

Bridging the Gap: Human Resource Management-Driven Curriculum Innovation for Sustainable Employability in the Gig Economy- A Case Study of Public Universities in Bahrain

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Abstract: Objective: This research studies the role of Human Resource Management (HRM) practices in higher education institutions (HEIs) in closing the gap between the employability skills of graduating management students and those required by the current gig economy. This research looks at the management curricula, the integrative role of adjunct faculty as industry linkers, and the impact of HRM flexible curricula on the creation of a sustainable solution to workforce readiness. **Methodology:** A qualitative case study approach was adopted based on semi-structured interviews of ten participants (adjunct faculty, full-time faculty, program coordinators, and a career counselor) from two public universities in Bahrain (the University of Bahrain and Bahrain Polytechnic). Evidence was triangulated from the HRM curricula through a review of 350 course outlines, institutional policy documents, and national strategic documents (including Bahrain Vision 2030). Thematic analysis along with HRM Integration Curriculum Mapping was used to identify gaps in competencies. **Key Findings:** Measurable integration of self-directed and independent learning competencies was found in both institutions, with Bahrain Polytechnic recording a higher degree of gig-related skills embedded in the curricula (75%) compared to the University of Bahrain (65%). The adjunct faculty are the key knowledge brokers between industry and academia; however, their participation in formal governance of the curricula is limited. Institutional inflexibility, centralization of academic policies, and inadequate alignment of HRM systems consistently hamper the design of curricula aimed at the gig economy's needs. **Conclusions:** National policymakers, HRM units, and universities should establish adjunct faculty roles in curriculum governance and flexible, competency-based learning outcomes that correspond to freelancing and digital platform-based work, as well as formal university-industry partnerships. Universities should also embed project-based learning, digital portfolios, and micro-credentialing as ways of improving graduate readiness for atypical employment. **Recommendations:** This study frameworks unresponsive curriculum in relation to the gig economy with an empirical basis, an HRM focus, and a Gulf Cooperation Council (GCC) scope. Tertiary education systems in other developing economies that experience similar structural shifts in the labor market will benefit from the integrated, extended, and practical applications of this study, especially the combination of Human Capital Theory, Employability Theory, Institutional Theory, Strategic HRM, and the curricula responsiveness of the theories.

Keywords: gig economy; human resource management; sustainable employability; curriculum innovation; SDG 4; SDG 8.

تجسير الفجوة: الابتكار في المناهج الدراسية المدفوع بإدارة الموارد البشرية لتعزيز القابلية للمستدامة للتوظيف في اقتصاد العمل الحر — دراسة حالة الجامعات الحكومية في مملكة البحرين

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المخلص: الهدف: هدف هذه الدراسة إلى استكشاف الكيفية التي يمكن من خلالها لممارسات إدارة الموارد البشرية المدمجة داخل مؤسسات التعليم العالي أن تسهم في ردم فجوة مهارات التوظيف بين خريجي تخصصات الإدارة ومتطلبات اقتصاد العمل الحر المعاصر (Gig Economy). وتركز الدراسة بشكل خاص على تقييم فعالية المناهج الدراسية الإدارية، ودور أعضاء هيئة التدريس غير المتفرغين كحلقة وصل بين الجامعة وسوق العمل، ومدى إسهام تصميم المناهج المستند إلى مبادئ إدارة الموارد البشرية في تعزيز جاهزية الخريجين للمستدامة للانخراط في سوق العمل. **المنهجية:** اعتمدت الدراسة منهج دراسة الحالة النوعية، حيث تم إجراء مقابلات شبه منظمة مع عشرة من أصحاب المصلحة شملت أعضاء هيئة تدريس غير متفرغين، وأعضاء هيئة تدريس متفرغين، ومنسقي برامج أكاديمية، وممثلاً عن وحدة التطوير المهني، وذلك في جامعتين حكوميتين بمملكة البحرين هما: جامعة البحرين وبوليتكنك البحرين. كما تم إجراء تحليل وثائقي لـ 350 توصيفاً للمقررات الدراسية، بالإضافة إلى وثائق السياسات المؤسسية والوثائق الاستراتيجية الوطنية، بما في ذلك رؤية البحرين الاقتصادية 2030، بهدف تعزيز مصداقية النتائج من خلال التحقق المتبادل للبيانات. وتم استخدام التحليل الموضوعي (Thematic Analysis) ورسم خرائط المناهج الدراسية بصورة منهجية لتحديد فجوات الكفاءات وأنماط دمج ممارسات إدارة الموارد البشرية في العملية التعليمية. **النتائج:** أظهرت النتائج أن المؤسستين الأكاديميتين تدمجان مهارات التعلم المستقل بدرجات متفاوتة ولكن قابلة للقياس، حيث سجلت بوليتكنك البحرين معدلاً أعلى في تضمين المهارات المرتبطة باقتصاد العمل الحر بنسبة (75%) مقارنة بـ جامعة البحرين التي بلغت (65%). كما تبين أن أعضاء هيئة التدريس غير المتفرغين يؤدون دوراً محورياً كوسطاء معرفيين بين الصناعة والأوساط الأكاديمية، إلا أن مشاركتهم في الحوكمة الرسمية للمناهج الدراسية ما تزال محدودة من الناحية الهيكلية. كذلك كشفت الدراسة أن الجمود المؤسسي، وأطر السياسات الأكاديمية المركزية، وضعف موازنة ممارسات إدارة الموارد البشرية مع احتياجات سوق العمل تمثل عوامل رئيسية تحد من قدرة المناهج الدراسية على الاستجابة لمتطلبات اقتصاد العمل الحر. **الاستنتاجات:** توصي الدراسة الجامعات ووحدات إدارة الموارد البشرية وصناع السياسات الوطنية بضرورة إضفاء الطابع المؤسسي على مشاركة أعضاء هيئة التدريس غير المتفرغين في حوكمة المناهج الدراسية، واعتماد مخرجات تعلم قائمة على الكفاءات تتوافق مع متطلبات العمل الحر والعمل عبر المنصات الرقمية، إضافة إلى إنشاء شراكات استراتيجية ومنظمة بين الجامعات وقطاعات الأعمال. كما أن دمج التعلم القائم على المشاريع، والمحافظة الرقمية المهنية (Digital Portfolios)، وبرامج الشهادات المصغرة (Micro-Credentials) من شأنه أن يعزز بشكل ملموس جاهزية الخريجين للانخراط في أنماط التوظيف غير التقليدية. **التوصيات:** تقدم هذه الدراسة إطاراً تحليلياً قائماً على الأدلة التجريبية ويرتكز على إدارة الموارد البشرية لفهم أسباب ضعف استجابة المناهج الدراسية لمتطلبات اقتصاد العمل الحر في سياق دول مجلس التعاون الخليجي. كما توسع النماذج النظرية القائمة من خلال دمج نظرية رأس المال البشري، ونظرية القابلية للتوظيف، والنظرية المؤسسية، والإدارة الاستراتيجية للموارد البشرية ضمن منظور تحليلي متكامل، فضلاً عن تقديم مجموعة من التوصيات العملية القابلة للتطبيق في الاقتصادات الناشئة التي تشهد تحولات هيكلية مماثلة في أسواق العمل.

الكلمات المفتاحية: اقتصاد العمل الحر؛ إدارة الموارد البشرية؛ قابلية التوظيف المستدامة؛ ابتكار المناهج الدراسية؛ الهدف الرابع من أهداف التنمية المستدامة؛ الهدف الثامن من أهداف التنمية المستدامة

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Introduction

The rise of the so-called "gig economy" across the world is defined by platform-based, task-oriented jobs and is causing a permanent global restructuring of labor markets which disrupts the traditional dominance of full-time jobs. In 2020, gig economy freelancing in the U.S. generated more than \$1.2 trillion, and in India, more than 30% of the workforce and 1.25% of the national GDP engaged in non-agricultural work in the gig economy (Kumar, 2023). In Bahrain, ride-hailing and food delivery, alongside other digital platforms, have quickly integrated gig work into the emerging Bahraini labor market (Zervas & Stiakakis, 2024). Rapid disruption of technologies and preferences of flexible work compel a structural shift and a critical examination of the gaps and disconnects of existing higher education systems, structures, and curricula, and the preparedness of graduates for sustainable employability.

The gig economy also requires a new, specialized skill set. Continuous adaptability, self-management, and digital skills and the ability to learn independently are valued more highly than discipline-informed knowledge, which is lower in the hierarchy of skills, in the context of conventional employment (Friedman, 2014; Herrmann et al., 2023). As Ashford et al. (2018) point out, gig economy work relies mostly on the ability to thrive in unpredictable, client-oriented environments, and advanced skills such as the ability to think and act and be prepared to learn and relearn new skills. However, there is ample evidence that higher education remains, overall, unresponsive to the rapidly shifting and new demands of the gig economy (Herrmann et al., 2023; Kassim et al., 2020).

Bahrain is a particularly interesting case for studying this problem. Bahrain has developed its own national framework called Vision 2030, which provides a plan on how to diversify the economy and move away from Bahrain's dependence on the hydrocarbons. Vision 2030 has brought more investment in higher education and expansion of the digital

infrastructure (Government of Bahrain, 2008). However, there is little empirical research on the ways that higher education institutions in Bahrain align their curriculum frameworks and Human Resource Management (HRM) practices to the gig-based economy. Public universities in Bahrain run the risk of creating a skill-set mismatch to the gig economy, which defeats the goals of Bahrain's Vision 2030.

HRM practices in higher education institutions (HEIs) involve labor market responsive curriculum, recruitment of faculty, and formation of labor market linkages. They are especially important for operationalizing labor market responsiveness in education. Mouazen and Hernández-Lara (2023) and Arthur-Mensah (2020) argue that the labor market responsiveness of HEIs is highly dependent on the incorporation of adjunct faculty, flexible design of instructional systems, and development of a competency-based curriculum. Faculty from adjunct ranks are very important because they bring contemporary practices from the workplace into the education sector. However, the way adjunct faculty are treated in institutions limits the degree and impact of their contributions (Nelson et al., 2020).

Given this context, this study seeks to answer the following questions:

- RQ1: How do Bahrain's public universities' management programs prepare graduates to enter the gig economy?
- RQ2: How do HRM practices, especially the use of adjuncts, limit or support the inclusion of industry relevant skills in university curricula?
- RQ3: In what ways do non-full-time, industry-based faculty influence the curricular design related to the employment of graduates in the gig economy?

This study examines the University of Bahrain and Bahrain Polytechnic as part of a qualitative case study design. These two institutions both

exist within the same national regulatory structure but have different methods regarding curriculum governance and industry engagement. There is a meaningful comparative difference between the two institutions. This difference is used to identify lessons that can be applied to other institutions as well as the specific constraints faced by the two institutions regarding HRM-driven curriculum reform. In Section 2, pertinent theoretical and empirical literature is assessed. Sections 3 and 4 explain the theoretical framework and the conceptual model, respectively. Section 5 describes the methodology. Sections 6 and 7 report the findings and offer a critical discussion, respectively. Finally, Section 8 provides conclusions and outlines further research.

Literature Review

The Gig Economy: Global and Regional Dimensions

The labor markets of both developing and developed nations have been impacted by an economy based on temporary, task-based, and platform-mediated employment. It is estimated that between 15% and 30% of people in the USA and the European Union are involved in some type of contingent employment or freelance work (Kässi & Lehdonvirta, 2024; Wood et al., 2019). It has been suggested by some researchers that, although workers in the gig economy attain some level of autonomy and control over the hours they work, the gig economy causes income instability, reduces access to social protections, and uses algorithms to impose a type of management that creates new types of labour precarity (Wood et al., 2019).

At the regional level, Abdeldayem et al. (2023) suggest that the economies of the Gulf Cooperation Council (GCC) and particularly Bahrain, have included gig platforms such as Talabat and Careem, as well as many digital service providers, in their formal strategies to

diversify the national economy. Leading researchers in the MENA region have identified that the improvements in digital infrastructure along with the government's entrepreneurial policy measures, have increased the levels of gig employment, particularly amongst the youth (Boustani, 2023; Elshaiekh et al., 2024). However, as Bodescu et al. (2024) and Andino-González et al. (2024) indicate, the degree to which graduates from regional institutions can participate and work within the gig economy is limited by the educational systems that focus on traditional employment signals in preference to freelance work skills.

Higher Education and the Gig Economy: An Emerging Misalignment

There is increasing recognition of a structural disconnect between HEI cultivated competencies and those sought by gig-economy employers and clients. Herrmann et al. (2023) suggest that the education-income paradigm, where formal schooling and qualification culminate in stable employment opportunities, is being disrupted by platform work. In such work, demonstrable skills, evidence of work through portfolios and networks, supersede what is achieved through formal schooling. Aucejo et al. (2024) argue that graduates are left to meet the competing demands of app-based work while formal schooling and curricula are largely ineffective in addressing this challenge.

To participate in the gig economy, competencies such as self-directed learning, digital literacy, platform fluency, an entrepreneurial mindset, self-management, client communication, and a higher tolerance for risk are required (Mohammed & Ozdamli, 2024). Kassim et al. (2020) studied higher education in Malaysia and, despite a professed commitment to enhancing employability, found that the formal integration of these competencies into degree programs was inconsistent and without structure. Similar

phenomena have been seen in Arab universities where innovation and soft skills are taught in isolation with no formal structures of integration (Andino-González et al., 2024).

HRM Practices in Higher Education: Bridging the Skills Gap

The application of HRM frameworks in HEIs as a means for addressing the gig economy skills gap has been the subject of scant research. Strategic HRM as suggested by Mouazen and Hernández-Lara (2023) and Arthur-Mensah (2020), including the management of faculty recruitment grounded on competencies, deliberate faculty development, management of partnerships with the industries, and review of the curriculum in light of faculty performance, can be considered as an important, but underrated, factor of institutional responsiveness. Alignment of HRM and curriculum design goals enables universities to hire adjunct faculty who bring practical experience to the classroom, and to collaborate with tenure-track faculty, which in turn helps to enhance the relevance of academic curricula to the market.

Nelson et al. (2020) discuss how adjunct faculty (the academic gig workers) are a valuable, systematic, and largely untapped source of gig economy knowledge. Since adjunct faculty are gig workers, their employment conditions are precarious. This usually means that adjunct faculty can't participate in curriculum or faculty development (the bond that curricula and faculty development form) or in the planning and development of the institution. This further limit the knowledge faculty can transfer from their industry. Khattri (2023) and Mishra et al. (2019) suggest that adjunct faculty should participate in curriculum councils and be

adjunct faculty mentors. They believe that this would improve the responsiveness of curricula and would be a more effective use of resources than a complete redesign of curricula.

Bahrain's Higher Education System and Gig Economy Policy Context

Bahrain's Higher Education System is shaped by the Higher Education Council and Bahrain's Vision 2030. Developing the Knowledge Economy and Bahrain's youth increases the employability of Bahraini youth and provides a formal policy justification for Human Resource Management-Business Education curriculum innovations. Hammad (2021) emphasizes that Bahraini universities should strengthen their students' sustainable participation in the gig economy. This requires them to focus on developing students' entrepreneurship, digital skills, flexible mindsets, and lifelong learning. Bahraini universities' participation in this agenda would strengthen Bahrain's commitment to the United Nations' Sustainable Development Goals, particularly Goals 4 and 8.

Even with the supportive policies, Abdeldayem et al. (2023) express concern that there are still rigid constraints in most of Bahrain's public universities that limit their ability to quickly modify their curriculums. The combination of centralized accreditation, legacy of certain teaching styles, and lack of resources slow down public universities' ability to design curriculums that respond quickly to the needs of the market and the gig economy. This study aims to empirically document these constraints and provide recommendations for institutional and policy changes based on the evidence gathered.

Summary of Previous Studies

Table 1 provides a structured synthesis of key prior studies informing this research.

Table 1: Summary of Key Previous Studies

Author(s) & Year	Context	Methodology	Key Findings	Research Gap Identified
Herrmann et al. (2023)	Global / Europe	Conceptual analysis	Gig economy challenges the education–income paradigm; HEIs slow to adapt	Lacks empirical testing in GCC/MENA contexts
Kassim et al. (2020)	Malaysia	Case study	Gig economy skills embedded sporadically; no systematic framework	No HRM-specific analysis; non-GCC context
Arthur-Mensah (2020)	United States	Conceptual review	HRM integration is vital for closing industry–education gap	Does not address adjunct faculty governance in non-Western settings
Nelson et al. (2020)	United States	Survey	Adjunct faculty report high gig knowledge but low institutional influence	Lacks curriculum mapping; does not examine GCC universities
Abdeldayem et al. (2023)	Bahrain / GCC	Case study	Gig economy expanding in GCC; HEIs insufficiently aligned	Does not examine HRM practices or curriculum governance in depth
Andino-González et al. (2024)	Latin America	Quantitative survey	Managerial soft skills enhance graduate employability	Non-GCC; does not examine HRM-curriculum linkage
Elshaiekh et al. (2024)	Oman (GCC)	Mixed methods	Knowledge economy skills inadequately addressed in curricula	Focus on knowledge economy broadly; not gig-specific HRM

Theoretical Framework

The study utilizes Human Capital Theory, Employability Theory, Institutional Theory, and Strategic Human Resource Management (SHRM) to establish an integrated, multi-level theoretical framework. Competency development occurs at an individual level, while the governance of institutional curricula and labor market transformations operate at the macro level. This framework captures the breadth of the phenomenon being investigated.

Becker's Human Capital Theory (1964) suggests that the time and resources devoted to education and training produce skills that enhance an individual's economic productivity. Gig economy workers do not have the same opportunities to grow their human capital as workers in other economies. Supplementing formal education with self-discipline and self-directed learning is not sufficient for gig economy workers. Gig economy workers must

invest in skills that endure market volatility and can be leveraged across different projects and platforms. If Higher Education Institutions (HEIs) do not focus on developing such skills, their graduates enter the gig economy with human capital that is not useful.

Bridgstock (2009) and Yorke and Knight's (2007) Employability Theory adds to this framework by examining the different types of subject knowledge and self-management that allow individuals to gain and maintain satisfying employment. Of particular importance is that Bridgstock (2009) asserts that the enhancement of career management skills must be an intentional part of the curriculum, as most curricula do not include this. This framework is most pertinent to the study's evaluation of the extent to which Bahraini HEI programs cultivate the competencies that enable self-regulation and self-promotion.

DiMaggio and Powell's (1983) Institutional Theory offers a lens to analyze why

universities, as organizations, remain unchanged and unresponsive to rapid changes in the labor market. Isomorphic forces (e.g., normative requirements for accreditation, imitation of existing program structures, and coercive adherence to national education policy frameworks) limit the possibilities for institutional change. This framework notably applies to Bahrain, where path dependency on curriculum design is caused by the centralized governance of education and common frameworks for accreditation.

Combined with Strategic Human Resource Management (SHRM; Boxall & Purcell, 2011), this theory suggests that rather than viewing HRM as a peripheral concern, it should be conceptualized as the positioning of the most valuable asset of the institution, which is the people, in this case the faculty. SHRM, when used in the context of higher education, indicates that the articulation of part-time faculty, the construction of performance frameworks and the management of faculty/industry linkages are integrated elements of an institution's capacity to offer education that is applicable and responsive to employment.

Conceptual Framework

Based on the theoretical constructs discussed earlier, the current study offers an HRM-Driven Curriculum Responsiveness Model (HDCRM) related to gig economy employability. The model views curriculum responsiveness as associated with the interplay of three areas: (1) institutional HRM practices, (2) curriculum governance, and (3) signals from the external labor market.

In the first area, institutional HRM practices — including the recruitment and integration of adjunct faculty, the provision of faculty professional development, and the incorporation of performance considerations in curriculum reviews - serve as the primary means of embedding industry knowledge in the formal curriculum. The practices' strategic quality

affects both the breadth and currency of industry knowledge provided to curriculum designers.

In the second area, curriculum governance structures - such as the level of autonomy of academic departments, the regularity and inclusiveness of curriculum review, and formal industry advisory structures — define the extent to which curriculum practices and innovations are realized. Highly centralized governance structures, as described within Institutional Theory, limit the extent to which HRM practices are translated into curriculum outcomes.

In the third area, signals from the labor market - such as employer skill demand, gig-based work platform requirements, and national workforce strategies - provide benchmarks for evaluating the relevance of the curriculum. The HDCRM argues that the responsiveness of institutional HRM practices and curriculum governance structures, in relation to the signals, results in the sustainable employability of graduates and the appropriate educational outcomes.

The HDCRM is depicted in Figure 1 and shows the connection between practices of HRM, governance of curriculum, labor market signals, and the employability of graduates. The model's feedback loop is the iterative structure of responsiveness of the curriculum. The outcome of employment of graduates produces new signals for the next cycles of HRM and curriculum adjustments.

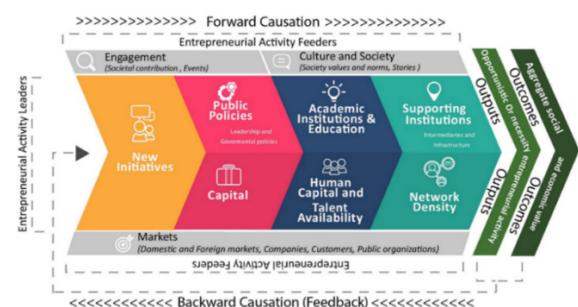


Figure 1: Proposed entrepreneurial ecosystem inputs model

Source: (Mouazen & Hernández-Lara, 2023).

Research Methodology

Research Philosophy and Design

This research takes an interpretivist approach and recognizes the relationship between HRM practices, curriculum design, and graduate employability as socially constructed and contextually bound. This relationship is not easily captured through a quantitative approach. A qualitative case study design (Merriam, 2009) was suited for this research to capture contextual details on the interplay of institutional structures and stakeholder perceptions on HRM practices.

The logic of replication design as described by Yin (2018) was adopted to create a comparative case study design that focuses on two public universities in the same country but has different governance and HRM structures.

Research Setting and Participants

In Bahrain, this study draws on research from both the University of Bahrain and Bahrain Polytechnic. Both institutions fall under the same governance framework in higher education and offer management programs.

In this study, purposeful sampling was used to identify and recruit ten people from different management and HR backgrounds involved in the design of gig-industry ready curricula. This sample was made up of adjunct faculty; full-time faculty; program coordinators and an office staff member. In this study, pseudonyms were used, and institutional identifiers were not used to protect respondents.

A purposive sampling strategy was employed to identify ten key informants whose roles positioned them as authoritative voices on curriculum design and gig economy alignment. The sample comprised four industry-affiliated adjunct lecturers, three full-time faculty members with curriculum design responsibilities, two academic program coordinators, and one career development office representative. Pseudonyms were assigned to all participants, and institutional

identifiers were managed with discretion to protect confidentiality.

Data Collection

Semi-Structured Interviews

Stakeholder perspectives were primarily captured through semi-structured interviews. The interviews had a protocol consisting of three thematic areas: (a) how adequately do you view the current curricula in responding to the demands of the gig economy? (b) where do you think adjunct faculty are positioned in the governance of a curricula? (c) what do you consider to be the main HRM-related barriers and facilitators for the innovation of the curricula? Each interview, which was typically conducted in person or via a secure video-conferencing platform based on the interviewee's preference, lasted between 45 to 60 minutes. All audio recordings of the interview sessions were done with consent and were subsequently transcribed

Document Analysis

For secondary data, a systematic review of 350 course outlines at the two institutions was conducted, along with other institutional policies, strategic plans, and national publications such as Bahrain Vision 2030. Relevant gig economy competencies were extracted from formal curricula as part of a content analysis of the documents evaluated. These gig economy competencies included self-directed learning, digital literacy, entrepreneurial orientation, and platform-based project management

Data Analysis

For both interview transcripts and content of the documents, data were subjected to reflexive thematic analysis (Braun & Clarke, 2019). From the research questions and the theoretical framework, the initial codebook was developed as a deduction. From this initial codebook, some of the themes articulated were 'curriculum responsiveness', 'adjunct faculty integration', and 'HRM-curriculum alignment'.

These themes were added inductively as they emerged from the data. 20% of the transcript corpus was coded by two researchers as a test of inter-coder reliability. The result of the test was an inter-coder reliability of 87%. The discrepancies in coding were resolved through discussion. A structured tool for assessing the magnitude of the skill gaps was developed through mapping of curricula, comparing program structures against the OECD Future of Work competency frameworks.

Validity, Reliability, and Ethical Considerations

Methodological triangulation was key to improving validity. This included interview data, the analysis of other documents, and the gathering of institutional statistics. Furthermore, empirical validity was achieved through the member checking, as participants were given the opportunity to review the summary of findings ascribed to them, as well as the expert review of the two academic program coordinators and three professionals from the field. Reliability was achieved through the employment of a standardized interview protocol, a clear coding framework, and thorough audit documentation.

Ethical clearance was granted from institutional authorities at both Universities before data collection commenced. Participants provided data after giving informed consent with the knowledge that they had the right to withdraw anytime and that it would not pose any adverse impact. Data was stored in encrypted devices. The data would be securely destroyed after the completion of the project. The research was done in compliance with the Declaration of Helsinki and in adherence to the national data protection laws

Results

Curriculum Coverage of Gig Economy Competencies

As part of the systematic curriculum mapping, an analysis of 350 course outlines from both institutions showed evidence of independent learning and gig-economy-related competencies in several courses offered by both institutions, albeit with wide variation. Table 2 captures the overall number of courses reviewed per institution and per academic discipline.

Table 2: *Overview of Curriculum Document Analysis*

University	Total Courses Reviewed	Disciplines Covered
University of Bahrain	200	STEM, Business, Humanities, Social Sciences
Bahrain Polytechnic	150	ICT, Business, Engineering, Design
Total	350	—

Table 3 presents the aggregate proportion of courses integrating identifiable independent learning skills at each institution.

Table 3: *Presence of Independent Learning Skills in Curricula*

University	Courses with Independent Learning Skills (%)
University of Bahrain	65%
Bahrain Polytechnic	75%

Bahrain Polytechnic's applied-learning model, with an emphasis on its technical-vocational approach and project-based assessments, yielded higher integration rates aligning with its model. The lower rate of the University of Bahrain reflects its greater portfolio of humanities and social sciences, which contain more self-directed learning as an implicit element in course design, Table 4 disaggregates specific competency domains across the two institutions.

Table 4: *Breakdown of Independent Learning Competencies by Institution*

Competency Domain	University of Bahrain (%)	Bahrain Polytechnic (%)
Self-Motivation	45	55
Time Management	55	60
Research Skills	50	65
Critical Thinking	40	50
Reflection and Self-Assessment	35	45

Research skills and time management were the most consistently integrated competencies across the institutions examined, while competencies oriented towards self-assessment, reflection and entrepreneurship were the least consistently integrated. Variations by discipline are presented in Table 5.

Table 5: *Field-Specific Independent Learning Skill Integration*

Discipline	University of Bahrain	Bahrain Polytechnic
STEM / Engineering	Research-focused, self-directed laboratory tasks	Practical problem-solving; industry simulation projects
Business / Management	Case-study analysis; time management exercises	Industry-sponsored projects; client-facing assessment
Humanities / Design	Reflective essays; thematic critical analysis	Creative project management; portfolio development
ICT / Information Systems	Basic research and literature integration	Advanced independent project work; platform-based assessment

The Role of Adjunct Faculty in Curriculum Knowledge Transfer

All ten participants recognized that adjunct faculty have valuable industry-based experience. Faculty Coordinator A (University of Bahrain) stated:

"Tenured faculty cannot create client links or discover platforms that are recruiting because adjunct lecturers do. They are great translators, but unfortunately, they are offered no position when we create the courses they teach."

It illustrates a structural contradiction recognized across both case universities, where adjunct faculty have greater industry engagement but little authority to influence governance. The lack of any formal process, for instance, curriculum councils with adjunct faculty representation, knowledge-sharing forums, or co-creation workshops, blocks industry insights at the teaching level, inhibiting the incorporation of knowledge into the curriculum design.

Institutional Constraints on HRM-Curriculum Alignment. Institutional governance structures were mentioned most often by interviewees as a constraining factor. Program Coordinator B (Bahrain Polytechnic) explained, "We know what the gig economy demands. Our part-time faculty live it. But from that knowledge to the actual change of a module, that could take two academic years. The approval systems have no design for the changes we are challenged with."

This finding was similar across the two institutions, proving the Institutional Theory prediction, of centralized accreditation and approval systems, creating path dependencies that reduce responsiveness. Bahrain Polytechnic showed a little more internal responsiveness, likely due to the focus of its technical-vocational provision and its more developed industry advisory systems. The University of Bahrain's system-wide control of the program review process created even longer response times.

Discussion

Interpretation of Findings in Relation to Prior Literature

The results of this study largely agree with the existing literature that HEIs in the MENA region like in other emerging economies, have a structural gap in the alignment of their curriculum design with gig economy competency demands (Herrmann et al., 2023; Kassim et al., 2020). From an empirical point of view, Bahrain adds to this literature by showing that the gap is not merely a consequence of neglecting the curriculum, but of governance

structures that systemically exclude adjunct faculty who have the potential to resolve the gap.

The discovery that adjunct faculty act as knowledge brokers without governance authority relates to Nelson et al.'s (2020) U.S. higher education survey and translates their findings to the Gulf Cooperation Council while incorporating an institutional dimension. The systemic marginalization of adjunct faculty represents an 'HRM paradox' in higher education. Institutions employ gig workers to teach but construct governance frameworks that exclude those gig workers from participating in curriculum decisions where their knowledge and experience would be most helpful.

Theoretical Implications

The findings from this research offer evidence for the core assumption of the HDCRM, specifically that the responsiveness of curricula is a function of the quality of HRM practices and the degree of openness of curricular governance structures. The divergence between Bahrain Polytechnic and the University of Bahrain with respect to the rate of integration of competencies and the flexibility of governance structures is most likely due to Bahrain Polytechnic's relatively superior HRM practices, specifically the Polytechnic's enhanced governance flexibility and Industry Advisory Committee.

Furthermore, the research extends the application of Institutional Theory within higher education by showing that asymmetric isomorphic pressures operate across different institution types. Within higher education, comprehensive universities are characterized by a stronger mimetic and normative isomorphism (adherence to the conventional standards of the university) while technical-vocational institutions are dominated by coercive isomorphism, reflecting stronger pressures from the labor market. This isomorphic asymmetry has the potential to influence reform, indicating that

comprehensive universities may require more explicit external pressures to change their HRM and curricular governance practices.

Practical and HRM Implications

The practical implications of this research are organised across three levels: institutional, policy, and individual. At the institutional level, universities are encouraged to formalize the role of adjunct faculty within curriculum governance structures by establishing permanent governance advisory committees, creating formal mechanisms of governance and knowledge exchange between adjunct and permanent faculty, and developing and implementing frameworks for formal partnerships with industry. There should be a focus on competency mapping based on internationally endorsed frameworks in curricular redesign.

The Higher Education Council in Bahrain could change their evaluation methods to encourage universities to incorporate management skills relevant to the gig economy in their curriculums. This could include freelance management skills and advanced digital skills such as digital portfolio creation and platform literacy. Offering government scholarships to gig economy companies to hire foreign faculty members would help keep curriculum updated.

Students should be encouraged to seek online micro credential programs while pursuing their degrees. Universities should recognize these as part of the students' official academic record.

Sustainability and SDG Alignment

The proposed changes would have a positive impact on SDG 4 (Quality Education) and SDG 8 (Decent Work and Economic Growth) of the Sustainable Development Goals. The changes would improve the chance of employment of new graduates and help diversify the economy of Bahrain while supporting the regional goals of the other nations in the Gulf Cooperation Council (GCC)

Conclusion

This study has investigated the influence of HRM practices at two public universities in Bahrain, the University of Bahrain and Bahrain Polytechnic on how management curricula help graduates develop the skills required for sustainable careers in the gig economy. Using qualitative case-studies that incorporate semi-structured stakeholder interviews and systematic curriculum mapping for 350 course outlines, three key findings were identified.

First, both universities exhibit significant but inconsistent embedding of gig economy skills, with an applied-learning model in Bahrain Polytechnic resulting in higher rates of embedding independent learning skills. Second, adjunct faculty are an underused epistemic asset. Unlike full-time faculty whose industry expertise is incorporated within the structures of and governs the curriculum, adjunct faculty are subject to structural, but not necessarily intentional, exclusion. Third, a stratified, centralized model of institutional governance and isomorphic pressures are the main barriers to the responsiveness of curricula. These factors severely limit HRM practices and their ability to embed industry insights and educational innovations.

The study presents the HRM-Driven Curriculum Responsiveness model (HDCRM) which adds to the theory of and phenomena regarding the dynamics of responsiveness and provides a framework for the adaptation of systems and governance structures. Sustainable employability of graduates is the result of strategic HRM practices, inclusive governance of the curriculum, and a dynamic labor market. HDCRM provides a basis for the self-evaluation and focused improvement of an institution.

This research has its limitations. The qualitative, case-study approach restricts statistical generalizations to the two focused institutions, although this design fits the research aims. Though the sample of ten key

informants was intentionally selected for their expertise, it does not include students, a group whose self-evaluated readiness for gig work is a valuable additional data source. Research of this kind should incorporate extensive surveys of students, assessments of employer-side competencies, and graduate employment outcome studies to offer a fuller justification for HRM-based curriculum reform in higher education across the region of the GCC.

Declarations

Disclosure Statement: The authors declare no relevant or material financial interests related to the research described in this paper.

Ethical Approval and Consent to Participate: Ethical approval was obtained from the institutional authorities of both universities prior to data collection. Informed consent was secured from all participants. Data were stored securely and will be permanently deleted following completion of the study.

Availability of Data and Materials: The datasets used and/or analysed during the current study are available from the corresponding author upon reasonable request.

Author Contributions: All authors contributed to the conception and design of the study, data collection and analysis, interpretation of findings, and the writing and revision of the manuscript. All authors have read and approved the final version of the manuscript for publication.

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The authors expressly confirm that this study is not derived from, nor based on, any thesis or dissertation.

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