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Digital Payment: Adoption of Raast vs. Mobile Wallets (EasyPaisa / JazzCash): User Preference Analysis in the Informal Sector

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ABSTRACT

Despite the development of an electronic payment platform known as Raast by the government of Pakistan that facilitates free transactions, there is still a substantial percentage of the workforce in Pakistan who uses mobile wallet payment methods such as EasyPaisa and JazzCash in their businesses and transactions. This exploratory pilot study (n=60; 50 questionnaires and 10 interviews) examines key factors that affect the decision to adopt digital financial technology among informal workers in Pakistan. It reveals that availability of a free digital platform is not enough to foster adoption. Factors that play an important role in shaping the behavior of users include structural exclusions, low levels of digital literacy, dependence on nearby cash agents, and fears of fiscal monitoring. In particular, there was a high negative correlation between the fear of state supervision and use of Raast payments ($r = -0.76$, $p < .001$). Furthermore, the research also suggests that the zero MDR approach may generate a market gap that makes banks reluctant to onboard smaller businesses. Thus, this paper discusses a behavioral policy framework for the provision of liquidity, access, and value creation including digital safe harbors, open agency practices, and the public digital credit registry.

Keywords:
Cashless Economy, Raast Payment System, Digital Financial Inclusion, Informal Economy Mobile Wallet Adoption

1. INTRODUCTION

Financial technology (fintech) is basically changing the way money is managed all over the world by offering technical solutions which open up access and also make financial services more efficient. The impact of this changing scenario in a country like Pakistan is very profound as until now

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most of the people have been excluded from banking services for reason of high transaction costs, long distances, and complicated documentation. In fact, with the population being around 220 million and about 53% of them not using banking services, digital payment systems can be a great tool to bring these people into the financial system (Salman et al., 2024). The digital financial services (DFS) in Pakistan have been rapidly expanding over time, with a total of 1,122.8 million mobile banking transactions carrying PKR 46.3 trillion in value being recorded in the last Fiscal Year 2024 (Jabeen et al., 2025). EasyPaisa, which came into existence in 2009, and JazzCash, which started in 2012, have taken the lead in the mobile wallet revolution (Gill et al., 2021; Awan, 2020). These platforms are helping customers to carry out their regular payments like utility bills and transfer of money within the country without a traditional bank account (Gill et al., 2021; Malik et al., 2025). In order to improve this system, the State Bank of Pakistan introduced the Raast instant payment system in 2021, offering a cheap, safe, and interoperable way of making peer, to, peer and business transactions (Noreen, 2022; Iqbal & Hayat, 2025).

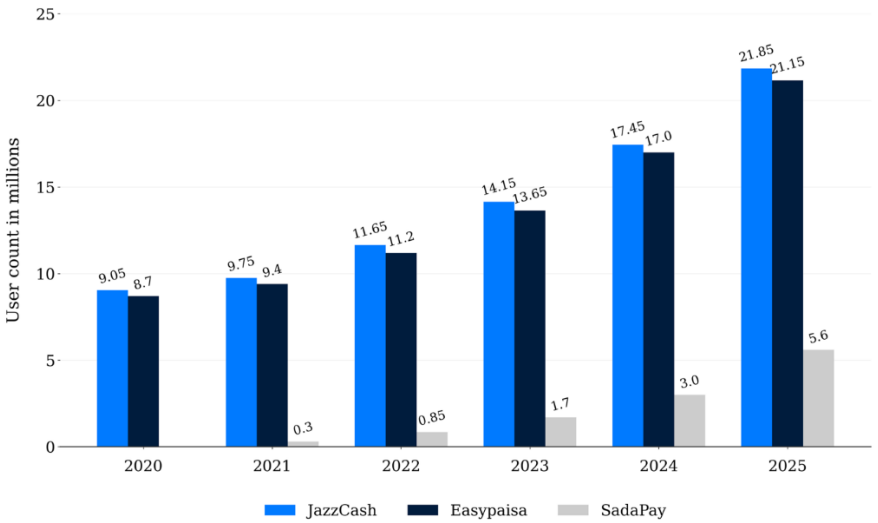
The adoption rates in the informal and rural sectors have remained stubbornly low despite all these technological innovations. For example, only 1.1% of adults living in rural areas of Pakistan were using digital merchant payments in the year 2021 (Raza, 2025). There are several reasons why it is difficult to gain widespread acceptance. Firstly, there is hardly any infrastructure in place, such as an unstable internet service and electricity supply. Secondly, a lot of people simply don't trust the system because there have been cases of people being scammed online, personal data has been leaked, and finally, it is a matter of cultural preference for cash in hand (Salman et al., 2024; Malik et al., 2025; Raza, 2025).

First of all, the authors of this paper have narrowed down their focus to analyzing the point of divergence (differentiation) between the informal sector and the digital/utility payment infrastructure. The question is why the informal sector decides to use the "walled gardens" of private incumbents instead of the public utility of Raast. The informal sector chooses to carry on with private fee, based agent networks even though the digital public infrastructure Raast is made available to them as a public digital rail. The behavioral, structural and institutional factors that influence this adoption gap are deeply studied in this paper. Otherwise, it results in a research gap where the study will focus on the behavioral,

fiscal, and institutional frictions causing a delay in adoption even though the infrastructure is present.

Figure 1:

Distribution of mobile wallet usage among Pakistani users in 2020 with estimations for the subsequent years from 2021 to 2025 (in millions)



Source: (Hayat et al., 2025)

Table 1:

Conceptual and Contextual Evolution of Digital Payments

Analytical Level	Core Concept	Key Mechanism / Example	Strategic Goal
Conceptual Definition	Financial Technology (FinTech)	The synergistic convergence of finance and IT to automate value transfer and bypass legacy banking friction (Vives, 2017).	Disintermediation: De mocratizing access to capital and reducing transaction costs for the unbanked.
Global Context	Instant Payment Systems (IPS)	State-led platforms like India's UPI and Brazil's Pix that treat payment rails as a digital public good (World Bank, 2023).	Mass Formalization: Real-time, high-volume digitization of informal transactions at near-zero marginal cost.

Analytical Level	Core Concept	Key Mechanism / Example	Strategic Goal
Pakistan Context (The Incumbents)	Branchless Banking (BB) Wallets	Technological Agnosticism: USSD-enabled (*786#), 600k+ agent "Human ATM" network (Karandaaz Pakistan, 2023).	Access & Inclusivity: Bridging the hardware divide for the 56% of the workforce reliant on feature phones.
Pakistan Specific (The Challenger)	Raast (Instant Payment System)	Fiscal Traceability: SBP's centralized rail aliasing IBANs to mobile IDs for zero-cost settlement (State Bank of Pakistan, 2021).	Documentation: Utilizing interoperability to capture the shadow economy (estimated at 35–50% of GDP).
Research Focus	The Adoption Gap	Privacy Premium vs. Cost: The conflict between economic rationality and behavioral trust/fiscal anxiety.	Diagnostic: Identifying why users pay fees for private "walled gardens" to avoid the free state rail.

1.1 Problem Statement

Although transactions are eliminated by State Bank of Pakistan's public rail Raast, there remains a significant adoption gap in the informal sector. The underlying challenge lies in a basic disconnect between the technocratic development approach in state-driven digital rails and the socio-technical nature of the "unbanked" or "unlogged". Policy mistakenly believes that "economic friction reduction" is enough to induce mass adoption. This strategy ignored a dual problem-that first, a significant exclusion gap exists due to a fundamental mismatch between the 'App-first' nature of Raast, and the prevalence of feature phones and USSD usage by the workforce, and second, deep behavioral opposition among the potential user-base due to reliance on human intermediaries and the fear of being " fiscally surveilled".

Such an inertia produces enormous systemic risks. On an economic front, it keeps from formalizing the shadow economy-currently contributing 35-50% to the national GDP (World Bank, 2023)- through

the usage of non-official channels. Socially, it recreates a fragmented financial sector where the infrastructure of the state passively facilitates a technically enabled minority while the technically disabled majority continues to pay disproportionate transaction fees on a private infrastructure. With the status quo treating interface exclusion and a gap in institutional trust as two non-interacting issues that warrant ignoring, it is critical that this study diagnose the precise impacts of technological accessibility and "Tax Phobia" as causal mechanisms that can help inform the empirical investigation that will allow us to move from an approach of implementing infrastructure to one of creating behavioral incentives.

1.2 Research Questions

i. In what manner does the operational functionality of Mobile Wallets, i.e., Agent-assisted liquidity and grievance redressal, serve the needs of the informal economy for financial services more than the currently proposed free digital rails?

ii. How far does the feared risk of fiscal surveillance (FBR documentation) affect the resistance of undocumented merchants to state-associated digital payment systems?

iii. To what extent does the technologically-defined gulf between smartphone-based applications (Raast) and USSD menu-based solutions (Mobile Wallets) create the framework for the exclusion of informal economy participants?

1.3 Research Objectives

iv. To explore the drivers of user preference by analyzing why informal users prioritize the operational convenience and human support of private agent networks over transaction fee savings.

v. To assess the influence of psychological and regulatory anxieties, specifically "Tax Phobia," on the reluctance of informal merchants to formalize their digital payment flows.

vi. To evaluate the impact of interface complexity (App vs. USSD) on digital financial inclusion, providing an evidence base to highlight the limitations of current UI/UX policy frameworks.

2. LITERATURE REVIEW

The mobile wallet usage is highly regionalized all over the world, and the Asia-Pacific region is already the region that performs the most

transactions (Niankara & Traoret, 2023). Southeast Asian markets in the literature, it is denoted that high institutional trust and integrated social-payment ecosystems are motivators of digital migration (Agarwal & Assenova, 2024). Critical analysis of this scholarship, however, demonstrates that there is a bias of technocrats. It often presupposes that there is linear adoption that is motivated only by the availability of infrastructure. In the case of emergent markets such as Pakistan, this foreign literature tends to ignore the misdemeanor socio-behavioral obstacles namely the Privacy Premium that stops technology replacing cash in informal economies (Kahn, 2018).

The quick rise in the services offered by EasyPaisa, JazzCash, and SadaPay frequently turns out to be a landmark in the Pakistani context in terms of financial inclusion (State Bank of Pakistan [SBP], 2024). The existing literature focuses on youth-bulge and mobile tele-density of Pakistan as the main drivers of this rise. Although there is a great strength in this literature in tracing macro-trends, there is a crippling weakness in its descriptive character. The majority of the research applies the term account penetration as a metric of success, which leaves a gap of interest in the literature, the Meaningful Usage Gap. The local literature assumes perversely that the advantages of digital records, including reduced theft, are universally desirable (Sahi et al., 2022). This does not explain the "Documentation Trap" in which informal workers do not view a digital footprint as an asset to be used in credit, but a liability to fiscal oversight.

Stories of success in the world, including the M-Pesa example of Kenya, have created a discourse where mobile money improves household resilience (Suri & Jack, 2016). This is also supported by institutional reports (World Bank, 2023) and (Demirguc-Kunt et al., 2022), which postulate that distance or income-excluders are the main beneficiaries of digital systems. This scholarship is however beset with technological determinism. It views the "Agent Network" as a transitional bridge that will eventually be replaced and eclipsed by smartphone applications. This crucially overlooks the Pakistani fact that the agent offers a "Human Warranty" a physical interface through which trust and grievance redressal can be offered, which is absent in current automated, state-led systems such as Raast. The current literature does not explain why the so-called DIY Vacuum developed by Raast disregards the fact that to a wage laborer, the threat of a locked or stalled digital payment is a crisis of liquidity that can only be solved by a human being.

Moreover, much of the research focuses on the transformative qualities of digital finance to underserved populations (Frost et al., 2019; Zetzsche et al., 2020), but does little to explain the existing competition between the private sector walled gardens and the 21st-century state rail. Low adoption rates are misinterpreted by foreign interpretations as being a literacy issue, when in reality, it is a Legitimacy Issue. The size of what is lacking in terms of qualitative research is the nature of the structural contradiction between the state as a payment facilitator (SBP/Raast) and the state as a tax enforcer (FBR) as a deterrence of the informal sector.

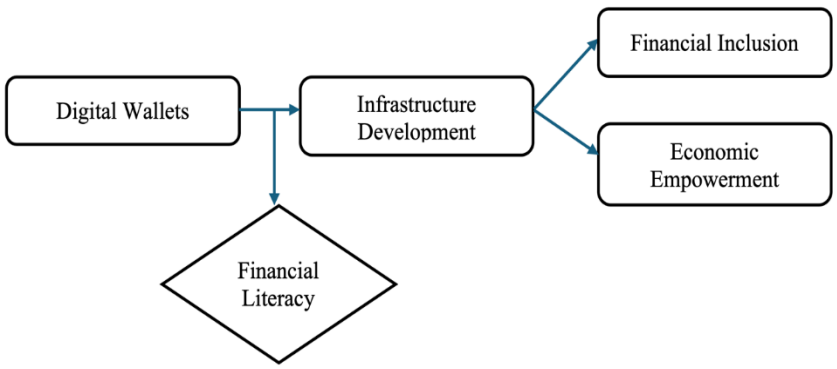
Also, literature is strong on zero-cost Raast and weak on the implicit infrastructure costs of 4G data and smartphone hardware that constitute a regressive entry tax to the poor (Caron, 2022). In order to integrate the above literature, this study transcends the technocentric approach to digital rails and examines the behavioral dynamics in the urban informal sector in Pakistan. Although earlier researchers already cartographer the development of mobile wallets (Karandaaz Pakistan, 2023) and the technicalities of the Raast system (State Bank of Pakistan, 2021), the situation of competitive tension between state-run zero-cost rails and the infrastructure of the interactive agents remains a serious gap. This paper understands the gap in adoption as a strategic tradeoff between economic savings and institutional trust rather than a technical failure. In turn, this study examines the Privacy Premium and the human Warranty as the dominant contributors to user preference, offering a diagnostic model to see why the informal economy of Pakistan continues to be anchored to the high-costed walled gardens even when there exists a free utilitarian activity. Therefore, the current literature is analytically weak explaining the behavioral resistance, financial anxiety and competitive rivalry between the private walled gardens and the state-managed payment rails a gap this paper bridges. This theoretical analysis of this study came up with several constructs, including the following: Technocratic Fallacy, Human Warranty and Privacy Premium. Despite all this, available literature does cover digital rails, fintech infrastructure, but no discussion of behavioral resistance, fiscal anxiety, and institutional distrust in Pakistan is available. Excerpt from is as follows; these are two of the key elements discussed in the literature.

3. RESEARCH METHODOLOGY

This section details the detailed plan of how this research will be undertaken. A stringent Convergent Parallel Mixed-Methods Design will

be used to probe the intricate relationship between economic incentives, technological obstacles and human psychology in Pakistan's informal sector. Since surveying undocumented individuals is a challenging endeavor and since there is no available empirically based baseline that compares Raast to Mobile Wallets, this study is in fact an Exploratory Pilot Study that will test directional trends, and develop sound hypotheses that can be tested and generalized from large-scale policy evaluations.

3.1 Conceptual framework



3.2 Research Design and Rationale

This research design uses a Convergent Parallel Mixed Methods design (Creswell & Plano Clark, 2018). It involves the simultaneous collection of quantitative data (Survey) and qualitative data (Interview) on a separate parallel track that is necessary for the study of the 'Adoption Gap'.

The Quantitative Track will focus on measuring the degree of user preference, identifying the structural (hardware) obstacles to adoption and test associative relationships between the fear of fiscal impact and the payment choice.

The Qualitative Track would use extraction to elucidate the reasons (psychological obstacles) that underpin these statistical findings, so that the statistical signals will be validated in light of the empirical socio-economic circumstances in the informal economy.

3.2.1 Population and Sampling Strategy

The target population includes only the unregistered merchants, gig gig economy employees and day-wage workers among the Urban Informal Labor Force, in two largest economic hubs (Karachi and Lahore) and one largest provincial capital city (Rawalpindi) in Pakistan. Metropolitan areas

were chosen so as to control for the variables of infrastructure (i.e. 4G/ LTE available) so that behavioral resistance is isolated from simply internet unavailability.

Sample Size Justification: For the purposes of the quantitative survey N=50, and for the qualitative interview section n=10 was determined as appropriate. Although not the number needed to generalize to a national population, N=50 does enable instrument validity to be test piloted and the initial descriptive categorizations and directional relationships to be statistically established within a population sub-section. The qualitative sample was arrived at by applying the principle of thematic saturation, i.e., when no new broad themes were emanating from the data collected via interviews.

Sampling Technique: To counter potential selection bias in the absence of a formal registry population, a combined Convenience, Intercept and Snowball Sampling strategy was applied. Overcoming the Gatekeeper Bias: Although initial access to the field was in some cases "given" by "gatekeepers" within the market unions in order to build rapport, enumerators relied extensively on an intercept sampling strategy and approached the market union-independent vendors, gig riders, and domestics in their public commerce space. This approach was critical to preventing the sample from over-representing unionized or network members.

3.2.2 Data Collection Instruments

Two research instruments were employed, both designed for people with low levels of literacy.

3.2.2.1 Quantitative research instrument (Enumerator administer questionnaires)

This 20-item structured questionnaire was administered verbally to interviewees and it was tested and pre piloted with 5 interviewees before the full research instruments were administrated in order to ensure that academic construct was correctly translated into local language. The question instrument contained:

- **Dichotomous & Categorical Questions:** To gauge feature phone ownership and type of payment method currently used by consumers.
- **Scenario-Based Questions:** To elicit "Convenience Premium" by asking the respondent to choose between paying for a withdrawal transaction through agent vs a free withdrawal through ATM.

- **Likert Scales (1-5):** To understand the "Perceived Risk of Fiscal Surveillance". To counter Social Desirability Bias (e.g., fear of confessing about tax avoidance) a projective question was asked (e.g., "Why do most shopkeepers here avoid bank QRs?" as opposed to "Why do you avoid bank QRs?").

3.2.2.2 Qualitative Instrument (Semi-Structured Interviews)

Semi-structured interview guide with open-ended questions were used to explore the narratives related to "stuck money", trust on agents, and experience of interacting with state machinery. Interviews were held in Urdu and Punjabi in order to avoid "Observer Effect" and to facilitate the natural expression of participants.

3.2.3 Operationalization and Data Analysis Procedures

Quantitative Analysis (SPSS v.28): Quantitative data was cleaned, coded, and analyzed using IBM SPSS Statistics (v.28).

Descriptive Categorization: The sample was stratified according to the possession of specific hardware and digital literacy using Descriptive statistics. The concept of "Exclusion Funnel" was purely for description, not for predictive statistics; to define the subset of users technically capable of operating Raast. It does not assume that excluded users will use Raast when they possess a smartphone.

Inferential Statistics: Pearson Correlation (r) was calculated in order to study the relation between "Fear of Fiscal Surveillance" (Independent Variable) and "Willingness to use Raast" (Dependent Variable) P-values and 95% Confidence Intervals (CIs) have been computed to identify the significance of the directional relationship in the pilot sample.

3.2.4 Qualitative Analysis (Hybrid Thematic Approach)

The qualitative transcripts were back-translated (Urdu/Punjabi to English) to minimize the risk of researcher projection and maintain conceptual meaning. The data was analyzed using Braun & Clark's (2006) six-stage guide to Thematic Analysis:

i. **Familiarization:** Iterative reading of the translated transcripts.

ii. **Initial Coding:** Line-by-line coding to identify specific phenomena (e.g., Codes: fear of FBR notice, trust in shopkeeper, inability to read English SMS).

iii. **Generating Categories:** Grouping codes into operational categories (e.g., Redressal Anxiety, Institutional Mistrust).

iv. **Extracting Latent Themes:** Elevating categories into the final conceptual pillars used in the findings: "The Human Warranty" and "The Privacy Premium."

3.2.5 Ethical Considerations

A strict ethical regime was implemented due to the nature of the study in relation to the shadow economy and tax avoidance.

Informed Consent & Confidentiality: The verbal informed consent was taken from all interviewees prior to collecting information. No identifying information of any type such as names, CNICs, precise shop location was collected.

Institutional independence: The enumerator was transparent to every respondent about that the research was undertaken for independent research purpose only, and it was not linked in any way with any Federal Board of Revenue (FBR), State Bank of Pakistan (SBP), 2024 or any law enforcement agency of any nature. This was done in order to achieve the reliable and unbiased responses.

3.3 Limitations

This preliminary exploratory pilot is rich in descriptive data for diagnosis, but hampered by several methodological limitations. Firstly, sample size (N=50) and limited focus on the high connectivity urban nodes (Karachi, Lahore, Rawalpindi) can only provide descriptive insights; they cannot statistically represent Pakistan's diverse, national, informal economy. Secondly, although conceptual framework is well developed for analysis, its cross-sectional nature can only prove suggestive correlational associations rather than cause and effect: for example, a powerful negative association between fiscal anxiety and Raast adoption ($r = -0.76$). All proposed policy levers are thus based on direction, not certainty of causation. Thirdly, sample limitations inherent to non-probability convenience and intercept sampling methodology introduces selection bias, whereas discussion of a sensitive topic (tax evasion) is prone to self-reporting and desirability bias despite projective techniques and stringent anonymity. Empirical verification of behavioral phenomena and effectiveness of suggested policy interventions necessitates subsequent large scale, randomized, and longitudinal research.

3.4 Scope

This is a research exploration of the uptake gap between the state-driven Raast system and private Mobile Wallets (EasyPaisa/JazzCash) within Pakistan's urban informal sector. While confined geographically to the metro centers of Karachi, Lahore, and Rawalpindi-places with prevalent 4G networks-the scope focuses on how technology constraints interact with behavioral resistance among an informal sector segment consisting exclusively of unregistered merchants, gig economy agents and daily wage earners. Formal Tier-1 vendors have been excluded to exclusively analyze the undocumented informal economy. Technically, it draws contrasts between the mobile-only, self-service UI of the Raast system versus the hybrid, App-, USSD-, Agent-Assisted UI of private incumbent Mobile Wallets. Thematically, it compares free money transfers, operational efficiency with its absence as a feature, versus the fear of fiscal monitoring. Finally, bound to Fiscal Year 2024-2025, it provides an indication, rather than national scale certainty of usage preferences.

4. DISCUSSION & ANALYSIS

From studies of individual decisions, it has been confirmed that a significant Rationality Gap exists in Pakistan's informal sector. Although Raast has effectively eliminated transaction costs through SBP's measures, initial findings indicate that the "financial reward" is completely dominated by non-financial and psychological deterrents.

4.1 The Exclusion Funnel: Structural Barriers to Adoption

Raast is primarily lacking uptake due to lack of access as opposed to interest; Table 2 shows this. Most of the potential beneficiaries are locked in a "Technological Funnel" where hardware limitations and illiteracy weed out the potential users before the decision is even reached.

Table 2:
The Raast Exclusion Funnel ($N = 50$)

Stage of Funnel	Category	Count (n)	Percentage (%)
Total Sample All percentages are calculated over the total sample (n=50)	Urban Informal Workforce	50	100%
Structural Barrier	Feature Phone / USSD Dependent	28	56%

Stage of Funnel	Category	Count (*n*)	Percentage (%)
Literacy Barrier	Smartphone Owners unable to navigate Apps	12	24%
Eligible Base This leaves an eligibility base of 20% (10 respondents) capable of independently using Raast.	Smartphone Owners + App Literate	10	20%

It is evident from the data that over half (56%) of the sample population is excluded structurally from Raast because it is an "App-First" technology while the informal sector is operating at the "USSD, first" stage. It is also a case of "Literacy Gap" for smartphone users where the hardware is available for 24% of the total sample, but the necessary literacy to operate complex banking interfaces is missing. This reiterates the fact that Raast is at an elitist stage to which only the elite segment of the society has access and the majority 80% of the informal sector, heavily dependent on simple USSD menus or human assistance, is excluded.

4.2 Convenience Premium: Evaluating the Trade-off (RQ1)

In response to RQ1 the study was used to establish a Convenience Premium for a Convenience Premium user, meaning, the price he would be willing to pay in order to avoid the inconvenience.

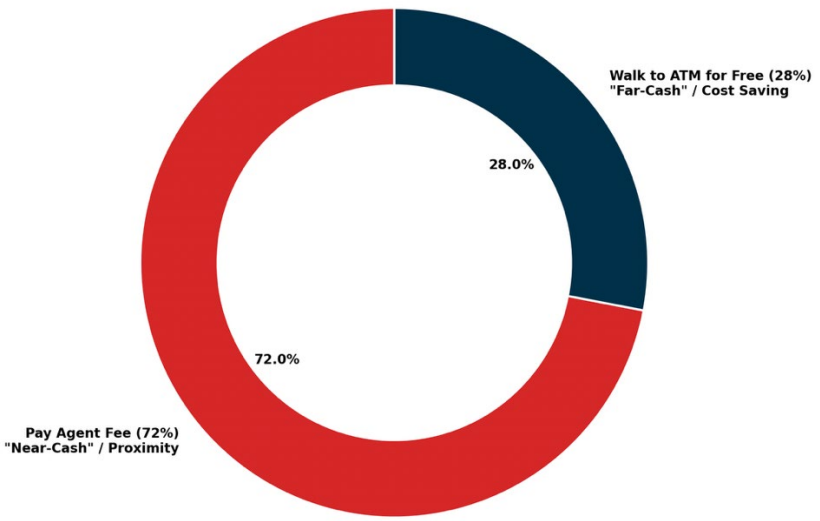
Table 3:
Willingness to Pay (WTP) vs. Cost Savings

Scenario: Withdraw Rs. 1,000	User Choice	Percentage (%)	Primary Reason
Option A: Wallet Agent	Pay Rs. 20 Fee	72%	Immediate Liquidity / Proximity
Option B: Bank ATM	Walk 15 mins (Free)	28%	Cost Saving

The stunning finding in Table 2, however is that 72% of the users select the "paid" alternative. This suggests that the Convenience Premium is indeed driving the choice of channel; that the paid worker (who has a

job and hence does not value time saved by not having to be away from home) is not willing to spend the time away from the home to find a working ATM in lieu of paying a small fee to an agent. A purely informal economy considers a form of money 'Near-Cash' only if there are agents available on every street corner for cashing. Raast, lacking a human intermediary cash-layer appears 'Far-Cash,' which could be understood as money that is accessible in theory, but unavailable in practice.

Figure 2:
User Preference - Convenience vs. Monetary Cost

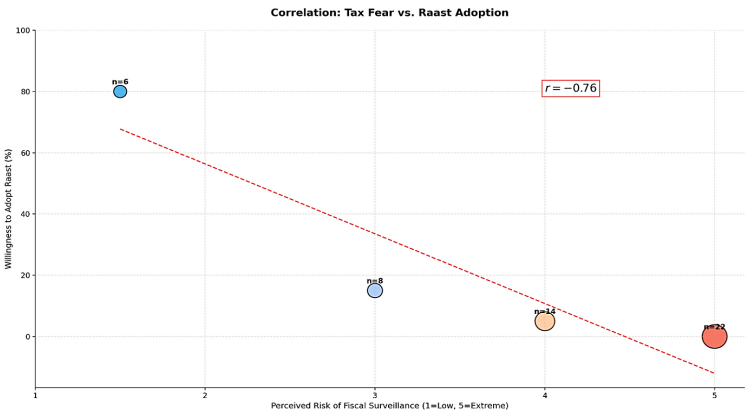


4.3 Trust Deficit: The Impact of "Tax Phobia" (RQ2)

The highest barrier found is the lack of Institutional Trust Deficit. The research conducted a Likert Scale study in order to measure the "Privacy Premium" users are willing to spend for anonymity from the state.

Statistical Insight: The Pearson Correlation turned out to be r = -0.76. It clearly and largely shows the fact that as Fear of fiscal surveillance increased, Raast usage declined. Informal traders perceive Raast to be a "surveillance rail" through which the FBR can keep an eye on them and as such prefer to pay the wallet commissions in order to avoid the machinery of documentation that the state possesses. This is clear evidence that for the shadow economy, Fear of Formalization > Economic Incentive.

Figure 3:
Correlation between Tax Fear and Raast Adoption



4.4 Qualitative Synthesis: The "Human Warranty"

The qualitative narratives from the (N=10) interviews provide a more detailed insight into the "why" behind these numbers. A key theme that emerged from the "Human Warranty." If a Raast transfer on my phone doesn't work, it is my sole problem. If a transfer doesn't work at the EasyPaisa shop, I can blame the agent. He's, my insurance; if the money is lost, I can catch his collar (Participant #08, Lahore). This anecdote explains why people are willing to use private wallets despite the cost of private wallets. To a poor user, a "stuck" transfer is not merely a glitch in the system but an immediate liquidity crisis that necessitates the use of a human hand to mediate a fix.

4.5 The Scale of the Walled Garden: Macro vs. Micro

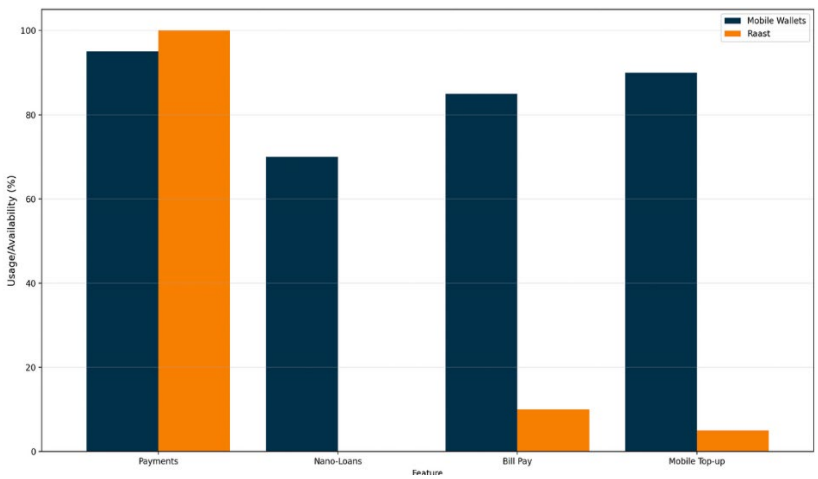
The three tables summarize the pilot results compared with the state-led challenger to the market incumbent.

The figures show that personal wallets have effectively utilized a first, mover advantage by establishing ecosystems that not only facilitate payments but also offer value, for instance, through nano, loans. This results in a "Credit Trap" as users are in the wallet ecosystem to keep their credit scores, thus limiting Raast even more.

Table 4:
The Scale of the Walled Garden (Market Dominance)

Metric	Private Wallets (JazzCash/EasyPaisa)	Raast (Informal Sector Pilot)
Total User Base (2025)	~43 million (Combined)	~10% (Usage Frequency)
Growth Driver	Human Agent Network (600k+)	Technocratic "Free" Model
User Perception	"Near-Cash" (Liquid)	"Far-Cash" (Illiquid)
Primary Utility	Ecosystem (Loans/Bills/Top-ups)	Pure Transaction Rail

Figure 4:
Ecosystem Utility Comparison (The Credit Trap)



4.6 Synthesis: The Technocratic Fallacy

The results reveal that the gap in adoption is because of a Technocratic Fallacy. The SBP wrongly thought that simply providing a free infrastructure would set off adoption. Nonetheless, it is evident from the data that Utility (Liquidity/Access) and Trust (Privacy) are, in fact, the real currencies for the informal sector. Unless Raast becomes a platform that human agent networks can access and is legally severed from direct fiscal surveillance, it will continue to be a "banked, only" luxury, thus the informal sector will be stuck in expensive private ecosystems.

5. FINDINGS

5.1 Structural Exclusion via the "App-First" Interface Barrier

A fundamental technological gap is thus identified between the state-operated system and the informal economy. Despite universal adoption of mobile phone, a significant majority of 80% of the target group remain virtually outside of the Raast system due to a combination of hardware and literacy issues. To explain, 56% are still reliant on feature phones and USSD based interfaces, and the remaining 24% have smartphones but lack sufficient literacy with the complexities of banking applications. As such, Raast remains a "banked-only" luxury, whereas the overwhelming majority of the unbanked are structurally dependent on the simple, vernacular, and friendly menus of private wallets.

5.2 "Convenience Premium" and Liquidity Proximity

As per the findings, in the informal sector "availability of cash at hand" always assumes higher priority than transaction costs. Although Raast is a zero-cost facility, 72% respondents do pay the transaction costs to local agents. This amount is a "Convenience Premium" which they are being charged by local agents for ensuring instant availability of money. Given that the Raast implies visiting an ATM which has a limited network, it is also classified as "Far-Cash" (available in theory but illiquid in practice) as opposed to "Near-Cash" (available at every street corner) for the private wallet. Thus, the choice of the private wallet becomes a logical one given the daily survival liquidity and opportunity costs involved in seeking a working ATM.

5.3 "Privacy Premium" and the Trust Deficit

Tax Phobia is in fact a limiting factor, that is, it caps the extent to which the digital formalization can be developed, is a conclusive finding of this study. The data of the pilot evidenced a quite clear, strong indicative correlation ($r = -0.76$) between the fear of fiscal surveillance and the rejection of Raast. Merchants consider state, associated payment rails as tools for the Federal Board of Revenue (FBR) to keep them under surveillance, rather than as financial facilitators. They pay a "Privacy Premium" to remain anonymous by tolerating the high charges of private wallets because they see private telcos as commercial "secret-keepers, " while Raast is perceived as a tax enforcement tool of the state. The implication is that for the unrecorded economy, the audit risk that is perceived is much greater than the advantage of a free transfer.

5.4 "Human Warranty" as a Risk Protocol

The qualitative data demonstrates that in low-trust conditions, redressal requires a human face; for informal users, the "Agent Network" private domain serves as a Human Warranty against technical malfunction. The major inhibition, felt by 90% of the users (45/50 respondents), is "Redressal Anxiety" - the fear of funds being locked in an automated mechanism. A tangible agent to physically corner for instant redressal is the basic form of a pre-industrial insurance mechanism. The absence of a "human mediated support layer", for instance, makes Raast look "too unsafe" intrinsically to a user with no reserves to tide them over a technical glitch.

5.5 Data Asymmetry and the "Credit Trap"

These results have demonstrated that users use digital payments as a portal to credit which formulates a "Credit Trap". The reason users do not switch from private wallets is that such Wallets lend Nano-loans based on their unique transaction history (like EasyCash). Since the Raast transactions are not currently taken into account when calculating credit scores, we witness an event of Data Asymmetry in that state-rail data isn't aggregated in private lending practices. As switching to Raast is associated with an instant drop in eligibility to acquire credit, for informal poor, absence of an immediate fall-back system poses more risks than transaction charges.

5.6 Supply-Side Incentive Vacuum

Lastly, it concludes by pinpointing a crucial market failure on the supply side. It finds that the SBP's imposed Zero Merchant Discount Rate (MDR) on Raast P2M transactions prevents any revenue being generated by either commercial banks or agents by supporting Raast. Thus, an "Incentive Vacuum" has emerged. Private wallets are "passively pushed" on by commission motivated sales agents, while Raast is a "passive utility" which is of no commercial interest to banks for supporting or distributing. This ensures "invisibility" of Raast on the retail end, regardless of full technical infrastructure being available.

6. CONCLUSIONS

The formalization of Pakistan's informal economy is held hostage by a twin structural-exclusionary and behavioral-resistance based crisis. According to the indicative results of this exploratory pilot, it appears that the key barrier for the use of state-led Raast is not trust, but absence of access. It is the "App-first" design of Raast that poses a huge technological

hurdle by structurally excluding the estimated 80% undocumented labor that relies on feature-phones and lacks digital literacy. For this large majority, the dependence on the informal, human-intermediated agent system is not a matter of choice, but structural inevitability.

The technocratic fallacy of current policy is fully illustrated by the choices made by the technologically capable minority. Even out of the 20 percent that could access Raast, data shows that the pure economic attraction of free transfers cannot trump operational and psychological hurdles; the technologically capable majority of 20 percent voluntarily pays a "Convenience Premium" to private wallet providers to obtain instantaneous, "Near-Cash" liquidity, and "Human Warranty" for grievances; even the illustrative correlation between fiscal distress and refusal to access Raast ($r = -0.76$) illustrates a massive lack of trust in institutions; undocumented merchants are willing to pay a "Privacy Premium" in the form of wallet fees to escape "threat" of fiscal monitoring and FBR paperwork via state-related rails.

This study suggests that the removal of transaction fees does not, on its own, promote digital financial inclusion for the informal economy. To be sure, zero fee utilities can never achieve formality in the shadow economy if they assume this infrastructure is readily available, and overlook how deeply untrusting the formal economy is of any institutional presence. Raast can never be more than an idle rail until the government shifts from an infrastructure approach to a socio-technical policy design for all. To achieve widespread adoption, public policy has to remove the primary barrier (by incorporating universal USSD access and a "Open Agency" cash-out protocol) before second-order behavioral barriers can be dealt with, such as by introducing a "Digital Safe Harbor" that removes the formalization risks. Until both access and trust have been formally rebuilt, the informal economy will never move beyond the high-cost, cash-heavy, private sector systems of operation.

7. PROPOSED POLICY RECOMMENDATIONS

Time Horizon	Empirical Anchor (Finding)	Hypothesized Policy Intervention	Responsible Stakeholders	Evaluation Metric & Implementation Challenge
Short-Term *(0–12 Months)* **Focus:** Neutralizing Trust Deficits & Interface Friction	Finding 3.2: The "Privacy Premium" and Tax Phobia ($r = -0.76$).	1. Evaluate a "Digital Safe Harbor": Investigate the feasibility of amending the Income Tax Ordinance (Sec. 111) to grant a temporary (e.g., 3-year) audit immunity for micro-merchants adopting Raast, legally decoupling payment data from retrospective tax probes.	FBR, Ministry of Finance	Evaluation: Conduct a Randomized Control Trial (RCT) in selected retail clusters to measure if guaranteed immunity statistically increases QR adoption vs. a control group. Challenge: IMF revenue-broadening mandates.
	Finding 3.3: Ecosystem Lock-in.	2. Universal QR Mandate: Assess the regulatory impact of prohibiting "Closed-Loop" proprietary QRs. Mandate a unified EMVCo-compliant standard where any displayed QR is scannable by any banking/wallet app via Raast.	SBP (Payment Systems Dept.)	Evaluation: Monitor P2M transaction logs during a 6-month pilot to assess if reducing countertop clutter increases interoperable volume.

Time Horizon	Empirical Anchor (Finding)	Hypothesized Policy Intervention	Responsible Stakeholders	Evaluation Metric & Implementation Challenge
Medium-Term *(1–3 Years)* **Focus:** Bridging Structural Access & Supply-Side Gaps	Findings 3.2 & 3.3: Convenience Premium & The "Human Warranty."	3. Pilot the "Open Agency" Protocol: Design a pilot allowing the 600k+ private wallet agents to act as universal cash-out points for Raast-linked bank accounts via biometric verification.	SBP, NADRA, Telecom Operators	Evaluation: Model a sustainable Interchange Fee paid by banks to agents. Challenge: NADRA biometric verification costs must be capped/subsidized for micro-withdrawals to ensure agent profitability.
	Finding 3.1: The Exclusion Funnel (56% Feature Phone users).	4. National USSD Gateway: Evaluate the deployment of a universal, internet-free short-code (e.g., *88#) connecting feature-phone users directly to the Raast rail across all commercial banks.	PTA, SBP	Evaluation: Assess organic adoption rates among non-smartphone users. Challenge: PTA must regulate session pricing to prevent telcos from imposing monopolistic "access taxes."

Time Horizon	Empirical Anchor (Finding)	Hypothesized Policy Intervention	Responsible Stakeholders	Evaluation Metric & Implementation Challenge
	Finding 3.6: Supply-Side Incentive Vacuum.	5. Digital Acquisition Tax Credits: Investigate offering corporate tax offsets to commercial banks to subsidize the capital expenditure incurred in onboarding and educating informal merchants.	FBR, SBP	Evaluation: Measure Return on Investment (ROI) of bank marketing spend on merchant acquisition to counter the revenue loss of the Zero-MDR policy.
Long-Term *(3–5 Years)* **Focus:** Ecosystem Maturity & Formalization Pull-Factors	Finding 3.5: The "Credit Trap" (Nano-loans).	6. Public Digital Credit Registry: Explore integrating Raast transaction histories into a centralized public credit scoring model, converting payment flows into portable "reputational collateral."	SBP, National Credit Bureaus	Evaluation: If the availability of formal, cheap working capital loans is a powerful enough economic "pull factor" to offset the immediate "draw factor" of private nano-loans.

Time Horizon	Empirical Anchor (Finding)	Hypothesized Policy Intervention	Responsible Stakeholders	Evaluation Metric & Implementation Challenge
	Finding 3.2 & 3.3: Liquidity Friction & Fiscal Anxiety.	7. Rationalization of WHT: Evaluate the macroeconomic impact of permanently removing Withholding Tax (Section 231AB) on cash withdrawals for formal bank accounts funded primarily via verified digital merchant payments.	FBR, Ministry of Finance	Evaluation: In conducting financial modeling, we will test whether the loss in state revenue due to removal of WHT is outweighed by the benefits from the macro economy resulting from the rise in the CASA ratio in formal banks.

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