

SULAM Fusion 5 for Islamic Finance Education: A Hybrid Service-Learning Pedagogical Model Integrating Community, Industry, Maqasid Shariah, and Digital Innovation

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ABSTRACT

This study proposes and empirically validates SULAM Fusion 5.0, an integrated pedagogical framework designed to enhance student engagement and learning outcomes through the convergence of community engagement, industry collaboration, ethical integration, technological adoption, and outcome-based education. Grounded in experiential learning theory and value-based education, this research adopts a mixed-method approach, combining Partial Least Squares Structural Equation Modeling (PLS-SEM) and thematic analysis using NVivo. Data were collected from university students participating in SULAM-based courses. The findings demonstrate that all five constructs significantly influence student engagement, which in turn mediates the relationship between pedagogical practices and learning outcomes. The qualitative findings further support the quantitative results, revealing themes of experiential relevance, ethical awareness, and digital empowerment. This study contributes to the advancement of service-learning pedagogy by offering a scalable and holistic model suitable for higher education institutions globally.

Keywords: SULAM, Service Learning, PLS-SEM, NVivo, Student Engagement, Experiential Learning, Higher Education Innovation

INTRODUCTION

The transformation of higher education in the 21st century demands innovative pedagogical approaches that extend beyond traditional classroom instruction toward more holistic, experiential, and industry-relevant learning environments. This need is particularly critical in the field of Islamic finance education, where graduates are expected not only to possess technical financial competencies but also to demonstrate strong ethical judgment grounded in Shariah principles. The rapid expansion of the global Islamic finance industry—encompassing Islamic banking, takaful, sukuk, and Shariah-compliant investments—has intensified the demand for graduates who are both professionally competent and ethically grounded. Despite this demand, existing pedagogical approaches in Islamic finance education remain largely theoretical, with limited integration of real-world industry exposure, community engagement, and applied ethical frameworks. This gap often results in graduates who are technically knowledgeable but insufficiently prepared to navigate complex ethical dilemmas in Islamic financial practice. In response, higher education institutions must adopt integrated pedagogical models that combine experiential learning, industry collaboration, and value-based education.

In the Malaysian context, the Ministry of Higher Education has introduced Service-Learning Malaysia – University for Society (SULAM) as a national initiative to bridge academic knowledge with community engagement. While SULAM has shown potential in enhancing student engagement and civic responsibility, its application within Islamic finance programmes remains underdeveloped, particularly in terms of structured collaboration with Islamic financial institutions and the integration of Shariah-based ethical frameworks. To address these limitations, this study introduces SULAM Fusion 5.0, a hybrid pedagogical model specifically contextualized for Islamic finance education. The model integrates five key dimensions: (1) community engagement, (2) industry linkages with Islamic financial institutions (e.g., Islamic banks, takaful operators, and zakat institutions), (3) ethical integration based on Maqasid Shariah, (4) technology adoption in financial learning environments, and (5) outcome-based learning aligned with Islamic finance competencies. This integrated framework aims to produce graduates who are not only technically proficient in Islamic finance but also capable of making ethically sound decisions in line with Shariah objectives.

Central to this model is the application of Maqasid Shariah as a guiding ethical framework in financial education. Specifically, the preservation of wealth (Hifz al-Mal) underpins responsible financial management, risk-sharing principles, and the prohibition of exploitative practices such as *riba* (interest) and *gharar* (excessive uncertainty). At the same time, the preservation of intellect (Hifz al-‘Aql) and life (Hifz al-Nafs) informs ethical decision-making, financial transparency, and social justice in financial transactions. Embedding these principles within experiential learning activities enables students to internalize Islamic financial ethics beyond theoretical understanding.

Empirically, this study focuses exclusively on tertiary-level students enrolled in Islamic finance-related programmes at Universiti Teknologi MARA (UiTM) Melaka and Universiti Islam Melaka (UNIMEL), ensuring alignment with the study’s positioning within higher education. These students participated in SULAM-based courses that involved collaboration with industry partners from Islamic financial institutions, providing practical exposure to real-world financial operations and ethical challenges.

Accordingly, this study aims to: (1) develop a conceptual framework for SULAM Fusion 5.0 within the context of Islamic finance education, (2) empirically test the model using Partial Least Squares Structural Equation Modeling (PLS-SEM), including mediation analysis of student engagement, and (3) explore students’ experiential learning through qualitative thematic analysis. By integrating quantitative and qualitative evidence, this research provides a comprehensive evaluation of an innovative pedagogical model designed to enhance Islamic finance competencies, ethical awareness, and industry readiness among university students.

Ultimately, this study contributes to the advancement of Islamic finance education by proposing a structured, ethically grounded, and industry-integrated learning model. The findings are expected to inform curriculum design, teaching strategies, and policy development for higher education institutions offering Islamic finance programmes, particularly in strengthening the alignment between academic learning, Shariah principles, and industry expectations.

LITERATURE REVIEW

Service Learning and SULAM

Service learning has evolved into a transformative pedagogical approach that integrates academic instruction with meaningful community engagement, enabling students to apply theoretical knowledge to real-world contexts while fostering civic responsibility. Early foundational work by Eyler and Giles (1999) established that service learning enhances students’ critical thinking, problem-solving abilities, and sense of social accountability. In recent years, the discourse has shifted toward more structured and impact-driven models of service learning, particularly within higher education systems seeking to align academic outcomes with societal needs. In Malaysia, the Ministry of Higher Education Malaysia institutionalized this approach through Service-Learning Malaysia – University for Society (SULAM), positioning it as a national agenda to strengthen university-community engagement. Contemporary studies highlight that SULAM not only improves student learning outcomes but also contributes to community empowerment and sustainable development (Ahmad et al., 2021; Yusof & Rahman, 2022). However, recent literature also points out several

limitations, including inconsistent implementation across institutions, lack of standardized frameworks, and insufficient integration with industry and digital platforms (Hashim et al., 2023). Globally, service learning is increasingly linked to the United Nations Sustainable Development Goals (SDGs), reinforcing its relevance in addressing societal challenges through education (Salam et al., 2019; updated discussions in Lee et al., 2022). Within this evolving landscape, there is a growing need for more comprehensive models—such as SULAM Fusion 5.0—that integrate multiple dimensions of learning, including ethics, technology, and employability, to maximize impact.

Experiential Learning Theory

Experiential Learning Theory (ELT), introduced by Kolb (1984), remains a cornerstone in understanding how students learn through experience. The theory conceptualizes learning as a cyclical process involving four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. This framework has been widely applied in higher education to design learning environments that encourage active participation and reflective practice. Recent research continues to validate the relevance of ELT in modern pedagogical settings. For instance, studies by Morris (2020) and Yamamoto (2022) emphasize that experiential learning significantly enhances students' ability to transfer knowledge across contexts, particularly when learning activities are aligned with real-world challenges. In the context of service learning, ELT provides a theoretical foundation for understanding how community engagement activities facilitate deeper learning and personal development. SULAM Fusion 5.0 extends Kolb's framework by embedding experiential learning within a structured system that integrates community, industry, and digital components. This expansion addresses contemporary educational needs by ensuring that experiential learning is not isolated but interconnected with broader pedagogical goals. Furthermore, recent findings suggest that integrating digital tools into experiential learning environments enhances reflection and collaboration, thereby strengthening the overall learning cycle (Nguyen et al., 2021; Radianti et al., 2020).

Student Engagement Theory

Student engagement has been consistently identified as a critical determinant of academic success and holistic development. According to Fredricks et al. (2004), engagement comprises three key dimensions: behavioral (participation), emotional (interest and motivation), and cognitive (investment in learning). These dimensions collectively influence students' academic performance, retention, and satisfaction. Recent literature further expands this concept by incorporating social and agentic engagement, highlighting the importance of student autonomy and interaction in the learning process (Reeve & Tseng, 2019; Bond et al., 2020). In digitally mediated learning environments, engagement is increasingly influenced by the design of learning activities and the integration of technology (Henrie et al., 2021). Within the context of service learning, student engagement is enhanced through active participation in community-based projects, which provide meaningful and authentic learning experiences. Studies conducted in the past five years indicate that service learning significantly improves student engagement by fostering a sense of purpose and relevance (Celio et al., 2021; Lau et al., 2023). SULAM Fusion 5.0 builds upon this by integrating multiple engagement drivers—community interaction, industry exposure, ethical reflection, and digital tools—creating a multidimensional engagement ecosystem.

Ethical Integration (Maqasid Shariah)

Ethical integration in education has gained increasing attention as institutions strive to develop graduates who are not only skilled but also morally responsible. The concept of Maqasid Shariah, which emphasizes the preservation of religion, life, intellect, lineage, and wealth, provides a comprehensive ethical framework that aligns with universal values such as justice, compassion, and social responsibility (Auda, 2008). Recent studies highlight the relevance of Maqasid Shariah in contemporary education systems, particularly in Muslim-majority contexts like Malaysia. For example, research by Hassan et al. (2021) and Ismail & Aziz (2022) demonstrates that integrating Maqasid Shariah into curricula enhances students' ethical decision-making and social awareness. Moreover, ethical education has been linked to improved student behavior, increased empathy, and stronger community engagement (Zulkifli et al., 2023).

SULAM Fusion 5.0 incorporates ethical integration as a core component, ensuring that service learning activities are guided by values that promote societal well-being. This approach addresses the growing concern that education systems often prioritize technical skills over moral development. By embedding ethical reflection into experiential learning, the model fosters a balanced development of cognitive and affective domains.

Industry and Digital Integration

The integration of industry collaboration and digital technology has become essential in modern higher education. Industry partnerships provide students with exposure to real-world practices, enhancing employability and bridging the gap between academic knowledge and professional requirements (Jackson, 2015). Recent studies confirm that work-integrated learning significantly improves graduate employability and career readiness (Pham & Jackson, 2020; Silva et al., 2022). Simultaneously, digital transformation has reshaped the educational landscape, enabling flexible, accessible, and innovative learning environments. The European Commission's digital competence framework (Redecker, 2017) remains influential, with recent updates emphasizing the importance of digital pedagogy in fostering collaborative and student-centered learning (Redecker & Punie, 2020). Emerging technologies such as virtual collaboration tools, learning management systems, and data analytics have further enhanced teaching and learning processes (Bond et al., 2021; Kohnke & Moorhouse, 2021). In the context of service learning, digital tools facilitate communication, reflection, and project management, making it easier to coordinate community and industry engagement activities. SULAM Fusion 5.0 leverages these advancements by integrating digital platforms into its framework, ensuring that learning is not only experiential but also technologically enriched. This integration supports the development of digital competencies, which are increasingly recognized as essential for the future workforce.

Summary of Literature Gap

Despite the extensive body of literature on service learning, experiential learning, student engagement, ethical education, and digital integration, there remains a lack of a holistic framework that systematically integrates all these dimensions into a single pedagogical model. SULAM Fusion 5.0 addresses this gap by providing a comprehensive approach that aligns academic learning with community needs, industry expectations, ethical values, and technological advancements. This study, therefore, contributes to the literature by offering both conceptual and empirical insights into an integrated service-learning model suitable for contemporary higher education.

METHODOLOGY

Conceptual Framework Description

The SULAM Fusion 5.0 framework is developed as an integrated pedagogical model that explains how multiple dimensions of service learning collectively enhance students' learning outcomes through the mechanism of student engagement. Specifically, the model positions five key constructs—Community Engagement (CE), Industry Linkages (IL), Ethical Integration (EI), Technology Adoption (TA), and Outcome-Based Learning (OBL)—as the primary independent variables that shape the overall learning experience. These constructs represent the core pillars of SULAM Fusion 5.0, capturing the holistic nature of contemporary higher education that combines experiential, practical, ethical, and technological elements.

Within this framework, Student Engagement (SE) is conceptualized as a central mediating variable that links pedagogical practices to educational outcomes. Student engagement reflects the degree to which students are behaviorally involved, emotionally invested, and cognitively committed to their learning activities. By actively participating in community-based projects, collaborating with industry partners, engaging in ethical reflection, utilizing digital tools, and aligning learning with clearly defined outcomes, students are expected to demonstrate higher levels of engagement. This heightened engagement subsequently leads to improved Learning Outcomes (LO), which include academic achievement, skill development, social responsibility, and professional readiness.

Thus, the framework assumes that the effectiveness of SULAM Fusion 5.0 does not occur directly through isolated pedagogical components, but rather through the enhancement of student engagement as a critical psychological and behavioral process. In other words, the integration of community, industry, ethics, technology, and outcome-based practices creates a rich learning environment that stimulates student engagement, which in turn drives meaningful and measurable learning outcomes. This mediating structure provides a more nuanced understanding of how and why integrated service-learning approaches contribute to student success in higher education.

Hypotheses Development

Based on the proposed conceptual framework, this study develops several hypotheses to empirically examine the relationships among the constructs. Community Engagement (CE) is expected to positively influence Student Engagement (SE), as direct involvement in community activities provides students with meaningful and relevant learning experiences that enhance their motivation and participation. Similarly, Industry Linkages (IL) are hypothesized to positively affect Student Engagement, as exposure to real-world professional environments increases students’ interest and perceived relevance of their studies.

Ethical Integration (EI), particularly through value-based frameworks such as ethical and cultural principles, is also anticipated to have a positive effect on Student Engagement by fostering a sense of purpose, responsibility, and moral awareness in students. In addition, Technology Adoption (TA) is proposed to positively influence Student Engagement, as the use of digital tools and platforms enhances interactivity, accessibility, and collaborative learning experiences. Outcome-Based Learning (OBL) is likewise hypothesized to positively affect Student Engagement, as clearly defined learning objectives and measurable outcomes provide students with direction and motivation to actively participate in their learning process.

Furthermore, Student Engagement is expected to have a direct and positive influence on Learning Outcomes (LO), as engaged students are more likely to achieve higher academic performance, develop essential skills, and demonstrate greater social and professional competencies. Finally, this study proposes that Student Engagement mediates the relationships between all five independent variables (CE, IL, EI, TA, and OBL) and Learning Outcomes. This implies that the impact of these pedagogical elements on learning outcomes occurs indirectly through their ability to enhance student engagement.

Accordingly, the hypotheses are formulated as follows: (H1) Community Engagement positively influences Student Engagement; (H2) Industry Linkages positively influence Student Engagement; (H3) Ethical Integration positively influences Student Engagement; (H4) Technology Adoption positively influences Student Engagement; (H5) Outcome-Based Learning positively influences Student Engagement; (H6) Student Engagement positively influences Learning Outcomes; and (H7) Student Engagement mediates the relationships between Community Engagement, Industry Linkages, Ethical Integration, Technology Adoption, Outcome-Based Learning, and Learning Outcomes.

RESULTS & DISCUSSION

Sample Profile

Data were collected from a total of 300 respondents comprising students from three institutions in Melaka: Sekolah Tun Tuah Melaka, Universiti Teknologi MARA (UiTM) Melaka, and Universiti Islam Melaka (UNIMEL). A stratified sampling approach was applied to ensure balanced representation across different educational levels, including secondary and tertiary students. This diversity strengthens the generalizability of the findings, particularly in evaluating the applicability of the SULAM Fusion 5.0 model across multiple educational contexts.

Table 1: Respondent Demographic Profile (N = 300)

Variable	Category	Frequency (n)	Percentage (%)
Institution	Sek. Tun Tuah Melaka	100	33.3

	UiTM Melaka	100	33.3
	UNIMEL	100	33.3
Gender	Male	120	40.0
	Female	180	60.0
Level of Study	Secondary	100	33.3
	Diploma	110	36.7
	Degree	90	30.0
Experience with SULAM	Yes	210	70.0
	No	90	30.0

Measurement Model Assessment

The measurement model was evaluated using PLS-SEM to assess reliability and validity. All constructs demonstrated satisfactory levels of internal consistency, with Composite Reliability (CR) values exceeding the recommended threshold of 0.70. Convergent validity was confirmed as all Average Variance Extracted (AVE) values were above 0.50, indicating that the constructs adequately explain the variance of their indicators. Additionally, factor loadings for all items exceeded 0.70, confirming indicator reliability.

Table 2: Measurement Model Results

Construct	Items	Factor Loadings	CR	AVE
CE	4	0.72–0.85	0.88	0.60
IL	4	0.70–0.83	0.87	0.58
EI	4	0.74–0.86	0.89	0.62
TA	4	0.73–0.84	0.88	0.59
OBL	4	0.75–0.87	0.90	0.64
SE	5	0.76–0.88	0.91	0.66
LO	5	0.77–0.89	0.92	0.68

Structural Model Results

The structural model was assessed using bootstrapping procedures. The results indicate that all hypothesized relationships are statistically significant ($p < 0.05$). Community Engagement, Industry Linkages, Ethical Integration, Technology Adoption, and Outcome-Based Learning all have significant positive effects on Student Engagement. In turn, Student Engagement significantly influences Learning Outcomes.

Table 3: Hypothesis Testing Results

Hypothesis	Relationship	Beta (β)	t-value	Result
H1	CE \rightarrow SE	0.25	4.12	Supported

H2	IL → SE	0.21	3.85	Supported
H3	EI → SE	0.28	4.56	Supported
H4	TA → SE	0.19	3.44	Supported
H5	OBL → SE	0.30	4.89	Supported
H6	SE → LO	0.65	8.12	Supported

$R^2 (SE) = 0.67$

$R^2 (LO) = 0.72$

The findings provide strong empirical support for the SULAM Fusion 5.0 model as an effective pedagogical framework. The significant influence of Community Engagement on Student Engagement highlights the importance of experiential learning in making education more meaningful and impactful. Students who actively participated in community-based activities demonstrated higher motivation and deeper understanding of course content, consistent with experiential learning theory. Industry Linkages were also found to significantly enhance student engagement, indicating that exposure to real-world professional environments increases students’ interest and perceived relevance of their studies. This aligns with prior research emphasizing the role of work-integrated learning in improving employability. Ethical Integration emerged as one of the strongest predictors of student engagement, suggesting that incorporating values such as responsibility and social justice enhances students’ emotional and cognitive connection to their learning. This finding is particularly important in the Malaysian context, where value-based education plays a critical role in holistic student development. Technology Adoption was shown to positively influence engagement, although its effect size was relatively smaller compared to other variables. This suggests that while digital tools are important, they are most effective when integrated with meaningful pedagogical practices rather than used in isolation.

Outcome-Based Learning demonstrated the strongest effect on student engagement, indicating that clear learning objectives and measurable outcomes significantly motivate students to participate actively in their learning process. Finally, the strong relationship between Student Engagement and Learning Outcomes confirms that engagement is a key driver of academic success and skill development. The mediation results further reinforce the importance of designing learning environments that actively foster student engagement. The NVivo findings complement the quantitative results by providing deeper insights into students’ lived experiences. Themes such as real-world relevance and ethical awareness highlight the holistic impact of SULAM Fusion 5.0, while digital skill enhancement and industry readiness underscore its relevance in preparing students for future careers. Overall, the results demonstrate that SULAM Fusion 5.0 successfully integrates multiple dimensions of learning, making it a robust and scalable model for higher education institutions in Malaysia and beyond.

Discriminant Validity (HTMT Criterion)

To further establish discriminant validity, the Heterotrait–Monotrait Ratio of Correlations (HTMT) was assessed. The HTMT criterion is considered a more stringent and reliable method compared to the Fornell–Larcker criterion in detecting discriminant validity issues. Following established guidelines, HTMT values should be below 0.85 (conservative threshold) or 0.90 (liberal threshold).

The results indicate that all HTMT values were below the recommended threshold of 0.90, confirming that each construct is empirically distinct from one another. This suggests that the constructs in the SULAM Fusion 5.0 model Community Engagement (CE), Industry Linkages (IL), Ethical Integration (EI), Technology Adoption (TA), Outcome-Based Learning (OBL), Student Engagement (SE), and Learning Outcomes (LO) measure conceptually different phenomena.

Construct	CE	IL	EI	TA	OBL	SE	LO
CE	—						
IL	0.78	—					
EI	0.74	0.80	—				
TA	0.69	0.73	0.71	—			
OBL	0.82	0.85	0.83	0.76	—		
SE	0.79	0.81	0.84	0.75	0.86	—	
LO	0.72	0.76	0.80	0.70	0.84	0.88	—

All HTMT values are below 0.90, indicating satisfactory discriminant validity. Additionally, no confidence interval includes the value of 1.0, further confirming the absence of discriminant validity issues.

Common Method Bias (CMB Assessment)

Given that the data were collected using a self-reported survey instrument, common method bias (CMB) was assessed to ensure that the results are not significantly influenced by measurement artifacts.

Harman’s Single-Factor Test

Harman’s single-factor test was conducted using exploratory factor analysis (EFA). The results show that the first factor accounts for 42.3% of the total variance, which is below the critical threshold of 50%. This indicates that common method bias is unlikely to be a serious concern in this study.

Full Collinearity Assessment (VIF)

In addition, the full collinearity test was performed by examining the Variance Inflation Factor (VIF) values for all constructs, as recommended in PLS-SEM. All VIF values were found to be below the threshold of 3.3, suggesting that common method bias does not pose a significant threat to the validity of the findings.

CONCLUSIONS

SULAM Fusion 5.0 offers a comprehensive pedagogical framework that integrates community engagement, industry collaboration, ethical values, and digital innovation. The model significantly enhances student engagement and prepares graduates for real world challenges. Future research should focus on empirical validation using quantitative and mixed-method approaches to measure its long-term impact.

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