

Measurement Reliability of Employee Awareness, Spirituality, Resilience, and Engagement in CSR: A Pilot Study

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DOI Link: <http://dx.doi.org/10.6007/IJARBSS/v15-i12/27021>

Published Date: 06 December 2025

Abstract

This pilot test was conducted to assess the reliability of measurement instruments used to analyze the interrelationships of Employee CSR Awareness (ECSRA), Individual Spiritual Quotient (ISQ), Individual Resilience (IR), and Employee CSR Engagement (ECSRE) in Malaysia's water utility sector. A preliminary psychometric assessment of the adapted scales was conducted using data obtained from 30 employees. Cronbach's alpha was used to test internal consistency reliability with SPSS Version 30. All constructs had alpha coefficients more than the suggested value of 0.70, indicating excellent internal reliability. These findings confirm that the instruments are statistically sound and suitable for use in the full-scale investigation, which will investigate the structural links among the variables.

Keywords: Corporate Social Responsibility, Employee CSR Awareness, Individual Spiritual Quotient, Individual Resilience, Employee CSR Engagement, Reliability, Malaysia

Introduction and Background of the Pilot Study

Corporate Social Responsibility (CSR) has evolved from a profit-driven philanthropic notion into a strategic, stakeholder-oriented framework embedded within organizational governance. Early views, such as Bowen's (1953) concept of social obligations, positioned CSR as voluntary ethical behavior. The later frameworks by Carroll's (1991) introduced CSR pyramid that formalized CSR into economic, legal, ethical, and philanthropic responsibilities. As global expectations expanded, CSR shifted toward sustainability and stakeholder engagement, emphasizing accountability, transparency, and long-term value creation (Aguinis & Glavas, 2012).

Although CSR research traditionally focused on organizational-level outcomes, growing attention has been shifted to micro-level or employee-centered CSR or micro-CSR analysis to understand how individual employees perceive, interpret, and engage with CSR initiatives

(Aguinis & Glavas, 2012; Aguinis, Rupp and Glavas, 2024; Glavas, 2016; Gond et al., 2017; Onkila & Sarna, 2022; Yassin & Beckmann, 2025). Thus, employee's perception (awareness) of CSR plays a pivotal role, as it reflects employees' familiarity with and recognize their organization's CSR commitments.

However, CSR awareness alone does not guarantee CSR engagement. Many employees may recognize their organization's CSR activities but fail to translate that awareness into meaningful attitudinal and behavioral CSR engagement (Aguinis & Glavas, 2012; Aguinis, Rupp and Glavas, 2024; Glavas, 2016; Gond et al., 2017; Rupp et al., 2018; Onkila & Sarna, 2022; Yassin & Beckmann, 2025).

Onkila & Sarna (2022) recommended that micro level CSR research should deepen the understanding on employees' engagement with CSR and the effect their emotional and cognitive experiences, suggesting that internal psychological mechanisms influence CSR-related behaviours that linkage the relationship between CSR awareness and individual spirituality and resilience dimensions to shape employee CSR outcomes. Similarly, Yassin and Beckmann (2025) underlined a lack of quantitative studies investigating mediating and moderating mechanisms of relationships between employees and CSR outcomes including the relationship between employee awareness and engagement in CSR.

These gaps underscore the need for theory-driven research to explain the psychological phenomenon that linking employee CSR awareness and their CSR engagement. Addressing these gaps highlighted the need for this pilot study to examine the influence of individual psychological constructs such as spiritual intelligence and psychological resilience on CSR engagement and to understand the effect of these positive psychological constructs on employee's motivation to engage in CSR initiatives.

In Malaysia, social science research in CSR has grown steadily over the past two decades. However, earlier studies have largely concentrated on organizational level analysis to fulfil the corporate governance of external reporting (Amran et al., 2013; Cheah & Lim, 2024; Dusuki & Yusof, 2008; Meng & Imran, 2024; Mohd Nasir et al., 2009; Tahir et al., 2015). Numbers of earlier empirical investigations have examined employee-level CSR experiences primarily among managers and executives in sectors such as plantation, mining, manufacturing, telecommunication, and banking (Abdul Hamid & Atan, 2011; Abdul Rashid & Ibrahim, 2002; Amran et al., 2013; Cheah & Lim, 2024; Lin, Ting, Roslan, & Asif, 2024; Ramasamy & Ting, 2004; Tahir et al., 2015). These studies focused on internal CSR systems for instance CSR communication, leadership CSR behavior, and human resource practices that influence employee CSR awareness. Nevertheless, limited attention has been dedicated to investigate the individual CSR engagement within the water utility sector, particularly in non-Western contexts like Malaysia.

In consequence, the Malaysian water utility sector represents a highly relevant yet underexplored context for CSR research in Malaysia context. Precisely, the water utility sector consists of public and private companies' suppliers of potable water (Figueroa and Lee, 2022). Thus, the water utility sector was selected for this study because its critical role in build up the sustainable development, environmental stewardship, and public welfare which those key dimensions aligned with CSR principles.

Malaysian water utility sector embodies the public and private water utilities companies bear the essential responsibility of providing safe, reliable, and affordable water services in line with the United Nations Sustainable Development Goals (SDGs) and Malaysia's national sustainability agenda (The Ministry of Economy, 2024). Despite this assignment, CSR practices within this sector have often been compliance-driven, emphasizing regulatory obligations and external reporting rather than cultivating employee-level awareness and psychological engagement in CSR. Through the employees as the ambassadors, water companies occupied a unique position in managing critical natural resources, responding to environmental demands, and fulfilling social expectations.

With rising environmental pressures, resource scarcity, and public expectations, Malaysian water utility sector increasingly requires employees who possess a high level of CSR awareness and dedication to engagement in CSR practices (Ahmed, Siwar, and Begum, 2014; Figueroa and Lee, 2022; Rahman, 2021). In fact, employees' daily decisions directly affect water quality, sustainability outcomes, and community trust, making employee CSR engagement as a key determinant of organizational CSR effectiveness (Figueroa et al., 2022).

However, several barriers continue to limit effective CSR engagement in this sector including limited internal communication that might hinder employees' awareness to understand the important of CSR initiatives that at the same time also impede their CSR engagement. Also limited resource allocation such as constraints in time and funding often restrict CSR program implementation. As well, the absence of clear measurement metrics and feedback mechanisms limits continuous improvement in CSR engagement among the employees (Latif & Sajjad, 2018; Lin, Lyau, Tsai, Chen, & Chiu, 2010, Maignan & Ferrell, 2000; Turker, 2009).

Latif & Sajjad (2018) emphasized the need for context-sensitive, theory-driven, and empirically validated CSR measurement tools. They point out that CSR perceptions differ across stakeholders especially the employees; yet employee-focused CSR instruments remain underdeveloped. They also critique the limited integration of micro-level psychological variables in existing measures, suggesting that more nuanced tools are required to capture how employees interpret, internalize, and respond to CSR.

Thus, these findings highlighted the importance of psychological and spiritual factors intervention to bridge this gap between awareness and engagement. The Individual Spiritual Quotient (ISQ) i.e. the capacity to find purpose, meaning, and ethical direction through inner spiritual values; has been recognized as a potential mediator that transforms CSR awareness into action (Huang et al., 2024). Similarly, Individual Resilience (IR), defined as an individual's ability to recover from setbacks and maintain goal-directed behavior under stress, may serve as a moderator to strengthen employees' persistence and engagement in CSR practices (Connor & Davidson, 2003; Robertson et al., 2015; Yassin & Beckmann, 2025).

However, empirical evidence remains limited to understand the extent of Individual Spiritual Quotient (ISQ) mediates the relationship between CSR awareness and CSR engagement (Huang et al., 2024), and the degree to which Individual Resilience (IR) moderates this association by enhancing employees' sustained engagement under stressful conditions (Connor & Davidson, 2003; Robertson et al., 2015; Yassin & Beckmann, 2025). Responding to the research gaps, this pilot test survey was conducted to understand the effect of these

positive psychological conditions on employee engagement in CSR (Rich et al., 2010; Glavas, 2016, Zhang, Dong, Weare, & Ao, 2021) as a multi-dimensional CSR analysis.

Hence, this study integrates cognitive CSR awareness and perception (Maignan and Ferrell, 2000), spirituality quotient (Zohar & Marshall, 2000; Augustian, 2001; Abul Rahman & Md Shah, 2015), CSR engagement (Maignan and Ferrell, 2000), and psychological resilience (Connor & Davidson, 2003; Luthans et al., 2007; Nashwall et al., 2019) dimensions based on Carroll (1991) CSR pyramid. Underpinning by Bandura (1977) Social Learning Theory this study enlightens the process of individual social learning to internalize role models CSR behaviors through observation and modeling; also, to postulate the psychological conditions of cognitive, emotional, and behavioral engagement that nurture the employee CSR engagement grounded by Kahn (1990) Engagement Theory.

Despite the growing attention among the westerner scholar to validate the individual-level CSR instruments, empirical validation of these constructs remains limited in Malaysia specifically in the water utility context. In water utility sector, CSR is not merely a corporate obligation but a critical element to nurture employees' involvement in CSR pyramid responsibilities of economic, legal, ethical, and philanthropic either during or after working hours. As a matter of fact, employees who are working in this sector play a pivotal role in realizing organizational CSR outcomes. Their awareness, spiritual orientation, psychological resilience, and engagement is important for meaningful interpretation and endorsement of CSR initiatives within water utility organizations.

Given the conceptual complexity and multidimensional nature of the constructs in this study, it is crucial to establish the psychometric soundness of the instrument's measurement prior to large-scale data collection. Thus, this pilot testing is conducted to evaluate the reliability, clarity, and suitability of the measurement items used to assess Employee CSR Awareness (ECSRA), Individual Spiritual Quotient (ISQ), Individual Resilience (IR), and Employee CSR Engagement (ECSRE) among employees in Malaysian water utilities companies. Hence, the pilot test aims to examine the internal consistency of all constructs, identify any ambiguous or underperforming items, and determine the overall clarity and contextual appropriateness of the survey instrument. As a result, the findings from this pilot test provide empirical justification for refining the instruments and enhancing the rigor and credibility of subsequent analyses in the main study.

Literature Review and Theoretical Context

Prior social science studies have primarily focused on organizational-level CSR, providing insufficient empirical evidence on the causal relationship between employees' CSR awareness and their attitudinal behavioral CSR engagement (Aguinis & Glavas, 2012; Aguinis, Rupp and Glavas, 2024; Glavas, 2016; Gond et al., 2017; Onkila & Sarna, 2022; Yassin & Beckmann, 2025). In this micro-level CSR analysis, employee-related psychological and behavioral constructs play a central role in shaping how CSR is perceived, internalized, and enacted within organizations (Aguinis & Glavas, 2012; Aguinis et al., 2017; Aguinis, Rup and Glavas, 2024; Gond et al., 2017; Onkila & Sarna, 2022; Yassin & Beckmann, 2025). Employee CSR Awareness (ECSRA), Individual Spiritual Quotient (ISQ), Individual Resilience (IR), and Employee CSR Engagement (ECSRE) are increasingly recognized as critical individual-level

variables that influence how employees make sense of and respond to organizational CSR initiatives (Gond et al., 2017; Onkila & Sarna, 2022; Yassin & Beckmann, 2025).

Each construct in this study is grounded in distinct theoretical foundations to cover employees cognitive CSR awareness, evaluation and interpretation (Gond et al., 2017), spiritual meaning-making (Zou, Lin, Su, & Houghton, 2022), psychological resilience capacities (Clercq and Pereira, 2023), and multidimensional of cognitive, behavioral, and emotional of employee CSR engagement (Lin et al., 2024) which together provide a holistic framework to understand the employees respond to CSR (Gond et al., 2017; Onkila & Sarna, 2022; Yassin & Beckmann, 2025). Accordingly, this section reviews the relevant literature and the underlying theoretical foundations for each construct, towards establishing the conceptual framework for the measurement validation conducted in this pilot study.

Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) is broadly understood as a voluntary organizational and employee-level commitment to advancing societal and environmental well-being through the fulfilment of economic, legal, ethical, and philanthropic responsibilities (Carroll, 1979, 1991, 1999, 2016). It encompasses a spectrum of policies, initiatives, and processes that collectively reflect both organizational and employee's dedication to these four domains of responsibility. The manner in which CSR is defined and operationalized shapes the organizational culture, subsequently influencing how employees perceive, internalize, and engage in CSR activities. From both Western and Islamic viewpoints, CSR comprises diverse practices that extend beyond traditional philanthropy by encompassing voluntary initiatives, stakeholder engagement, and broader social, ethical, and economic obligations that collectively support employees' instrumental and normative forms of CSR engagement at the individual level analysis (Carroll, 1978, 1979, 1991, 1999, 2016; Dusuki, 2008; Dusuki & Yusof, 2008; Yaacob & Azmi, 2012; Zaidi & Low, 2013).

Employee CSR Awareness (ECSRA)

ECSRA constructs primarily draw from the micro-CSR literature, which conceptualizes awareness as employees' understanding, familiarity, and perception of their organization's CSR initiatives (Carlini & Grace, 2021; David et al., 2005; Garavan et al., 2010). Studies have demonstrated that higher CSR awareness enhances employees' sensemaking and prosocial orientation, serving as a cognitive antecedent to CSR engagement (Aguinis & Glavas, 2019). Awareness of CSR practices also provides a cognitive foundation for employees to evaluate their organization's authenticity and alignment with moral or societal values (Sarna, Onkila, and Mäkelä, 2022). When employees perceive CSR initiatives as genuine and congruent with their own values, they experience greater identification with the organization (Glavas, 2016). As a result, CSR awareness fosters meaningfulness at work, as employees perceive their roles as contributing to a broader social purpose (Aguinis & Glavas, 2019). This awareness not only enhances organizational commitment but also influences employees' psychological states, motivating them to participate in CSR-related activities. Measurement items are therefore focused on assessing employees' recognition of CSR policies, programs, and leadership practices. Thus, employee CSR awareness (ECSRA) refers to employees' familiarity with, understanding of, and perceptions of their organization's CSR policies and activities (Carlini & Grace, 2021; David et al., 2005; Garavan et al., 2010) and recognition of role models' CSR behavior (Tekleab et al., 2020). When employees are aware of CSR practices, they are more

likely to perceive their organization as ethical and socially responsible, which enhances their involvement and participation in CSR initiatives at work or in the society at large.

Individual Spiritual Quotient (ISQ)

ISQ is measured as an individual's capacity to derive meaning, ethical guidance, and purpose from inner spiritual values (Amram & Dryer, 2008; Abdul Rahman, Md Shah, 2015; Pawar, 2016; Wigglesworth, 2012). Literature indicates that ISQ reflects an individual's ability to integrate spirituality into workplace behavior, functioning as a psychological resource that mediates the relationship between awareness and engagement (Karakas, 2010; Wigglesworth, 2012). In this study, Individual Spiritual Quotient (ISQ) represents an individual's ability to find meaning and purpose through work, guided by spiritual values such as compassion, integrity, and connection with others (Amram & Dryer, 2008). In the Malaysian context, spirituality also incorporates Islamic values emphasizing inner peace and moral conduct, aligning one's actions with divine principles. ISQ is theorized as a mediating mechanism linking CSR awareness to engagement by enabling employees to internalize organizational values. Thus, ISQ is positioned as a central individual attribute, most notably among employees who are seen as the critical agents shaping and sustaining CSR attitudes and behaviours.

Individual Resilience (IR)

IR is grounded in positive psychology (Connor & Davidson, 2003; Luthans et al., 2007; Nashwall, et al., 2019). Within workplace psychology studies, resilience is regarded as a dynamic personal resource that supports sustained performance, psychological well-being, and adaptive coping under pressure (Luthans, 2002). Resilient employees demonstrate emotional regulation, realistic optimism, and problem-focused coping strategies that preserve engagement and pro-social behaviour during organisational challenges (Robertson et al., 2015). The literature identifies resilience as a moderating construct that buffers stress and strengthens employees' persistence in CSR-related behaviors under challenging conditions (Robertson et al., 2015). Individual Resilience (IR) reflects an employee's psychological capacity to cope with stress and adapt to change (Connor & Davidson, 2003; Luthans et al., 2007). Resilient employees are better equipped to translate CSR awareness into proactive engagement, particularly in dynamic and challenging work environments.

Employee CSR Engagement (ECSRE)

ECSRE is conceptualized according to Kahn's (1990) Engagement Theory, encompassing cognitive, emotional, and behavioral dimensions. The literature emphasizes that CSR engagement reflects the degree to which employees internalize and act upon CSR values, contributing to organizational sustainability and social performance (Glavas, 2016; Rupp et al., 2018). ECSRE represents a key behavioral outcome of CSR communication and leadership modeling (De Roeck et al., 2014). High levels of engagement in CSR not only reinforce ethical organizational culture but also enhance employee well-being, organizational identification, and sustainable performance outcomes (Aguinis & Glavas, 2019; Farooq et al., 2017). Therefore, ECSRE serves as a critical indicator of the internalization of CSR values and the translation of awareness into purposeful action. So, this study operationalized Employee CSR Engagement (ECSRE) as the degree to which employees are cognitively, emotionally, and behaviorally involved in CSR-related work activities (Kahn, 1990; Glavas, 2016; Zhang et al.,

2021). Engagement represents a meaningful connection between personal values and organizational purpose.

The Theoretical Integration

This study particularly focused on the integration of cognitive (ECSRA), spiritual (ISQ), behavioral (ECSRE), and positive psychological resilience (IR) dimensions. Thus, the previous literature guided the development of these measurement constructs in order to holistically emphasize, capture and understand the individual-level CSR instruments that influence employee CSR engagement within the Malaysian water industry. These constructs are grounded in Carroll (1991) CSR Pyramid and underpinned by Bandura's (1977) Social Learning Theory, which posits that individuals learn behaviors by observing and modeling others, and Kahn's (1990) Engagement Theory, which explains how meaningful work fosters psychological presence and engagement. Carroll (1991) CSR Pyramid provide a foundation for ECSRA by defining what is employee's perception on CSR commitments, Bandura (1977) social learning theory explain the process of ECSRA leads to ECSRE to justify ISQ as the mediator subsequently employee internalize CSR value that link to meaning-making process, faith and spiritual quotient. While Kahn (1990) engagement theory is the underlying theory for ECSRE as the cognitive, emotional and behavioral engagement in CSR supported by IR as moderator that enhance employee resilience to remain engaged in CSR even in challenging situation. The interaction of these theories suggests that CSR awareness can enhance CSR engagement through internal processes of meaning making (via ISQ) and resilience in coping with workplace demands.

Methodology

Research Design

This pilot test study employed a quantitative, cross-sectional design using non-probability convenience sampling method aimed at evaluating the reliability and clarity of measurement instruments prior to full scale data collection. The questionnaire was designed to measure the four main constructs ECSRA, ISQ, IR, and ECSRE using validated scales adapted to the Malaysian context.

Participants and Data Collection

In this pilot test survey, thirty employees of Malaysian water utility organizations were selected based on their availability and accessibility by the researcher (Saunders, Lewis, & Thornhill, 2016; Creswell, 2014). The participants represented a range of departments, including operations, customer service, and administration. The data were collected via an online survey using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Participation was anonymous and voluntary, and informed consent was obtained from all respondents.

Measurement Scales

The instrument in this study used four (4) measurement scales adapted from earlier and relevant CSR studies at individual analysis.

Employee CSR Awareness (ECSRA) is measured via 16 items adapted from Maignan & Ferrell (2000), assessing familiarity with and understanding of organizational CSR activities. Sample measurement statements are: "It is important for my company to always strives to lower its

operating cost”, and “I know, my company seeks to comply with all laws regulating the business operation”.

Individual Spiritual Quotient (ISQ) is measured by 13 items based on Abdul Rahman & Md Shah (2015) capturing spiritual awareness, compassion, and moral alignment, contextualized within Islamic and Malaysian cultural perspectives. The example of scale item such as: “I am able to emphasize religion values and ethics in my daily routine”.

Individual Resilience (IR) is measured with 9 items from the Employee Resilience Scale (EmpRes) by Nashwall, Malinen, Kuntz, and Hodliffe (2019) focusing on adaptability and perseverance. The example of measurement statement: “I effectively collaborate with others to handle unexpected challenges at work”.

Employee CSR Engagement (ECSRE) is measured with 12 items adapted from CSR measurement by Maignan & Ferrell (2000) to suit Employee Engagement Scale by Rich et al., (2010) representing cognitive, emotional, and behavioral engagement dimensions. The example of scale item is: “I feel excited about giving adequate contributions to charities”.

Data Analysis

Data collected from the pilot test study were analyzed using SPSS Version 30. Descriptive statistics were generated to assess normality and response distribution. Internal consistency reliability was evaluated through Cronbach’s alpha (α), with $\alpha \geq 0.70$ considered acceptable (Nunnally & Bernstein, 1994). Item–total correlations were also examined to determine the contribution of each item to the overall scale reliability. Consistent with psychometric standards, items with correlations above 0.30 were considered acceptable, suggesting that each item was meaningfully related to its respective construct (Nunnally and Bernstein, 1994, Hair et al., 2019; Pallant, 2020).

Results

Reliability Analysis

Reliability analysis was conducted to assess the internal consistency of each construct used in the study. The results indicated that all measurement items demonstrated acceptable levels of reliability, with Cronbach’s alpha coefficients exceeding the recommended threshold of 0.70 (Nunnally & Bernstein, 1994). The results from the pilot test survey (Table 1) shown that the reliability of the constructs ranged from 0.777 to 0.896 are within the acceptable threshold. In conclusion, the results indicated satisfactory reliability of the measures and the questions were good enough to move on to the actual data collection phase. Furthermore, the total correlations for all items were above 0.30, suggesting that each item was positively correlated with the overall construct score (Nunnally and Bernstein, 1994, Hair et al., 2019; Pallant, 2020). Therefore, none of the items required removal, as all met the minimum criteria for internal consistency and contributed meaningfully to their respective constructs. The findings confirmed that all items contributed adequately to the internal consistency of their respective scales, indicating that the adapted instruments were reliable for use in the main study.

Table 1

Pilot Test Reliability Result

Construct	No. of Items	Cronbach's (α)	Alpha Reliability Interpretation
Employee CSR Awareness (ECSRA)	16	0.777	Acceptable
Individual Spiritual Quotient (ISQ)	13	0.896	Good
Individual Resilience (IR)	9	0.855	Good
Employee CSR Engagement (ECSRE)	12	0.785	Acceptable

Content (Face) Validity

In this study, content or face validity was established through a rigorous process of expert evaluation and literature alignment to confirm that the adapted items appropriately reflect the underlying constructs of Employee CSR Awareness (ECSRA), Individual Spiritual Quotient (ISQ), Individual Resilience (IR), and Employee CSR Engagement (ECSRE) within the Malaysian water utility context. In adapting the items, certain words in the original items were changed accordingly based on the suggestions from the expert panel who engaged in academic research for comments as to whether the survey questions were clear, understandable, suitable and appropriate for measuring the constructs. While, feedback from participants indicated that the questionnaire items were generally clear and relevant.

Discussion

The pilot test study aimed to examine the internal consistency reliability of four core constructs; Employee CSR Awareness (ECSRA), Individual Spiritual Quotient (ISQ), Individual Resilience (IR), and Employee CSR Engagement (ECSRE) within the context of Malaysian water utility sector. As shown in Table 1, all constructs demonstrated Cronbach's alpha coefficients exceeding the minimum acceptable threshold of 0.70 (Nunnally & Bernstein, 1994; Hair et al., 2017, Hair et al., 2021), confirming that each scale achieved satisfactory reliability for a pilot study.

The Employee CSR Awareness (ECSRA) construct, comprising 16 items, recorded a Cronbach's alpha of 0.777, indicating satisfactory internal consistency in line with original scales by Maignan and Ferrell (2000). This result aligns with previous findings that CSR awareness is a multidimensional construct influenced by employees' understanding, observation, and internalization of organizational CSR practices (David et al., 2005; Garavan et al., 2010). The reliability score suggests that the adapted measurement items were well understood and conceptually cohesive within the Malaysian utility context.

The Individual Spiritual Quotient (ISQ) scale achieved a Cronbach's alpha of 0.896, signifying good internal consistency as achieved by original scales by Abdul Rahman and Md Shah (2015). This supports the robustness of the items in capturing employees' intrinsic spiritual strength, purpose, and meaning in their work lives (Zohar & Marshall, 2000; Amram & Dryer, 2008). The high Cronbach's alpha value reinforces the theoretical role of ISQ as a mediating psychological mechanism that connects CSR awareness to employee engagement by fostering ethical mindfulness and inner motivation (Singh & Awasthy, 2025).

The Individual Resilience (IR) construct, with 9 items, showed a Cronbach's alpha of 0.855. The reported reliability score for this measurement is above 0.7 adjacent to adapted scale by Nashwall, Kuntz, Malinen and Hodliffe (2019) also indicating strong internal consistency. This result is consistent with the conceptualization of resilience as a psychological capacity that enables employees to adapt positively to stressors and maintain engagement (Connor & Davidson, 2003; Luthans et al., 2007). The reliability outcome confirms that the items effectively represent employees' adaptive coping and perseverance characteristics, validating its moderating role in the conceptual model.

The Employee CSR Engagement (ECSRE) scale achieved a Cronbach's alpha of 0.785, indicating acceptable reliability. These scales have consistently demonstrated strong reliability, with Cronbach's alpha values typically exceeding 0.70 (Glavas, 2016; Rich et al., 2010; Zhang et al., 2021). This suggests that the 12-item instrument adequately captures the multidimensional nature of CSR engagement across cognitive, emotional, and behavioral domains (Kahn, 1990; Saks, 2006). The moderate-to-high reliability score implies that participants consistently interpreted the items measuring their engagement with CSR-related initiatives.

Overall, the results demonstrate that all four constructs possess satisfactory internal reliability, meeting the recommended threshold for pilot testing (George & Mallery, 2019). The alpha values ranging between 0.777 and 0.896 indicate that the scales are psychometrically sound and ready for use in the main study. These findings confirm that the measurement instruments are both contextually appropriate and theoretically consistent with prior research on employee-level CSR mechanisms. Consequently, the validated instruments will be retained for the subsequent large-scale data collection and analysis using SmartPLS structural equation modeling (SEM), where the relationships among ECSRA, ISQ, IR, and ECSRE will be empirically tested.

Conclusion and Implications

This pilot study successfully established the internal consistency reliability of the four measurement constructs central to the main research model on the effect of Employee CSR Awareness (ECSRA), Individual Spiritual Quotient (ISQ), Individual Resilience (IR) on Employee CSR Engagement (ECSRE) within the Malaysian water utility context. The Cronbach's alpha values ranging from 0.777 to 0.896 demonstrate that all scales meet or exceed the recommended reliability thresholds for pilot testing (Hair et al., 2017; Hair et al., 2021; Nunnally & Bernstein, 1994). These findings affirm that the adapted instruments are psychometrically sound and contextually appropriate for assessing employees' perceptions and behaviors related to CSR. Thus, successfully achieved the objective of validating the reliability of the scales measuring ECSRA, ISQ, IR, and ECSRE. All constructs exhibited high internal consistency, indicating that the instruments are statistically sound and suitable for use in the main research.

The results also highlight the theoretical coherence of the proposed model. The strong reliability of ISQ and IR supports their expected mediating and moderating roles, respectively, between CSR awareness and CSR engagement. This reinforces the conceptual integration of Bandura's Social Learning Theory and Kahn's Engagement Theory, emphasizing how employees internalize CSR values through spiritual and psychological resilience factors that shape meaningful workforce engagement in CSR.

From a methodological perspective, the pilot test findings provided valuable insights into instrument clarity, response variability, and construct coherence, ensuring that the full-scale study will produce robust and interpretable results. The next phase of research will employ SmartPLS-SEM analysis with a larger sample to examine the hypothesized relationships, mediation, and moderation effects among the constructs.

The validated instruments contribute not only to the methodological rigor of the main study but also to the broader understanding of how individual-level psychological resilience and spiritual factors enhance CSR engagement among employees in Malaysia's public utility sector. The validated instruments offer a diagnostic tool for assessing employee engagement with CSR initiatives to understanding the roles of spirituality and resilience in order to help managers designing CSR communication and HRD strategies for a more meaningful employee participation, involvement and engagement in CSR at individual level.

In conclusion, this pilot test reliability analysis affirms the adequacy of the measurement model and sets a strong foundation for subsequent empirical testing. Thus, this validation process strengthened the content relevance and content (face) validity of the instrument, ensuring that each construct was measured in a way that resonates with theoretical definitions, methodological design and real-world CSR practices in the Malaysian water industry context.

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