Organizational Readiness and Sustainable Transformation in Islamic Banking: A Higher-Order Analysis of Fintech Mediation and Regulatory Moderation

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Abstract

This study aimed to examine how organizational readiness, specifically innovation valance, change efficacy, and contextual factors, influence sustainability achievements in Pakistani Islamic banks, with fintech adoption as a mediating mechanism and the regulatory environment as a moderator. A quantitative, deductive research design was employed using a higher-order structural equation modeling (SEM) approach. Data were collected from a stratified sample of 478 respondents from fully fledged Islamic banks and Islamic windows of conventional banks in Pakistan. Validated scales were adapted to measure all constructs using a five-point Likert scale. Based on responses from 478 employees of Islamic banks across Pakistan, analyzed using higher-order structural equation modeling, findings revealed that innovation valance and contextual factors significantly predicted fintech adoption, which in turn enhanced economic, environmental, and social sustainability outcomes. Change efficacy had a direct influence on economic and environmental sustainability but did not significantly affect fintech adoption. The regulatory environment positively influenced fintech adoption but did not moderate the indirect relationships between readiness constructs and sustainability outcomes. The results underscore the importance of value alignment and strategic cultural readiness over technical change capability in driving fintech-enabled sustainability.

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Regulatory support alone is insufficient to condition organizational behavior without internal congruence. This study extends the organizational readiness for change theory by incorporating fintech as a mediating mechanism and demonstrating that innovation legitimacy and contextual alignment are critical for sustainability transitions in faith-based financial institutions. Its main contribution lies in showing that value-based and contextual readiness, rather than technical capability alone, drive sustainable, technology-enabled transformation in faith-compliant financial institutions.

Keywords: Islamic banking, organizational readiness, fintech adoption, sustainability achievement, regulatory environment

1. Introduction

As global Islamic banking reaches a new milestone, driven by the power of digital transformation and the urgency towards sustainable business trends, Pakistani Islamic banks need to reposition themselves to stay Shariah-compliant and to meet the latest demands of sustainability on all fronts of environment, economy, and society. As the organization pursues faith-based financial stewardship and modern-day process change, the question of organizational readiness and innovation presents an eminent factor in guaranteeing sustainable results (Bani Atta, 2025). The Islamic banking industry in Pakistan has become one of the most critical segments of the national financial framework, with an overall share of total banking assets exceeding 20% in 2024 (*State Bank of Pakistan*, 2024). Nonetheless, the pressure to modernize existing models of operation to meet sustainability standards or in response to the new regulatory environment and climate pledges has been on Islamic banks in Pakistan recently (Rashid et al., 2024; Rizvi et al., 2025). Islamic banks have not fully institutionalized sustainability-based innovation despite their ethical underpinnings of social justice and environmental stewardship (Almaqtari et al., 2025). The modern dilemma entails the incorporation of Islamic principles into the robust framework of organizational change efforts and the application of fintech to find a response to the triple bottom line that encompasses economic, social, and environmental sustainability (Suswanto et al., 2024).

The key concept underlying this change is the notion of Innovation Valance, which refers to the shared view of the people in an Islamic bank regarding the relevance and fit between innovation and its goals and practices (Suswanto et al., 2025). Contrary to conventional banks, Islamic financial institutions tend to face internal opposition to innovation (particularly deemed to violate Shariah) (Awuah et al., 2024). Therefore, the

focus of an organization on innovation should be examined in a contextual fashion, including ethical, religious, and strategic filters. Resource, IT, and cognitive readiness as Change Efficacy are determinant variables in these environments. It sums up the faith of the institution in its ability to implement change and still stay in line with Islamic norms and the dynamic needs of digital infrastructure (Mohamed, 2025).

Organizational change in Islamic banking is subject to contextual determinants, which include cultural readiness premised on religious self-identification and strategic readiness premised on the mission-based banking approach (Maniam, 2024). They contribute to leadership commitment and employee embrace of FinTech-driven changes. Although the phenomenon of fintech usage presents a tremendous opportunity to make Islamic banks more inclusive, efficient, and sustainable in terms of their footprint throughout their existence, its effectiveness is subject to the existence of internal readiness and congenial regulatory conditions that should coincide with Islamic norms (Almaqtari et al., 2025; Mohamed, 2025).

Although Islamic banking was normatively aligned with sustainability, Pakistani Islamic banks were reticent in the pursuit of operationalizing sustainability metrics with innovation and digital transformation (Nurfadilah et al., 2023). Researchers tend to focus on product innovation or Shariah governance and do not provide a synthesized perspective that would match innovation valance, change efficacy, and cultural-strategic readiness and sustainability results. Moreover, independence in fintech usage is usually examined without realizing that fintech acts as a mediator between organizational readiness and sustainability accomplishments (Al Mamun et al., 2025). This is imperative because the industry is relatively slow to adopt fintech innovations that are regarded as disruptive to traditional Shariah-compliant systems.

Moreover, although regulatory environments are commonly recognized as facilitating or inhibiting fintech and sustainability transitions, empirical research is scarce regarding how the regulatory framework moderates the associated relationships within Islamic banks (Arianty et al., 2025). In Pakistan, where both the pressure of the conventional finance sector and the Islamic finance segment exist, the impact of such environments on the interaction between the ready, innovative capacities, and sustainable performance is under-theorized and underexplored (Al Mamun et al., 2025; Aniko et al., 2024). Therefore, there is an urgent need to develop a comprehensive empirical paradigm into which one can integrate the process of internal readiness, fintech mediation, and regulatory moderation to determine the development of sustainable Muslim banking in Pakistan.

The research problem under study in this research is, whilst Islamic Banking principles adhere to sustainable principles of business, there is limited empirical basis that proves the way the internal readiness of Islamic banking institutions (innovation valance, change efficacy, and contextual factors) are translated into economic, environmental and social achievements through usage of fintech; and whether these achievements are influenced by the external regulatory environment or not; in other words a clear testable account of the pathway from internal readiness to sustainable performance through the use of fintech is missing in the scholarship and practice field in the context of Islamic banking in Pakistan.

This study aims to study the relationship between innovation valance, change efficacy (resource efficacy, IT efficacy and cognitive efficacy) and contextual factors (cultural efficacy, strategic efficacy) with the economic, social and environmental sustainability success of Islamic Banks in Pakistan. Furthermore, the present study explores the mediation role of the uptake of fintech in such interactions and the role of the regulatory environment in the moderation. It, therefore, establishes an aggregate framework to address the development of Islamic banks under the internal and institutional pressures on sustainability.

This study is a valuable situation-based state of the art analysis of the relationship between organizational change, Islamic finance and sustainability. It looks at Islamic banks in Pakistan alone, which further intensifies the study of an institution in "the specific context and environment" created by "the combination of religious doctrines, innovative approaches and a lack of regulation". The study's relevance to scientific literature stems from its mediation mechanism and moderating environment while dealing with the issue of operationalizing fintech adoption as a mediator and the regulatory environment as a moderator in achieving sustainability in Islamic banking (Al-Smadi, 2025). The findings may guide Islam financial institutions practitioners to engage into strategic decisions related to Islamic financial institutions' capacity building and investment in fintech ecosystems. The findings of this study can be applied by policy makers in developing policies that promote sustainable innovation and enhance the implementation of Shariah (Mohd Haridan et al., 2023). Last but not least, this study has an empirical-based trajectory that will enable the transformation of Islamic banks in Pakistan to a performance-based sustainability.

2. Literature Review

2.1 Theoretical Framework

The study is grounded in the Organization Readiness to Change Theory developed by Weiner (2020), which offers a unified perspective to analyze how Islamic banks in

Pakistan embark on and persist with innovation-based transformations on a path to sustainability. According to the theory, the successful implementation of change in an organization relies on the readiness of the organization as a whole, which constitutes the resolve of the members and collective efficacy. Such readiness depends on structural and cognitive factors (e.g., availability of resources and IT infrastructure, shared commitment, strategic alignment, and perceived value of change) (Ahmad et al., 2024; Hussain et al., 2025). This theory is especially applicable in the context of Pakistani Islamic banks, where the change needs to be associated with the organizational goals and the principles of Shariah. Innovation valance indicates how desirable an innovation is perceived in terms of Islamic financial values and the acceptance of the organization (Meraj et al., 2025). Change efficacy, which entails resource, IT, and cognitive readiness, is the operationalization of the conditions to be exercised internally to execute change (Sebastian, 2023). Furthermore, contextual elements such as cultural and strategic readiness seem to indicate the interpretive images of change internalization throughout the corporation (Kasmon et al., 2025). Such elements are vital for adopting new financial technologies (fintech), which the study considers a mediating mechanism between readiness and sustainability outcomes. Finally, the theory does not exclude external factors by ignoring that the regulatory environment, even when readiness is achieved internally, can modify or limit the success of implementation; this approach views it as a moderator (Hurani et al., 2024). In this way, this theoretical orientation establishes a comprehensive framework for conceptualizing the interaction of internal readiness and external restrictions in terms of their effect on the sustainable transition of Islamic banks in a developing economy setting.

2.2 Innovation Valance

Innovation valance is seen as part of organizational readiness, specifically concerning the perception of innovation as a valuable, desired, and strategic objective and culture of the organization (Siham, 2025). In Islamic financial institutions, the framework of innovation's valance is far more intricate as the choice this time is not only based on market logic like it is in other organizations, but dependent on Shariah principles of innovation as well (Rajib & Anjar, 2025). The process of innovation is not effective and prosperable; it must be approved and allowed from an ethical and religious point of view. This twin standard can also foster this type of conservatism when it comes to Islamic banking, technology or strategy development would require a porous gaze, a skeptical gaze which needs to be directed to Islamic jurisprudence (Hatta et al., 2025). This is why organisations enable innovation to be rationalized and treated as legitimate and permitted. Under these conditions, innovation valance is not an unembellished

context of business policy making, but deeply entrenched in the religion-culture, leader-fashion and memory (Sharma et al., 2025).

Innovation capacity may frequently be stated in assumptions in the literature regarding the structural limitation of innovation capacity to regulatory or Shariah thresholds, without considering how internally developed innovation valance might be involved or speed up change in the consideration of adequate change efficacy and compatibility (Ahmad et al., 2024; Kasmon et al., 2025).Moreover, even the few studies dedicated to the analysis of innovation in the Islamic banking sphere focus more on product-level innovations (e.g., the sukuk structures themselves or Islamic fintech apps) than on the system-altering perception of innovation as a priority (Bhat et al., 2024). This poses a theoretical gap in the system of valuing, justifying, and institutionalizing innovation in Islamic banking business practices, especially where innovation is exposed to technological disruption and regulatory change. In addition, the available literature has failed to theorize the extent to which innovation value can be seen as a precursor to fintech adoption, especially where the application of fintech challenges established models of Islamic financial provisions (Alrsheedi & Iskandar, 2025). Such supervision is particularly acute in emerging markets such as Pakistan, where Islamic banks already face a combination of regulatory chaos, digital backlog, and rising environmental integrity requirements.

2.3 Change Efficacy

Change efficacy is the whole group trust that the organization can be capable of taking useful action, corresponding to on par calculations of what the organization can and has the ability to provide, technical infrastructure, and the co-ordinated mind of the people in the organization (Taneja et al., 2023). In the Islamic banking environment, where change may be a functional imperative, and change, as a consequence of institutionalized sluggishness that is waged more by forces of religious significance, becomes, not just a functional imperative, but a strategic generator for sustainable innovation (Alrsheedi & Iskandar, 2025). The first dimension of change efficacy is resource readiness, which involves the availability of material and human resources that facilitate change in the organization (Alsharari & Daniels, 2024). Although Islamic banks in Pakistan have achieved growth in terms of physical and capital assets, it has been empirically found that the assets are hardly utilized to invest in transformative change efforts, particularly those emphasizing digital innovation and the integration of sustainability (Alkasasbeh et al., 2024). Islamic banks have been previously observed to be very cautious when it comes to resource allocation toward compliance and operation continuity, but not experimentation or learning (Hussain et al., 2025). The

related strategy of extreme prudence, justified by strict Islamic banking principles, typically leads to a lack of preparation for transitions, slowing down the ability of the bank to internalize or implement sustainability or financial technology innovation models (Meraj et al., 2025).

IT readiness is the second dimension and refers to the ability of the bank to accommodate, implement, and scale up technology systems to reshape the enterprise (Oudat, 2024). The issue of IT readiness is crucial in Islamic banks because fintech solutions must meet Shariah requirements in addition to providing competitive results (Said, 2025). Despite the fast pace at which fintech is being implemented in the broader banking industry in Pakistan, Islamic banks are lagging in the move to develop IT ecosystems that are agile, interoperable, and innovation-driven (Nik Azman et al., 2024). In the literature on Islamic financial technology, the majority of attention is given to customer front-ends and compliance assurance, and therein lies a theoretical gap in considering how Islamic institutions are prepared to embrace technology structurally (Alnsour, 2024).

Cognitive readiness associated with shared understanding, commitment, and psychological readiness across the organization is the most subtle aspect of vision measurement, the last one but the most delicate in the entire vision domain (Friedrich & Quick, 2024). The importance given to cognitive readiness is usually poor in the writings on Islamic banking, yet it is a key mechanism in organizational change processes. This is because, in a given institution with religion as part of its identity, change efforts should be cognitively framed not only as something positive, but also as morally and spiritually constructive (Kasim et al., 2024). The lack of cognitive alignment, the perspective of change as a forced intervention, or as a matter of religion, may lead to inefficient resistance or even dummy compliance, that is, lack of actual change (Al Hammadi et al., 2024). This study fills one of the main gaps in the literature because it examines the role of the cognitive readiness of Islamic banks when defining the internalization of sustainability goals and the use of fintech innovations. Specifically, it discusses whether shared perceptions concerning Shariah-compatible innovation can either enhance or suppress the connection between the organization and sustainable performance. Although the literature on Islamic organizations has considered the cultural and spiritual factors that promote change in Islamic organizations, little empirical research has distinguished between the cognitive mechanisms through which change efficacy is turned into action.

2.4 Contextual Factors

Organizational change in Islamic banking institutions does not happen in a vacuum; it exists within contextual dynamics that represent how change is perceived, interpreted, and acted upon (Nik Azman et al., 2024). Cultural readiness, which entails the fit between organizational culture and values incorporated in change programs, is one of the most important influences (de Oliveira et al., 2024). Culture in Islamic banks is not just a background to the operation but a normative structure comprising Shariah principles, individual and corporate identification, as well as expectations of the stakeholders (Mahyarni & Okfalisa, 2024). Cultural readiness in this environment indicates how far organizational members consider innovation, digitalization, and sustainability as something that Islamic teachings and the bank's mission can accommodate (Ferrero-Ferrero et al., 2024). However, this does not change the fact that, even though culture is significant, Islamic financial institutions' literature tends to consider culture as monolithic, where more attention is given to compliance or Shariah governance rather than the ways through which organizational culture enables or hinders change (Alnsour, 2024). Notice can be thought of as resulting in a fragmented vision of successful change in Islamic banks- one that ignores the interpretive lenses through which change efforts are either embraced or opposed.

Strategic readiness can be understood as the degree to which an organization's leadership, strategic vision, and decision-making systems are aligned with impending change (Jackson & Allen, 2024). In Pakistani Islamic banks, the matter of strategic readiness is further complicated by the fact that these banks have two imperatives: the need to preserve religious integrity and the need to be competent in the markets (Zaid et al., 2025). Hence, leadership must commit to sustainability or digital transformation by ensuring that it is not only expressed in economic terms but also by using Islamic morality and ethics discourse (Pedroso & Gomes, 2024). Furthermore, strategic readiness in Islamic banks has seldom been operationalized as a prerequisite for building digital capacity or integrating sustainability (Kamaldeen, 2024).

Together, cultural and strategic readiness are sensemaking mechanisms through which Islamic banks screen the feasibility and legitimacy of change. Their role can be particularly intense when externally imposed change mandates (fintech innovation or sustainability regulations) are involved. In this instance, contextual readiness defines whether change initiatives are incorporated as extensions of the bank's core identity (Alsharari, 2024). Contextual readiness has not yet been extensively studied with other aspects of organizational change, including innovation valance and cognitive readiness, especially in the Islamic banking environment (Strakova et al., 2025). This study

contributes to the literature by empirically examining the influence of cultural and strategic readiness in informing the attitude of the organization to the outcomes of sustainability as mediated by fintech and presents a multi-level view that passes between internal strengths and external demands. This study contributes to the theoretical knowledge of context-sensitive readiness conditions influencing the course of transformation in Islamic banks, which must operate within regulatory, technological, and spiritual restrictions.

2.5 Hypotheses Development

Innovation valance is an expression of organizational perceptions of the desirability, legitimacy, and fit of innovation (Bani Atta, 2025). This perceived value is interwoven with the ethical orientation and identity of an institution, such as an Islamic banking institution, where innovation must conform to Shariah principles (Rizvi et al., 2025). The more innovation is perceived to align with Islamic principles, the greater the chance of legitimization and strategic integration into organizational practice an innovation can enjoy (Mohamed, 2025). It allows transformation initiatives aimed at sustainability objectives to be driven by organization-wide energy due to strong innovation valance. Examples of such sustainable fintech tools or green practices in finance that are viewed as religiously and strategically fitting by banks are more likely to be invested in, thus positively influencing their environmental, economic, and social performance (Almaqtari et al., 2025). Conversely, poorly viewed innovation valance can result in symbolic adoption and resistance, especially in situations where sustainability efforts are viewed as an externally imposed arrangement or ambiguous in their ideology (Maniam, 2024). Although conceptually relevant, innovation valance remains underexplored in empirical research on Islamic banks, especially as a mechanism that leads to multidimensional sustainability. This study fills this gap and proposes that innovation valance is a direct antecedent of sustainability achievement in Islamic banks that are being transformed digitally and ethically.

H_1: Innovation valance is positively associated with economic sustainability in Pakistani Islamic banks.

H_2: Innovation valance is positively associated with environmental sustainability in Pakistani Islamic banks.

H_3: Innovation valance is positively associated with social sustainability in Pakistani Islamic banks.

Change efficacy encompasses the shared belief in an organization that it can successfully implement a particular change that is dependent on its resource, technical,

and cognitive capacities (Schwertner & Sohn, 2024). The construct is particularly relevant to the Islamic banking industry, as it must simultaneously satisfy the requirements of compliance with Shariah norms and modern imperatives, including the need to comply with fintech skills and environmental requirements of sustainability (Rashid et al., 2024). The availability of resources helps banks deploy financial, human, and infrastructural capital to pro-sustainability activities, such as renewable energy funding or the entrance of SMEs (Aniko et al., 2024). IT readiness is a factor of the institutional capacity to accept and implement the use of technologies, most commonly fintech-based, to achieve more efficient operations and an associated decrease in environmental impact (Alsmadi, 2024). In the intervening time, cognitive readiness is involved to ensure that employees and leadership buy the logic surrounding the change, understand that it is theologically lawful, and are psychologically devoted to sustainability-oriented reforms (Nurfadilah et al., 2023). Although the different dimensions of change efficacy have been examined separately, few studies have connected them with the attainment of sustainability levels in Islamic financial institutions. This study contributes to the existing body of knowledge by providing an evidence-based conceptualization of the study by measuring the role of change efficacy as a multi-dimensional concept that directly affects the ability of a bank to create economic value, enhance environmental performance, and promote socially inclusive development, particularly when the bank functions within the constraints of religion and regulations.

H_4: Change efficacy is positively associated with economic sustainability achievement.

H_5: Change efficacy is positively associated with environmental sustainability achievement.

H_6: Change efficacy is positively associated with social sustainability achievement.

Contextual conditions influence the process of understanding, justifying, and implementing change in Islamic banks in Pakistan (Sebastian, 2023). The significant issues include cultural and strategic readiness. Cultural readiness indicates the agreement between organizational norms and sustainability-related innovation, which is essential in a faith-based environment where ideological matching is the central principle (Al Mamun et al., 2025). Strategic readiness refers to the proactive attitude of leadership regarding the integration of a sustainability vision into the institutional vision and resources (Mohd Haridan et al., 2023). The combination of these two aspects increases the likelihood of Islamic banks undertaking sustainability initiatives that are both technically viable and socially and ethically acceptable. This study hypothesized

that contextual readiness is a direct facilitator of success in sustainability in the economic, environmental, and social aspects.

H_7: Contextual factors are positively associated with economic sustainability achievement.

H_8: Contextual factors are positively associated with environmental sustainability achievement.

H_9: Contextual factors are positively associated with social sustainability achievement.

The implementation of fintech has become a transformative tool in Islamic banking, and the tools available can enable operational efficiency, financial inclusion, and sustainable products as long as they do not conflict with Shariah principles (Hussain et al., 2025). Nevertheless, the adoption of fintech in Islamic banks does not seem to be entirely technical; it is based on a perception of the appropriate legitimacy of innovation (innovation valance) and the willingness of the institution to achieve change (change efficacy) (Ahmad et al., 2024). In situations where the perception of innovation is positive and the ability to change is high, Islamic banks have a higher chance of utilizing fintech solutions that benefit the process of digital lending, green financing, and ethical investing, with a tangible economic, environmental, and social impact (Mohd Haridan et al., 2023; Rashid et al., 2024). The Islamic finance literature has not theorized the mediating role of fintech adoption, and the majority of the literature has considered it a conclusive innovation instead of focusing on it as the channel through which readiness is converted into effect. This study bridges the conceptual gap between technology adoption and adoptive processes by presenting a processual aspect of how internal organizational conditions can lead to sustainability through technology-based trajectories by treating the mediating role of adoption. Drawing on the logic of organizational readiness for change theory, fintech adoption is theorized as the behavioral mechanism through which cognitive and evaluative readiness states (innovation valance and change efficacy) are converted into observable sustainability outcomes; readiness alone is necessary but not sufficient, since it must be enacted through a concrete technological pathway before it can generate economic, environmental, or social value, which provides the theoretical rationale for modeling fintech adoption as a mediator rather than as a parallel, independent predictor (Weiner, 2020).

$H_{10:}$ Fintech adoption mediates the relationship between innovation valance and economic sustainability achievements.

H_{11}: Fintech adoption mediates the relationship between innovation valance and environmental sustainability achievements.

H_{12}: Fintech adoption mediates the relationship between innovation valance and social sustainability achievements.

H_{13}: Fintech adoption mediates the relationship between change efficacy and economic sustainability achievements.

H_{14}: Fintech adoption mediates the relationship between change efficacy and environmental sustainability achievements.

H_{15}: Fintech adoption mediates the relationship between change efficacy and social sustainability achievements.

Regulations within the Islamic banking industry in Pakistan are not only financial and operational in nature but also entrenched within Shariah governance structures, creating an extra layer of normative regulation of innovation and sustainability plans (Siham, 2025). Favorable regulations, such as digitalized banking regulations, sustainability reporting requirements, and Shariah-compliant regulation of fintech, can enhance the impact of the readiness of organizations by legalizing and speeding up fintech applications (Ahmad et al., 2024; Maniam, 2024; Oudat, 2024). However, innovation may be restrained due to restrictive or ambiguous regulatory environments, regardless of the readiness within an organization (Alrsheedi & Iskandar, 2025). Although these institutional forces are relevant in the mediated relationships between the readiness variables and the attainment of sustainability achievements through fintech, they are empirically under-researched in the Islamic finance literature. This study fills this gap by proposing that the robustness of the indirect effects of innovation value, change efficacy, and contextual factors on the outcomes of sustainability through fintech adoption depends on the conduciveness of the regulatory environment. Institutional theory reinforces this expectation by conceptualizing regulatory environments as boundary conditions that can either legitimize and accelerate, or constrain and slow, the translation of internally generated readiness into fintech-enabled outcomes; this positions the regulatory environment not merely as a direct antecedent of fintech adoption but as a contingency factor that strengthens or weakens the mediated readiness-to-sustainability pathway, providing a stronger conceptual basis for the moderated mediation model tested in this study.

H_{16}: The regulatory environment moderates the mediated relationships between organizational readiness (innovation valance, change efficacy, and contextual factors) and sustainability achievements via fintech adoption.

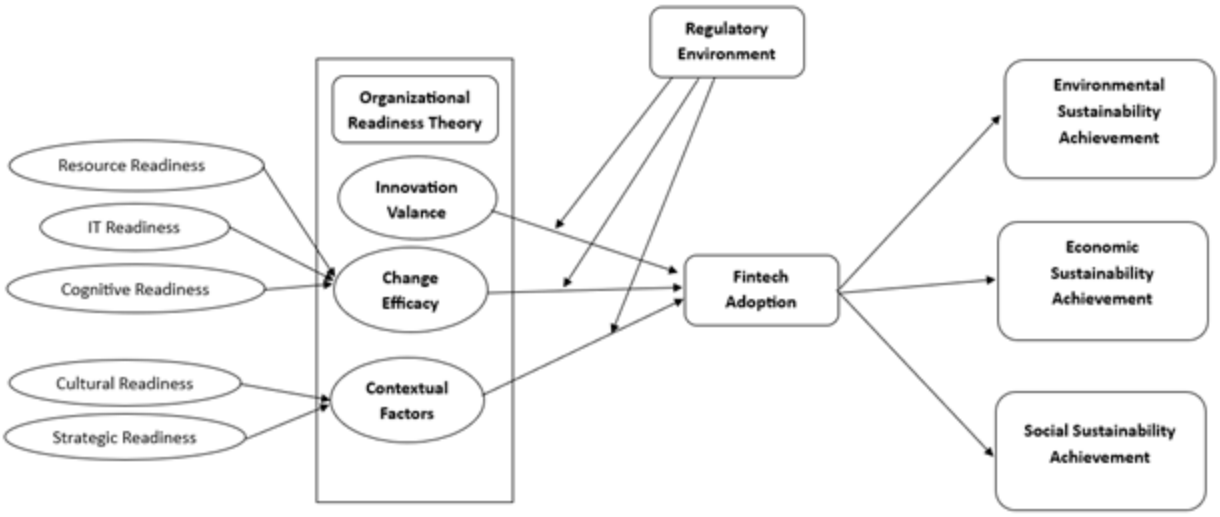

Figure 2.1: Theoretical Framework

3. Methodology

The research design used in the study was quantitative and deductive, and the purpose was to test the relationships among organizational readiness constructs, fintech adoption, and sustainability achievements within Islamic banks in Pakistan. As the theory constructs the model and the directional hypotheses require examination, the structural equation modeling (SEM) with higher-order reflective modeling was used (Hair et al., 2011). The measurement was made using a structured questionnaire, where the answers were noted on a five-point Likert scale, that is, Strongly Disagree to Strongly Agree. The target population included employees working at Islamic banking institutions in Pakistan, including all fully fledged Islamic banks and Islamic windows in conventional banks. Stratified sampling was employed to facilitate representativeness, with the population being split into two strata of institutional structure (pure Islamic windows vs. hybrid Islamic windows), and all subjects were selected randomly within each group (Meng, 2013). The number of valid responses used amounted to 478, which is above the minimum required to conduct higher-order SEM analysis (Hair et al., 2019).

To state the sampling procedure more explicitly, the target population comprised employees occupying operational and managerial roles in fully fledged Islamic banks and the Islamic banking windows of conventional banks operating in Pakistan. Respondents were selected through a two-stage stratified random sampling procedure: the population was first stratified by institutional type (fully fledged Islamic bank versus Islamic window), after which individual respondents were selected at random within each stratum, in line with Meng (2013). Respondents were eligible for inclusion if they held at least one year of tenure in their current institution and had direct exposure to

digital or fintech-related banking operations, a criterion intended to ensure that responses reflected informed perceptions of organizational readiness and fintech adoption rather than uninformed opinion. Data were collected through a structured, self-administered questionnaire distributed in both electronic and paper-based formats across bank branches, with participation being voluntary and respondents assured of anonymity and confidentiality prior to completion. Of the questionnaires distributed, 478 were returned complete and usable; this sample size exceeds the minimum threshold recommended for higher-order SEM analysis on the basis of statistical power and model-complexity considerations.

The scales used to measure metrics were adapted and based on pre-established scales that have been proven valid in the past. The measure of innovation valance consisted of three items adapted from Lokuge et al. (2019). Fintech Adoption was also gauged using four items from Al Hammadi et al. (2024), modified by the use of Shariah-compliant finance technologies. The Change Efficacy construct was made operational via the nine-item (three items per dimension: resource readiness, IT readiness, and cognitive readiness), which was also based on Lokuge et al. (2019). Contextual Factors, which consist of cultural and strategic readiness, were measured using six items, representing how compatible the organizational setting is with transformation objectives. Environmental, Economic, and Social Sustainability Achievements were measured by four, three, and five items, respectively, by sourcing and adapting them to the Islamic banking environment based on Al Hammadi et al. (2024). Finally, the Regulatory Environment was measured based on the seven items adopted by Al Hammadi et al. (2024). Indices of reflective measurement of higher order were used to check the model in Smart-PLS 4.0, with the first-order indicators matching the second-order latents (Eid & Koch, 2014; Lee & Cadogan, 2013).

4. Analysis

The demographic details of the study respondents are presented in Table 4.1. The sample included respondents who were employed in the different branches of the Pakistani Islamic banks at present and as such represents a cross-sectional sample with respect to being representative of gender, educational background, and employment status in the organization. This allocation increases the applicability and situational standards of the results in the Islamic banking industry. To present the results more clearly, the analysis proceeds in four stages: the lower-order measurement model, the higher-order measurement model, discriminant validity, and the structural (moderated-mediation) model, with each table and figure reported alongside a plain-language interpretation of what the reported statistics mean for the study's hypotheses.

Table 4.1: Demographics

	Frequency	Percent
Gender		
Male	246	51.5
Female	232	48.5
Total	478	100.0
Education		
Bachelors	201	42.1
MS/M.Phil.	269	56.3
PhD	8	1.7
Total	478	100.0
Designation		
Branch Manager	73	15.3
Officer/Executive	147	30.8
Assistant/Associate	149	31.2
Frontline Staff	109	22.8
Total	478	100.0

Note. N = 478. Percentages are calculated within each demographic category, consistent with APA table-reporting conventions.

Table 4.2: Factor Loadings, Average Variance Extracted, and Composite Reliability (Lower Order Constructs)

	Factor Loadings	Average Variance Extracted	Composite Reliability
Innovation Valance		0.761	0.905
IV1	0.844		
IV2	0.881		
IV3	0.891		
Resource Readiness		0.682	0.866
RR1	0.850		
RR2	0.833		
RR3	0.795		
IT Readiness		0.815	0.930
IR1	0.878		
IR2	0.924		
IR3	0.906		
Cognitive Readiness		0.822	0.933
CR1	0.926		
CR2	0.872		
CR3	0.921		
Cultural Readiness		0.783	0.915
CC1	0.839		
CC2	0.906		

CC3	0.907		
Strategic Readiness		0.705	0.876
SC1	0.894		
SC2	0.911		
SC3	0.698		
Fintech Adoption		0.782	0.935
FA1	0.905		
FA2	0.835		
FA3	0.898		
FA4	0.897		
Regulatory Environment		0.602	0.913
RE1	0.791		
RE2	0.754		
RE3	0.732		
RE4	0.723		
RE5	0.794		
RE6	0.806		
RE7	0.823		
Economical Sustainability Achievements		0.797	0.922
EC1	0.859		
EC2	0.894		
EC3	0.924		
Environmental Sustainability Achievements		0.720	0.911
EN1	0.881		
EN2	0.887		
EN3	0.696		
EN4	0.913		
Social Sustainability Achievement		0.707	0.923
SO1	0.868		
SO2	0.868		
SO3	0.778		
SO4	0.775		
SO5	0.907		

Note. AVE = Average Variance Extracted; CR = Composite Reliability. Item codes correspond to the indicators described in the Methodology section.

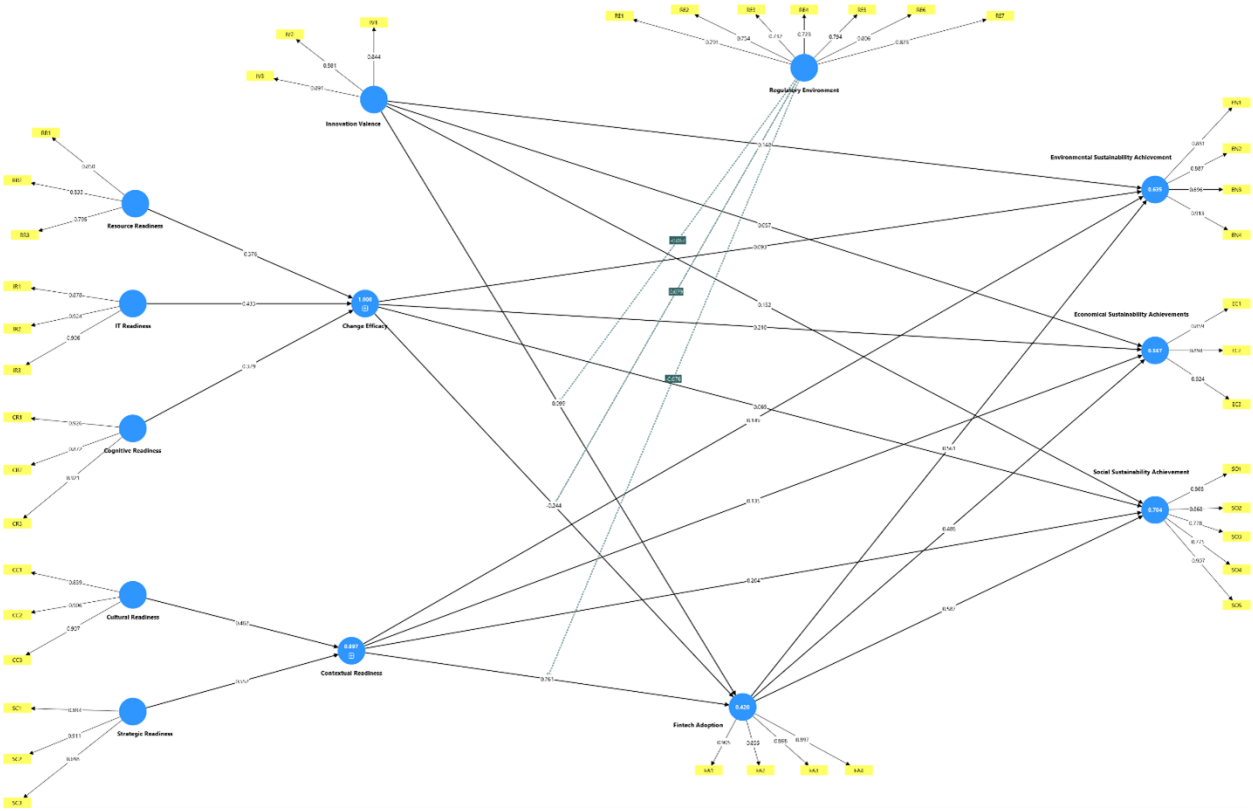

Figure 4.1: Lower Order Construct Model

The measurement model was evaluated to confirm the reliability and convergent validity of each reflective construct. Item loading was above the specified level of 0.70, as indicated in Table 4.2, so the indicator reliability was strong (Hair et al., 2019). All constructs had an Average Variance Extracted (AVE) in the range of 0.602 to 0.822, which exceeded the minimum level of 0.50, thereby forming convergent validity (Fornell & Larcker, 1981). Additionally, on the construct level, the Composite Reliability (CR) values exceeded the criteria of a value larger than 0.70 (i.e., 0.866 to 0.935), which means that the internal consistency reliability was high among both first order and second-order constructs. It is important to note that even multidimensional constructs such as Change Efficacy and Contextual Factors exhibited extreme internal cohesion in the indication of the high AVE and CR values of the respective dimensions (e.g., IT readiness AVE = 0.815; Cultural readiness AVE = 0.783). This finding proves that the measurement model has excellent psychometric characteristics and is suitable for further structural analysis.

Table 4.3: Factor Loadings, Average Variance Extracted, and Composite Reliability (Higher Order Constructs)

	Factor Loadings	Average Variance Extracted	Composite Reliability
Innovation Valance		0.761	0.905
IV1	0.844		
IV2	0.881		
IV3	0.891		

Change Efficacy		0.646	0.845
Cognitive Readiness	0.745		
IT Readiness	0.854		
Resource Readiness	0.809		
Contextual Factors		0.927	0.962
Strategic Readiness	0.966		
Cultural Readiness	0.959		
Fintech Adoption		0.782	0.935
FA1	0.905		
FA2	0.835		
FA3	0.898		
FA4	0.897		
Regulatory Environment		0.602	0.913
RE1	0.791		
RE2	0.754		
RE3	0.732		
RE4	0.724		
RE5	0.794		
RE6	0.806		
RE7	0.823		
Economical Sustainability Achievements		0.797	0.922
EC1	0.860		
EC2	0.894		
EC3	0.923		
Environmental Sustainability Achievement		0.720	0.911
EN1	0.881		
EN2	0.888		
EN3	0.695		
EN4	0.913		
Social Sustainability Achievement		0.707	0.923
SO1	0.868		
SO2	0.868		
SO3	0.778		
SO4	0.775		
SO5	0.907		

Note. AVE = Average Variance Extracted; CR = Composite Reliability.

Table 4.3 shows the psychometric characteristics of the higher- and lower-order constructs, including their first-order dimensions. The item and dimension loadings were all above the typical threshold of 0.70, and most exceeded 0.80, indicating a strong reflective association of the second-order constructs with their dimensions (Hair et al., 2019). Change Efficacy exhibited decent convergent validity with an AVE of 0.646 and a Composite Reliability of 0.845, backed up by high factor loadings of Cognitive

Readiness (0.745), IT Readiness (0.854), and Resource Readiness (0.809). Similarly, Contextual Factors reported very high construct reliability and validity (AVE: 0.927; CR: 0.962) as well as strong loadings on both Strategic Readiness (0.966) and Cultural Readiness (0.959), supporting their conceptual integrity as second-order constructs. All the remaining constructs, such as Innovation Valance, Fintech Adoption, and the three dimensions of Sustainability Achievement (Economic, Environmental, and Social), retained their robust measurement qualities already proven in the past. Both convergent validity and internal consistency were confirmed as the AVE values of each construct were above the minimum level of 0.50, and CR values above 0.70.

Table 4.4: Heterotrait-Monotrait Ratio

Constructs	HTMT
CF <-> CE	0.982
ESA <-> CE	0.714
ESA <-> CF	0.661
ENSA <-> CE	0.714
ENSA <-> CF	0.656
ENSA <-> ESA	0.989
FA <-> CE	0.543
FA <-> CF	0.608
FA <-> ESA	0.761
FA <-> ENSA	0.817
IV<-> CE	0.905
IV<-> CF	0.537
IV<-> ESA	0.488
IV<-> ENSA	0.546
IV<-> FA	0.350
RE<-> CE	0.127
RE<-> CF	0.137
RE<-> ESA	0.234
RE<-> ENSA	0.234
RE<-> FA	0.192
RE<-> IV	0.071
SSA<-> CE	0.729
SSA<-> CF	0.704
SSA<-> ESA	0.942
SSA<-> ENSA	0.972
SSA<-> FA	0.864
SSA<-> IV	0.536
SSA<-> RE	0.198

Note. HTMT = Heterotrait-Monotrait ratio; CE = Change Efficacy, CF = Contextual Factors, ESA = Economic Sustainability Achievement, ENSA = Environmental Sustainability Achievement, FA = Fintech Adoption, IV = Innovation Valance, RE = Regulatory Environment, SSA = Social Sustainability Achievement.

To evaluate whether there was discriminant validity between the latent constructs, the Heterotrait-Monotrait ratio (HTMT) was used, following the recommendations of Henseler et al. (2015). The results of the discriminant validity, as presented in Table 4.4, indicate that most of the HTMT values are far less than the conservative value of 0.85, thus showing acceptable discriminant validity among constructs. The constructs represent conceptually distinct phenomena, as the discriminant boundaries are evident in key relationships (e.g., the relationship between Innovation Valance and Fintech Adoption = 0.350 or the relationship between Contextual Factors and Environmental Sustainability = 0.656). However, some pairs approached or even reached the critical threshold. It is important to mention that the values of the HTMT between Contextual Factors and Change Efficacy were 0.982, and between Social and Environmental Sustainability Achievements, 0.972, which indicates significant validity.

Table 4.5: Fornell-Larcker Criterion

	CE	CF	ESA	ENSA	FA	IV	RE	SSA
CE	**0.804**							
CF	0.794	**0.963**						
ESA	0.569	0.594	**0.893**					
ENSA	0.565	0.587	0.860	**0.849**				
FA	0.449	0.567	0.687	0.744	**0.884**			
IV	0.720	0.474	0.417	0.461	0.318	**0.872**		
RE	0.103	0.127	0.214	0.218	0.186	0.037	**0.776**	
SSA	0.587	0.640	0.836	0.860	0.787	0.465	0.185	**0.841**

Note. Diagonal values represent the square root of the Average Variance Extracted (AVE); off-diagonal values are inter-construct correlations. CE = Change Efficacy, CF = Contextual Factors, ESA = Economic Sustainability Achievement, ENSA = Environmental Sustainability Achievement, FA = Fintech Adoption, IV = Innovation Valance, RE = Regulatory Environment, SSA = Social Sustainability Achievement.

The Fornell-Larcker criterion was also used to test further discriminant validity (Fornell & Larcker, 1981). Table 4.5 reveals that the square roots of the AVE (diagonal values) are greater than the correlations between each construct and all others (off-diagonal values), which supports the following: (i) each latent construct has a greater variance overlap with its indicators than with others. The square root of the AVE of Innovation Valance (0.872) is greater than the correlation of Innovation Valance with Fintech Adoption (0.318), Environmental Sustainability (0.461), and other constructs. In the same manner, Contextual Factors has an AVE square root of 0.963, which is well above its association with correlative factors such as Change Efficacy (0.794) and Social Sustainability Achievement (0.640). Although the correlation between Change Efficacy

and Contextual Factors is relatively high (0.794), the values on the diagonal (0.804 and 0.963, respectively) are even higher, which maintains discriminant validity, even in these two constructs that have a relatively close conceptual proximity. These results correspond with the HTMT analysis and confirm the uniqueness of the latent constructs in the model.

Table 4.6: Moderation Mediation Analysis

	Coefficient	Standard deviation	T statistics	P values
CE-> FA-> SSA	-0.071	0.050	1.408	0.159
IV-> FA-> ESA	0.062	0.031	1.983	0.047
CF-> FA-> SSA	0.359	0.041	8.676	0.000
IV-> FA-> ENSA	0.072	0.036	2.032	0.042
RE-> FA-> ESA	0.063	0.019	3.283	0.001
RE-> FA-> ENSA	0.073	0.022	3.313	0.001
RE x IV-> FA-> ESA	-0.037	0.028	1.321	0.187
RE x IV-> FA-> ENSA	-0.043	0.032	1.330	0.184
RE x CE-> FA-> ESA	0.031	0.039	0.780	0.435
IV-> FA-> SSA	0.075	0.037	2.017	0.044
RE x CE-> FA-> ENSA	0.036	0.045	0.782	0.434
RE x CF-> FA-> ESA	-0.031	0.031	0.991	0.322
RE-> FA-> SSA	0.075	0.022	3.365	0.001
RE x CF-> FA-> ENSA	-0.036	0.036	0.993	0.321
RE x IV-> FA-> SSA	-0.045	0.034	1.317	0.188
RE x CE-> FA-> SSA	0.037	0.047	0.777	0.437
RE x CF-> FA-> SSA	-0.037	0.037	0.987	0.323
CE-> FA-> ESA	-0.059	0.042	1.382	0.167
CE-> FA-> ENSA	-0.068	0.049	1.401	0.161
CF-> FA-> ESA	0.299	0.039	7.668	0.000
CF-> FA-> ENSA	0.347	0.042	8.332	0.000

Note. CE = Change Efficacy, CF = Contextual Factors, ESA = Economic Sustainability Achievement, ENSA = Environmental Sustainability Achievement, FA = Fintech Adoption, IV = Innovation Valance, RE = Regulatory Environment, SSA = Social Sustainability Achievement.

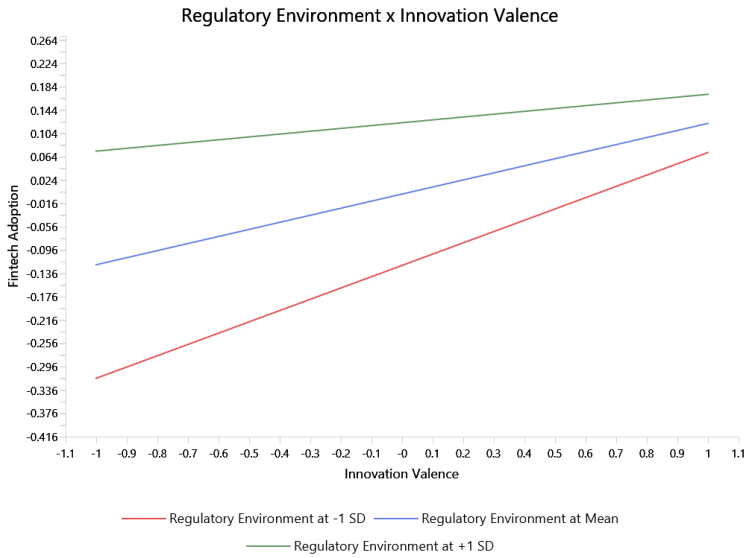

Figure 4.2: Regulatory Environment x Innovation Valance

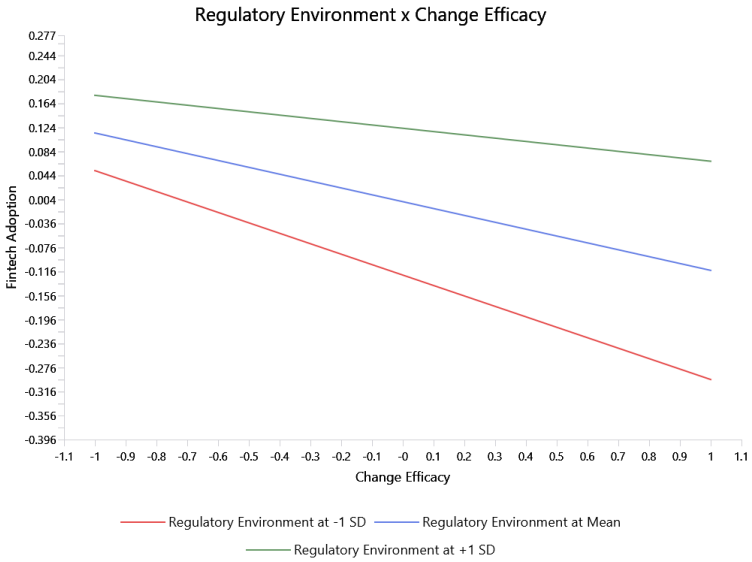

Figure 4.3: Regulatory Environment x Change Efficacy

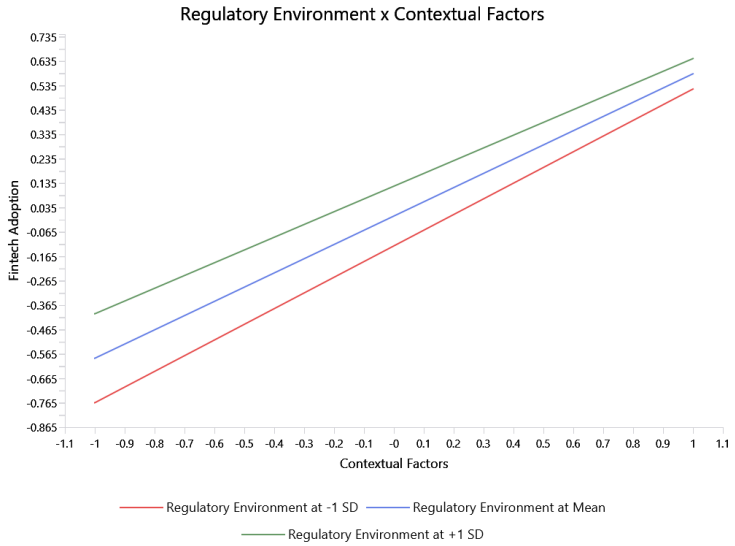

Figure 4.4: Regulatory Environment x Contextual Factors

Table 4.6 shows a moderated mediation effect, and several notable mediator paths were reported, empirically supporting the idea that Fintech Adoption is a mechanism of mediation between the constructs of organizational readiness and sustainability outcomes. More specifically, Innovation Valance has been showing to have a statistically significant indirect impact on Economic Sustainability (0.062, p = 0.047), Environmental Sustainability (0.072, p = 0.042), and Social Sustainability (0.075, p = 0.044) through Fintech Adoption, as stated in hypotheses H10, H11, and H12. Similarly, Contextual Factors also had a substantial impact on the three dimensions of sustainability through Fintech, with the most significant influence on social (β = 0.359, p < 0.001) and environmental sustainability (β = 0.347, p < 0.001) and the least effect on Economic Sustainability (β = 0.299, p < 0.001). However, the indirect routes between Change Efficacy and sustainability outcomes using the mediation of Fintech Adoption were not statistically significant (e.g., economic: 0 = -0.059, p = 0.167; environmental: 0 = -0.068, p = 0.161; social: 0 = -0.071, p = 0.159). These findings show that Change Efficacy should only have a direct impact, but not an indirect one, on the adoption of fintech. This implies that Islamic banks may feel that they can change. However, their sense of efficacy might not induce the adoption of fintech use, perhaps because of religious, technical, or cultural barriers that do not fall into the present logic of mediation.

Table 4.7: Path Coefficient

	Coefficient	Sample mean	Standard deviation	T statistics	P values
CE-> ESA	0.228	0.230	0.060	3.794	0.000
CE-> ENSA	0.145	0.148	0.055	2.636	0.008
CE-> FA	-0.114	-0.104	0.081	1.410	0.159
CE-> SSA	0.099	0.100	0.055	1.815	0.070

CF-> ESA	0.104	0.103	0.048	2.162	0.031
CF-> ENSA	0.071	0.070	0.047	1.508	0.132
CF-> FA	0.583	0.573	0.066	8.855	0.000
CF-> SSA	0.154	0.153	0.047	3.267	0.001
FA -> ESA	0.513	0.513	0.034	15.126	0.000
FA -> ENSA	0.596	0.595	0.031	19.122	0.000
FA -> SSA	0.616	0.616	0.030	20.839	0.000
IV-> ESA	0.041	0.040	0.044	0.925	0.355
IV-> ENSA	0.133	0.133	0.037	3.590	0.000
IV-> FA	0.121	0.121	0.060	2.031	0.042
IV-> SSA	0.124	0.124	0.041	2.998	0.003
RE-> FA	0.122	0.128	0.035	3.515	0.000
RE x CE-> FA	0.060	0.058	0.076	0.780	0.435
RE x CF-> FA	-0.060	-0.060	0.060	0.993	0.321
RE x IV-> FA	-0.072	-0.072	0.055	1.324	0.185

Note. CE = Change Efficacy, CF = Contextual Factors, ESA = Economic Sustainability Achievement, ENSA = Environmental Sustainability Achievement, FA = Fintech Adoption, IV = Innovation Valance, RE = Regulatory Environment, SSA = Social Sustainability Achievement.

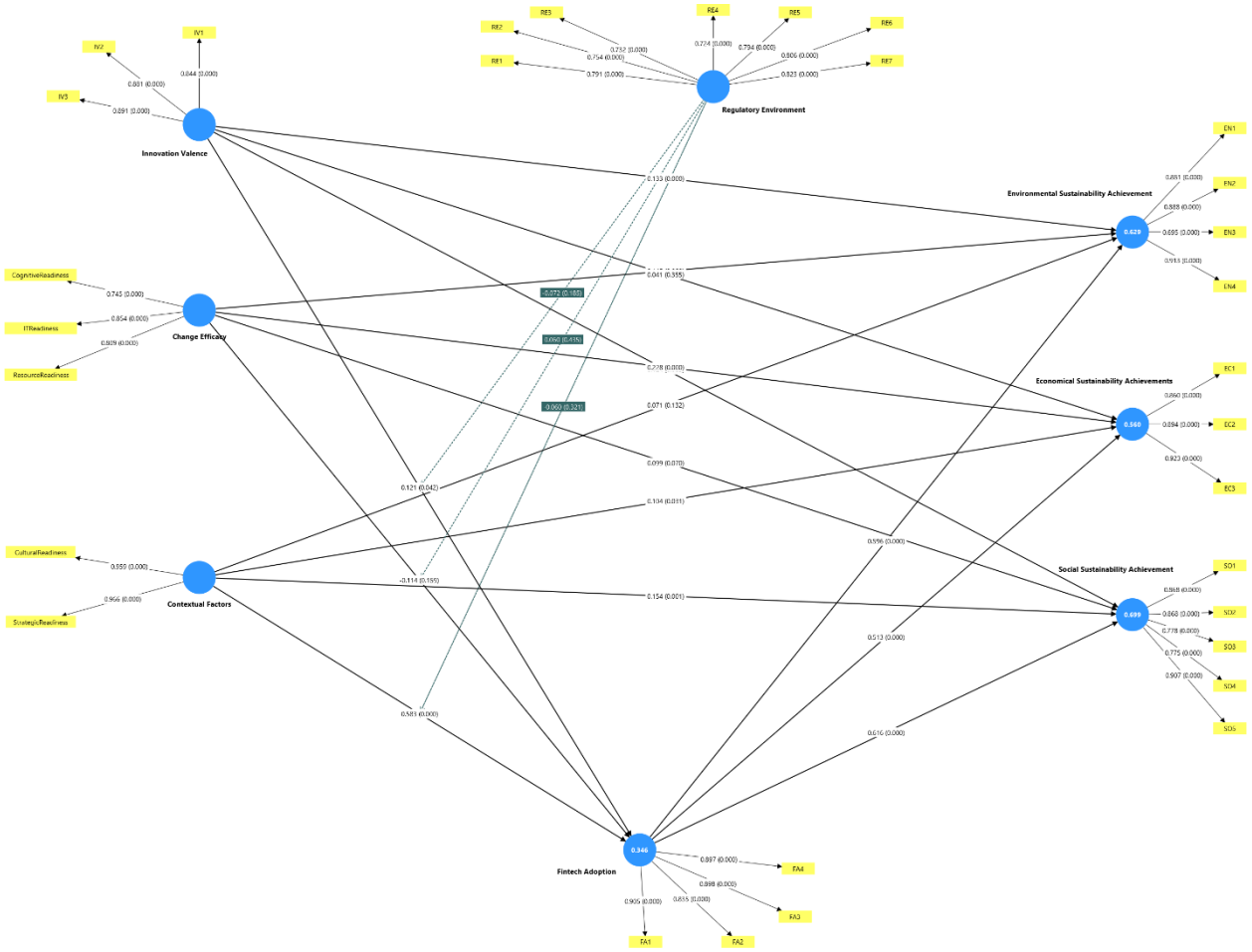

Figure 4.5: Higher Order Construct Model

Change Efficacy was one of the constructs of organizational readiness, which has shown a positive and significant impact on the Achievement of Economic Sustainability (0.228, $p < 0.001$) and Environmental Sustainability (0.145, $p = 0.008$), thus indicating that the presence of a perceived ability of Islamic banks to change helps it achieve the two aspects of sustainability. It was mildly associated with Social Sustainability (0.099, $p = 0.070$). Nevertheless, the effect of Change Efficacy on Fintech Adoption was negative and non-significant ($p = 0.159$), which is in line with the previous mediation results, meaning that internal readiness may not bring the desired results by itself without another set of facilitating factors. Contextual Factors, on the other hand, had a strong and significant positive influence on Fintech Adoption (0.583, $p < 0.001$), thus pointing to it as a major driver of digital change. It also showed a moderate and significant impact on Social Sustainability Achievement (0.154, $p = 0.001$) and a minor significant contribution to Economic Sustainability Achievement (0.104, $p = 0.031$). The effect on Environmental Sustainability was however not significant (0.071; $p = 0.132$). The results confirm the importance of cultural and strategic fit in the process of ensuring sustainability, particularly through the mediation process like technology.

The effects of Innovation Valance on Economic Sustainability were not significant ($\beta = 0.041$, $p = 0.355$), but was for Environmental ($\beta = 0.133$, $p < 0.001$) and Social Sustainability ($\beta = 0.124$, $p = 0.003$). Notably, it also strongly predicted Fintech Adoption (beta = 0.121, $p = 0.042$), indicating a positive attitude towards innovation is a crucial aspect in the digital adoption of Islamic banks. Notably, Fintech Adoption was a strong, standalone and positive influence on the three types of Sustainability studied: Economic Sustainability (0.513, p 8 < 0.001), Environmental Sustainability (0.596, p 8 < 0.001) and Social Sustainability Achievement (0.616, p 8 < 0.001) These findings confirm its usefulness as a dominant mediator in the model, and as a leveraging mechanism where organizational readiness is connected to sustainability performance.

5. Discussion

The results of this study are consistent with the notion that the internal abilities of Islamic banks, especially those concerning change efficacy and contextual alignment, play differentiated roles in driving sustainable performance. The conceptualization of change efficacy into resource, IT, and cognitive readiness played a significant role in the realization of economic and environmental sustainability. This is in line with the belief that banks with adequate structural and perceptual capacity to institute change have a good chance of investing in sustainable operational structures and environmental friendliness of financial operations (Aniko et al., 2024). Nevertheless, the impact of change efficacy on social sustainability was slightly less and statistically less prominent,

indicating that the lesson of technical and resource-related readiness applied to enable structural transformation but did not necessarily translate to the social arena in terms of inclusivity or equity among stakeholders (Juliana et al., 2023). The variance implies that there may be a gap between organizational readiness and socially situated change in Islamic banking agencies, and that more research is necessary on the extent to which ethical imperatives are realized via the infrastructure's internal change.

Contextual factors, operationalized as cultural and strategic readiness, are deemed potent facilitators of fintech adoption and sustainability outcomes. These findings indicate that when a cultural fit exists between a set of organizational values and leadership approaches with change imperatives, the results are much better in translating readiness into action. It has been established that contextual alignment has a direct impact on environmental, economic, and social sustainability success, but to a lesser extent (Alsmadi, 2024). This trend signified an increased emphasis of the Islamic banks on accomplishing the results focused on compliance and community, instead of full-blown environmental strategies. Notably, the pronounced direction indicating the influence of contextual determinants on the adoption of fintech supports the claim that institutional preparations can and should occur in a coherent culture and strategically aligned context, which is essential to the background of religiously controlled financial cultures, where interpretive legitimacy exists as a key determinant of the dynamics of change (Kasmon et al., 2025).

Innovation valance had a more complex pattern of relationships with sustainability outcomes. Although it did not have a direct effect on the sustainability of the economy, it had a positive and significant effect on environmental and social aspects. This means that innovation, which is viewed as desirable and consistent with the ethical identity of Islamic banks, is more likely to transmute into social and environmental value, as opposed to short-term monetary returns. An absence of a direct influence on economic sustainability was observed, which implied that the value of innovation in its valance meaning alone may not produce a commercial effect unless the change-oriented capability or contextual facilitators support it (Rizvi et al., 2025). However, its impact on fintech adoption is significant and makes innovation valance an essential antecedent to digital transformation. This underscores the importance of subjective perceptions of the legitimacy of innovation in spurring the willingness to embrace fintech solutions, which, in turn, opened up sustainable banking practices.

The mediating context became the core of the model because the effects of innovation valance and context were channeled through fintech adoption, which had a mediating role in the model, leading to the results on sustainability. Fintech adoption showed a

significant impact in mediating the relationship between these constructs, and in all three dimensions of sustainability, engaging in it provided an excellent backup on why it was a process-oriented mechanism through which internal values and environmental conditions were operationalized into performance outcomes. The results indicate that a positive perception of innovation, or the strategic cultural organizational context, is correlated with an increased probability of Islamic banks using digital solutions that help meet economic, environmental, and social sustainability objectives (Siham, 2025). These findings show that fintech can no longer be viewed as the consequence of innovation but rather as a force of an active interception layer where the readiness constructs gained relevance institutionally and in society.

In contrast, the mediating role of fintech adoption between the association of change efficacy and sustainability was not justified. In spite of the fact that change efficacy had an immediate impact on economic and environmental results, it failed to have a considerable effect on the uptake of the fintech. This showed that despite organizations' conviction that they could change, this conviction did not reflect the process of adopting digital innovations. Within the scenario of Islamic banking, this discovery indicates that there could be some ideological or process dissociation between readiness and innovation. To wit, banks can have the requisite internal capacity to change but still be reluctant to take the next step without fintech technologies being viewed as religious and strategically essential. This divergence disproved the presumption that technical readiness necessarily transforms into innovation adoption and highlighted the necessity of analyzing interpretive filters that can discourage the realization of perceived abilities into a digital transformation.

The regulatory context was recognized as supportive of the fintech industry's incorporation, yet it didn't regulate any of the indirect associations between the readiness measures and sustainability. Regulatory support was found to be a statistically significant but not statistically meaningful relationship with fintech adoption, as it failed to moderate any of the direct effects of the innovation valance, change efficacy or contextual factors. It implies that, the regulatory structures in Islamic banking system of Pakistan were more of enabling baseline which were depriving the behaviour from the organization as compared to the amplifier of the behaviour. The absence of any significant interaction effects suggested that the adoption of fintech and Islamic banking was more a push from within rather than a pull from the outside in relation to becoming more sustainable. The results of this research are important to make a warning because relying too heavily on regulation other than finding a platform for change without

coordinating the latter in the organization's culture and the logic of innovation of the financial institutions.

5.1 Theoretical Contributions

This study contributes to the organizational readiness to change theory by showing that contextual fit and innovation valance, but not technical readiness, are the key facilitators of the stability offered by fintech in Islamic banks. It presents the adoption of fintech as a hybridizing construct between internal readiness and triple-bottom-line achievement to add to the theory of change in the digital transformation of religious organizations. In addition, it questions linear hypotheses because it reveals that operationally important change efficacy might not lead to innovation uptake of value-driven systems. These insights narrow the focus of readiness theory to involve ideological compatibility in its mechanics. Hence, the results require an ethico-religious adjustment of the model of organizational change in ethical and religious areas of expertise.

5.2 Practical Implications

Executives in Islamic banks must not intensify technical readiness but instead focus on building cultures (supportive of innovation) and influencing strategic focus, which is more important in terms of fintech adoption and sustainability. Narratives based on Shariah principles and practices should be used in fintech implementation strategies to enhance the value and legitimacy of innovation based on internal stakeholders. Regulatory authorities should pay less attention to extensive mandates and more attention to empowering fintech ecosystems, which allow culturally consistent innovation tracks. Cognitive readiness and interpretive framing should also be the focus of capacity building and training initiatives, and not merely digital training. Lastly, the Islamic banking goals of sustainability should be anchored on internal belief systems and local norms to attain full adoption and performance.

5.3 Limitations

One of the key limitations is that there was a very small mediation effect of change efficacy on the likelihood of fintech adoption, signifying that there may be other factors (such as influence from the Shariah boards) that may have moderated this. This diminishes the nature of change efficacy as a common metric of digital transformation of Islamic banks. Moreover, the insignificant moderation effect of the regulatory environment reduces the interpretability of policy levers as 'conditional enablers'. The research was also based on the non-concurrent use of only perceptual survey data that might have counted on declared readiness instead of the actual behavior or adoption level. This makes the adopted measure of the fintechs less meaningful as "outcomes" as

they did not provide objective system usage data. Also, the organizational responses did not include further analysis of Islamic banks by bank size and sector (control) since these factors are distinct to each other and can impact the patterns of organizational responses.

5.4 Future Directions

Future research needs to answer the question of why change efficacy does not lead to the adoption of fintech, which might partly be via the use of mediators like religious legitimacy or the aversion towards risk being taken in an Islamic environment, for instance. Whereas mixed-methods research with interviews of Schariah compliance officers can uncover the invisible decision barriers to fintech diffusion. The moderated effects need to be studied under the specific conditions of dynamic regulatory regimes, such as a sandbox regime. Another possible option is to test the model on different types of jurisdictions in the Islamic banking systems to better break down contextual and structural readiness to gain insights into the level of impact the localization of Shariah interpretations has on the model responses to innovation.

6. Conclusion

The enticing call for sustainability has placed greater pressure on Islamic banks to meet it alongside other growing internal and external pressures including the need to digitalize and reform bank as a result of rapid fintech transformation, while it is not clear if it is enough to match metas with rising sustainability needs that are further fueled by the accelerated digital transformation, despite the sound intentions embedded into the policies of Islamic banks. This study is motivated by the background question of how effective and sustainable the performance of Islamic banks is when they have to balance their existing Islamic banking policies in light of other growing internal and external pressures on the institutions such as the need for sustainability alongside the digitalization and reform bank due to the fast technological change in the financial technology (fin-tech) sector. This need was met by using a quantitative approach of higher order structural equation modeling on survey responses obtained from 478 respondents from fully fledged Islamic banks and Islamic windows of conventional banks from the country of Pakistan. In continuation of this framework, this study explored the relationship among innovation valance, change efficacy and sustainability outcomes in Islamic banks of Pakistan with a particular focus on mediating role of fintech and a moderating influence of regulatory environment. The results of this study confirm that the innovation valance and context also have an important role in facilitating the adoption of fintech, thus making it one of the main pillars that Islamic banks can use to enhance their environmental, economic, and social sustainability

measurement. The results show that enabling innovation with the support of internal competencies is not always the best idea as it needs to be legitimised and strategically organised. In contrast, change efficacy is expected to have an immediate but not necessarily positive impact on sustainability but they did not bring fintech adoption to the Islamic banks, which means that having the attitude that Islamic bank does not have to change is not enough to unlock the strength of fintech. This disassociative process can be attributed to ideological hesitancy schemes/risk aversion, structural inertness (or a lack of opportunities for innovation) of faith-based monetary undertakings. In addition, the regulatory environment (which had positive relationship with the adoption of fintech) did not moderate the mediation paths, which can be attributed to the fact that policy support is important but cannot offset internal alignment and transformative potential. Overall, the study further reiterates that organizational change in Islamic banks is more than just the technical and regulatory process, it is also cultural and strategic process. One can see there that the most likely state of sustainability would be when sustainability is not just organizationally approved but even ethically accepted; where the fintech is enough capable and acceptable to sustain and realize. Overall, this study enhances the understanding of organizational readiness for change theory by establishing the mechanism between value-based readiness and organizational capabilities in implementing sustainable strategies through fintech adoption, while also highlighting the fact that in Islamic banks, executives and regulators should pay greater attention to cultural and strategic alignment than to merely "technical" readiness when building their sustainability strategies. Although the study results should be interpreted in the limitations of the study (e.g., using cross-sectional data, perceptual survey, single-country setting), future studies should further build on the limitations of this study in development of the readiness-fintech-sustainability pathway identified through this study using the mixed methods, longitudinal, and multi-country designs that can validate and extend the pathway identified here.

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