

Public Awareness, Knowledge, and Attitudes Towards Digital Health Insurance Platforms in Bahrain: A Mixed-Methods Study

¹*Salim Hasan AL ARRAYED

¹Arrayed Eye Centre Manama, Kingdom of Bahrain.

Abstract

Background: Digital health insurance platforms represent key health informatics tools in Bahrain, promising enhanced healthcare access through IT integration. Despite mandatory insurance and 99% internet penetration, adoption remains low, underscoring informatics barriers in user-technology interactions.

Objective: This informatics-focused study identified predictors of digital health insurance platform adoption and explored user perceptions, trust dynamics, and barriers among Bahrain residents using mixed-methods analytics.

Methods: A convergent mixed-methods design integrated quantitative and qualitative informatics approaches. A cross-sectional survey (n=300; stratified random sampling) measured sociodemographics, awareness, perceived usefulness ($\alpha=.742$), ease of use, trust, cost perception, current use, and behavioral intentions via 5-point Likert scales. Analyses included descriptive statistics, χ^2 tests, t-tests, Pearson correlations, and binary logistic regression (Nagelkerke R^2 for model fit). Twelve semi-structured interviews (purposive sampling to thematic saturation) underwent inductive thematic analysis to uncover informatics-related themes.

Results: Of 300 respondents, 52% (n=156) were active users. Key TAM constructs showed moderate favorability: Perceived Usefulness ($M=3.53\pm1.09$), Ease of Use (3.42 ± 1.19), Trust (3.38 ± 1.17), with Behavioral Intention more variable (3.07 ± 1.32). Awareness linked to current use ($\chi^2=9.84$, $p=.002$, $V=.181$); trust strongly predicted future intention ($\chi^2=44.27$, $p<.001$, $V=.384$; $r=.51$, $p<.001$) and usefulness differentiated users vs. non-users ($t=2.79$, $p=.006$, $d=0.32$). Logistic regression confirmed trust ($OR=1.62$, $p<.001$), awareness ($OR=1.83$, $p=.036$), and ease of use ($OR=1.33$, $p=.015$) as adoption predictors ($R^2=.148$); demographics were nonsignificant. Six qualitative themes emerged on informatics barriers.

Conclusions: Trust emerges as the primary informatics driver of digital health insurance adoption in Bahrain, extending TAM for health IT systems in GCC contexts. Informatics interventions should target trust enhancement, user interface simplification, and stakeholder decision support strategies.

Keywords: health informatics, digital health platforms, technology adoption, trust, TAM model, Bahrain, mixed-methods analytics, insurtech.

Introduction

Digital healthcare insurance services have become transformative tools in the healthcare systems of many developed countries (Okuzu et al., 2022). Similarly, the digital health market in Bahrain presents steady progress and is expected to approach a turnover of US\$17.06 million by 2029 (AbuRaya et al., 2021; Hamad, Al-Jedai, et al., 2025). On the other hand, the broader digital insurance industry is worth USD 1.2 billion, driven by technological integration and government efforts (Fedorovych et al., 2025). One such example is the Sehati application, which enabled remote consultations and e-services in response to COVID-19 (Al-Aswad et al., 2021; AlEnezi et al.). The

advancement of the privatization of health insurance (PHI) in the Gulf Cooperation Council (GCC) has increased by 23.4% between 2000 and 2022 (Ottesen et al., 2023). However, Bahrain's statistics are much lower, with PHI standing at 6.4 - 30.9 % lower than that of the UAE (Reka et al., 2026). Despite this lower PHI, a strong digital readiness is reflected by the country's near-universal internet access (>99%) and a 79.4% prevalence of social media usage among the population (Reka et al., 2026). According to recent studies, the health insurance literacy is moderate in Bahrain and the wider GCC region. A low health insurance literacy of 25.3% of respondents was associated with low enrollment despite high awareness

Salim Hasan AL ARRAYED

Arrayed Eye Centre Manama, Kingdom of Bahrain.

Email: salem@arycogroup.com

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in Saudi Arabia (Alrashed & Alyaemni, 2025; Alrasheed, 2025). In a study conducted on the Arab countries, trust in government health websites was reported at 60.9% in Bahrain, although issues of data security and digital illiteracy remain (Qasrawi et al., 2025). These trends highlight the developed digital environment in Bahrain and demonstrate unexploited opportunities for PHI adoption, especially via mobile channels.

Despite these developments, adoption of digital health insurance platforms in Bahrain remains limited due to gaps in knowledge, low levels of trust, and persistent user concerns (Al-Aswad et al., 2021). Trust and usability have been highlighted as primary factors of digital health adoption in recent published literature, but have not been pursued in GCC-specific settings (Alelyani, 2025; Alrasheed, 2025). As an example, ease of use and data encryption in the context of insurtech scaling were highlighted in a study on Nigeria, although the regional differences in regulatory trust were under-researched (Okuzu et al., 2022). GCC-oriented reviews reported PHI expansion and overlooked the social attitudes of the population towards online applications; the low PHI proportion in Bahrain indicates an evidence gap (Alrasheed, 2025). In Saudi Arabia, recent survey research associated moderate health insurance literacy (35.6%) with enrollment gaps but lacked mixed-method studies of the Bahrain expatriate-national mix and employer-led (Alfaifi, 2023). None of the studies combined quantitative predictors like trust with qualitative themes like experiential legitimacy to offer actionable information to policymakers to use in awareness campaigns.

Therefore, this informatics study evaluated public awareness, knowledge, attitudes, and behavioral intentions toward digital health insurance platforms in Bahrain as critical health IT systems. Specific objectives included: (1) quantifying adoption determinants (awareness, trust, perceived usefulness, ease of use) through cross-sectional survey analytics, (2) identifying informatics-related barriers via semi-structured interviews with thematic analysis, and (3) developing a trust-centric informatics framework for platform adoption. The study situates digital health insurance within equitable, trust-based health IT transformation in regulated healthcare systems, supporting SDG 3 (Good Health and Well-Being), SDG 9 (Industry, Innovation and Infrastructure), and SDG 10 (Reduced Inequalities) through data-driven decision support strategies.

Methodology

Study Design

The current study utilized a convergent mixed-method design which combined a quantitative cross-sectional survey with qualitative semi-structured interviews. The mixed-methods framework was selected as it permitted conducting a holistic analysis of population awareness, knowledge, perceptions, and behavioral intentions related to digital health insurance platforms in Bahrain. The data of both quantitative and qualitative segments were gathered in the same study period (March 2025- January 2026), and was analyzed independently to guarantee methodological triangulation and augmented validity.

Study Setting

This study was carried out in the Kingdom of Bahrain. The data were collected in a diverse range of community-based facilities, including governmental health centres, privately-owned clinics, workplaces, and community spaces. This multi-location approach was introduced to ensure diversity in the socioeconomic status, engagement with healthcare services, and access to private or online insurance services.

Study Participants

The quantitative components of the current study included 300 adult Bahrain residents. This sample size was considered large enough to carry out multivariate logistic regression analysis and meet the traditional events-per-variable requirement to carry out stable parameter estimation. The participants of the study included Bahraini nationals as well as expatriate residents. To qualify, the participants had to be 18 years old and fluent in Arabic or English. Participants below the age of 18 were excluded, along with other residents who were ineligible to provide informed consent, had severe cognitive impairments that prevented them from completing the survey, or had significant language barriers that could hinder meaningful participation.

Moreover, a purposive subsample of survey respondents was selected for the qualitative component of the study to maximize variation in age, gender, nationality, educational attainment, and digital platform usage. A total 12 interviews were conducted until thematic saturation was reached, defined as the point at which no substantially new codes or themes emerged from additional transcripts.

Sampling Method

The quantitative survey used a stratified random sampling method to enhance representativeness among the demographic groups, such as age, gender, and nationality. Purposive sampling was applied to the qualitative sample in order to include diverse opinions and make sure that both current and non-users of digital health insurance platforms are covered. This method was in line with optimal qualitative health services research practices, where the richness and breadth of perceptions are of higher importance than statistical generalizability.

Data Collection Procedures

Quantitative Instrument

The data were collected using a structured and self-administered questionnaire that was developed based on available literature on digital health adoption, technology acceptance models (TAM), and the use of health insurance. The tool had items assessing sociodemographic factors, knowledge of digital health insurance sites, perceived usefulness, perceived ease of use, trust, perceived cost, current use status, and future usage intentions. Perceived usefulness was measured on a three-item Likert scale that evaluated ease of access, time-saving potential, and ability to compare plans. The answers were noted on a five-point scale where 1 (strongly disagree) to 5 (strongly agree) were the options. Trust, ease of use, and future intention were also measured using Likert-type items. The questionnaire was pilot tested in terms of clarity and contextual relevance before it was administered in large scale.

Qualitative Interviews

Semi-structured interviews were conducted using an interview guide developed from key survey constructs. The guide explored perceived benefits, trust in digital platforms and insurance providers, barriers to adoption, cost perceptions, awareness levels, and participant recommendations for improving digital health insurance services. The interviews were conducted in either Arabic or English, depending on the choice of the participants. All interviews were audio-taped with the consent of the participants and transcribed verbatim and anonymised before analysis to maintain confidentiality.

Statistical Analysis

IBM SPSS Statistics Version 26 was used to analyse quantitative data. Demographic and study variables were summarised using descriptive statistics (means, standard

deviations, frequencies, and percentages). Cronbach's alpha was used to measure the internal consistency of multi-item scales. Pearson chi-square tests, independent samples t-tests, and Pearson correlation coefficients were used to test bivariate associations, depending on the use of the right method. Binary logistic regression was used to determine predictors of current use of digital platforms of health insurance. The assessment of the model fit was done through the use of the -2 Log Likelihood, Cox and Snell R², and Nagelkerke R². The level of statistical significance was determined as $p < 0.05$.

Qualitative Data Analysis

Thematic analysis was used to analyze qualitative data based on six phases of the framework by Braun and Clarke (2006) (Braun & Clarke, 2006; De Paoli, 2024). The inductive coding strategy was used to determine emergent patterns and develop themes that were constructed directly out of raw data. Interviews were manually coded, and thematic saturation was reached when no more themes could be extracted.

Ethical Considerations

The collection of data was done after obtaining the ethical approval of the institutional research ethics committee. Every procedure was based on the ethical principles that were provided in the Declaration of Helsinki. Participants were given full information concerning the objectives of the study, methods, the voluntary nature of the study, and confidentiality. Each of the participants signed an informed consent form written before enrolment. All data were stored in a safe place, and the responses of the survey and transcripts of the interviews were anonymized to protect the privacy of the participants.

Results

Preliminary Analyses

Table 1 presents descriptive statistics for study constructs measured on 5-point Likert scales (1 = strongly disagree, 5 = strongly agree). The Perceived Usefulness scale (3 items) demonstrated acceptable internal consistency ($\alpha = .742$, $n = 300$), exceeding the .70 threshold and justifying composite score use in downstream analyses. Mean scores exceeded the neutral midpoint (3.0) across constructs, reflecting moderately favorable attitudes, though future intention exhibited the highest variability ($SD = 1.32$). Current users comprised 52% ($n = 156$) of respondents.

Table 1. Descriptive Statistics for Study Constructs (N = 300)

Variable	Mean	SD	Min	Max
Easy Access	3.58	1.12	1	5
Saves Time	3.54	1.16	1	5
Compare Plans	3.47	1.18	1	5
Perceived Usefulness (composite)	3.53	1.09	1	5
Ease of Use	3.42	1.19	1	5
Trust	3.38	1.17	1	5
Future Intention	3.07	1.32	1	5

Note: Composite calculated as the mean of 3 Perceived Usefulness items.

Bivariate Relationships

Table 2. Bivariate Associations Between Predictors and Outcomes

Test Statistic	Value	df	p-value
Awareness × Current Use			
Pearson χ^2	9.84	1	.002
Continuity Correction	9.11	1	.003
Likelihood Ratio	9.96	1	.002
Cramér's V	.181		.002
Trust × Future Intention			
Pearson χ^2	44.27	4	<.001
Likelihood Ratio	46.03	4	<.001
Cramér's V	.384		<.001

Note: N = 300 for all tests.

Bivariate tests established foundational relationships among predictors and outcomes (Table 2). Awareness showed a statistically significant but small association with current use [$\chi^2(1) = 9.84$, $p = .002$, Cramér's $V = .181$; continuity correction = 9.11, likelihood

ratio = 9.96], indicating knowledge alone is insufficient for adoption. Trust exhibited a moderate relationship with future intention [$\chi^2(4) = 44.27$, $p < .001$, Cramér's $V = .384$], underscoring its role in prospective behavior.

Table 3. Perceived Usefulness by Current Platform Use

Current Use	n	M	SD	SE
Yes	156	3.69	1.02	.082
No	144	3.36	1.08	.090

Current users reported higher perceived usefulness than non-users (Table 3; Levene's $F(1,298) = 1.42$, $p = .234$, confirming equal variances). The independent samples t-test was significant [$t(298) = 2.79$, $p = .006$, mean difference = .33, 95% CI [.10, .56], Cohen's $d = 0.32$].

Pearson correlation analysis showed that the

attitudinal variables were moderately to strongly related to each other. The strongest relationship was between trust and future intention ($r = .51$, $p < .001$; Table 4).

Multivariate Analysis

A binary logistic regression was conducted to see which factors predicted whether participants were currently using the platform (Tables 5–6). The model fit the

Table 4. Pearson Correlations Among Key Constructs

	1. Trust	2. Future Intention	3. Ease of Use	4. Current Use
1. Trust	—	.51**	.42**	.34**
2. Future Intention	.51**	—	.46**	.29**
3. Ease of Use	.42**	.46**	—	.27**
4. Current Use	.34**	.29**	.27**	—

Note: ** $p < .001$; $N = 300$

Table 5. Logistic Regression Coefficients Predicting Current Use

Predictor	B	SE	Wald	df	p	OR	95% CI Lower	95% CI Upper
Awareness	0.602	0.287	4.40	1	.036	1.83	1.04	3.22
Trust	0.483	0.121	15.98	1	<.001	1.62	1.28	2.05
Ease of Use	0.287	0.118	5.91	1	.015	1.33	1.06	1.68
Age	0.015	0.017	0.77	1	.380	1.02	0.98	1.05
Gender	0.128	0.221	0.33	1	.566	1.14	0.74	1.75
Education	0.081	0.102	0.63	1	.428	1.08	0.89	1.32
Cost Perception	-0.156	0.127	1.50	1	.220	0.86	0.67	1.12
Constant	-1.874	0.702	7.12	1	.008	0.153		

Table 6. Classification Table

Observed	Predicted Non-User	Predicted User	% Correct
Non-User	92	52	63.9%
User	48	108	69.2%
Overall			66.7%

data reasonably well and correctly classified about 67% of cases, explaining roughly 15% of the variation in platform use. Among the predictors, trust was the strongest factor: participants who trusted the platform were more likely to use it. Awareness of the platform and its ease of use also increased the likelihood of use. In contrast, demographic factors did not significantly influence platform use.

Qualitative Results

An inductive method was used to analyze the 12 semi-structured interviews in a thematic analysis. Thematic saturation was reached in the tenth interview, and the other interviews supported the already identified thematic categories without generating substantively new codes.

Coding Process

The first phase of the open coding procedure resulted in 38 initial codes, which were narrowed down into 17 narrow

codes and then sorted into 6 broad themes. Table 7 shows examples of quotations and their respective extracted codes.

Thematic Analysis

Focused codes were clustered into six overarching themes that capture themes across participants. Table 8 presents the thematic structure, including subthemes and representative codes.

Theme 1: Perceived Functional Benefits

Existing users of digital insurance services frequently stated the benefits of operational digital platforms. The most common perception was the convenience brought to them through the removal of physical visits and paperwork. The respondents emphasized that online access alleviated administrative strains and sped up claims processing. The aspect of transparency was also

Table 7 Coding Framework with Illustrative Quotes

Participant	Illustrative Quote	Focused Code
P01	"I don't have to visit the office."	Convenience
P01	"Fast claim approval."	Time efficiency
P03	"It helps us track coverage."	Transparency
P05	"I can compare plans immediately."	Empowered decision-making
P08	"No paperwork."	Administrative efficiency
P06	"After successful claims, my confidence increased."	Experiential trust formation
P10	"Trust is linked to the insurance company."	Institutional trust
P11	"Brand reputation and regulatory oversight."	Structural trust
P02	"I prefer face-to-face."	Interpersonal reassurance
P07	"There are cyber issues everywhere."	Data security anxiety
P04	"I am not comfortable with apps."	Digital literacy barrier
P04	"I'm afraid of clicking something wrong."	Technology anxiety
P03	"Insurance terms are confusing."	Information opacity
P05	"Private insurance is expensive."	Cost sensitivity
P09	"Why pay more?"	Cost-benefit uncertainty
P12	"Insurance language is complicated."	Communication barrier
P12	"Public awareness campaigns are needed."	Policy recommendation

Table 8 Extracted Themes and Subthemes

Major Theme	Subtheme	Representative Codes
Perceived Functional Benefits	Convenience and efficiency	Convenience, Administrative efficiency
	Transparency and control	Transparency, Empowered decision-making
Trust as Central Determinant	Institutional trust	Institutional trust
	Structural legitimacy	Structural trust
	Experiential trust	Experiential trust formation
Barriers to Adoption	Digital literacy limitations	Digital literacy barrier
	Technology-related anxiety	Technology anxiety
	Cybersecurity concerns	Data security anxiety
	Information complexity	Information opacity, Communication barrier
Cost Sensitivity and Value Perception	Premium concerns	Cost sensitivity
	Value skepticism	Cost-benefit uncertainty
Awareness and Education Gaps	Limited public knowledge	Awareness gap
	Need for communication strategies	Policy recommendation
Adoption Drivers	Employer facilitation and usability	Onboarding exposure, Administrative efficiency
	Positive user experience	Experiential trust formation

relevant; the ability to follow coverage and compare plans increased the feeling of control and informed decision-making among the users. These results are in line with the quantitative findings, which show moderately positive ratings of perceived usefulness and a higher average usefulness rating among current users.

Theme 2: Trust as a Key Determinant.

The most salient and cross-cutting theme between interviews was trust. The participants distinguished trust in the digital interface and trust in the insurance company. Institutional trust, based on company reputation, strongly influenced adoption decisions. Confidence was further strengthened by structural trust, which was based on perceptions of regulatory oversight and governmental legitimacy. Experiential trust, to some participants, emerged after their claims had been processed successfully through digital services. On the other hand, the non-users were skeptical about the reliability of the system and data security. Therefore, trust was multidimensional, consisting of institutional credibility, regulatory assurance, and personal experience.

Theme 3: Barriers to Adoption

The observed barriers were primarily psychological and informational, rather than demographic. The respondents who expressed low levels of digital confidence stated that they feel uncomfortable with using mobile applications and fear of making mistakes. There were also cybersecurity issues, which were indicative of the general fears about data privacy on the online platform. Also, the intricacy of the insurance language and vague policy descriptions hindered understanding, especially with non-users. These obstacles demonstrate that the issues of adoption go beyond the technological infrastructure and include cognitive and informational concerns.

Theme 4: Value Perception and Cost Sensitivity.

Views regarding digital health insurance platforms were largely shaped by cost factors. Although efficiency and transparency were valued by some of the users, non-users wondered the need to have a private insurance since there were public healthcare facilities. The issue of high premiums and possible covert charges was another factor that led to reluctance. Notably, the issue of cost was not often discussed independently; it was measured against the perceived usefulness and trust.

Theme 5: Awareness and Education Gaps

The participants mentioned that wider adoption is limited because of limited public awareness. Some of the respondents indicated that a large number of residents do not know the benefits of digital insurance platforms. The recommendations were targeted at creating awareness through the media and straightforward explanations of the insurance plans, especially in the Arabic language.

Theme 6: Adoption Drivers

Adoption was often supported by employers' onboarding and exposure to digital systems in institutional settings. The previous positive experiences, especially the systems of efficient claims processing, supported further involvement. Intuitiveness and simplicity of the interface also encouraged long-term usage.

Discussion

Digital health insurance platforms in Bahrain promise better healthcare access (Qasrawi et al., 2025). Nevertheless, the adoption rate among the population is low despite the availability of required insurance plans and 99% internet usage across the country (Al-Aswad et al., 2021). The current study's findings demonstrate that trust is the key driver of digital health insurance platform adoption, supported by perceived functional utility. Cost-related issues and awareness gaps play supporting roles; however, these factors are situation-specific. More importantly, demographic factors failed to become important predictors, meaning that attitudinal and institutional factors have more impact on digital insurance engagement.

Trust was repeatedly found to be the most important predictor of adoption of a digital platform, both in quantitative and qualitative evidence. It showed the best predictive value in logistic regression models and had the highest level of correlation with future adoption intentions; qualitative descriptions consistently located trust as the basis of decision-making. Respondents did not interpret trust as a narrow concept of technological reliability. On the other hand, existing studies highlight how participants saw trust as layers: company credibility, government rules, data safety, and proof from successful claims (Fan et al., 2024; Verhoest et al., 2024). This aligns with Alzoraik et al. (2025), who found trust as a primary driver of online banking adoption, mirroring the current study's results in digital insurance platforms (Alzoraik et al., 2025).

This multidimensional definition of trust goes beyond the classical definitions of the TAMs that have traditionally

placed perceived usefulness and perceived ease of use as the main drivers of the behavioural intention (Verhoest et al., 2024). Although TAM-derived constructs were still relevant in the current study, trust in this case seemed to mediate, or even precondition, the effects of usefulness perceptions. The participants mentioned multiple times that the functionality of the platform was not enough without trust in the insurance company and regulatory control. This finding is consistent with the wider body of research on digital health adoption, where trust is seen as a fundamental element in the context of eHealth, telemedicine, and fintech acceptance models, especially where financial risk and sensitive personal information are involved (Al-Anezi, 2024; Balaskas et al., 2024).

The institutional trust takes special salience in the Bahraini context. Brand reputation and regulatory protection were often mentioned by the respondents as key factors of confidence. As a result, the adoption of digital insurance seems to be entrenched in wider views of governance, market regulation, and institutional responsibility. Structural trust dominates because Bahrain's public healthcare covers a lot (Abuzeyad et al., 2020; Hamad, Abdulaziz, et al., 2025). Private insurance plays only a supporting role. Within such an environment, digital platforms should demonstrate not only operational efficiency, but also prove their legitimacy and security (Abuzeyad et al., 2020; Alnaqbi et al., 2024). The perceived usefulness was found to be significantly related to adoption; the current users indicated more perceived utility as compared to non-users. This trend was supported by qualitative data, where convenience, lessened paperwork, faster claims processing, and increased transparency were listed as the features of importance. These practical advantages led to a sense of administrative effectiveness and empowerment of the users. But usefulness did not overshadow trust as the most dominant factor. Similar studies also show that, although operational benefits are essential to long-term involvement, they do not in themselves significantly influence the adoption decisions (Mushonga & Mishi, 2026). In this regard, perceived usefulness can also act as a reinforcement factor and not necessarily a driving force (Mushonga & Mishi, 2026). Other studies emphasize that, in high-trust contexts, institutional trust shapes perceived usefulness in adoption models (Hussain et al., 2025; Rana et al., 2024). The results suggest the use of a sequential adoption process, with trust facilitating the trial, and the perceived usefulness supporting further usage (Nayanajith, 2021).

Cost perceptions did not predict outcomes in regression

analysis. Yet qualitative data showed consistent uncertainties. People feared high premiums, hidden costs, and poor value compared to public healthcare. Such inconsistency between quantitative and qualitative results highlights the importance of methodological triangulation. Cost does not predict adoption alone. But it shapes judgments and interacts with trust and usefulness. Participants weighed it within a broader value system. Thus, cost becomes key when benefits or trust fall short (Mustafa et al., 2026). Policy can reduce skepticism through clearer pricing and benefit comparisons.

The hindrances to adoption were mostly psychological and informational as opposed to demographic. There were no statistically significant predictors of age, gender, or education. However, in qualitative interviews, technology anxiety, fear of making mistakes, and unease with digital interfaces were found to be among some of the participants. These results suggest that engagement could be dependent on perceived digital self-efficacy (and not objective demographic attributes). In addition, the difficulty in understanding insurance terminology was identified as a common issue. The respondents also noted that they found it hard to understand policy language, and this reduced the level of confidence in making decisions. The barrier is not only a challenge of usability in technology, but also the lack of communication in the insurance design. Similar studies align with this finding and highlight that simple, clear explanations in local language and culture can boost understanding and trust (Alrasheed, 2025). Weak demographic effects show digital insurance use in Bahrain depends more on confidence, transparency, and institutional trust, not access inequality.

Even though the awareness had a significant correlation with the variable 'current use', the effect size was minor. Qualitative descriptions showed that a large population of residents has no idea of the advantages of digital insurance platforms. The participants suggested specific awareness programs and more detailed strategies of communicating to the population. The implications of these findings are that the digital health insurance platforms in Bahrain might be at the initial stages of diffusion (Al-Aswad et al., 2021). Institutional intermediaries especially employers can, therefore, become important channels of diffusion. Structured onboarding, educational outreach, and public engagement should be supported by policy measures to catalyze normalization and increase uptake (Abuzeyad et al., 2020; Al-Anezi, 2024).

Proposed Conceptual Framework

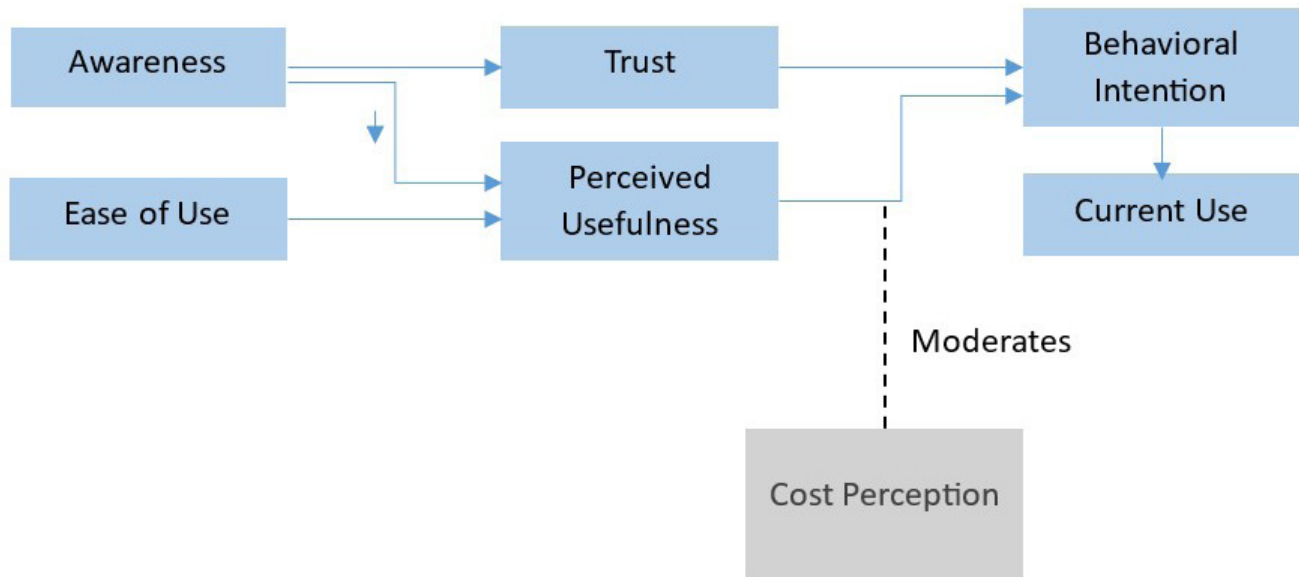


Figure 1. Trust-Integrated Digital Health Insurance Adoption Framework.

To integrate the quantitative and qualitative findings, this study proposed a Trust-Integrated Digital Health Insurance Adoption Model, (Figure 1), that extends existing TAMs to regulated healthcare finance settings (Alelyani, 2025; Venkatesh, 2015). The current study has used TAM and Unified Theory of Acceptance and Use of Technology (UTAUT) to predict behavioral intention by identifying perceived usefulness and ease of use as the main predictors. The findings of the present study indicate that institutional trust is an institutional antecedent as opposed to a parallel predictor.

The suggested framework considers health insurance platform adoption as a process of stages that involves trust. Awareness creates familiarity with the digital platforms so that the end-users can observe functionality benefits and develop trust. Perceived usefulness is facilitated by ease of use which minimizes cognitive and technical barriers. Trust has a direct effect on the behavioral intention and indirectly through perceived usefulness that in turn results to actual platform use. The element of cost is a conditional issue which can undermine the effects of the perceived usefulness and intention where individuals are concerned with high premiums or low value. The model builds on the adoption theory, putting institutional trust in the core of the digital health-financing settings. Rather than emphasizing functional features only, it demonstrates that its adoption in regulated insurance systems is determined by expanded perceptions of institutional legitimacy. By doing so, the

digital uptake of health insurance is not only an institutional process mediated by trust but a technological one.

Strengths and Limitations

The article has several strengths, including a mixed-methods design, a quantitative sample of 300 respondents, and the use of multivariable regression alongside thematic analysis. This combination enhances both statistical rigour and contextual depth. Some limitations should be noted as the findings are most applicable to settings with broadly similar digital readiness and health system characteristics.

Conclusion

The current informatics study advances understanding of digital health insurance platform adoption by identifying trust as the primary predictor in user engagement with health IT systems. Trust integrates institutional credibility, regulatory reliability, and personal experiences, where perceived insurer competence and strong oversight convert observed usefulness into sustained platform use. These findings reveal that informatics-driven transformation in healthcare financing hinges not only on technological deployment but also on trust-building mechanisms within decision support frameworks. By synthesizing attitudinal, structural, and experiential trust dimensions through mixed-methods analytics, this research extends TAM application to regulated health IT ecosystems and offers informatics-based strategies

for enhancing digitally mediated insurance adoption in emerging GCC markets.

Declarations

Consent for Publication

Not applicable. The manuscript does not contain any identifiable individual data.

Availability of Data and Materials

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request. Qualitative interview transcripts are not publicly available to protect participant confidentiality.

Competing Interests

The authors declare that they have no competing interests, financial or non-financial, that could have influenced the work reported in this manuscript.

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