



BARRIERS TO ZAKAT HEALTH AID ACCESS AND ENTREPRENEURIAL PERFORMANCE AMONG ASNAF ENTREPRENEURS: THE MEDIATING ROLE OF HEALTH STATUS

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Abstract *This study investigates the influence of barriers to zakat health aid access on entrepreneurial performance among asnaf entrepreneurs by examining both direct and indirect pathways. Specifically, it evaluates the effect of institutional barriers on health status and entrepreneurial performance, while positioning health status as a mediating mechanism linking access constraints to performance outcomes. This study integrates Human Capital Theory, Resource-Based View, and Maqasid al-Shariah to provide a holistic explanation of entrepreneurial performance within Islamic social finance. A quantitative cross-sectional survey design was employed, involving 220 asnaf entrepreneurs engaged in micro and small business activities. Data were analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) version 4.1.1. The results indicate that barriers to zakat health aid access negatively affect entrepreneurial performance and health status. Health status significantly mediates the relationship between barriers to zakat health aid access and performance. The study contributes to the Islamic social finance and entrepreneurship literature by integrating institutional constraints and health outcomes into a unified framework. Practically, the findings highlight the need for zakat institutions to enhance the efficiency, accessibility, and responsiveness of health aid systems, while also promoting entrepreneurial resilience among beneficiaries through improved service delivery, effective outreach initiatives, and timely provision of support. This integrated approach supports sustainable livelihood development and strengthens the socio-economic impact of zakat distribution systems.*

Keywords: *Zakat management, asnaf, health aid access, entrepreneurial performance*

Abstrak *Kajian ini mengkaji pengaruh halangan kepada akses bantuan kesihatan zakat terhadap prestasi keusahawanan dalam kalangan usahawan asnaf dengan meneliti laluan langsung dan tidak langsung. Secara khususnya, ia menilai kesan halangan institusi terhadap status kesihatan dan prestasi keusahawanan, di samping meletakkan status kesihatan sebagai mekanisme pengantara yang menghubungkan kekangan akses dengan hasil prestasi. Kajian ini mengintegrasikan Teori Modal Insan, Pandangan Berasaskan Sumber dan Maqasid al-Shariah untuk memberikan penjelasan yang holistik mengenai prestasi keusahawanan dalam kewangan*



sosial Islam. Reka bentuk tinjauan rentas seksyen kuantitatif telah digunakan, melibatkan 220 usahawan asnaf yang terlibat dalam aktiviti perniagaan mikro dan kecil. Data dianalisis menggunakan *Partial Least Squares Structural Equation Modelling* (PLS-SEM) versi 4.1.1. Dapatan kajian menunjukkan bahawa halangan kepada akses bantuan kesihatan zakat memberi kesan negatif terhadap prestasi keusahawanan dan status kesihatan. Status kesihatan memediasi secara signifikan hubungan antara halangan kepada akses bantuan kesihatan zakat dan prestasi. Kajian ini menyumbang kepada literatur kewangan sosial Islam dan keusahawanan dengan mengintegrasikan kekangan institusi serta hasil kesihatan ke dalam satu kerangka bersepadu. Secara praktikal, dapatan ini menyorot keperluan untuk institusi zakat meningkatkan kecekapan, kebolehaksesan, dan kemampuan maklum balas sistem bantuan kesihatan, di samping mempromosikan ketahanan keusahawanan dalam kalangan penerima manfaat melalui penyampaian perkhidmatan yang ditambah baik, inisiatif jangkauan yang berkesan, dan penyediaan sokongan yang tepat pada waktunya. Pendekatan bersepadu ini menyokong pembangunan mata pencarian yang mampan dan memperkukuh impak sosioekonomi sistem pengagihan zakat.

Kata kunci: Pengurusan zakat, asnaf, akses bantuan kesihatan, prestasi keusahawanan.

INTRODUCTION

The increasing emphasis on Islamic social finance has positioned zakat as a pivotal instrument for poverty alleviation and inclusive socio-economic development in Muslim-majority economies. Beyond its traditional redistributive function (Omar, 2023), contemporary zakat practices have evolved toward productive and empowerment-oriented approaches, particularly through entrepreneurial development among asnaf beneficiaries. Entrepreneurship is widely recognized as a viable pathway for enhancing income generation and reducing long-term dependency on welfare assistance, thereby aligning with broader sustainable development goals (United Nation Development Programme, 2020; Ismail et al., 2022). However, despite the growing institutionalization of zakat-based entrepreneurship programs, the effectiveness of such initiatives remains uneven, particularly in improving the performance of asnaf entrepreneurs (Wahab & Rahman, 2021; Hassan et al., 2021).

A critical yet underexplored dimension within this discourse is the role of health in shaping entrepreneurial outcomes. Health constitutes a fundamental component of human capital, directly influencing productivity, cognitive functioning, and the capacity to sustain business activities (Bloom et al., 2020; World Health Organization, 2021). For marginalized populations such as asnaf, access to adequate healthcare support is often constrained by structural, administrative, and socio-economic barriers. Empirical evidence suggests that asnaf entrepreneurs continue to face multidimensional challenges including limited institutional support, financial vulnerability, and capability deficits which collectively hinder business growth and resilience (Ismail et al., 2021; Yusoff et al., 2022). While zakat institutions have increasingly expanded assistance schemes to include healthcare-related aid, persistent issues related to accessibility, awareness, and bureaucratic inefficiencies may limit their effectiveness, thereby indirectly constraining entrepreneurial performance (Wahab & Rahman, 2021).

Despite these developments, the extant literature remains fragmented in several important respects. First, prior studies have predominantly examined financial assistance, human capital, or entrepreneurial competencies in isolation, with limited integration of health-related dimensions within the zakat ecosystem (Hassan et al., 2021; Ismail et al., 2022).



Second, although barriers in asnaf entrepreneurship have been acknowledged, empirical investigations rarely explore how constraints in accessing zakat health aid translate into measurable performance disparities. Third, the underlying mechanism through which such barriers influence entrepreneurial outcomes remains insufficiently theorized, particularly with respect to the mediating role of health status. While health is widely recognized as a determinant of economic productivity (Bloom et al., 2020), its incorporation into Islamic social finance and entrepreneurship frameworks remains underdeveloped. Consequently, a critical gap persists in understanding how structural barriers to health aid access interact with individual well-being to shape entrepreneurial performance among asnaf.

Addressing this gap, the present study examines the effect of barriers to zakat health aid access on entrepreneurial performance among asnaf entrepreneurs, with a particular focus on the mediating role of health status. Specifically, this study aims to (i) identify the relationship between barriers to zakat health aid access and entrepreneurial performance, (ii) examine the impact of barriers to zakat health aid access on health status, (iii) analyse the relationship between health status and entrepreneurial performance and (iv) examine the mediating role of health status in the relationship between barriers to zakat health aid access and entrepreneurial performance among asnaf entrepreneurs. By integrating structural constraints and individual-level health outcomes, this study advances a more comprehensive understanding of entrepreneurial performance within the zakat framework.

This study makes several important contributions. First, it extends the Islamic social finance literature by incorporating health access as a critical yet underexplored dimension in zakat-based empowerment models. Second, it contributes to entrepreneurship research by empirically establishing health status as a mediating mechanism linking institutional barriers and performance outcomes, thereby bridging the gap between social welfare and entrepreneurial productivity. Third, from a policy perspective, the findings provide actionable insights for zakat institutions and policymakers to enhance the design and delivery of health-related assistance, ensuring that support mechanisms are both accessible and effective in fostering sustainable entrepreneurial development among asnaf. In doing so, the study underscores the importance of a holistic approach integrating financial, health, and capability-based interventions.

Based on the objectives of this study, the following research questions are proposed:

1. What is the relationship between barriers to zakat health aid access and entrepreneurial performance?
2. How do barriers to zakat health aid access affect health status?
3. What is the relationship between health status and entrepreneurial performance?
4. Does health status mediate the relationship between barriers to zakat health aid access and entrepreneurial performance?

LITERATURE REVIEW

Theoretical Framework

This study is grounded in an integrated theoretical framework combining Human Capital Theory, the Resource-Based View and Maqasid al-Shariah, to explain how barriers to zakat health aid access influence entrepreneurial performance among asnaf entrepreneurs. This



multi-theoretical approach strengthens explanatory power by integrating individual capability, resource accessibility, and institutional–normative dimensions.

Human Capital Theory

Human Capital Theory posits that individuals' economic productivity is determined by their accumulated stock of human capital, including education, skills, and health (Becker, 1964; Bloom et al., 2020). Contemporary health economics literature increasingly recognizes health as a core component of human capital that directly affects labor productivity, cognitive functioning, and long-term economic outcomes (Grossman, 2017; Bloom et al., 2020). Poor health reduces energy levels, decision-making quality, and work continuity, thereby constraining entrepreneurial performance. Recent empirical studies further confirm that health shocks significantly reduce income-generating capacity and business sustainability, particularly among low-income populations (Currie & Goodman, 2020). In entrepreneurship research, healthier entrepreneurs demonstrate higher resilience, opportunity recognition, and business growth capacity (Baluku et al., 2020). In the context of this study, access to zakat health aid represents an institutional mechanism for enhancing human capital. Barriers to accessing such support may result in untreated health conditions, reduced productivity, and weakened entrepreneurial outcomes. Therefore, Human Capital Theory provides the primary explanation for the mediating role of health status in the model.

Resource-Based View

The Resource-Based View explains performance differences based on access to valuable, rare, inimitable, and non-substitutable resources (Barney, 1991; Barney et al., 2021). Modern extensions of RBV emphasize that micro-level actors such as entrepreneurs also depend heavily on external resource ecosystems, particularly in resource-constrained environments (Alvarez & Barney, 2020). Entrepreneurial success is strongly influenced by access to financial, institutional, and health-related resources that enable capability development and operational continuity (Ireland et al., 2021). In this study, zakat health aid is conceptualized as a strategic external resource that supports entrepreneurs in maintaining physical and psychological stability. However, barriers such as administrative complexity, lack of awareness, and institutional inefficiencies reduce resource accessibility. Such constraints weaken entrepreneurs' resource base and limit their ability to achieve sustainable performance outcomes. Thus, RBV explains how structural barriers translate into resource deprivation, ultimately affecting entrepreneurial success.

Maqasid al-Shariah

Maqasid al-Shariah provides the normative foundation for Islamic social finance, emphasizing the preservation of life (nafs), wealth (mal), and human dignity ('ird) (Chapra, 2020; Dusuki & Abdullah, 2007). Zakat institutions are therefore expected not only to redistribute wealth but also to enhance holistic well-being and socio-economic empowerment. Recent Islamic finance literature highlights that effective zakat implementation should align with Maqasid principles by ensuring access to health, education, and income-generating opportunities (Lahsasna, 2021; Ismail et al., 2022). In this study, barriers to zakat health aid access are interpreted as misalignment with Maqasid objectives, as they limit both health preservation and economic empowerment.

Taken together, these theoretical perspectives provide a coherent explanation of the relationships examined in this study. Human Capital Theory explains the mediating role of health status as a key mechanism linking barriers to entrepreneurial performance. The Resource-Based View highlights the importance of access to zakat health aid as a critical



resource influencing performance outcomes. Meanwhile, Maqasid al-Shariah provides the ethical and institutional foundation underpinning the role of zakat in promoting both health and economic well-being. By integrating these perspectives, this study offers a comprehensive framework for understanding how barriers to zakat health aid access affect entrepreneurial performance among asnaf entrepreneurs.

Barriers to Zakat Health Aid Access and Entrepreneurial Performance

In the context of this study, barriers to zakat health aid access refer to the perceived institutional, administrative, informational, and accessibility-related constraints that impede asnaf entrepreneurs from obtaining timely and adequate health assistance from zakat institutions. Higher scores indicate greater difficulty in accessing zakat health aid services. These barriers may include limited awareness of available health aid programs, complex application procedures, documentation requirements, delays in approval and disbursement, difficulties in communicating with zakat agencies, geographical constraints, and perceived inefficiencies in service delivery (Douthit et al., 2015). Entrepreneurial performance is strongly influenced by the availability of critical resources and the ability of individuals to maintain productive capacity. Human Capital Theory suggests that health is a key determinant of productivity and economic outcomes, as it directly affects cognitive ability, energy levels, and work sustainability (Bloom et al., 2020; World Health Organization, 2021). When individuals experience barriers to accessing healthcare support, their ability to maintain productive human capital is reduced, leading to lower economic performance. From a Resource-Based View, access to institutional support such as zakat health aid represents a strategic resource that enhances entrepreneurial capability and resilience (Barney et al., 2021). However, when access is constrained by bureaucratic inefficiencies or information asymmetry, entrepreneurs are unable to fully utilize these resources, resulting in weaker performance outcomes.

Nevertheless, the relationship between institutional support and entrepreneurial performance remains theoretically contested. While Human Capital Theory emphasizes the importance of health-related resources in enhancing productivity, some entrepreneurship scholars argue that entrepreneurial success is primarily driven by individual competencies, innovation capability, and market opportunities rather than welfare assistance alone (Mitchelmore & Rowley, 2010). This perspective suggests that external support mechanisms may not necessarily translate into improved business performance unless entrepreneurs possess sufficient capabilities to leverage such resources effectively. Therefore, the effectiveness of zakat health aid may vary depending on the broader entrepreneurial context and individual characteristics of beneficiaries.

Empirical findings also reveal inconsistent evidence regarding the impact of welfare-related support on entrepreneurial outcomes. Several studies have reported that access to healthcare and social protection mechanisms contributes positively to income generation, business continuity, and labour productivity among vulnerable entrepreneurs (Bloom & Canning, 2003; Gifford, 2021). In contrast, other studies suggest that the provision of social assistance alone may not significantly improve entrepreneurial performance when structural barriers, limited business skills, and weak market access persist (Agrawal et al., 2025). These mixed findings indicate that the relationship between access to social welfare support and entrepreneurial outcomes is more complex than previously assumed and warrants further investigation.



Within the Malaysian context, existing studies on zakat distribution have primarily focused on financial assistance, poverty alleviation, and socio-economic well-being, while limited attention has been given to health-related zakat assistance and its implications for entrepreneurship. Research has shown that although Malaysian zakat institutions have expanded their healthcare assistance programs, beneficiaries often encounter challenges related to application procedures, lack of information, lengthy approval processes, and uneven access across regions (Ahmad et al., 2025; Ab Rahman et al., 2023). These challenges may be particularly significant for asnaf entrepreneurs, whose business sustainability often depends on maintaining good health and continuous work participation.

Furthermore, evidence from Malaysian asnaf entrepreneurship programmes indicates that institutional support does not always produce uniform outcomes. While some beneficiaries experience improved business performance following zakat intervention, others continue to face difficulties due to health problems, inadequate access to support services, and administrative constraints (Ahmad et al., 2025; Hamzah et al., 2026). This suggests that barriers within zakat health aid systems may undermine the potential effectiveness of zakat as a developmental tool, highlighting the need to examine how such barriers influence entrepreneurial performance among asnaf entrepreneurs specifically. Empirical evidence also suggests that institutional barriers reduce the effectiveness of social support systems in improving economic outcomes among vulnerable populations (Alqahtani, 2024).

Accordingly, the study expected four hypotheses, namely;

1. H1: Barriers to zakat health aid access have a significant negative relationship with entrepreneurial performance among asnaf entrepreneurs.
2. H2: Barriers to zakat health aid access have a significant negative relationship with the health status of asnaf entrepreneurs.
3. H3: Health status has a significant positive relationship with entrepreneurial performance among asnaf entrepreneurs.
4. H4: Health status mediates the relationship between barriers to zakat health aid access and entrepreneurial performance among asnaf entrepreneurs.

Health economics literature consistently demonstrates that access to healthcare resources is essential for maintaining physical and mental well-being, particularly among low-income populations (Bloom et al., 2020; World Health Organization, 2021). Structural barriers such as administrative complexity, limited awareness, and accessibility constraints reduce individuals' ability to obtain timely healthcare services, resulting in deteriorating health conditions. Within the context of Islamic social finance, zakat health aid is intended to improve beneficiaries' welfare and reduce health inequality. However, the relationship between access barriers and health outcomes is not entirely uncontested. While many studies report that administrative and financial obstacles substantially worsen health status among vulnerable groups, other research suggests that community networks, informal care, and alternative support mechanisms may partially offset institutional deficiencies, leading to more heterogeneous health outcomes than a purely resource-based explanation would predict (Ho et al., 2023; Le & Ibuka, 2023). This debate indicates that access barriers may not affect all beneficiaries uniformly and that contextual factors can moderate the extent of health deterioration.



In the Malaysian setting, evidence on zakat health aid remains limited, and for asnaf entrepreneurs, these barriers may be especially consequential because health disruptions directly affect work participation, business continuity, and income generation (Meerangani et al., 2023). Emerging Malaysian findings further suggest that although zakat institutions have expanded healthcare assistance programmes, operational bottlenecks continue to constrain the intended welfare impact among vulnerable recipients (Ismail et al., 2021). Consequently, the present study argues that greater barriers to zakat health aid access are likely to be associated with poorer health conditions among asnaf entrepreneurs. Therefore, it is expected that barriers to zakat health aid access have a significant negative relationship with the health status of asnaf entrepreneurs.

Health is widely recognized as a core component of human capital that directly influences productivity and economic participation (Zakaria et al., 2025). Individuals with better health are more capable of sustaining effort, managing stress, and maintaining consistent work performance (Grossman, 2017; Bloom et al., 2020). In entrepreneurship, good health enhances decision-making capacity, resilience, and opportunity exploitation, all of which are critical for business success. Empirical research confirms that health status significantly influences income generation and entrepreneurial sustainability, particularly in resource-constrained environments (Yusoff et al., 2022). However, within the Human Capital Theory perspective, there are ongoing debates regarding the directness of this relationship, as some scholars argue that health may exert only an indirect effect on entrepreneurial outcomes through productivity and cognitive functioning, rather than a direct causal pathway (Gardiner et al., 2024). In contrast, other studies suggest that the influence of health on performance may be context-dependent, becoming weaker when entrepreneurs possess strong social capital or access to financial support, indicating a potential moderating effect rather than a purely linear relationship (Reif et al., 2022).

Thus, health status is expected to positively influence entrepreneurial performance among asnaf entrepreneurs. This expectation is further supported by previous studies that healthier entrepreneurs are more likely to sustain microenterprise operations, reduce business interruptions, and achieve higher income stability under zakat-assisted programs (Klofsten et al., 2021; Joremi et al., 2023). For instance, findings indicate that health constraints remain a significant barrier to consistent business engagement among asnaf entrepreneurs, particularly in informal sectors, where absence from work directly translates into income loss (Amin, 2022). Nevertheless, some contrasting evidence suggests that even entrepreneurs with limited health conditions may still achieve comparable performance when supported by strong institutional assistance, such as zakat funding and community-based support systems, implying that health status alone may not fully determine entrepreneurial success (Asni et al., 2025; Rapi et al., 2025). Therefore, health status has a significant mediating role of positive relationship with entrepreneurial performance among asnaf entrepreneurs.

Human Capital Theory suggests that health acts as a transmission mechanism through which structural and institutional factors influence economic outcomes. Barriers to healthcare access reduce health capital accumulation, which in turn negatively affects productivity and performance (Bloom et al., 2020). This indicates an indirect effect where health status mediates the relationship between access barriers and entrepreneurial outcomes. From the Resource-Based View, lack of access to health-related institutional support weakens internal entrepreneurial capabilities, further reducing performance potential (Barney et al., 2021). Integrating both perspectives suggests that health status plays a crucial mediating role in translating institutional constraints into performance outcomes. Therefore, improving access to



zakat health aid is expected to enhance entrepreneurial performance indirectly through improved health status.

Based on the literature review and the developed hypotheses, the conceptual framework for this study is presented in the diagram below. It illustrates the relationships between barriers to zakat health aid access, health status and entrepreneurial performance among asnaf entrepreneurs. The framework also highlights the mediating role of health status in shaping entrepreneurial outcomes. This model provides the theoretical foundation for empirically testing the proposed relationships using the collected data.

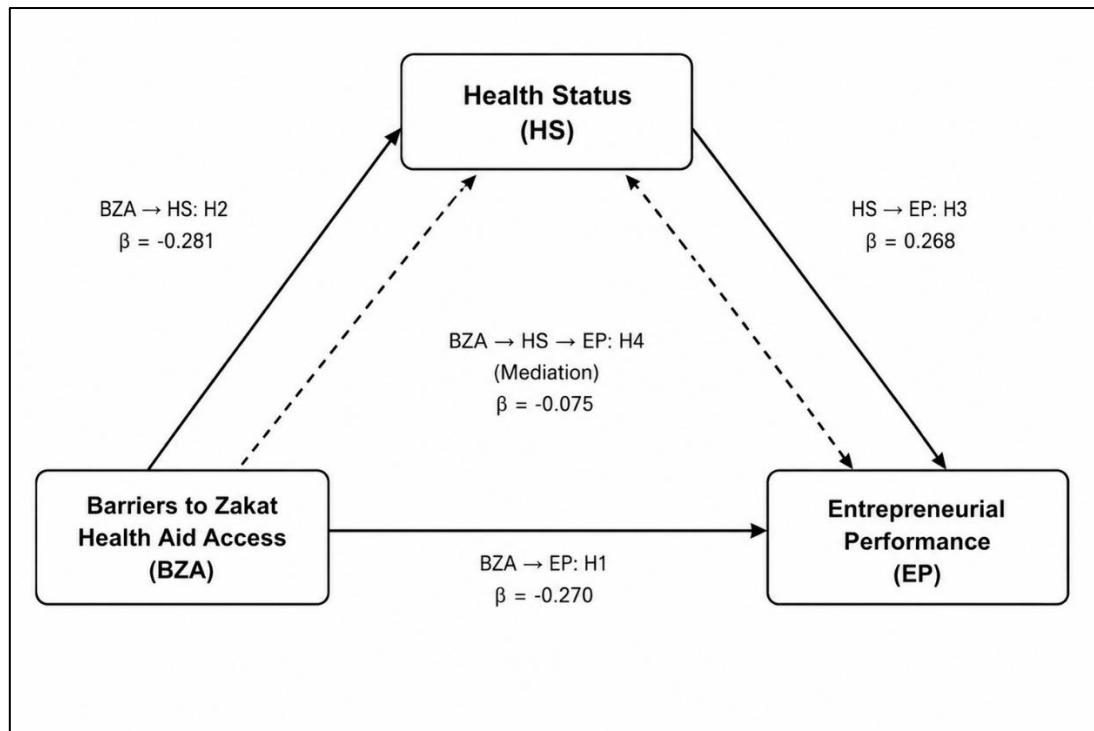


Figure 1
Proposed Framework

MATERIALS AND METHOD

Research Design

This study employs a quantitative methodology using a cross-sectional survey design to investigate the relationships. This design is appropriate for testing the proposed structural model and examining direct and mediating effects within a single data collection period. The approach is grounded in institutional and behavioural perspectives in Islamic social finance, enabling systematic assessment of how structural limitations in zakat health aid delivery influence entrepreneurial outcomes through health-related pathways. A cross-sectional design is particularly suitable for capturing respondents' perceptions and conditions at a specific point in time, especially regarding access to health support, psychological preparedness, and business performance.



Population and Sampling

The target population of this study comprises asnaf entrepreneurs who are officially registered zakat recipients under Bahagian Zakat dan Fitrah Sabah, Malaysia, and who are actively engaged in micro or small-scale business activities. These entrepreneurs operate across various sectors, including retail, food services, agriculture, fisheries, and home-based enterprises. The individual asnaf entrepreneur serves as the unit of analysis, as the study focuses on entrepreneurial performance in relation to access to zakat health assistance within the Islamic social finance framework.

A complete and up-to-date sampling frame of active asnaf entrepreneurs could not be established because no publicly accessible database specifically identifies individuals who simultaneously meet both criteria: (i) registered as zakat recipients and (ii) actively operating a business. In addition, the dynamic nature of asnaf status and entrepreneurial engagement further limits the availability of a fixed population list. Therefore, the Bahagian Zakat dan Fitrah Sabah, Malaysia administrative records were used as the primary reference sampling frame, and this was supplemented through field identification via zakat-related programmes, entrepreneurship development initiatives, community networks, and referrals from zakat officers and local leaders across Sabah. This combined approach ensured broader coverage of eligible and active asnaf entrepreneurs. To ensure respondent eligibility and theoretical relevance, participants were included based on three criteria: (i) officially registered as an asnaf under Bahagian Zakat dan Fitrah Sabah, Malaysia, (ii) actively engaged in micro or small business activities, and (iii) having experience with or exposure to zakat-related assistance or programmes. These criteria ensured alignment with the study constructs and improved data validity.

The minimum sample size was determined using G*Power 3.1, based on an effect size of 0.15, a significance level of 0.05, statistical power of 0.80, and three predictors. The analysis indicated a minimum requirement of 77 respondents. However, to enhance statistical robustness and meet the requirements of Partial Least Squares Structural Equation Modelling (PLS-SEM), a substantially larger sample was collected in line with the recommendations of Hair et al. (2021).

Given the geographical dispersion of asnaf entrepreneurs across Sabah, a quota-based convenience sampling approach was applied across three major regions: West Coast, East Coast, and interior Sabah. These regions were selected to reflect variations in economic activity, infrastructure accessibility, and service delivery environments. The final sample consisted of 220 usable responses, distributed as follows: 95 respondents from the West Coast, 70 from the East Coast, and 55 from the interior region, ensuring balanced regional representation and reducing geographical concentration bias.

Data collection involved distributing 240 questionnaires, of which 225 were returned, and 220 were deemed usable after data screening, resulting in a response rate of 93.75% and a usable response rate of 91.67%. This high response rate enhances the reliability of the dataset and supports the robustness of the empirical analysis.

Pilot Test

A preliminary pilot study was conducted with 30 asnaf entrepreneurs who actively engage in business activities and have prior exposure to zakat assistance programmes. The objective was to evaluate the clarity, reliability, and appropriateness of the measurement instrument. The results indicated satisfactory internal consistency, with Cronbach's alpha values exceeding the



recommended threshold of 0.70 (Taber, 2018). Based on feedback obtained, minor revisions were made to improve clarity and contextual alignment of items. The final questionnaire was administered between December 2025 and February 2026 through direct field distribution.

Instrument

The study utilised a structured questionnaire measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Barriers to zakat health aid access were measured using adapted items from the Healthcare Access Barriers Scale (HABS), which captures multidimensional constraints including awareness, accessibility, affordability, and institutional barriers. In the adaptation process, items were reviewed and modified to align with the context of zakat health assistance for asnaf entrepreneurs, particularly by rewording items to reflect Islamic social finance settings and removing context-specific wording unrelated to zakat-based support systems. The instrument has demonstrated strong reliability and validity in recent studies (Hu et al., 2025), and its content validity for the present study was established through expert review involving academics in Islamic social finance and public health, who assessed item relevance, clarity, and contextual appropriateness.

Health status was measured using adapted items from the Short Form Health Survey (SF-12), a widely validated instrument assessing physical and mental health across multiple domains. Items were contextually modified to reflect the working and living conditions of asnaf entrepreneurs, while maintaining the original conceptual structure of physical and mental health dimensions. The SF-12 has demonstrated strong reliability and validity in diverse populations and is widely applied in health and social science research (Soh et al., 2021). Content validity was similarly confirmed through expert evaluation to ensure cultural and contextual suitability.

Entrepreneurial performance was measured using subjective performance indicators adapted from established entrepreneurship literature, capturing financial performance, business growth, sustainability, and operational efficiency. Item modifications included contextual rephrasing to suit micro and informal enterprise settings, particularly where objective financial data are limited or unavailable. Subjective measures are appropriate for such contexts and have been widely validated in prior research (Tehseen & Ramayah, 2021; Kraus et al., 2020).

To ensure linguistic equivalence, the questionnaire underwent a translation process. The original English version was translated into Malay by a bilingual expert. Discrepancies were discussed and resolved to ensure semantic consistency. Finally, all measurement items were refined through a pilot test to assess clarity, comprehension, and reliability prior to full-scale data collection. All instruments were therefore adapted rigorously from validated prior studies and carefully refined for relevance within the asnaf entrepreneurship and Islamic social finance context.

Data Analysis

Data analysis was performed using Partial Least Squares Structural Equation Modelling (PLS-SEM) via SmartPLS 4.1.1, which is suitable for complex predictive models and non-normal data distributions. This method enables simultaneous evaluation of both measurement and structural models, including mediation and moderation effects. The analysis followed a structured procedure. Initially, descriptive statistics were used to summarise respondent profiles. Subsequently, the measurement model was assessed using composite reliability, Cronbach's alpha, Average Variance Extracted (AVE), and Variance Inflation Factor (VIF). Discriminant validity was evaluated using the Fornell-Larcker criterion. The structural model



was then tested using bootstrapping to obtain path coefficients, t-values, and significance levels. Model quality was further assessed using R^2 for explanatory power and Q^2 for predictive relevance (Hair et al., 2021). This multi-step approach ensures robust and reliable empirical validation of the proposed relationships.

Ethical Considerations

The research is conducted in accordance with recognised ethical principles to ensure the protection of participants' rights and the integrity of the study. Before data collection begins, all respondents are provided with clear information regarding the purpose, procedures, and potential implications of the research, and their voluntary consent is obtained. Measures are implemented to maintain confidentiality and privacy by anonymising participant information and securely storing all research data.

RESULTS

Demographic Profile

The demographic profile of respondents indicates a balanced distribution of gender, with males representing 54.2% and females 45.8% of the sample. In terms of age, the majority of asnaf entrepreneurs are concentrated in the 35–44 years (45.0%) and 45–54 years (33.3%) categories, suggesting that most respondents are in their economically active working-age group. Regarding business activities, respondents are primarily engaged in home-based micro enterprises, food and beverage services, retail trading, and service-oriented sectors, reflecting the dominance of small-scale entrepreneurial activities within the asnaf community. Multiple responses in this category indicate that some entrepreneurs operate across more than one business type. In terms of health status, a substantial proportion of respondents reported poor (76.7%) or fair (17.5%) health conditions, while only a small percentage indicated good health (5.8%), and none reported very good or excellent health. Overall, these findings suggest that most asnaf entrepreneurs operate under moderate to poor health conditions, which may have implications for their entrepreneurial sustainability and performance outcomes.

Reflective Measurement Model

The reflective measurement model was evaluated using Partial Least Squares Structural Equation Modelling (PLS-SEM) based on 220 valid responses. The results demonstrate that all constructs achieved satisfactory internal consistency, with composite reliability (CR) values ranging between 0.7115 and 0.913, indicating strong reliability of the measurement items across all constructs, namely barriers to zakat health aid access, health status, and entrepreneurial performance. Convergent validity was established, as the Average Variance Extracted (AVE) values were observed between 0.727 and 0.896, exceeding the minimum threshold of 0.50. This confirms that each construct explains a substantial proportion of variance in its respective indicators, thereby supporting adequate convergent validity. Discriminant validity was assessed using the Heterotrait-Monotrait (HTMT) ratio, where all values were found to be below the conservative threshold of 0.85, confirming that the constructs are empirically distinct and measure different theoretical dimensions. In addition, multicollinearity diagnostics using Variance Inflation Factor (VIF) indicated values ranging from 1.264 to 2.398, which are well below the critical threshold of 3.0. This confirms that multicollinearity is not a concern and that the structural estimates are stable for hypothesis testing (Hair et al., 2021). The results confirm strong internal consistency across all constructs, with Cronbach's alpha values ranging from 0.791 to 0.899, exceeding the recommended



threshold of 0.70. Composite reliability values (0.811–0.906) further confirm the reliability of the measurement model.

Structural Model

The structural model was assessed using bootstrapping procedures (5,000 resamples) to evaluate the hypothesised relationships. The results indicate that all proposed paths are statistically significant and consistent with theoretical expectations. Hypothesis 1 shows a significant negative effect of barriers to zakat health aid access on entrepreneurial performance ($\beta = -0.270$, $t = 4.971$, $p < 0.001$), suggesting that barriers in zakat health support negatively influence business outcomes. Hypothesis 2 reveals a significant negative relationship between barriers to zakat health aid access and health status ($\beta = -0.281$, $t = 4.503$, $p < 0.001$), indicating that variations in access constraints are significantly associated with differences in respondents' health conditions. Hypothesis 3 confirms a positive relationship between health status and entrepreneurial performance ($\beta = 0.268$, $t = 4.391$, $p < 0.001$), demonstrating that better health conditions enhance entrepreneurial productivity and sustainability. Finally, Hypothesis 4 indicates a strong and significant mediating effect of health status in the relationship between barriers to zakat health aid access and entrepreneurial performance ($\beta = -0.075$, $t = 2.452$, $p < 0.014$), confirming partial mediation.

Table 1
Path coefficients and significances

Hypothesis	Relationship	Std. Beta	t-value	p-value	95% CI	Decision	R ²	Q ²
H1	BZA → EP	-0.270	4.971	<0.001	[-0.411, -0.180]	Supported	0.69	0.59
H2	BZA → HS	-0.281	4.503	<0.001	[-0.392, -0.171]	Supported	0.62	0.50
H3	HS → EP	0.268	4.391	<0.001	[0.152, 0.388]	Supported	-	-
H4	BZA → HS → EP	-0.075	2.452	<0.014	[-0.120, -0.030]	Supported	-	-

The structural model demonstrates strong explanatory and predictive relevance. The results indicate that the model explains a substantial proportion of variance in both endogenous constructs. Specifically, the R² value for health status is 0.62, indicating that barriers to zakat health aid access explain 62% of the variance in respondents' health conditions. Meanwhile, entrepreneurial performance achieves an R² value of 0.69, suggesting a substantial explanatory power of the integrated model. In terms of predictive relevance, the Q² values obtained through blindfolding procedure are 0.50 for health status and 0.59 for entrepreneurial performance, both exceeding the recommended threshold of 0.35, indicating strong predictive relevance of the model. These results confirm that the proposed framework possesses both strong explanatory capability and high out-of-sample predictive relevance, reinforcing its robustness in explaining entrepreneurial outcomes among asnaf entrepreneurs.

DISCUSSION

The findings of this study provide strong empirical support for the proposed model examining the relationship between barriers to zakat health aid access, health status, and entrepreneurial performance among asnaf entrepreneurs. The results demonstrate that institutional barriers within barriers to zakat health aid systems significantly influence both health outcomes and entrepreneurial performance, thereby extending Islamic social finance literature beyond financial redistribution to include human capital development and entrepreneurial capability formation.



From a theoretical perspective, the mediating role of health status can be explained through Human Capital Theory, which posits that health is a fundamental component of productive capacity that determines an individual's ability to generate income and sustain economic activity (Gunduz & Yahya, 2018). In this study, health acts as a key transmission mechanism through which institutional inefficiencies in zakat delivery are translated into entrepreneurial outcomes (Norhuda et al., 2024). Barriers such as administrative complexity, limited accessibility, information asymmetry, and procedural delays restrict timely access to zakat-supported healthcare services. These constraints reduce entrepreneurs' physical energy, cognitive functioning, and psychological well-being, which are essential for sustaining entrepreneurial activities (Mohamed Esa et al., 2025). Consequently, health serves as an intermediary channel linking institutional conditions to entrepreneurial performance.

This mechanism is further supported by the Resource-Based View, which conceptualizes health as an essential intangible resource that enables individuals to sustain productivity and competitive advantage, particularly in resource-constrained environments such as those faced by asnaf entrepreneurs (Carpiano, 2006). Institutional inefficiencies within zakat systems not only limit external support but also indirectly weaken internal entrepreneurial capabilities by deteriorating health status. As health declines, entrepreneurs experience reduced stamina, lower adaptability, and weakened resilience, all of which negatively affect business sustainability and performance outcomes (Evans & Wall, 2019). Thus, entrepreneurial performance is shaped not only by external institutional support but also by the availability and preservation of internal human resources.

In addition, the mediating role of health status aligns with Maqasid al-Shariah, particularly protection of life and protection of wealth, which emphasize that Islamic institutions must safeguard both human well-being and economic sustainability (SumBillah, 2024). Zakat institutions in Malaysia are not merely financial redistribution mechanisms but are also designed to enhance the welfare and dignity of asnaf recipients. However, when barriers exist in accessing zakat health aid, the intended welfare function of zakat is weakened. This leads to delays in medical treatment and reduced healthcare access, ultimately compromising beneficiaries' health and limiting their ability to achieve holistic success. From this perspective, health becomes a central element in achieving both socio-economic empowerment and spiritual objectives within Islamic social finance (Mohd Hussin et al., 2024).

Overall, the findings contribute to Islamic social finance literature by demonstrating that zakat institutions function not only as redistributive mechanisms but also as enablers of human capital development and entrepreneurial sustainability. Strengthening the efficiency of zakat health aid systems is therefore crucial for achieving both economic resilience and the broader Maqasid-based objective of falah among asnaf entrepreneurs.

CONCLUSION

This study advances the understanding of entrepreneurial performance among asnaf entrepreneurs by integrating Human Capital Theory, the Resource-Based View, and Maqasid al-Shariah into a unified framework. Empirically, the findings demonstrate that barriers to zakat health aid access exert a significant negative effect on entrepreneurial performance, both directly and indirectly through health status. This confirms the central proposition of Human Capital Theory that health constitutes a critical productive asset influencing economic outcomes (Bloom et al., 2020; World Health Organization, 2021). The mediating role of health



status further highlights that structural constraints in accessing healthcare support translate into diminished entrepreneurial capacity via weakened human capital.

From a resource-based perspective, the findings reinforce that access to institutional support such as zakat health aid functions as a strategic resource that enhances entrepreneurial resilience and capability (Barney et al., 2021; World Bank, 2022). Barriers that restrict such access reduce the effective resource base available to asnaf entrepreneurs, thereby constraining their performance potential. Moreover, the results align with the normative expectations of Maqasid al-Shariah, emphasizing that limitations in accessing health-related assistance undermine the dual objectives of preserving life (nafs) and promoting economic well-being (mal) (Ismail et al., 2022). Collectively, these findings provide robust theoretical and empirical support for a holistic understanding of how health access, institutional efficiency, and entrepreneurial outcomes are interlinked within Islamic social finance systems.

From a policy perspective, the study underscores the urgent need for zakat institutions to enhance the accessibility, efficiency, and transparency of health aid distribution mechanisms. Simplifying administrative procedures, improving outreach and awareness among asnaf, and strengthening coordination with healthcare providers and community-based organizations can significantly reduce access barriers. In addition, establishing clearer eligibility guidelines, accelerating application processing, and implementing regular monitoring and evaluation of health assistance programs can improve service effectiveness and ensure that support reaches eligible beneficiaries in a timely manner. Furthermore, integrating health support with entrepreneurship development programs would enable a more comprehensive intervention strategy that simultaneously strengthens human capital and business capability. Policymakers should also prioritize institutional alignment with Maqasid al-Shariah principles by ensuring that zakat distribution systems effectively address both health and economic vulnerabilities, thereby maximizing their socio-economic impact (Lahsasna, 2021).

Despite its contributions, this study is subject to several limitations. First, the cross-sectional design restricts the ability to establish causal relationships between variables. Longitudinal data would provide deeper insights into the dynamic interplay between health status and entrepreneurial performance over time. Second, the study focuses on asnaf entrepreneurs within a specific national context, which may limit the generalizability of the findings to other regions with different institutional settings. Third, the measurement of health status is based on self-reported data, which may be subject to bias. Future studies could incorporate objective health indicators to enhance measurement validity.

Future research should extend this study in several directions. First, longitudinal and panel data analyses are needed to capture the temporal effects of health and resource access on entrepreneurial outcomes. Second, comparative cross-country studies could provide insights into how different zakat governance systems influence access barriers and performance. Finally, future research may incorporate additional theoretical perspectives, such as institutional theory or capability approaches, to further enrich the explanatory framework.

In conclusion, this study highlights that improving access to zakat health aid is not merely a welfare intervention but a strategic mechanism for enhancing entrepreneurial performance and achieving sustainable socio-economic development among asnaf. Addressing structural barriers and strengthening health capital are therefore essential for realizing the full potential of zakat as an instrument of inclusive growth.



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BIOGRAPHY

Aishah Tamby Omar is a senior lecturer whose academic pursuits lie at the intersection of organizational studies, zakat management, and leadership development. Dr. Aishah also has contributed extensively to research on Islamic philanthropic governance and sustainable development through zakat institutions. Her work bridges theory and practice, particularly in empowering community-based organizations to adopt more transparent and strategic management frameworks. In addition to her teaching and research, she actively mentors postgraduate students and frequently collaborates with NGOs and governmental bodies to improve the socio-economic impact of zakat distribution. Her passion for integrating faith-based values with modern organizational practices makes her a sought-after speaker at both academic and community platforms.

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