acceptance Model (TAM) and Social Cognitive Theory. TAM emphasizes the role of perceived usefulness and ease of use in technology adoption (Davis, 1989), while Social Cognitive Theory highlights the importance of learning through observation, modeling, and real-world feedback (Bandura, 1986; Schunk & DiBenedetto, 2020). Together, these frameworks provide a lens to understand how FinTech education translates into professional readiness and technology engagement. This study investigates the extent to which Bahrain's FinTech education system aligns with the skills and expectations of the industry. It explores stakeholder perspectives—students, educators, and employers—to assess the relevance of curricula, the availability of technological resources, and the strength of industry-academic collaboration. By identifying systemic gaps and practical challenges, the study offers evidence-based recommendations for improving FinTech education in Bahrain and ensuring that graduates are equipped to contribute to the sector's continued growth.

Ultimately, this research contributes to the broader discourse on digital skills development and innovation capacity in emerging markets. It positions Bahrain as a case study with lessons that are locally grounded but globally relevant—particularly for nations striving to harmonize education systems with the demands of a rapidly evolving FinTech ecosystem.

2. Literature Review

2.1. The Concept and Relevance of FinTech Education

FinTech, a fusion of finance and technology, represents a transformative shift in the financial services sector. Schueffel (2016) defines FinTech not merely as a new industry, but as a paradigm shift aimed at enhancing the efficiency of financial services through digital tools. The integration of blockchain, artificial intelligence (AI), and open banking has positioned FinTech at the center of contemporary financial operations (Al Hudithi & Siddiqui, 2021).

However, there are differing perspectives on the scale of FinTech's impact. While some scholars assert its revolutionary significance (Knewtson et al., 2020), others argue that its influence has been overstated, citing regulatory burdens and inflated expectations (Albastaki et al., 2020). Despite these debates, there is a broad consensus on the need for structured FinTech education to prepare a workforce capable of navigating this evolving domain.

2.2. FinTech Education in Bahrain

Bahrain has emerged as a FinTech hub in the MENA region, supported by forward-looking government initiatives, including open banking regulations and the creation of innovation sandboxes. Since 2018, the number of FinTech startups in Bahrain has more than doubled, reflecting a rapidly maturing ecosystem (Traif et al., 2021). Educational institutions have responded by introducing FinTech-related programs and forming international partnerships—most notably the FinTech Academy at the University of Bahrain and FinTech offerings at Ahlia University and the Bahrain Institute of Banking and Finance (Reyad & Alsayed, 2022).

Nonetheless, critical gaps persist. Survey data indicate that while student interest in FinTech is growing, many still lack sufficient understanding or exposure to core financial technology concepts. This highlights a disconnect between educational offerings and actual industry expectations (Statista, 2022; Doherty & Stephens, 2023).

2.3. Impact of FinTech Education on Industry Readiness

FinTech education is increasingly recognized as a strategic enabler of innovation in the business sector. Sung et al. (2019) found that professionals trained in FinTech are more capable of adapting to digital financial environments and contributing to competitive advantage. However, other scholars have emphasized that educational interventions alone are insufficient. Abdeldayem and Al Dulaimi (2020) argued that broader institutional frameworks—such as regulation, digital infrastructure, and industry cooperation—are equally essential to realizing the benefits of FinTech adoption.

Successful initiatives in Bahrain, such as those by PayTabs and Tarabut Gateway, illustrate the potential of education-industry partnerships. These collaborations have facilitated knowledge exchange and helped align academic content with evolving industry needs.

2.4.   Challenges in FinTech Education

Despite its growing importance, FinTech education faces several challenges. The rapid pace of technological change creates difficulties for curriculum developers striving to keep content current. Additionally, there is a shortage of faculty who possess interdisciplinary expertise in both finance and technology (Abdeldayem & Al Dulaimi, 2020; Traif et al., 2021). These limitations have contributed to a misalignment between classroom instruction and real-world applications.

Regulatory uncertainty and the limited availability of experiential learning opportunities further exacerbate the skills gap. To address these issues, scholars have called for more dynamic curriculum updates, stronger collaboration with FinTech firms, and the establishment of research centers that integrate applied learning with policy insight (Abdulla et al., 2022).

2.5.   Theoretical Framework

This study is informed by two key theoretical models. First, Social Cognitive Theory (Bandura, 1986) emphasizes that learning occurs through observation, interaction, and modeling. It highlights the importance of experiential and contextual learning, particularly in skill-based education such as FinTech. Second, the Technology Acceptance Model (TAM), developed by Davis (1989), focuses on the perceived ease of use and usefulness of technologies as primary factors influencing their adoption. These frameworks provide a foundation for analyzing how educational exposure shapes FinTech knowledge acquisition and professional readiness.

2.6.   Literature Gap

Although the literature acknowledges the importance of FinTech education, few studies have examined the extent to which academic programs in Bahrain align with the skills required by the FinTech sector. Most research has focused on general trends, innovation metrics, or institutional initiatives, rather than stakeholder perceptions and implementation challenges. Notably absent are empirical investigations that include the views of students, educators, and industry professionals. This study addresses that gap by offering evidence-based insights into the effectiveness of FinTech education in Bahrain and evaluating its alignment with market needs. In doing so, it contributes to a more comprehensive understanding of how educational systems can evolve to meet the demands of a rapidly developing FinTech landscape.

3. Methodology

3.1.   Research Design

This study employs a mixed-method qualitative design, combining exploratory and descriptive approaches to investigate the current state of FinTech education in Bahrain. The aim is to explore how educational programs align with industry needs by analyzing perceptions from key stakeholders, including students, educators, and industry professionals. An exploratory-descriptive design is well-

suited for uncovering underlying patterns in an under-researched area and for capturing the complexity of socio-educational and institutional dynamics.

3.2. Data Sources

The research draws on both primary and secondary data. Primary data were collected through a structured survey administered to 200 respondents representing various stakeholder groups. Secondary sources were used to complement and contextualize findings. These included peer-reviewed journal articles, industry reports, government documents, and the official websites of FinTech-related institutions in Bahrain. Academic databases such as Google Scholar and ProQuest were used to access relevant empirical and theoretical work.

3.3. Data Collection

Primary data were gathered using an online survey instrument, which included closed-ended questions focused on perceptions of curriculum relevance, technological integration, and industry collaboration. Secondary data were obtained through a systematic search using keywords such as "FinTech education," "Bahrain," and "financial technology in higher education." Reports from government bodies and corporate press releases were also included to reflect recent developments.

3.4. Data Analysis

Quantitative survey data were analyzed using descriptive statistics and correlation analysis to assess internal consistency and examine key relationships. A Cronbach's alpha test was used to determine the reliability of multi-item scales. In parallel, thematic analysis was applied to open-ended survey responses and key secondary documents to identify recurring patterns related to regulatory challenges, curriculum-industry gaps, and technological infrastructure. This hybrid analytical approach enabled a comprehensive understanding of the multi-layered educational landscape surrounding FinTech in Bahrain.

4. Results

4.1. Descriptive Statistics

This section presents the demographic profile of respondents and their perceptions of FinTech education in Bahrain, based on data collected from 200 participants.

Table 1: Respondents' age distribution

Age Group	Frequency	Percentage (%)
20−29 years	60	30.0
30−39 years	56	28.0
40−49 years	24	12.0
50−59 years	21	10.5
60 and above	39	19.5
Total	**200**	**100.0**

The age distribution in Table 1 shows that 58% of respondents are under 40, representing a demographic likely to be more engaged with technological innovation. Conversely, nearly 20% are aged 60 or above, highlighting a potential need for lifelong learning initiatives to support older professionals in adapting to FinTech developments. This widened the Fintech skills gap in the industry (AlSuwaidi & Mertzanis, 2024)

Table 2: Gender distribution

Gender	Frequency	Percentage (%)
Male	122	61.0
Female	78	39.0
Total	**200**	**100.0**

The sample is predominantly male (61%) as shown in Table 2, which mirrors broader gender disparities observed within the FinTech sector. This imbalance may suggest differential access to FinTech-related educational and career opportunities.

Table 3: FinTech experience

Experience Level	Frequency	Percentage (%)
< 1 year	91	45.5
1–3 years	50	25.0
4–6 years	18	9.0
7–10 years	18	9.0
> 10 years	23	11.5
Total	**200**	**100.0**

Table 3 shows that more than 70% of respondents have three years or less of experience in the FinTech sector. This concentration of early-career professionals underscores the importance of practical training, mentoring, and professional development pathways to accelerate industry readiness.

4.2. Perceptions of FinTech Education

This subsection reports on key stakeholder perceptions related to curriculum relevance, graduate preparedness, and education-industry alignment.

Table 4: Perception of graduate preparedness

Response	Frequency	Percentage (%)
Strongly agree	114	57.0
Agree	28	14.0
Neutral	24	12.0
Disagree	8	4.0
Strongly disagree	26	13.0
Total	**200**	**100.0**

The findings in Table 4 reveal that 71% of respondents believe FinTech graduates in Bahrain are well-prepared for industry roles. This aligns with the

view that educational institutions have incorporated relevant FinTech content into their programs (Sung et al., 2019; Reyad & Alsayed, 2022). However, the 17% of respondents who disagreed or strongly disagreed indicate residual concerns about the adequacy of hands-on training and exposure to real-world applications (Meero, Rahiman & Rahman, 2020). These discrepancies suggest a need for further enhancement of practical components within curricula to ensure alignment with employer expectations.

Table 5: Perceived education-industry gap

Response	Frequency	Percentage (%)
Strongly agree	94	47.0
Agree	52	26.0
Neutral	18	9.0
Disagree	18	9.0
Strongly disagree	18	9.0
Total	**200**	**100.0**

According to Table 5, approximately 73% of respondents strongly agreed or agreed that a significant skills gap exists between FinTech education and industry needs in Bahrain. This perception highlights a persistent disconnect between academic instruction and practical skills required in the workplace (Albastaki et al., 2020; Al Rahma & Al-Alawi, 2023). The findings support calls for increased collaboration with industry to ensure that educational programs are not only current but also applied in nature. These gaps likely stem from limited experiential learning, outdated regulatory education, or lack of project-based training.

Table 6: Perception of the education system's ability to bridge the theory–practice gap

Response	Frequency	Percentage (%)
Strongly agree	104	52.0
Agree	48	24.0
Neutral	12	6.0
Disagree	26	13.0
Strongly disagree	10	5.0
Total	**200**	**100.0**

As shown in Table 6, with 76% of respondents agreeing that Bahrain's education system is addressing the theory–practice gap, there is an encouraging signal that academic institutions are moving in the right direction. However, the 18% who disagreed still highlight the need for deeper industry integration through internships, mentorships, and simulations (Hamzah, 2020). The positive majority indicates momentum, but more structured engagement is needed to ensure sustainability and broader coverage across institutions.

Table 7: Curriculum providing the necessary skills

Response	Frequency	Percentage (%)
Strongly agree	87	43.5
Agree	77	38.5
Neutral	12	6.0
Disagree	10	5.0
Strongly disagree	14	7.0
Total	**200**	**100.0**

In Table 7, a strong 82% of respondents perceived that Bahrain's FinTech curricula include the skills needed in the job market, validating the efforts of universities to modernize course content (Musleh Alsartawi, 2024). However, the 12% who expressed disagreement reveal that some areas remain underdeveloped, possibly including data analytics, cybersecurity, or regulatory compliance. As curriculum development is dynamic, continued feedback loops from industry can help close these residual gaps.

Table 7: Curriculum covering industry trends and technologies

Response	Frequency	Percentage (%)
Strongly agree	106	53.0
Agree	52	26.0
Neutral	34	17.0
Strongly disagree	8	4.0
Total	**200**	**100.0**

The results in Table 7 show that 79% of respondents agreed that FinTech courses cover current industry trends such as blockchain, AI, and digital payments. This reinforces claims in the literature that Bahrain is actively aligning its educational offerings with global FinTech standards (Badwan & Awad, 2022). Nonetheless, 17% remained neutral and 4% disagreed, suggesting that some institutions or programs may be lagging in fully integrating the latest technologies or updating their syllabi frequently.

Table 8: Alignment between education and industry needs

Response	Frequency	Percentage (%)
Strongly agree	109	54.5
Agree	60	30.0
Neutral	27	13.5
Strongly disagree	4	2.0
Total	**200**	**100.0**

In Table 8, approximately 84.5% of respondents believe that what is taught aligns with what is needed in industry, which is a positive indicator of curriculum relevance. This suggests success in embedding core competencies such as digital finance, API usage, and RegTech (Ajouz et al., 2023). However, the 13.5% neutral and 2% negative responses imply that not all programs are equally effective, indicating potential inconsistencies in delivery or institutional readiness.

In Table 9, although 54% agreed that FinTech companies collaborate with universities on curriculum design, the high neutrality (39%) and 7% disagreement suggest inconsistency across institutions. Some partnerships may be more formalized and impactful than others (Hazarika et al., 2024). To improve alignment, collaboration should move beyond guest lectures toward sustained co-design of modules and shared infrastructure.

Table 9: Collaboration between FinTech companies and educational institutions

Response	Frequency	Percentage (%)
Strongly agree	77	38.5
Agree	31	15.5
Neutral	78	39.0
Strongly disagree	14	7.0
Total	**200**	**100.0**

Table 11: Satisfaction with internship and placement opportunities

Response	Frequency	Percentage (%)
Agree	68	34.0
Neutral	82	41.0
Strongly disagree	50	25.0
Total	**200**	**100.0**

Only 34% of respondents in Table 11 were satisfied with internship opportunities, with 41% neutral and 25% strongly disagreeing. This reinforces previous concerns about insufficient practical exposure in FinTech education (Alghatam, 2021). The lack of structured internship pathways continues to hinder students' transition from theory to application. Institutions must institutionalize credit-based placements and collaborate closely with industry for on-the-job learning.

Table 12: Engagement with industry for guest lectures/projects

Response	Frequency	Percentage (%)
Strongly agree	73	36.5
Agree	58	29.0
Neutral	52	26.0
Strongly disagree	17	8.5
Total	**200**	**100.0**

Roughly 65.5% of respondents in Table 12 observed that educational institutions involve FinTech professionals in lectures and projects. This engagement plays a vital role in translating academic content into real-world knowledge (Albelal, Hamdan & Binsaddig, 2024). However, with 26% neutral and 8.5% negative responses, there remains room for greater consistency and depth. Institutions should formalize these interactions to ensure sustained, impactful engagement.

Table 13: Access to latest FinTech tools

Response	Frequency	Percentage (%)
Strongly agree	108	54.0
Agree	60	30.0
Neutral	8	4.0
Strongly disagree	24	12.0
Total	**200**	**100.0**

A combined 84% of respondents (Table 13) believe students have access to industry-relevant tools. This reflects well on institutional investments in technology and their efforts to stay aligned with industry (Glavina, Aidrus & Trusova, 2021). However, the 12% who disagreed indicate some disparity in access—likely due to differences in funding or prioritization across institutions.

Table 14: Training on cutting-edge technologies

Response	Frequency	Percentage (%)
Strongly agree	98	49.0
Strongly disagree	102	51.0
Total	**200**	**100.0**

Table 14 presents a clear split: 49% strongly agreed, while 51% strongly disagreed that FinTech students are trained on the most advanced technologies. This polarization underscores a critical inconsistency in educational delivery across Bahrain (Al Rubaiai & Pria, 2022). It suggests some institutions may lack updated resources, faculty training, or partnerships, leading to uneven technological preparedness among graduates.

Table 15: Classroom technology reflecting industry needs

Response	Frequency	Percentage (%)
Strongly agree	97	48.5
Neutral	10	5.0
Disagree	13	6.5
Strongly disagree	80	40.0
Total	**200**	**100.0**

While 48.5% of respondents strongly agreed that classroom technologies reflect sector needs, 40% strongly disagreed. This reinforces a significant divide in the perceived relevance of educational technologies (Khan & Al-harby, 2022). It points to a core challenge: introducing tools without context or hands-on application may lead to a perceived or real disconnect between classroom learning and real-world practices.

4.3. Reliability Analysis

The Cronbach's alpha value of 0.875 indicates a high level of internal consistency among survey items, confirming the reliability of the instrument used to assess perceptions of FinTech education (Table 16).

Table 16: Internal consistency of survey items

Statistic	Value
Cronbach's Alpha	0.875
Number of Items	12

4.4.   Correlation Analysis

To examine relationships among key constructs, Pearson correlation analysis was conducted in Table 17.

Table 17: Pearson correlation

Variables	(1)	(2)	(3)	(4)
(1) Graduates are well-prepared	1	-.116	.216	-.033
(2) Courses cover latest industry trends	-.116	1	-.264	.417
(3) Classroom technologies reflect industry needs	.216	-.264	1	-.227
(4) Companies collaborate with institutions	-.033	.417	-.227	1

Note: $p < .01$ for all bolded correlations.

Key insights include a modest but significant positive correlation between perceptions of graduate readiness and classroom technology use ($r = .216$), suggesting that exposure to modern tools supports student preparedness. A strong positive relationship between course relevance and company collaboration ($r = .417$), indicating that industry engagement helps shape relevant curricula. A negative correlation between classroom technology and curriculum relevance ($r = -.264$), which may reflect poor alignment between tools introduced in class and those used in practice.

4.5.   Interpretation of Findings

The findings of this study present a multidimensional perspective on the current state of FinTech education in Bahrain. On the surface, survey responses suggest an encouraging level of graduate preparedness, with 71% of participants affirming that students are generally equipped to enter the FinTech workforce. This positive perception aligns with recent curricular reforms aimed at incorporating emerging topics such as blockchain, digital payments, and open banking (Sung et al., 2019; Reyad & Alsayed, 2022).

However, a more critical reading of the data reveals persistent gaps that compromise the full alignment between educational outputs and industry expectations. Notably, 73% of respondents acknowledged a significant skills gap between what is taught and what employers require—highlighting a paradox where curricular relevance coexists with inadequate practical readiness. This finding echoes earlier concerns in the literature that surface-level curricular updates may not translate into meaningful industry alignment if experiential learning is lacking (Albastaki et al., 2020; Doherty & Stephens, 2023; Abdeldayem & Al Dulaimi, 2020).

Further elaborating on this paradox, 82% of respondents agreed that the curriculum provides necessary skills, yet only 54.5% believed there is a clear

alignment between educational content and job requirements. This discrepancy suggests variation in how institutions implement FinTech curricula—some offering well-integrated, industry-relevant content, while others lag in keeping pace with market demands (Ali et al., 2019). While institutions may include trending topics in syllabi, practical delivery methods and industry engagement often fall short.

In terms of technological integration, 84% of respondents reported access to industry tools and platforms within their institutions. Yet a closer look reveals a stark divide in perceptions about the effectiveness of that access: only 49% agreed that students are trained on cutting-edge technologies, while 51% strongly disagreed. This split underlines inconsistencies in resource availability, faculty expertise, or applied training across institutions (Al Rubaiai & Pria, 2022).

Additionally, 48.5% of respondents strongly agreed that the technologies used in classrooms reflect sector needs, but 40% strongly disagreed—suggesting that tool availability alone is insufficient. This finding reinforces the notion that true alignment requires contextual integration and hands-on application rather than passive exposure (Hamzah, 2020; Alghatam, 2021). Schunk and DiBenedetto's (2020) Social Cognitive Theory further supports this, emphasizing the importance of modeling, interaction, and iterative feedback for deep learning.

Correlation analysis provided empirical support for these themes. A significant positive relationship was observed between course relevance and institutional collaboration with industry ($r = 0.417$, $p < .01$), reinforcing the literature's emphasis on partnerships in shaping responsive and applied curricula (Traif et al., 2021; Al Rahma & Al-Alawi, 2023). Yet while 54% of respondents believed FinTech companies collaborate with universities, 39% were neutral—suggesting that collaboration is present but unevenly distributed across the sector (Hazarika et al., 2024).

Practical learning opportunities remain one of the most urgent areas for reform. Only 34% of respondents were satisfied with internship and placement opportunities, with 41% neutral and 25% strongly disagreeing. This signals that while academic content may be improving, insufficient exposure to real-world FinTech environments continues to hinder student readiness (Alghatam, 2021; Musleh Alsartawi, 2024). Formalizing internships, mentorship programs, and live industry projects could directly address this concern.

On a more optimistic note, 76% of respondents agreed that Bahrain's education system is beginning to close the theory–practice gap, and 79% agreed that FinTech courses cover the latest technologies and trends (Badwan & Awad, 2022). Moreover, a strong 84.5% believed there is alignment between academic content and industry needs, indicating that progress has been made in content modernization and institutional responsiveness (Ajouz et al., 2023). Still, the neutral and dissenting voices reflect disparities in implementation, infrastructure, or engagement.

The role of industry professionals in shaping education was another area with promising but uneven performance. While 65.5% agreed that guest lectures and collaborative projects are in place, the remaining respondents were either

neutral or disagreed, highlighting the need to broaden and institutionalize these forms of engagement (Albelal, Hamdan & Binsaddig, 2024).

In summary, while Bahrain's FinTech education ecosystem has made commendable strides in curricular relevance, technological access, and industry alignment, the findings clearly demonstrate that challenges remain—particularly in areas related to experiential learning, technological consistency, and structured collaboration. Bridging these gaps will require a strategic and sustained approach that incorporates feedback mechanisms, formal partnerships, and modular, practice-driven educational models. This shift is essential to ensure that Bahrain's graduates are not only theoretically proficient but also equipped with the adaptive skills necessary to thrive in a dynamic, technology-driven financial sector.

5. Conclusion

This study examined the extent to which FinTech education in Bahrain aligns with the competencies demanded by the FinTech sector. The findings indicate that while Bahrain's educational institutions have made commendable efforts to embed FinTech-related content into their curricula, critical gaps remain, particularly in the areas of practical training, technological exposure, and sustained collaboration with the industry. The research highlighted that many academic programs have succeeded in integrating contemporary topics such as blockchain and digital payments. However, this theoretical alignment has not consistently translated into industry readiness, as graduates often lack proficiency with the tools and platforms currently in use across the sector.

One of the most significant challenges identified is the limited application of advanced FinTech technologies in classroom environments. Despite some institutions incorporating modern tools, inconsistencies in access and pedagogical integration persist, leaving students underprepared for the technological demands of the workplace. Furthermore, partnerships between educational institutions and FinTech companies are still largely informal or occasional. While guest lectures and curriculum consultations occur, they are not sufficiently robust or frequent to close the experiential gap.

The study also noted a shared willingness among educators and industry leaders to strengthen the connection between academia and practice. Institutional leaders recognize the urgency of curriculum reform, while FinTech practitioners are open to contributing more substantively to educational development. This mutual readiness presents an opportunity to develop a more integrated ecosystem that equips students with both theoretical knowledge and applied skills.

In addressing the stated objectives, the research effectively assessed the current FinTech education landscape in Bahrain, identified strengths and weaknesses in existing programs, evaluated the alignment between curricula and market needs, and proposed targeted recommendations for improvement. These recommendations include revising curricula to reflect emerging technologies, increasing investment in educational infrastructure, and formalizing partnerships between academia and industry to offer structured internships, project-based learning, and continuous curriculum updates.

The findings also underscore a critical paradox: while stakeholders recognize that FinTech programs incorporate relevant content, the lack of consistent, experiential application means students often fall short of being truly industry-ready. This skills mismatch—where perceived curriculum relevance coexists with practical unpreparedness—remains a central issue that Bahrain must address to sustain its competitiveness in the digital economy. Moreover, variation in program quality and engagement levels across institutions suggests the need for national-level coordination. Greater standardization, benchmarking, and policy oversight may help ensure that all institutions—not just leading universities—are able to deliver industry-aligned, technologically current, and pedagogically effective FinTech education.

In terms of future inquiry, this study recommends tracking the long-term career outcomes of FinTech graduates in Bahrain to assess the sustained impact of education on employability. Comparative studies with leading FinTech hubs such as Singapore and the United Kingdom could provide insights into best practices and scalable models. Further research should also explore how quickly institutions adapt their teaching to rapid technological advances, and how flexible, modular learning approaches could be integrated into Bahrain's FinTech curricula to enhance responsiveness.

In conclusion, while Bahrain has made meaningful progress in aligning its FinTech education system with industry developments, significant improvements are still required in bridging the gap between theory and practice. A strategic, collaborative, and agile approach involving educators, policymakers, and industry leaders will be crucial to ensuring that graduates are adequately equipped to thrive in Bahrain's growing and globally competitive FinTech sector—thereby contributing to broader national goals of digital transformation and knowledge-based economic development.

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