Islamic Value-Based Student Employability Scale: Validation with Rasch Model

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Abstract

In the era of globalization, universities in Indonesia are expected to produce graduates who are academically excellent and equipped with employability skills grounded in Islamic values. This dual expectation necessitates the development of assessment tools that align educational outcomes with religious and cultural contexts. However, existing employability scales often fail to capture the ethical and spiritual dimensions vital for Muslim students. This study aimed to develop and validate an Islamic value-based student employability scale that integrates core employability skills, Islamic work ethics, workplace spirituality, resilience, and motivation. Item development was based on a comprehensive literature review and expert consultation to ensure theoretical relevance and cultural appropriateness. The Rasch model was employed to provide accurate, bias-free measurement and to confirm unidimensionality. A cross-sectional design involving 1,192 students from 26 public Islamic universities in Indonesia was used, with data collected through an online questionnaire. Rasch analysis demonstrated strong validity and reliability (item reliability = 1.00; person reliability = 0.90), confirming the scale's ability to measure a single core construct. The Islamic value-based employability scale offers a psychometrically sound tool for assessing Muslim students' workplace readiness. It provides practical insights for Islamic higher education curriculum development and policy design.

INTRODUCTION

In Indonesia, religious values are central to everyday life and deeply embedded in the national education system (Adnan et al., 2021). In recent years, employability has become a critical issue in higher education, especially within Islamic institutions that aim to develop students academically and in terms of moral and spiritual integrity (Roy et al., 2020). Despite the growing attention to employability, most existing measurement tools fail to capture the cultural and religious dimensions essential for Muslim students (Mahmud, 2024). This underscores the need for an employability framework that aligns with Muslim learners' values and lived experiences.

In today's globalized world, universities face increasing challenges in preparing graduates who are not only academically competent but also equipped with employability skills suited to the demands of the modern labor market (Okolie et al., 2019). Evidence from various

countries including the United States, United Kingdom, South Africa, Malaysia, and Nigeria demonstrates that spiritual and religious values play a crucial role in enhancing employability-related traits such as job satisfaction, resilience, adaptability, ethical behavior, and professional commitment (Abu Bakar et al., 2018; Aftab et al., 2023; Saeed et al., 2022; Tongo, 2015; Woldegiorgis & Chiramba, 2024). These cross-cultural findings highlight the global relevance of integrating religious and ethical values into employability development.

These global findings highlight the universal importance of ethical and religious values in shaping employability outcomes. Locally, Mujahid (2021) emphasized the role of Islamic values education in developing Indonesian students' moral and professional character. Furthermore, Bahrun et al. (2023) found that students who receive Islamic values-based education exhibit strong resilience and adaptability when navigating workforce challenges. These global and local insights underscore that integrating ethical and religious values into education is crucial for enhancing students' employability, resilience, and moral integrity in the modern workforce.

Although the literature on employability has grown rapidly, a limited understanding remains of how Islamic values can be integrated into employability measurements for students (Sahin, 2018). In the face of globalization challenges, graduates need more than technical skills; they require a strong moral foundation to navigate the rapidly changing global labor market (Durib, 2014; Shan & Wang, 2024). In a predominantly Muslim society like Indonesia, education based on Islamic values plays a crucial role in fostering students' resilience, spirituality, and adaptability to meet the dynamics of the contemporary workforce (Surbakti et al., 2024). Therefore, there is an urgent need to develop employability measurements that assess technical competencies and reflect the moral and spiritual values essential for Muslim students to thrive in a globalized workforce.

Theoretical Framework and Islamic Values

Experts have presented several theories about employability. One influential theoretical framework in the study of employability is Savickas' Theory of Career Construction, which emphasizes the importance of personality, personal values, and adaptability in shaping career readiness (Savickas, 2002). Another relevant framework is the Employability Model which highlights three main dimensions: career identity, personal adaptability, and social capital (Fugate et al., 2004). Both theories underscore the significant role of values and attitudes in shaping an individual's work readiness, thus opening opportunities for integrating spiritual and religious values.

Additionally, the Islamic Work Ethic Theory provides a moral-philosophical foundation that emphasizes the integration of faith, productivity, and ethical conduct in the workplace (Abbas Ali, 2010). It asserts that work is a virtue and a form of worship when performed with *ikhlas*, *amanah*, *sabar*, and *tawakal*. These values align with and enrich contemporary employability constructs by infusing them with a deep spiritual orientation.

Thus, integrating Islamic principles into the employability framework adds a spiritual and moral dimension to measuring work readiness and expands the definition of employability to suit Muslim societies' sociocultural context better (Anggadwita et al., 2021). This integration is particularly critical in a Muslim-majority country such as Indonesia, where religious values play a central role in both the personal and professional lives of students (Zuhdi, 2018). Therefore, developing an Islamic values-based employability scale is conceptually well-founded and practically relevant to meet the needs of value-based higher education.

Rationale of the Current Study

Previous studies have extensively discussed core employability skills such as communication, collaboration, and problem-solving (Alrifai & Raju, 2019; Asefer & Abidin,

2021; Mahajan et al., 2022; Martínez et al., 2021; Sunardi et al., 2016; Surata et al., 2017) However, few have highlighted the connection between employability and Islam's spiritual and ethical dimensions (Abbas Ali, 2010; Ahmed et al., 2019, 2021; Alqhaiwi et al., 2024; Linando et al., 2023; Osman-Gani et al., 2013; Salahudin et al., 2016). In Muslim societies, particularly in Indonesia, Islamic work ethics and workplace spirituality are not just moral norms but vital elements in building individual resilience and motivation in the workplace.

Despite increasing attention to employability and Islamic values, there remains a significant conceptual gap in the literature, specifically, the absence of theoretical frameworks that systematically integrate spiritual and ethical principles into employability constructs (Abbas Ali, 2010; Fugate et al., 2004; Savickas, 2002). Without such frameworks, developing assessment models that reflect Muslim students' lived realities and religious orientations becomes challenging. Consequently, there is also a lack of psychometrically validated tools incorporating Islamic principles into employability measurements (Adawiyah & Pramuka, 2017; Aminah et al., 2024) . This dual conceptual and methodological gap justifies the need for developing an employability scale that integrates Islamic ethical and spiritual values, especially in Islamic higher education contexts.

Most existing employability scales are built upon secular, Western-centsric frameworks that emphasize technical skills and market-oriented outcomes, often neglecting the moral, ethical, and spiritual foundations that are integral to Muslim societies (Sahin, 2018; Samier & Elkaleh, 2021; Shaikh & Alam Kazmi, 2022; Sidani & Al Ariss, 2015; Wu et al., 2025) These instruments rarely account for how Islamic values such as *tawakkul*, *amanah*, and *ikhlas* shape students' motivation, professional behavior, and resilience (Ramdani et al., 2020). In Islamic higher education contexts, this lack of culturally responsive measurement tools limits educators' ability to assess employability holistically (Punti & Dingel, 2021). Therefore, the need for an Islamic value-based employability scale arises not only from a psychometric perspective but also from the necessity to align educational goals with Muslim students' religious and cultural identities.

A well-developed instrument will help educators capture how students internalize and apply Islamic principles in their preparation for the workplace, while supporting value-driven curriculum development and career guidance (Sekerka & Yacobian, 2018). By integrating core employability skills with Islamic work ethics, workplace spirituality, resilience, and motivation, such a tool can significantly contribute to both research and practice in Muslim-majority societies.

Although previous studies have recognized the significance of moral and ethical foundations in preparing students for the workforce, many have failed to develop empirical instruments or comprehensive theoretical frameworks that systematically integrate these values into Islamic higher education contexts (Roy et al., 2020). Furthermore, the literature often treats Islamic values as peripheral rather than central to employability development, which limits their meaningful application in curriculum design and assessment practices. This highlights the pressing need to reposition Islamic values as core components in theoretical and practical employability approaches within Islamic higher education.

These limitations highlight the need for a more contextualized approach that reflects the socio-religious realities of Indonesia's majority-Muslim society (Huda, 2024). Addressing this gap, the present study proposes the development of an Islamic values-based employability scale. Such an instrument not only carries theoretical relevance but also serves a practical function by helping higher education institutions align educational outcomes with the moral and spiritual expectations of students and their communities.

Previous studies have shown that applying Islamic values in the workplace improves performance and job satisfaction. For example, a study Gheitani et al. (2019) conducted in Middle Eastern countries revealed that Islamic work ethics enhance motivation and

commitment, ultimately strengthening career prospects across sectors. These findings underscore that developing employability by integrating Islamic values can be a critical strategy for enhancing graduates' competitiveness in an increasingly dynamic global labor market.

Aims of the study

This study seeks to address this gap by developing an employability scale based on Islamic values for university students. By integrating principles such as Islamic work ethics, responsibility, honesty, spirituality, and resilience, this research aims to present a culturally relevant assessment tool aligned with the core values upheld by Islamic higher education.
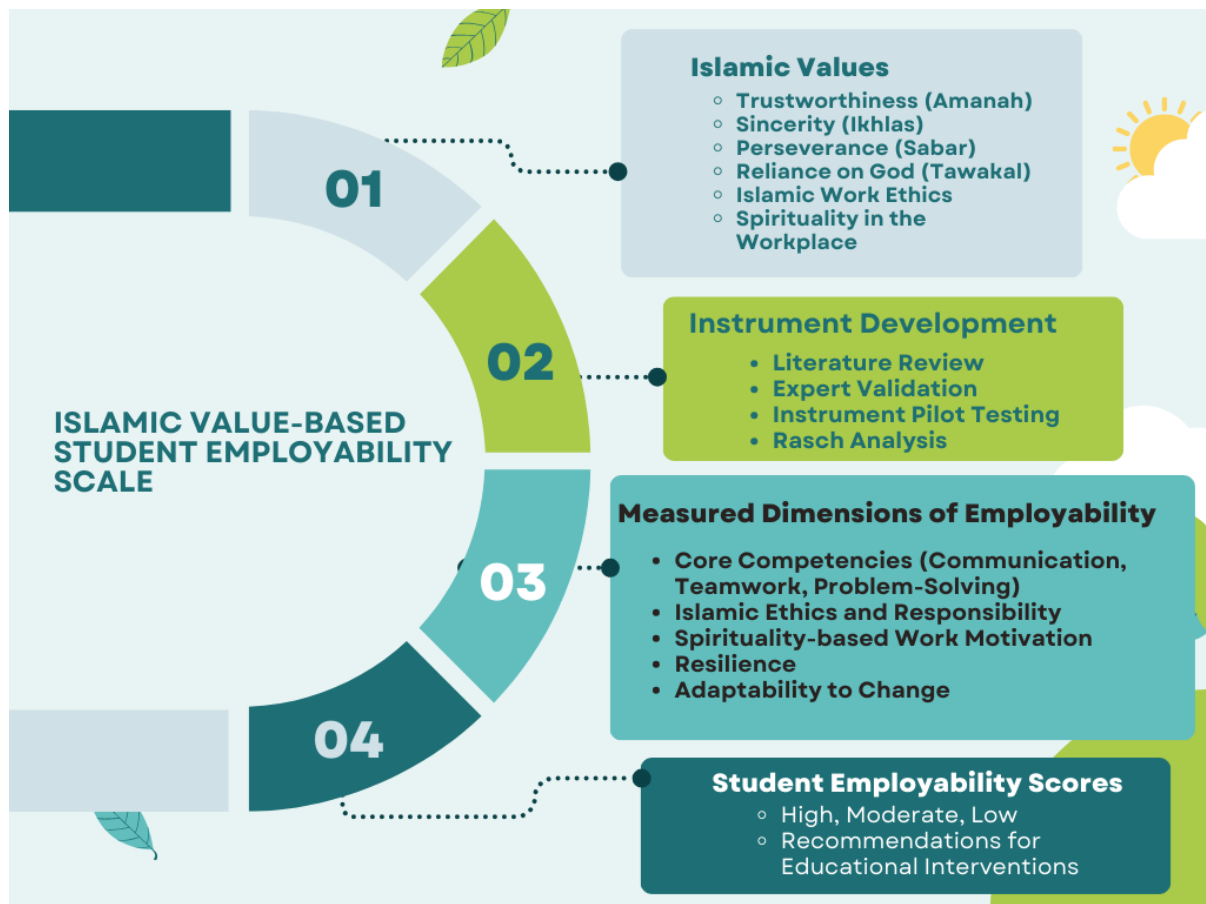

Figure 1. Framework for Developing the Islamic Values-Based Student Employability Scale

METHODS

Questionnaire development process

The instrument used in this study is the Islamic values-based student employability scale, designed to assess the employability skills of students based on Islamic value principles, as illustrated in Figure 1. The development of this instrument was guided not only by empirical literature but also by established theories of employability. Specifically, the Theory of Career Construction and the Employability Model informed the identification of core dimensions such as adaptability, career identity, and personal resources (Fugate et al., 2004; Savickas, 2002). These were integrated with Islamic ethical and spiritual principles, including *tawakkal*, *amanah*, *ikhlas*, and *sabar*, to contextualize the construct for Muslim students.

The Islamic Work Ethic Theory also informed item construction, particularly in dimensions reflecting honesty, responsibility, spiritual motivation, and viewing work as a form

of worship (Abbas Ali, 2010). Thus, this instrument not only measures general employability skills but also represents a holistic integration of modern employability theories and Islamic values, making it relevant for identifying the workplace readiness of Muslim students within their sociocultural and spiritual context.

The development process involved several stages, including a comprehensive literature review and theoretical mapping. In the initial stage, 24 items were developed to assess various aspects of employability, including core employability skills, Islamic work ethics, workplace spirituality, resilience, and motivation in facing challenges in the professional world. The initial validation process involved experts in the Indonesian language, English language, religious studies, religious psychology, and human resource management. After this validation, 6 items were removed due to redundancy or low relevance to the measured Islamic principles.

The remaining 18 items were further evaluated by a panel of psychologists, educators, counselors, and academic specialists. This evaluation ensured that the items covered critical dimensions of student employability, such as core skills, Islamic work ethics, workplace spirituality, resilience, and motivation in facing professional challenges (Abbas Ali, 2010; Fugate et al., 2004; Savickas, 2002).

The instrument was piloted with 325 respondents, consisting of 178 males (54.8%) and 147 females (45.2%) from six Islamic universities in Indonesia. Each respondent was asked to rate each item using a five-point Likert scale, where 1 represented "strongly disagree" and 5 represented "strongly agree." Initial test results indicated that the scale demonstrated high levels of validity and reliability in assessing student employability based on Islamic values.

Participants

This study involved 1,192 university students invited through WhatsApp's digital communication application. The participants came from 26 state Islamic universities spread across various provinces in Indonesia, comprising 619 male and 573 female participants. The participants' ages ranged from 18 to 22, reflecting the age group of active university students. The full demographic distribution of the respondents can be seen in Table 1.

Table 1. Demographics (n = 1,192)

Demographics		Total
Gender	Male	619
	Female	573
Age	18	214
	19	262
	20	309
	21	202
	22	205

Data Collection Procedure

Data were obtained through an online questionnaire distributed through the WhatsApp application. Each participant was given brief information regarding the study's purpose and their rights, including the freedom to participate or withdraw at any time without any consequences. Participation was voluntary, and respondents' personal data confidentiality was maintained.

Data and Statistical Analysis

Rasch analysis, first introduced by George Rasch in 1960, is based on Item Response Theory (IRT), which explores the relationship between assessment item characteristics and respondent ability (Rasch, 1968). This approach produces more accurate measurements than those relying solely on raw total scores and overcomes some common methodological

weaknesses. Rasch analysis provides statistical tools to evaluate the extent to which items on a scale accurately reflect respondents' abilities. It constructs a hierarchical measurement framework for those items (Ramdani et al., 2020; Rangka et al., 2023). It also plays a role in measuring the fit between observations and the expected model and identifying respondents' misunderstandings of certain items. In addition, Rasch analysis can detect missing data and identify items or respondents who deviate from the expected pattern, resulting in more accurate and reliable measurements. Using ordinal item responses from rating scales, Rasch analysis enables the establishment of linear measures that differentiate item difficulty from individual ability (Hagquist & Andrich, 2017). This analysis provides extensive diagnostic information to improve the quality of measurement scales and enables the psychometric evaluation of the scale in a more appropriate context. The fit between the observed data and the Rasch model was analysed using Winsteps software version 5.1.5 (Ifdil et al., 2024). As Thomason et al. (2023) described, this analysis includes several important aspects in evaluating the Islamic value-based student employability scale, as outlined in Table 2.

Table 2. Measurement Criteria in Rasch

Measuresment Porperties	Objective	Measuresment Criteria
Misfit Items	Assess the appropriateness of items in the scale to ensure that each item delivers the expected results.	Outfit MNSQ: 0.5 - 1.5
Reliability and Separation Index	Assess the internal consistency of the scale and the ability of items to differentiate respondent ability levels.	Reliability: > 0.70 (good); Separation Index: > 1.5 logits
Unidimensionality and Local Dependence	Measures whether the scale only assesses one main construct and evaluates the dependency between items based on participant response patterns.	Variance explained: $\geq 40\%$; Residual Correlation: < 0.70
Item Difficulty Level & Individual Ability	Analysis of the difficulty level of each item and individual ability using Wright maps to describe the distribution on a logit scale.	Distribution of ability and item difficulty on a logit scale
DIF (Differential Item Functioning) Analysis	Detecting item bias against respondent subgroups to ensure fairness in measurement.	DIF Prob: < 0.05; DIF contrast: > 0.64 logits
Precision Measurement	Evaluate the accuracy of models and data to ensure consistency of results in surveys.	Pt. Measure Corr.: 0.32 - 0.80
Software Used	The analysis was carried out using Winsteps software to support more efficient and accurate data processing.	Winsteps version 5.1.5

Ethics Approval

Universitas Negeri Malang, located in Malang, East Java, Indonesia, has granted ethical approval for this study with number 1.11.2/UN32.14/PB/2024. All participants gave consent to participate and publish the results of the study in accordance with applicable ethical guidelines.

RESULTS AND DISCUSSION

Results

Summary statistics from the Rasch analysis confirmed the strong psychometric quality of the Islamic values-based student employability scale. The item reliability index (1.00) and

person reliability index (0.90) indicated excellent internal consistency and measurement stability. The Cronbach's Alpha value of 0.92 reinforced this. At the same time, the Item Separation Index (6.12) and Person Separation Index (4.02) demonstrated the scale's capacity to distinguish between varying levels of item difficulty and respondent ability. The average person measure score (2.20 logits) suggested generally high employability among participants.

Table 3. Summary statistic of person and item (I = 18, n = 1192)

	Reliability	Separation Index	*M*a	*α*	Raw Variance**
Person	0.90	4.02	2.20	.92	
Item	1.00	6.12	0.00		40.8%

* Measure in logit
** Computed via Principal Component Analysis (PCA)

Table 4. Item threshold and fit indices of response format (I = 18, n = 1192)

Category	Andrich Threshold	Observed Average	Observed Count (%)	Infit MNSQ	Outfit MNSQ
Not Strong	-	-2.88	4	1.00	1.00
Somewhat	-2.80	-2.80	4	0.24	0.25
Strong	-2.82	2.11	33	1.00	1.00
Very Strong	2.75	2.82	30	0.96	0.97
Strongest	2.87	2.91	30	1.00	1.00

Unidimensionality and Local Dependency

Unidimensionality was confirmed through Principal Component Analysis, with 40.8% of the variance explained exceeding the 40% threshold. The unexplained variance in the first contrast was only 2.3 eigenvalue units, well below the critical limit of 5.0, supporting the assumption of a single dominant construct. Residual correlations between items were low, with the highest at 0.28 (between Q17 and Q18), which were conceptually related but distinct in measurement focus. These findings validate the scale as a unidimensional instrument with no significant local item dependencies.

Diagnostics of the Rating Scale

Rating scale diagnostics showed that the five-point Likert scale used was functioning effectively. Andrich thresholds progressed monotonically, and the category probability curves showed no disordering. This confirms that respondents could differentiate meaningfully across the scale's response categories, and using five distinct levels was appropriate for capturing nuanced differences in Islamic values-based employability.

Item Size, Fit Index, and Precision Measures

Analysis of item fit and precision further demonstrated the robustness of the scale. Outfit Mean Square (MNSQ) values for all items fell within the acceptable range of 0.5 to 1.5, indicating a good model-data fit. Standard errors (SE) were consistently low (average SE = 0.04), suggesting precise measurement estimates. Point-measure correlations ranged between 0.32 and 0.80, with no negative values, confirming that all items contributed positively to the measured construct. Items Q17 and Q18, related to motivation under stress, emerged as the most difficult, while Q4 and Q5, related to technology use and honesty, were the easiest.

Notes for Figure 2. This Category Probability Curve shows one item from the 18-item Islamic values-based student employability scale. No irregular threshold patterns were found in the five-category response structure. The distribution of this curve indicates that the response format works well, where each category reflects different ranges of the latent trait being measured.
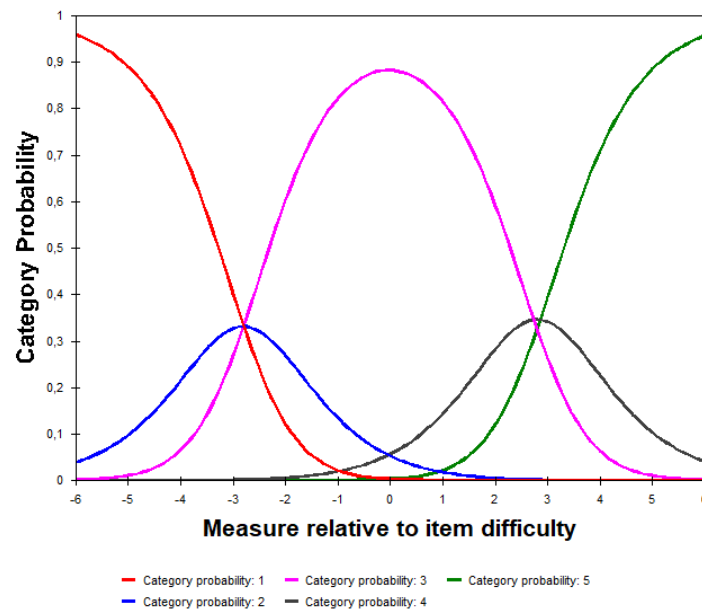
Figure 2. Category Probability Curve of the Islamic Value-Based Student Employability Scale

Table 5. The Summary of item measure (I = 18, n = 1192)

Item	Total Score	Measures	SE Models	Infit		Outfits		Corr
				MNSQ	ZSTD	MNSQ	ZSTD	0.21
Q18	2392	5.00	0.04	1.01	0.56	1.01	0.55	0.24
Q17	2398	4.99	0.04	0.96	-1. 86	0.96	-1.78	0.23
Q3	4736	-0.57	0.04	0.97	-1.16	0.97	-1.18	0.24
Q8	4736	-0.57	0.04	0.99	-0.47	0.99	-0.59	0.23
Q12	4741	-0.58	0.04	0.98	-0.75	0.98	-0.75	0.28
Q10	4755	-0.60	0.04	0.99	-0.50	0.99	-0.57	0.26
Q7	4766	-0.61	0.04	1.01	0.28	1.00	0.19	0.20
Q13	4766	-0.61	0.04	0.99	-0.32	0.99	-0.28	0.21
Q1	4767	-0.61	0.04	0.99	-0.61	0.99	-0.57	0.21
Q14	4771	-0.62	0.04	1.00	0.10	1.01	0.24	0.25
Q5	4775	-0.62	0.04	0.98	-0.63	0.99	-0.59	0.22
Q2	4777	-0.62	0.04	1.00	0.12	1.01	-0.02	0.24
Q6	4787	-0.64	0.04	0.99	-0.23	0.99	-0.37	0.26
Q9	4787	-0.64	0.04	1.01	0.35	1.01	0.26	0.23
Q16	4806	-0.66	0.04	1.00	0.10	1.00	0.13	0.23
Q4	4814	-0.67	0.04	1.02	0.94	1.02	0.90	0.23
Q15	4816	-0.68	0.04	0.99	-0.37	1.00	-0.16	0.24
Q11	4826	-0.69	0.04	0.95	-1.96	0.95	-2.01	0.24

Table 6. The summary of person measure (I = 18, N = 1192)

Number	Score	Measure	S.E	MNSQ	ZSTD	MNSQ	ZSTD	Corr
752	81	3.62	0.44	1.45	0.98	1.48	1.02	0.63
417	80	3.44	0.40	0.96	0.06	0.96	0.06	0.67
643	79	3.29	0.38	0.60	-1.08	0.60	-1.08	0.81
677	79	3.29	0.38	0.89	-0.17	0.88	-0.20	0.84
273	78	3.15	0.36	0.57	-1.36	0.57	-1.36	0.79
742	59	1.35	0.34	0.97	0.01	0.97	0.01	0.77
1033	59	1.35	0.34	0.97	0.00	0.96	-0.02	0.77
1174	59	1.35	0.34	0.98	0.04	0.99	0.06	0.42
139	58	1.23	0.35	0.80	-0.51	0.80	-0.50	0.61
365	56	0.95	0.39	0.93	-0.04	0.92	-0.06	0.70

Person Size and Wright's Map

The Wright map provided further insight into the distribution of student abilities and item difficulties on the same logit scale. Most respondents clustered around the 2-logit mark, showing average to above-average ability for scale items. Respondents at the higher end of the spectrum, such as participant #752, demonstrated strong alignment with difficult items but showed a slight mismatch in fit values. Meanwhile, participants with lower scores found items like Q17 and Q18 more challenging, as expected. Overall, the Wright map confirmed the instrument's ability to spread item difficulties appropriately across different student capability levels.

DIF Analysis

The Differential Item Functioning (DIF) analysis assessed whether any items were biased across demographic subgroups (age, gender, province, or university type). Results indicated that none of the items showed statistically significant DIF (all $p > 0.05$), confirming the fairness and measurement invariance of the scale. The item with the lowest p-value was Q11 ("I believe that the outcome of every endeavour depends on Allah's will") with $p = 0.06$, suggesting a potential gender-related difference; however, this value was not significant, and the associated DIF contrast was below the 0.64-logit threshold. Residual correlations for this item remained within acceptable limits, affirming its inclusion in the scale.

These findings provide compelling evidence that the Islamic values-based employability scale is a valid, reliable, fair, and psychometrically sound tool for assessing employability in Muslim student populations. The scale offers a contextually relevant measure aligned with educational goals and Islamic ethical-spiritual values.

Table 7. Result of DIF on Islam-based student employability (I = 18, n = 1192)

Codes	Item Statement	Prob.
Q1	I am capable of communicating clearly and effectively when collaborating within a team.	0.34
Q2	I can identify creative solutions when encountering work-related challenges.	0.57
Q3	I possess the ability to utilize technology efficiently to accomplish tasks.	0.32
Q4	I am capable of critical thinking and analyzing information before making decisions.	0.44
Q5	I consistently endeavor to uphold honesty in all tasks I undertake.	0.37
Q6	I uphold Islamic values professionally without compromising my religious principles.	0.20
Q7	I strive to maintain integrity and responsibility in every task entrusted to me.	0.44
Q8	I am motivated to work with complete dedication as an act of devotion to Allah.	0.72
Q9	I complete my work punctually, by my commitments.	0.23
Q10	I firmly believe every professional achievement is part of Allah's divine will.	0.53
Q11	My professional duties are a form of worship that must be performed with sincerity.	0.06
Q12	I experience spiritual peace and tranquillity while carrying out my daily tasks.	0.21
Q13	My spiritual values influence how I work and conduct myself professionally.	0.34
Q14	I can endure and remain productive under pressure or challenging circumstances.	0.53
Q15	I strive to achieve my goals despite encountering various obstacles.	0.93
Q16	I can adapt quickly to changes or unforeseen situations.	0.97
Q17	I continue to work hard to achieve goals.	0.94
Q18	I can stay motivated and productive amidst stressful situations	0.92

Figure 3 Wright person-item map shows the elements of Wright's map. On the right side, the map shows the distribution of item difficulty, with the most difficult items (Q17 and Q18) at the top and the easiest items (Q4 and Q5) at the bottom. The left side of the map shows the distribution of respondents' ability, from the highest-ability respondents at the top to the lowest-ability respondents at the bottom. This Wright map directly compares the distribution of the two elements on the same Rasch logit scale. The average ability of respondents is denoted by

M(p), with one standard deviation of ability indicated by S(p) and two standard deviations by T(p). Average item difficulty is denoted by M(i), with one standard deviation indicated by S(i) and two standard deviations by T(i). The symbol '#' represents 29 respondents, while the symbol '.' represents 1 to 28 respondents. This map visualises the relationship between respondent ability and item difficulty, providing insight that more difficult items require a higher level of ability to be approved. The standard deviation of respondent ability (SD Person) is 1.04, and the standard deviation of item difficulty (SD Item) is 1.43, indicating a good distribution between respondent ability and item difficulty in this Islamic value-based employability scale.

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MEASURE    PERSON - MAP - ITEM
                <more>|<rare>
     5            +  Q17     Q18
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     4            +
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     0            +M
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                  |   Q1    Q10   Q12   Q13   Q14   Q2    Q3    Q5
                  Q7    Q8
                  |   Q11   Q15   Q16   Q4    Q6    Q9
    -1            +
                <less>|<freq>
EACH "#" IS 29: EACH "." IS 1 TO 28
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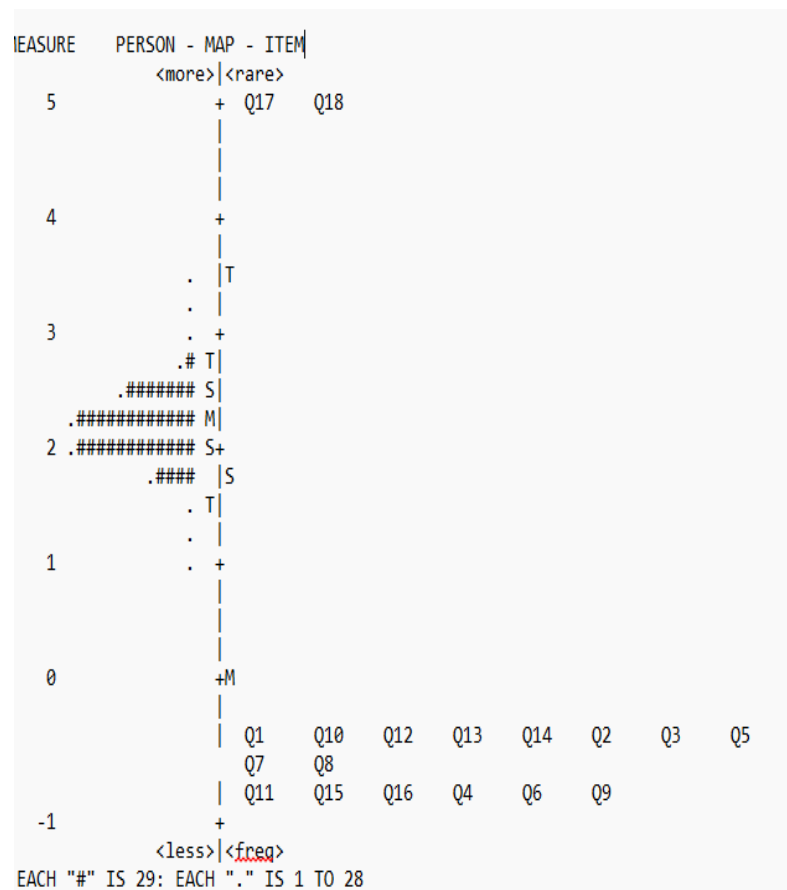
Figure 3. Wright person-item map for the Islamic Value-Based Student Employability Scale

Discussion

This study validated an Islamic values-based student employability scale using Rasch analysis and demonstrated its psychometric robustness and cultural relevance. The scale integrates spiritual and ethical values such as *jujur*, *amanah*, *sabar*, and *tawakkal*, which are foundational in Islamic ethics and increasingly vital in the modern workplace. These findings affirm that employability cannot be measured solely by technical and cognitive skills; moral and spiritual dimensions are critical, especially in Muslim-majority societies.

The scale's unidimensionality, confirmed by the Rasch Principal Component Analysis with 40.8% of variance explained, supports its construct validity. High item (1.00) and person (0.90) reliability indices confirm internal consistency. The Wright map further indicated that most respondents performed well on basic competencies, while items related to motivation and resilience (Q17 and Q18) had the highest difficulty levels. These results suggest that while foundational skills are well internalized, maintaining productivity under stress remains a challenge.

This challenge aligns with theories such as the Career Construction Theory and Work Ability Model, which highlight that beyond technical capabilities, employability requires psychosocial resources, including motivation, emotional regulation, and adaptability (Fugate et al., 2004; Savickas, 2002). Within Islamic contexts, motivation and resilience are not only personal traits but are also rooted in faith-based constructs like sabr and tawakkul. Resilience in stressful work environments is closely linked to a value-driven purpose and spiritual grounding, reinforcing the importance of integrating these constructs into employability measurement tools.

The Differential Item Functioning (DIF) analysis revealed near-threshold gender-related differences on Q11 ("I believe that the outcome of every endeavour depends on Allah's will"). Data suggests that men and women may internalize tawakkul differently: men often perceive it as proactive, combining effort and trust in divine will, while women may interpret it more as surrender or acceptance (Huda et al., 2019, Mahsyar et al., 2024). These variations may stem from differing religious education, social roles, and interpretations of spiritual responsibility between genders, which influence how spiritual values are reflected in workplace behavior.

Although the detected bias remains statistically acceptable, it reveals meaningful insights into how Islamic values are internalized differently by gender. Spiritual constructs, being inherently personal, are filtered through one's lived experience, identity, and socio-cultural context (Caidi et al., 2025). Gendered differences in religious expression are widely documented, with women more likely to express faith through relational and emotional pathways, while men often adopt action-oriented spiritualities.

Despite these nuanced differences, the overall findings of this study demonstrate that the Islamic values-based employability scale is a valid and reliable instrument. It addresses a critical conceptual gap by offering an integrated framework that reflects both technical and spiritual dimensions of career readiness. Its application can enhance institutional efforts to develop holistic educational programs that align with students' ethical and cultural identities.

However, this study has several limitations. First, the sample was dominated by public university students under 22 from Java. This demographic concentration limits generalizability, as students from other regions or private universities may exhibit different employability characteristics and value internalization patterns. Therefore, future studies should incorporate broader, more diverse samples to increase external validity. Second, the exclusive use of online questionnaires may introduce participation bias. Students with reliable internet access and higher motivation were more likely to respond, possibly excluding voices from less connected or lower-performing groups. To improve representativeness, future research should adopt mixed-mode data collection strategies. Furthermore, future studies could explore how Islamic values-based employability interacts with psychological constructs such as self-efficacy, resilience, or career adaptability. Such exploration would enrich understanding how faith, character, and competence intertwine in shaping employability outcomes among Muslim students.

Ultimately, this study contributes to the growing literature on the intersection of spirituality and employability. The validated scale provides a culturally embedded, psychometrically sound tool to inform curriculum design, career counseling, and policy development in Islamic higher education. It assesses workplace readiness and affirms the role of moral values in preparing students to navigate an increasingly complex and ethically demanding global workforce.

CONCLUSION

The Islamic Value-Based Employability Scale, validated through the Rasch Model, has proven valid and reliable in measuring the employability of Muslim students in Indonesia. This instrument encompasses Islamic work ethics, spirituality, resilience, and motivation. The

analysis shows that the scale effectively measures a single central construct. These findings emphasize the importance of integrating Islamic values into higher education curricula to holistically prepare students to face the challenges of the workforce with a strong foundation of spiritual and moral principles.

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AUTHOR CONTRIBUTION STATEMENT

RS: Conceptualization, methodology, data collection, analysis, interpretation of results, and manuscript preparation. IH: Supervision, validation of analysis, critical revision of the manuscript, and final approval of the version to be published. MM: Contribution to the conceptual framework, methodology, and critical review of the theoretical foundation. AJS: Oversight of data analysis, review of results, and providing key insights into the study design. YL: Assistance in data collection, contributing to the interpretation of findings, and reviewing the final manuscript draft. ER: Findings, and reviewing the final manuscript draft. NRCN: reviewing the final manuscript draft

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