A PRELIMINARY STUDY ON GRADUATE EMPLOYABILITY AMONG ISLAMIC BANKING AND FINANCE GRADUATES: THE ROLE OF CAREEREDGE AND DIGITAL LITERACY

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ABSTRACT

Technology has significantly shifted modern workforce skills requirements. There has been growing concern in recent years about the underemployment situation in Malaysia, especially in the case of Islamic Banking and Finance (IBF) graduates who are employed in semi-skilled or clerical sectors despite their skills and qualifications. This divergence signifies a significant barrier to the nation's economic aspirations. However, while there have been numerous studies on the subject of employability, the area of digital transformation related to IBF graduates has not received sufficient attention. Guided by the CareerEDGE framework which conceptualises employability as a function of career development learning, experience, degree subject knowledge, generic skills, and emotional intelligence with the mediating factor of self-efficacy. A structured questionnaire was provided and a pilot study with 31 recent IBF graduates was conducted. Internal consistency across items was analysed using SPSS version 27. Reliability results indicate solid internal consistency, with Cronbach's Alpha values exceeding suggested thresholds. Discriminant validity and Pearson correlation analyses further confirm the construct stability and theoretically consistent associations. Although mediation testing is not performed due to the limited pilot sample, preliminary correlations suggest meaningful links between CareerEDGE predictors, digital literacy, and employability. These findings demonstrate that the measurement instrument is robust and ready for full-scale data collection, where structural modelling will be used to examine direct and indirect pathways, including the mediating role of self-efficacy.

Keywords: Graduate Employability, Digital Literacy, Emotional Intelligence, Self-Efficacy, CareerEDGE

1.0 INTRODUCTION

Employability is a measure of a person's ability to secure, maintain, and advance a career position (Hillage & Pollard, 1998). Accordingly, Yorke (2006) emphasises that employability is more than getting a job, because it consists of the skills, knowledge and characteristics developed that make the graduates competent to gain employment and also increase the likelihood of successful career success. In Malaysia, the country's forward journey to digital

economy has also changed the skills market needs in the labour market and graduates need to have digital and transferable skills to work in the field. Nevertheless, evidence suggests that higher academic qualifications do not always translate into improved job alignment. For example, studies in the hospitality sector indicate that employers often prioritise practical experience over formal qualifications (Malik & Saaidin, 2023). This highlights a broader issue of skills mismatch (Wei, 2025), which is also increasingly evident among Islamic banking and finance graduates

Bank Negara Malaysia (2022) highlighted digitalisation as one of the essential catalysts for economic transformation, fostering the adoption of these competencies in Islamic finance institutions, such as adaptability, IT literacy and critical thinking (Al-Shehab et al., 2020; Nurfadilah et al., 2023). To bridge this gap, the central bank also enhanced the talent development ecosystem by engaging and collaborating with higher education institutions and industry (Aziz et al., 2023; Jamil et al., 2019). These efforts are made despite the continued obstacles. Research conducted by the International Council of Islamic Finance (2021) shows that 59% of the graduates of Islamic Banking and Finance (IBF) get a job, most of them in clerical positions not suitable to their qualifications. This indicates some mismatch between education and what is needed for the industry (Aziz et al., 2023; Jamalurus, 2022) which leads up to some serious concerns regarding graduates' preparedness and capabilities aligned to the Islamic finance job market opportunity.

This gap was addressed in previous literature that has increasingly emphasised in the past about the CareerEDGE model (Small et al., 2018) that provides a comprehensive and viable approach to the analysis of graduate employability. According to the model, there are five vital predictors namely career development learning, experience, degree subject knowledge, generic skills, and emotional intelligence. Importantly, self-efficacy seems to act as a mediating variable that affects the relationship between these predictors and employability (Dacre Pool & Qualter, 2013). This model is used from different perspectives yet is less relevant in Islamic finance. The connection with digital literacy, however, has yet to be thoroughly examined. The absence of digital literacy in IBF curricula perpetuates skills mismatches (Ishah et al., 2023; Jamil et al., 2019).

The study aims to assess the reliability, validity, and initial correlation patterns of the measurement constructs related to digital literacy, CareerEDGE predictors, and graduate employability. Therefore, internal consistency was established using Cronbach's Alpha, and Pearson correlation analysis was used to analyse inter-variable correlation and ascertain discriminant validity. This foundational analysis ensures that the proposed model is well tested and theoretically robust, which is very important to set the stage for a more detailed study in the future.

2.0 LITERATURE REVIEW

The conceptual foundation of this study is grounded in the CareerEDGE model (Pool & Sewell, 2007), a widely recognised framework for explaining the multidimensional nature of graduate employability. The model highlighted that employability is shaped by five core components which are career development learning, experience, degree subject knowledge, generic skills, and emotional intelligence and supported by a personal development dimension that encompasses self-efficacy, self-confidence and self-esteem. CareerEDGE has been acknowledged as one of the most comprehensive (Small et al., 2018) and sustainable employability models (Tymon et al., 2019), and it has been extensively adopted within higher education context, particularly in graduate career development and employability services. Therefore, this framework is suitable for the context of Islamic banking and finance graduates, a specialised field where domain knowledge, digital literacy, and transferable skills are increasingly critical due to rapid technological advancements in the financial sector.

To complement the CareerEDGE employability framework, this study draws upon the digital literacy framework proposed by Martin (2006), to conceptualise digital literacy dimension relevant to contemporary graduate employability. Establishing this theoretical grounding ensures the conceptual clarity and coherence needed to guide instrument development and empirical analysis in the full study.

2.1 Hypothesis Development

2.1.1 CareerEDGE Predictors

Five predictors in the CareerEDGE (Pool & Sewell, 2007); emotional intelligence, career development learning (CDL), experience, degree subject knowledge (DSK), and generic skills can help students to be more employable once they graduate from their academic journey. Unlike other models of employability, CareerEDGE has incorporated emotional intelligence as an essential element of the career ladder, a particularly important aspect of employability for an individual in the digital business arena. Additionally, the model's reflection focus allows graduates to reflect on their development to self-assess their success. This research study centres fully on self-efficacy as the aspect of reflection, given its substantial relevance to employability (Liu et al., 2020).

There have been many studies extensively explored CareerEDGE implementation. These predictors have been found to have a strong influence on self-efficacy for employability (KachallaWujema et al., 2022; Scoupe et al., 2023). However, there remains a lack of research that attempts to understand the predictors of CareerEDGE, particularly in terms of the digital economy and recent graduates specialised programs such as the IBF. As a result, the comprehensive integration of CareerEDGE predictors into the research framework is substantiated by a literature review, validating the hypothesis of five predictors as follows:

H1: Emotional intelligence is positively associated with self-efficacy.
H2: Career development learning is positively associated with self-efficacy.
H3: Experience is positively associated with self-efficacy.
H4: Degree subject knowledge is positively associated with self-efficacy.
H5: Generic skills are positively associated with self-efficacy.

This study will build on the existing gap by making use the emotional intelligence predictor established on the CareerEDGE model. According to recent research conducted by Alpian et al (2023), the impact of emotional intelligence on digital literacy is positive in undergraduate students in West Jaya, Indonesia. In a similar vein, Audrin andd Audrin (2023) emphasised the significant effect of emotional intelligence on enhancing digital literacy in a research which sampled participants from Amazon Mechanical Turk in Switzerland. Building on this relationship, Kf and Escarlos G (2024) highlighted a notable impact on digital literacy by considering aspects like digital knowledge and digital usage among educators in Padang, Indonesia. Additionally, Alpian et al. (2023) highlighted a positive relationship between emotional intelligence and digital knowledge, while Audrin and Audrin (2023) discovered that emotional intelligence is positively correlated with digital competence. Although the majority of evidence supports that emotional intelligence links positively to digital literacy, the specifics of the influence within the context of the Islamic financial sector is unclear. The largest proportion of previous studies were to students and teachers, but few had focused on recent graduates entering the financial services sector. The results of these studies demonstrate that positive influences are possible on a wide range of aspects of digital literacy with emotional intelligence:

H6a: Emotional intelligence is positively associated with digital knowledge.
H6b: Emotional intelligence is positively associated with digital competence.
H6c: Emotional intelligence is positively associated with digital usage.

2.1.2 Digital Literacy

DLF (Martin, 2006) was selected as its alignment to the CareerEDGE model, which was suitable for the educational setting. The term digital literacy refers to the skills, understanding and attitude required to use digital tools. This encompasses processes related to information access, management, evaluation and synthesis as well as media creation and communication across many life contexts to enable informed behaviour and self-reflection. Digital literacy includes three key dimensions: digital competence, digital usage, and digital transformation (Martin, 2006). This research study aims to provide a focus on digital knowledge, digital competence, as well as digital usage, intentionally excluding digital transformation from Martin's model in order to highlight the key employability skills that are foundational for recent graduates.

a) Digital Knowledge

Digital knowledge consists of the understanding of what tools are suitable to apply for work (Martin, 2006). Some studies have demonstrated that there is a relationship between digital knowledge and employability (Kee et al., 2023), along with self-efficacy (Rajabion et al., 2019). However, evidence associated with this relationship remains scant when applied to graduate employability. Thus, it is still not clear whether the relationship between self-efficacy and digital knowledge is applicable in higher education or in the professional environment, leading to a lack of understanding into how digital knowledge affects self-efficacy. Based on the reviewed literature, the article formulated two hypothesis statements about digital knowledge as follows:

H7a: Digital knowledge is positively associated with self-efficacy.
H8a: Digital knowledge is positively associated with employability.

b) Digital Competence

Digital competence can be defined as the awareness, attitudes, and a range of skills that vary from fundamental visual recognition and manual proficiency to advanced analytical, evaluative, and conceptual abilities in interacting with digital technologies (Martin, 2006). The recent results consistently reveal a positive correlation between digital competence and market readiness in the labour market (García-Selva et al., 2024). However, due to the positive correlation, some researchers report continued problems, such as the recent study from Aničić et al. (2022); Aryasandy et al. (2025), highlighting gaps in the digital competence of the alumni in contrast with the job market expectations. This suggests that although digital competence is considered significant, the graduates are still having trouble matching the level of their capabilities with firms. This discrepancy underscores major issues regarding the education programme that currently exists today and its suitability to prepare for employability in today's digital age.

In the context of self-efficacy, prior studies have shown a positive relationship between digital competence and self-efficacy. A study conducted by Henne et al. (2022) shows that university courses aimed at enhancing digital competencies within science education led to an increase in students' self-efficacy. Nonetheless, the findings of Torres-Coronas et al. (2014) suggests that digital competence does not have a positive association with self-efficacy when starting a career in e-business. The result reveals contrasting findings where further investigation, including in the field of Islamic finance is needed. Consequently:

H7b: Digital competence is positively associated with self-efficacy.
H8b: Digital competence is positively associated with employability.

c) Digital Usage

According to Martin (2006), digital literacy includes the ability to effectively use digital tools in a technological context. Studies have shown a robust linear correlation between digital usage and job-readiness. Education and ICT training are essential in order to assess how digital usage enhances job quality (Ruiz, 2021). However, the results regarding digital usage and employability are inconsistently aligned. A study by Loh and Chib (2022) , which involved a larger sample size, confirmed a positive influence. However, their earlier research which had a smaller sample size, found no significant impact of digital usage on employability for low-income workers in Singapore (Loh & Chib, 2017). The contrasting results suggest that factors such as the respondent population targeted may affect the extent to which employability is affected by digital usage.

Given the literature around self-efficacy, there is a substantial relationship found on the relationship between digital usage and self-efficacy; but the relationship varies depending on the context and the digital engagement. Indeed, multiple studies have highlighted a positive correlation with self-efficacy as one for instance from Mandal (2020), which examined students from both rural and urban regions in India and Fiji, revealed that effective digital usage improves self-efficacy. Not all studies revealed a direct effect. For instance, Loh and Ai Chi (2018) examined the role of ICTs in employability within Singapore and identified varying implications of lower- and higher-order digital usage, ultimately concluding that only higher-order digital usage had a significant impact on enhancing self-efficacy. As a result, this has culminated in the subsequent hypothesis:

H7c: Digital usage is positively associated with self-efficacy.
H8c: Digital usage is positively associated with employability.

2.1.3 Self-Efficacy

Self-efficacy means an individual's belief in their ability to execute tasks related to their profession. Research indicates its significance in enhancing employability (Zhan et al., 2024). Nonetheless, conflicting results from Usman and Nuraini (2022) indicate that the relationship could differ depending on the industry or cultural context. In alignment with this:

H9: Self-efficacy is positively associated with employability.

2.1.4 Mediating Effect

A distinctive strength of the CareerEDGE model lies in its emphasis on reflection and evaluation of graduates' educational and experiential learning, which facilitates personal development and enhances employability. Through this reflective process, self-efficacy emerges as a critical factor influencing graduates' confidence in applying their skills and navigating the labour market. Empirical findings indicate that self-efficacy may function as a key explanatory mechanism linking skill development to employability outcomes (Liu et al., 2020). Therefore, self-efficacy is hypothesised as a mediator of the association of CareerEDGE and digital literacy with employability (KachallaWujema et al., 2022).

In the context of this study, both digital literacy and CareerEDGE predictors are theoretically expected to enhance graduates' employability through their influence on self-efficacy. Although this mechanism has been supported in broader employability literature, empirical evidence within the Islamic finance context remains limited.

Given the preliminary nature of this study, mediation is not empirically tested because the pilot dataset is not statistically sufficient for structural modelling. However, the mediating role

of self-efficacy is proposed conceptually and will be formally examined using SEM-PLS during the full-scale data collection phase. Accordingly, the study puts forward the following exploratory propositions, which will guide the subsequent full study:

Proposition Mediating Hypothesis 1: Self-efficacy positively mediates the relationship between digital literacy and employability.
Proposition Mediating Hypothesis 2: Self-efficacy positively mediates the relationship between CareerEDGE predictors and employability.

2.2 Development of Research Framework

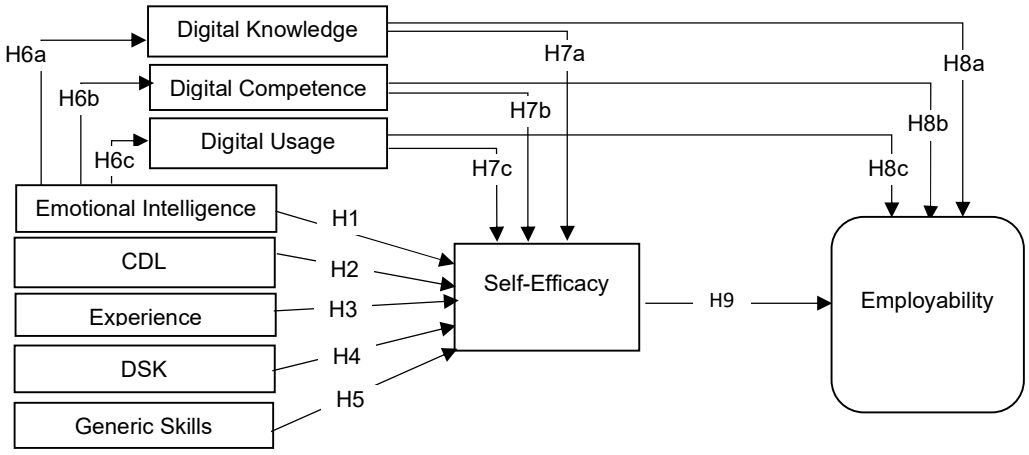

Fig. 1 *Research Framework*

3.0 METHODS

3.1 Research Design, Sampling and Data Collection

This study employs a preliminary pilot design aimed at evaluating the robustness of the measurement instrument before conducting the full-scale investigation. A quantitative research design was applied, relevant to hypothesis testing and the analysis of relationships between variables, by leveraging numerical data (Creswell & Creswell, 2018). This approach enabled the examination to be an unbiased consideration grounded on existing theories. A cross-sectional time horizon was adopted by surveying with data obtained as part of a Google Forms online survey. Because of its convenience, ease of access, cost-effectiveness, and secure storage, this platform was chosen. The survey focused on recent graduates (within six months of graduation) from IBF bachelor's programs at both public and private universities in Selangor and Kuala Lumpur, as most graduates are concentrated in this area (MOHE, 2025). Hence, 11 universities were identified to receive a questionnaire based on accreditation from the Malaysia Qualification Agency (MQA). The study adopted a non-probability purposive sampling approach to ensure that participants had the relevant characteristics needed for the study, as they were recent IBF graduates. This practice has extensive empirical evidence based on studies on employability (Al-Shehab et al., 2020; Pitan & Muller, 2020).

A pilot study with 30 participants was carried out before the main survey, as advised by Isaac and Michael (1995) for pilot testing with a sample size of between 25 to 50 respondents. The pilot was based on the assessment of the clarity, face validity, and organisation of the questionnaire, ensuring that respondents faced no challenges in comprehending the items (Saunders et al., 2016). Given the limited pilot sample size, SPSS 27 was used to perform descriptive analysis, reliability testing, discriminant validity, and Pearson correlation analysis.

These procedures are suitable for early-stage instrument validation to identify problematic items, assess construct behaviour, and ensure internal consistency. Advanced modelling techniques such as PLS-SEM were not applied at this stage, as they require substantially larger sample sizes to reach stable and meaningful structural estimates. The preliminary nature of the study is therefore focused on measurement readiness. The validated instrument will subsequently be employed in the full study, where mediation and structural relationships will be examined using PLS-SEM with an adequately powered sample.

3.2 Measures

To help us pursue the aims of the study, we implemented closed-ended questions; in particular, the study is of a quantitative nature. Therefore, this format enhances clarity as well as quicker responses with high response rates, thus facilitating simpler coding and analysis of the data (Neuman, 2007). The questionnaire was developed in Malay and English for cross-cultural ease of use. Malay was selected since it was the predominant ethnic demographic, while English was used in higher education institutions in Malaysia as well. The bilingual survey was pre-tested by a language analyst to confirm that the survey was consistent and easy to understand along with accurate. The questionnaire included 11 different sections. In Part One, three screening questions were chosen to verify if subjects met the target group. The remaining paragraphs dealt with elements of the different study constructs. The measurement for each of the variables is detailed in Table 1 according to existing literature.

Table 1. Measurement of Items and Resources

Variable	No. of items	References Sources	Original Sources
Digital Knowledge	8	(Slomski et al., 2022)	(Arango-Morales et al., 2020)
Digital Competence	9	(Aničić et al., 2022)	(Brečko et al., 2014)
Digital Usage	8	(Loh & Chib, 2017)	(Ndung'u & M., 2012; Ndung'u & Waema, 2011)
Emotional Intelligence	11	(KachallaWujema et al., 2022)	(Pool et al., 2014)
Career Development Learning	5	(Pitan & Muller, 2020)	(Milner, 2008)
Experiences	6	(Pitan & Muller, 2020)	(Milner, 2008)
Degree Subject Knowledge	4	(Pitan & Muller, 2020)	(Milner, 2008)
Generic Skills	9	(KachallaWujema et al., 2022)	(Raybould & Wilkins, 2005)
Self-Efficacy	8	(KachallaWujema et al., 2022)	(Chen et al., 2001)
Employability	3	(Pitan, 2016)	(Milner, 2008)

All measurement items were derived from previously validated studies. A 5-point Likert scale, as suggested by Vagias and Wade (2006) was employed to improve reliability. Though the items themselves demonstrated adequate psychometric properties, some were modified for their fitting the specific scope of the study. A pre-test and pilot test were performed to confirm face validity and reliability prior to the main data collection process.

3.3 Pre-Test

A pre-test was performed to assess the clarity, relevance, and psychometric quality of the items in the questionnaire prior to data collection (Kumar et al., 2013; Sekaran & Bougie, 2011). A number of experts of twelve were invited, exceeding the minimum sample size recommended by Sheatsley (1983). We assembled this panel in terms of four academic specialists in IBF, five experts in IBF industry, one specialist of the research methodology, one expert on digital banking and one bilingual language reviewer. Experts recommended the appropriateness of scales and the quality of instruction, clarity of constructs and relevance of these items. Minor tweaks were recommended to improve clarity. Feedback was included as

explained in Table 2, improving the construct validity and language coherence of the instrument. The final questionnaire was then regarded as prepared for the actual data collection process.

Table 2. Pre-Test Summary

Variable	Comments from Experts	Amendment	N of Items
Digital Knowledge	6 items required clear phrasing	Revised accordingly	8
Digital Competence	5 items rephrased for clarity; 2 items suggested to be removed due to redundancy	Reworded and removed redundant items	7
Digital Usage	3 items required clear phrasing	Revised accordingly	8
Emotional Intelligence	5 items required clear phrasing	Revised accordingly	11
Career Development Learning	2 items required clear phrasing	Revised accordingly	5
Experiences	1 item required clear phrasing	Revised accordingly	6
Degree Subject Knowledge	2 new items suggested for consistency	2 items added from the reference sources of (Wang et al., 2022)	6
Generic Skills	2 items required clear phrasing	Revised accordingly	9
Self-Efficacy	5 items required clear phrasing	Revised accordingly	8
Employability	1 item required clear phrasing; 3 new items suggested for consistency.	Revised accordingly 3 items added from the reference sources of (Pitan, 2016)	6

4.0 RESULTS AND DISCUSSION

4.1 Demographic Analysis

Thirty-one recent graduates of the bachelor's program in IBF participated in a pilot research study, meeting the minimum sample size required for pilot testing (Courtenay, 1978). The main aims were to assess the demographic profile and initial acceptability of the questionnaire items of the target respondents. Demographic information displayed are gender, age, state of residence, educational history, recent graduation, sector of occupation, employment status, and income level. There were 39% men respondents and 61% women respondents. An overwhelming majority of the respondents were aged 21–27 (87%). The most responders were living in Wilayah Persekutuan (45%) and Selangor (39%) by geography. 71% said they had made between RM1,501 and RM3,500, the middle income range. Only 39% of the respondents worked in Islamic financial institutions, even though 90% are in full-time employment. This mismatch presents a risk that certain job results based on industry characteristics may not correspond to academic credentials. As all the responders had been in the last six months after graduation, they met the inclusion criteria of the study.

4.2 Descriptive Analysis

Based on data from the pilot project, a descriptive analysis was conducted to estimate the central tendency and dispersion of the key constructs. Respondents' digital literacy stood out among the high means for Digital Usage (M = 4.46, SD = 0.71), Digital Competence (M = 4.30, SD = 0.78) and Digital Knowledge (M = 4.16, SD = 0.82). CareerEDGE predictors were highest in mean Career Development Learning (M = 4.25, SD = 0.97), Emotional Intelligence (M = 4.17, SD = 0.71), Generic Skills (M = 4.23, SD = 0.77) and Self-Efficacy (M = 4.16, SD = 0.81). Experience was the lowest mean (M = 3.96, SD = 1.06), suggesting for fresh graduates that they have a small degree of experience with industry. More generally, the results showed that opinions of respondents were favourable on all dimensions tested, however, some dimensions such as experience should be further investigated.

4.3 Internal Consistency

The reliability of the constructs was tested in the pilot study. Values above 0.70 have been considered acceptable by the criteria set by Pallant (2016) , while values above 0.80 were considered preferred. Reliability can be represented in Table 3 using Cronbach's Alpha values for different constructs in the range 0.701 and 0.949. All the constructs showed a satisfactory level of internal consistency and reliability with the internal reliability to the questionnaire employed in the pilot.

Table 3. Reliability Summary

Variable		Cronbach's Alpha
Exogenous Construct: Digital Literacy	Digital Knowledge	0.868
	Digital Competence	0.720
	Digital Usage	0.701
Exogenous Construct: CareerEDGE	Emotional Intelligence	0.890
	Career Development Learning	0.831
	Experience	0.894
	Degree Subject Knowledge	0.914
	Generic Skills	0.902
	Self-Efficacy	0.947
Endogenous Construct	Employability	0.920

4.4 Pearson Correlation Results

Stronger associations among the variables under study were investigated by testing Pearson correlation, and discriminant validity by at construct level. All significant intercorrelations were achieved at the 0.01 level (2-tailed), and all correlations were below the recommended threshold of r = .90. This finding supports discriminant validity (Cohen, 1988). Self-efficacy showed significant positive correlations with generic skills (r = .837), emotional intelligence (r = .807), and degree subject knowledge (r = .772). Furthermore, there was a positive correlation between digital competence (r = .729) and digital usage (r = .602) with employability, demonstrating that digital literacy is key to improving graduate outcomes. These findings further support the theoretical underpinning of the model and suggest empirical grounds to conduct additional structural equation modelling in other analysis.

Table 4. Pearson Correlation Analysis

Variable	DK	DC	DU	EI	CDL	EXP	DSK	GS	SE	GE
DK	1	.665**	.702**	.856**	.513**	.500**	.584**	.753**	.723**	.533**
DC	.665**	1	.788**	.688**	.585**	.493**	.804**	.758**	.753**	.729**
DU	.702**	.788**	1	.760**	.622**	.458**	.765**	.763**	.658**	.602**
EI	.856**	.688**	.760**	1	.611**	.535**	.644**	.849**	.807**	.670**
CDL	.513**	.585**	.622**	.611**	1	.629**	.803**	.678**	.634**	.756**
EXP	.500**	.493**	.458**	.535**	.629**	1	.612**	.616**	.511**	.539**
DSK	.584**	.804**	.765**	.644**	.803**	.612**	1	.752**	.772**	.823**
GS	.753**	.758**	.763**	.849**	.678**	.616**	.752**	1	.837**	.756**
SE	.723**	.753**	.658**	.807**	.634**	.511**	.772**	.837**	1	.899**
GE	.533**	.729**	.602**	.670**	.756**	.539**	.823**	.756**	.899**	1

Note: DK= Digital Knowledge, DC= Digital Competence, DU= Digital Usage, EI= Emotional Intelligence, CDL= Career Development Learning, EXP= Experience, DSK= Degree Subject Knowledge, GS= Generic Skills, SE= Self-Efficacy, GE= Employability

*** Correlation is significant at the 0.01 level (2-tailed)*

5.0 CONCLUSION

This research aims to confirm and determine the reliability and validity of measured constructs that are directly related to graduate employability in IBF in the context of Malaysia's digital economy. The adequacy of the psychometric properties of the scale items included in the study were verified by this analysis. Cronbach's Alpha values were greater than 0.70 in all constructs, which showed high internal reliability. Also, expert opinions obtained on questions in the Malay and English questionnaires were used to determine the clarity and fit of the items available in the pre-test period. Discriminant validity and Pearson correlation results further supported the distinctiveness of the constructs and discovered theoretically consistent associations, suggesting that the instrument is capable of capturing meaningful variations relevant to employability outcomes.

Although the pilot sample size limits the use of PLS-SEM, the preliminary patterns indicate that digital literacy dimensions and CareerEDGE predictors exhibit positive relationships with employability. These findings highlight the relevance of integrating domain-specific skills with broader career competencies in understanding the employability of Islamic banking and finance graduates. Most importantly, the study confirms that the instrument is psychometrically sound and ready for full-scale data collection. The full study will employ structural equation modelling to examine direct and indirect pathways, including the mediating role of self-efficacy, thereby providing a deeper understanding of employability determinants. This preliminary validation offers a strong foundation for subsequent empirical analysis and contributes to more targeted interventions for improving graduate employability.

6.0 IMPLICATION OF THE STUDY

This study provides meaningful implications for IBF education and talent development. The findings emphasise the importance of integrating digital literacy and key CareerEDGE competencies into academic programmes, as early correlations indicate their relevance to employability. Industry stakeholders may also use these insights to refine graduate training and recruitment strategies. At the policy level, the results highlight ongoing skill gaps requiring targeted interventions. Methodologically, the study validates the measurement instruments, providing a strong foundation for the upcoming full-scale investigation using advanced modelling techniques to examine causal and mediating effects.

CO-AUTHOR CONTRIBUTION

Nur Atiqah Abd Rahmali led the research, and carefully wrote and revised the manuscript. Mohamad Nizam Jaafar and Nurazree Mahmud laid the foundation for both the research idea and theoretical framework. In addition, the research methodology was verified by Norhasimah Shaharuddin to align with the research objective. Nur Atiqah Abd Rahmali, Nurazree Mahmud, and Mohamad Nizam Jaafar also supported the review and revision, and approved the final manuscript for submission. Their combined expertise and dedication were crucial to the successful completion of the research project.

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DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

This work was prepared using QuillBot and Turnitin to assist in checking grammar, detecting AI-generated text, and paraphrasing certain sentences to ensure grammatical accuracy and clarity. Authors have reviewed and edited all content produced by the tool and accept full responsibility for the final version of this publication.

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