



Research Article

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# Knowledge Without Action: A Moderated Mediation Analysis Of Educated Consumer Grievance Redressal Behaviour In Sivaganga District, India

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## ABSTRACT

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This research examines the reasons for the non-participation of educated consumers from Sivaganga District, Tamil Nadu, India, in both statutory and digital grievance redressal systems even though they are aware of their entitlements. The research uses cross-sectional survey data collected from 451 educated consumers and builds and tests a moderated mediation model rooted in consumer behavior theory, Sen's capability approach, and access-to-justice theory. Awareness of consumer rights predicts filing grievances positively; however, perceived barriers and preferred grievance filing channels act as robust partial mediators, mitigating the impact of awareness on action. The context of the service- or product-based relationship moderates these relationships such that the relationship is stronger when the purchased service is perceived to be service-dominant. The findings reveal a continuing knowledge/ idle action paradox and highlight the need for low-barrier service specific digital grievance platforms. Recommendations are provided for policy makers, consumer protection agencies, and service providers in digitally growing developing nations.

## INTRODUCTION

There is a dilemma within India's growing digital economy that stems from the large volume of customer activity and transactions; the challenge of efficiently resolving grievances. Although the Consumer Protection Act of 2019 and Integrated Grievance Redressal Mechanism (INGRAM) exist, the average rate of non-complaints for routine service problems is approximately 60-80% (Komal, 2021; ROMEO, 2024; Velayudhan & Gopakumar, 2023) when consumers are entitled to make a grievance claim under both pieces of legislation. This leads to the question of how consumers with formal education, familiarity with their rights, and access to digital tools have not used the formal mechanisms to make a grievance claim.

Various anthropological and sociological factors are well documented as contributing to consumer complaint patterns. These include awareness of grievance resolution channels, potential complexity of the complaints process, duration of waiting time to receive resolution, potential outcomes of filing a complaint and consumer preferences for using one channel over another (Arora & Chakraborty, 2020; Singh et al., 2016). However, most research on consumer behaviour relates to developmental nations and/or large post-colonial metropolises so little research has examined premature and/or rural consumer access to and use of grievance redressal mechanisms. In one study using consumers from the states of Kerala and Tamil Nadu, the average consumer awareness of grievance mechanisms

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was 3.0 out of 10 for educated/rural consumers (ROME0, 2024; Suryanarayana, 2023) however merely having awareness did not translate into a decision to make a grievance claim against businesses.

In its examination of the literature, this study identifies three separate but interconnected gaps: (i) the lack of rigorous exploration into the mediating effects of perceived obstacles and channel preference on the relationship between awareness and filing using moderators within mediation models in an Indian context, (ii) while there has been some theoretical speculation with respect to the moderating influence of product-service context on this mediation pathway, it has yet to be explored empirically, and (iii) there is a lack of geographically specific research within districts other than metropolitan cities e.g., Sivaganga (Tamil Nadu), limiting the ability to generalize currently available policy recommendations.

To fill these research gaps, this study contributes to the theoretical and empirical construct development of the moderated mediation model, which integrates concepts from consumer behaviour theory, Sen's (1999) capability approach, and access to justice theory. It provides empirical evidence of consumer behaviour relating to the filing of complaints at the district level in Sivaganga, which extends the geographical context of existing research related to consumer complaint behaviour. Finally, this study provides the Stakeholder Grievance Intelligence Framework (SGIF) as an actionable framework for developing inclusive grievance eco-systems in digitally emerging economies of the world.

## LITERATURE REVIEW

Research into how consumers respond to complaints has changed a lot since the original exit-voice-loyalty model (Hirschman, 1970), but it is now clear that the decision to file an official complaint does not depend solely on being dissatisfied. Many factors, such as the consumer's capabilities, the institution involved, and circumstances surrounding the situation, influence whether or not they file a formal complaint. This complexity is much greater in India than in other countries (Arora & Chakraborty, 2020) because there are among the lowest rates of formal complaints in the world.

### Consumer Awareness and the Knowledge-Action Gap

Research suggests that consumers' awareness of their rights, tools, procedures and processes required for filing formal complaints is necessary before they can take formal action to complain (Komal, 2021; Vijayanand & Ravi, 2023). However, there typically is a disconnect between what consumers are aware of and whether or not they actually act after they become aware. According to Arora and Chakraborty (2020), in their bibliometric analysis of over 60 studies on consumer complaint behaviour, three factors

contribute to the disconnect between the knowledge consumers gain about their rights to complain and actual complaint behaviour: the complexity of procedures for filing complaints; low level of confidence (because they think their complaint will not be successful); and high costs associated with taking formal action (entry costs). Both Tamil Nadu and Kerala have low levels of consumer awareness (ROME0, 2024; Velayudhan & Gopakumar, 2023); however, even when their consumer awareness levels improve, this does not always result in filing formal grievances. This phenomenon in which knowledge does not lead to action is consistent with 'bounded rationality' (Simon, 1955), as described by behavioural economists, and with the lack of capabilities to convert knowledge into action, as defined by Sen (1999).

Prior research has focused on whether there is a relationship between an awareness of an issue and actual behaviour towards that issue. The question of whether intervening mechanisms are important predictors of behaviour has not been tested adequately. The purpose of this research study is to fill this void by hypothesizing and then empirically testing that perceived barriers and channel preferences serve as intervening variables as proposed by (Rahman et al., 2017; Singh et al., 2016).

However, not all studies show a correlation in the same manner; there are some opposing points of reference. In particular, Vijayanand and Ravi (2023) indicated consumers with an awareness of the issue have been protected from being exploited within the fast-moving consumer goods (FMCG) sector, suggesting that there may be a stronger association between awareness and behaviour in product contexts rather than in service contexts. Furthermore, Gupta and Kashyap (2016) reported that consumers who were aware of the procedures for complaining to a District Forum, regardless of how complete that awareness was, had a small, yet measurable increase in initiating complaints; this is also in opposition to the general belief that consumers are not aided by having an awareness of an issue. All of these findings support the idea that there is no clear or singular connection between awareness and actual behaviour as both may vary based on the context. This is the position that this research takes.

### Perceived Barriers to Formal Grievance Filing

Barriers to formal complaint behaviour in India are commonly attributed to the perceived opacity of processes, evidentiary burdens and distrust of institutions (Balasubramaniam et al., 2022; Gupta & Kashyap, 2016). According to Suryanarayana (2023), procedural complexity and fear of lengthy redressal processes drive away even consumers with legal literacy. (Ganatra et al., 2025) work shows that digital grievance platforms have facilitated or inhibited access to redress. Although two digital grievance platforms such as the National

Consumer Helpline have increased access, their interfaces and low levels of trust mirror barriers experienced offline. As such, the operational barriers are a pivotal mediating mechanism between awareness of and acting; thus, this study tests empirically. Notably, a contrasting finding in (Rana et al., 2016) study of public grievance systems in India is that perceived ease-of-use (in terms of cost and inconvenience), as well as service quality, can compensate for the procedural complexity present within government systems when those systems are modernized; barriers are potentially malleable rather than immutable. This competing view on barriers as fixed deterrents versus variable structural conditions has substantial ramifications for policy design and will be explored via the moderated mediation framework employed in this study.

### **Channel Preference and Informal Grievance Behaviour**

Consumer behaviour in terms of complaints has vastly changed as a result of the rise in the number of digital platforms. According to (He et al., 2019), consumers will choose to use either public social media for complaining or direct private messaging, based on their expectations of how quickly they will receive a response from the organization and on their need to express themselves. In India, consumers choose to use informal communicative channels, such as social media or negotiating with the provider directly, rather than using formal channels and doing so as a rational choice based on the effort invested and the anticipated outcome (Mathew, 2025). Similarly, (Komal, 2021; Sharma et al., 2025) found that as consumers become more digitally literate, they will be able to access online complaint mechanisms; however, at the same time they will have more options available for informal channels as compared to formal channels, resulting in the formal mechanism becoming less appealing. This leads to the development of a substitutionary relationship between the different communication channels, which creates a partially mediating effect on the relationship between awareness and behaviour. While (Rahman et al., 2017) suggest that in customer service contexts where customers believe that formal complaint channels are effective (e.g., SATCOM), consumers switch their channel preferences toward formal channels of communication, which indicates that an informal communication channel is not necessarily a customer's preferred method of complaint resolution, but that it is instead a logical choice based on their perception of the effectiveness of the formal complaint management process. (Balasubramaniam et al., 2022) also note that consumers will use formal channels in regulated financial markets when there is a strong regulatory environment and resolution timelines are clear. Overall, these findings indicate that the preference for using a particular channel is flexible and may change based on the quality of institutions (i.e., whether consumers are

treated fairly), rather than based on an attitudinal barrier to the use of a specific channel. Therefore, the distinction between flexible channel preference and attitudinal channel preference has important policy implications.

### **Role of Product/Service Context in Moderation of Channel Usage**

The characteristics of the consumption experience, (i.e., tangible products or intangible services), are key determinants of the importance of grievances and the likelihood of obtaining redress. Service failures tend to require more emotional involvement from consumers; therefore, they are also more likely to have explanation and evidence issues associated with them, which raise both the likelihood that a person will want to complain and the perceived difficulty in doing so (Yu et al., 2024). From (Anjaiah & Adinarayana, 2025) perspective, the tendency of consumers to under-report service complaints in the financial and e-commerce sectors compared to their experience of having received service is consistent with the existence of barriers that make it difficult for them to complain. However, the role of product/service context in moderating the use of channels has rarely been integrated into formal mediation models; therefore, the current study will attempt to fill that gap.

### **Theoretical Integration and Research Gaps**

The current literature does not combine existing streams of research on the impact of consumer grievance awareness on complaint behavior through obstacles and preferred channels and how these pathways are impacted by the nature of the goods and services consumers experience, despite having a large amount of related, individual streams of research. Additionally, while the capability perspective has been theoretically applied to the area of consumer complaint behavior, it has rarely been implemented in practice (Debbarma, 2025). This paper contributes to a growing body of work on digital consumer rights and the degree of institutional responsiveness to those rights in developing nations (Rana et al., 2016) by developing a unified, empirically-based framework, drawing upon consumer behavior theory, capability perspective, and access to justice theory.

## **THEORETICAL FRAMEWORK**

In order to describe the gap between the acquisition of knowledge and the action of filing a grievance in consumer terms, this study draws upon three complementary theories. Consumer behavior theory is the foundation of this framework, where consumer awareness of an available grievance mechanism is a cognitive antecedent to the formation of an intention to complain, and how that intention subsequently becomes behaviour is influenced by either perceived obstacles or preferred channels (Arora & Chakraborty, 2020; Singh et al., 2016). A further emphasis

of this stream of research is that consumers make choices rationally, taking into consideration limitations caused by access to information and institutions.

The 'Sen (1999) capability approach' expands on this framework by drawing a distinction between formal rights and substantive freedoms. Formal education provides an understanding of one's rights and is an epistemic capability, however the process of converting that understanding (i.e., the ability to complain formally) requires what Sen calls conversion factors including; digital literacy, access to platforms, institutional trust, and the ease of use of procedures. In Sivaganga, consumers may have the knowledge of their rights without necessarily having the means to turn that knowledge into action (Knowledge-Action Cap). Thus, the analytical lens shifts from deficits in awareness to deficits in capabilities, suggesting that barriers to access and the channel through which customers have access are both structural as well as attitudinal issues.

Access-to-Justice Theory (Cappelletti & Garth, 1978; Debbarma, 2025) also provides an institutional perspective on this issue. Formal grievance systems create barriers for consumers to access the justice system disproportionately affecting those with limited legal literacy, financial means to access or geographic proximity to the forum even if educated. This theory identifies that there is: "A lack of willingness to engage with formal systems of redress is mediated by the perceived efficacy of both procedural justice and institutional effectiveness". In the digital environment of the consumer market, existing access-to-justice barriers are transitioning from physical to digital environments; manifested by complex, difficult-to-use portal interfaces, authentication requirements, and low confidence in the responsiveness of the platforms (Ganatra *et al.*, 2025).

A moderated mediation model is derived from the three theory-based frameworks presented before. There are two key pathways these theory-based frameworks provide for examining how consumers' awareness of grievance procedures drives grievance filing: 1) consumers reduce the barriers to filing grievances by becoming aware of the grievance process; and 2) consumers develop channel-savvy behaviour through becoming aware of the grievance process. Moreover, these pathways of grieving filing are moderated by whether grievance is based on a product or service. For example, in a service context, there are higher levels of motivation to file grievances and structural barriers that consumers will face; thus, creating an element of 'risk' that can affect the design of interventions to assist consumers in filing grievances.

The integration of the three theory-based frameworks advances literature by providing an empirically testable and theoretically supported conceptual framework that moves away from traditional linear models (i.e., awareness to behaviour). It's important to note that this study will

use the "Research Methodology" described Separated for further clarity on how empirical data were obtained.

## RESEARCH METHODOLOGY

In this study, we employed a quantitative, cross-sectional explanatory research design to analyze the behavioural mechanisms that influence formal grievance filing among educated consumers in Sivaganga District of Tamil Nadu, India. A quantitative, cross-sectional explanatory research design was selected to enable simultaneous testing of the hypothesized relationships (direct/single effects, mediation, and moderation) across a unique and heterogeneous sample of consumers while adhering to established procedure in consumer behaviour research (Rana *et al.*, 2016; Vijayanand & Ravi, 2023).

### Sampling Technique and Sample Size

A purposive sampling strategy was employed to ensure that all participants met the eligibility criterion of formal education at the undergraduate level or above a criterion aligned with the study's focus on educated consumers who might reasonably be expected to exercise formal grievance rights. Participants were recruited across urban, semi-urban, and rural locations within Sivaganga District to ensure geographical representativeness. The final sample consisted of 451 respondents—more than sufficient to satisfy (Cohen, 1992) minimum required sample size for detecting medium effect size interactions ( $\beta = 0.80$ ;  $\alpha = 0.05$ ) for moderation and mediation within moderation (approximately  $N = 200$ ), and consistent with previous research conducted among Indian consumers (Rana *et al.*, 2016).

### Questionnaire Development and Measurement

In developing the survey instrument, the first step was to conduct a thorough review of the validated scales used in the study of consumer complaints; the second step was to adapt the items from (Lu *et al.*, 2015) for complaint behaviour, from (Singh *et al.*, 2016) for barriers to complaint behaviour and intention to complain, and from (Vijayanand & Ravi, 2023) for awareness of grievance redressal in India; finally, the instrument was pretested (30 educators from Sivaganga) before finalizing the items for use in the full sample. The items were evaluated for clarity and cultural fit based on responses from the focus group.

The last survey, which had 41 questions, asked respondents to rate their level of agreement on a five point scale (1=strongly disagree, 5=strongly agree) for each of the following categories: Customer Awareness Index (10 items; e.g., "I am aware of the process for making a complaint on the National Consumer Helpline"), Perceived Barriers Index (9 items; e.g., "The amount of documents required to file a formal complaint is too much"), Channel Preference Index (6 items; e.g., "I would rather use social

media to make a complaint than a formal site”), Product/Service Context Index (6 items; e.g., “It is harder for me to gather proof for making a complaint about a service than to do so for a product”) and Perceived Effectiveness Index (6 items; e.g., “There is a good chance that filing a formal complaint will lead to a positive resolution”).

**Analytical Strategy**

Tests of hypotheses followed a hierarchical approach to analysis. Direct effects of the independent variables (i.e., H1 and H2) were identified using one-way ANOVA and multiple regression. The indirect effects of perceived barriers (H3) and channel preference (H4) were assessed using bootstrap mediation (Hayes, 2013) via the PROCESS macro, Model 4 (k = 5,000 re-samples, 95% CI). To assess the moderating role of product/service context (H5) a hierarchical moderated regression approach was used, incorporating the PROCESS macro (Model 1) and Johnson–Neyman technique. The PROCESS macro was chosen over the traditional regression-based mediation and moderation methods because it provides bias-corrected bootstrap confidence intervals that do not assume normality for sampling distributions, thereby providing a more accurate inference for the indirect effects of mediation in non-experimental data (Hayes, 2013; McNeish, 2017). The Johnson–Neyman technique was used to provide a more accurate estimation of continuous areas of significance for the moderator than the use of simple slopes evaluated at arbitrary values of the moderator. Preliminary analyses were conducted to establish that the data met the assumptions for regression including normality (skewness and kurtosis within acceptable limits), common method variance by Harman’s single-factor test (the first factor accounted for 36.4% of the variance and was well below the 50% threshold for common method variance), and to assess for multicollinearity (no single variable had a variance inflation factor of greater than 2.0).

**RESULTS**

**Respondent Profile**

Sociodemographic characteristics of the 451 respondents are summarized in (Table 1). This sample represents a skewed population of younger adults, with 79.2% in the 18–35-year-old range, giving a reflection of Sivaganga District’s demographics of formally-educated adults. The gender distribution was generally balanced (47.2% male; 48.3% female; 4.4% transgender) with an undergraduate or postgraduate degree being held by the great majority of respondents (86.4%). The variety of occupations represented by the respondents was adequate to cover three urban classifications: students, salaried workers, and business people. The distribution of the sample was also nearly equal (approximately one-third each) across

**Table 1:** Socio-Demographic Profile (N = 451)

Variable	Category	Frequency	Percentage (%)
Age (Years)	18–25	143	31.7
	26–35	214	47.5
	36–45	94	20.8
Gender	Male	213	47.2
	Female	218	48.3
	Transgender	20	4.4
Education	Undergraduate	209	46.3
	Postgraduate	181	40.1
	Doctorate	61	13.5
Occupation	Student	130	28.8
	Professional/Salaried	148	32.8
	Business/Self-Employed	155	34.4
	Homemaker	18	4.0
Monthly Income (₹)	Below 25,000	92	20.4
	25,001–50,000	94	20.8
	50,001–1,00,000	171	37.9
	Above 1,00,000	94	20.8
Residence Area	Urban	150	33.3
	Semi-Urban	150	33.3
	Rural	151	33.5
Digital Literacy	Basic	145	32.2
	Intermediate	152	33.7
	Advanced	154	34.1

Source: Primary Data

urban, semi-urban, and rural areas and across three levels of digital literacy, allowing for viable comparisons of subgroups.

**Reliability and Construct Validity**

The overall reliability of the 41-item instrument was excellent (Cronbach’s  $\alpha = 0.93$ ), which is well above the 0.80 threshold cited for behavioural research (Cheung et al., 2023; McNeish, 2017). Results from exploratory factor analysis (principal components; Varimax rotation) provided a clean five-factor solution that accounted for

**Table 2:** Factor Structure and Reliability

Factor / Construct	Items	Eigenvalue	Var. (%)	$\alpha$
F1: Consumer Awareness (CAI)	10	9.84	24.02	0.91
F2: Perceived Barriers (PBI)	9	6.71	16.38	0.88
F3: Channel Preference (CPI)	6	5.12	12.49	0.86
F4: Product-Service Context (PSCI)	6	4.06	9.90	0.84
F5: Perceived Effectiveness (PEI)	6	3.11	7.58	0.89
Total	41		70.37	0.93

Source: Primary Data

**Table 3:** Composite Index Descriptive Statistics (N = 451)

Construct	M	SD	Items	Interpretation
Consumer Awareness Index (CAI)	2.41	0.68	10	Low
Perceived Barriers Index (PBI)	4.12	0.59	9	High
Channel Preference Index (CPI)	3.74	0.71	6	Moderately High
Product-Service Context Index (PSCI)	3.46	0.65	6	Moderate
Perceived Effectiveness Index (PEI)	2.63	0.72	6	Low-Moderate

Note. Scale: 1.00–2.49 = Low; 2.50–3.49 = Moderate; 3.50–5.00 = High.

70.37% of the total variance. The Kaiser-Meyer-Olkin Measure was 0.912 and Bartlett’s test was significant ( $X^2 = 6842.371$ ;  $df = 820$ ;  $p < 0.001$ ), thereby confirming the factorability of the data. The reliability of each individual factor was 0.84–0.91 (Table 2) and the loading of every item was  $>0.60$  with no significant cross-loadings, thus confirming both convergent and discriminant validity.

**Descriptive Statistics**

The arithmetic means of verified items were used to calculate composite indices for each factor. Descriptive statistics are shown in (Table 3). In this table a distinct pattern can be seen, both consumer awareness ( $M = 2.41$ ,  $SD = .68$ ) and perceived effectiveness ( $M = 2.63$ ,  $SD = .72$ ) are low and perceived barriers ( $M = 4.12$ ,  $SD = .59$ ) are high; creating initial descriptive evidence of the knowledge-action paradox: educated consumers have little awareness but face large institutional barriers and have low expectations for receiving redress for their issues.

**Hypothesis Testing**

*H1*

Education Level and Digital Literacy as Predictors of Consumer Awareness.

One-way ANOVA analysis shows there are significant differences in the level of consumer awareness based on level of education,  $F(2, 448) = 24.63$ ,  $\eta^2 = .099$ ,  $p < .001$ , doctoral degree holders ( $M = 2.94$ ) performed better than post graduate degree holders ( $M=2.68$ ) or undergraduate degree holders ( $M=2.41$ ). Digital literacy produced even greater variability  $F(2, 448) = 27.91$ ,  $\eta^2 = .111$ ,  $p < .001$ . Multiple regression analysis confirmed that both education level and digital literacy explained 38% of the variance in consumer awareness ( $R^2 = .38$ ,  $adj. R^2 = .37$ ,  $p < .001$ ); with digital literacy ( $\beta=.41$ ,  $t=7.92$ ) having stronger predictive power than education level ( $\beta=.32$ ,  $t=6.18$ ), suggesting that a consumer’s digital operational skills may be closer to their level of awareness regarding how to file a complaint than their educational qualifications. Therefore, H1 is supported.

**Table 4:** Mediation Analysis Perceived Barriers as Mediator

Path / Effect	B	SE	t	p	95% CI	Decision
Path a: Awareness → Barriers	-.562	.040	-14.10	< .001	[-.642, -.484]	Sig.
Path b: Barriers → Filing	-.451	.043	-10.36	< .001	[-.535, -.369]	Sig.
Direct Effect (c')	.382	.047	8.21	< .001	[.289, .474]	Sig.
Indirect Effect (a×b)	.253	.041			[.176, .338]	Partial Mediation

Note. PROCESS Macro Model 4; 5,000 bootstrap resamples; 95% bias-corrected CIs. N = 451.



**Table 5:** Moderation Analysis Product–Service Context as Moderator

Predictor	B	SE	$\beta$	t	p
Model 1 (Main Effects; $R^2 = .544$ )					
Consumer Awareness (CAI)	.398	.045	.362	8.84	< .001
Perceived Barriers (PBI)	-.342	.041	-.318	-8.34	< .001
Channel Preference (CPI)	.371	.044	.336	8.43	< .001
Product–Service Context (PSCI)	.182	.038	.167	4.79	< .001
Model 2 (Interactions Added; $R^2 = .612$ , $\Delta R^2 = .068$ )					
Awareness $\times$ Context	.164	.036	.154	4.56	< .001
Barriers $\times$ Context	-.149	.034	-.142	-4.38	< .001
Channel $\times$ Context	.172	.039	.159	4.41	< .001

**Note.** Dependent variable: Grievance Filing Behaviour.  $N = 451$ .

## H2

Consumer Awareness as a Predictor of Grievance Filing Behaviour.

Simple regression analysis demonstrated a strong positive correlation between consumer awareness and the likelihood of filing a grievance,  $r = 0.610$ ,  $R^2 = 0.372$ ,  $F(1,449) = 237.81$ ,  $\beta = 0.610$ ,  $t = 15.42$ ,  $p < 0.001$ . Awareness explains approximately 37.2% of the variance in the likelihood of filing a complaint, which is a significant amount for a univariate model in behavioral research (Cheung et al., 2023). Nevertheless, the CAI mean score ( $M = 2.41$ ) indicates that most respondents do not have adequate levels of awareness to file a written complaint, reinforcing the practical necessity for capability-building initiatives. Thus, H2 was confirmed.

## H3

Mediation by Perceived Barriers.

Results of the bootstrap mediation analysis (PROCESS Model 4, 5000 bootstrapped samples) indicate that perceived barriers acted as a mediator of the awareness-filing relationship (See Table 4). Consumer awareness positively predicted a decrease in perceived barriers (Path a:  $B = -0.562$ ,  $SE = 0.040$ ,  $t = -14.10$ ,  $p < 0.001$ ), and, in turn, barriers predicted a decrease in the likelihood of filing a grievance (Path b:  $B = -0.451$ ,  $SE = 0.043$ ,  $t = -10.36$ ,  $p < 0.001$ ). The indirect effect was significant ( $B = 0.253$ , 95% CI [0.176, 0.338]), accounting for approximately 37% of the total effect ( $B = 0.684$ ). The direct effect was significant ( $B = 0.382$ ,  $t = 8.21$ ,  $p < 0.001$ ). First, this suggests partial rather than complete mediation. Secondly, adding barriers increased  $R^2$  from 0.372 to 0.542 ( $\Delta R^2 = 0.170$ ). Therefore, we conclude that H3 was confirmed.

## H4

Mediation by Channel Preference.

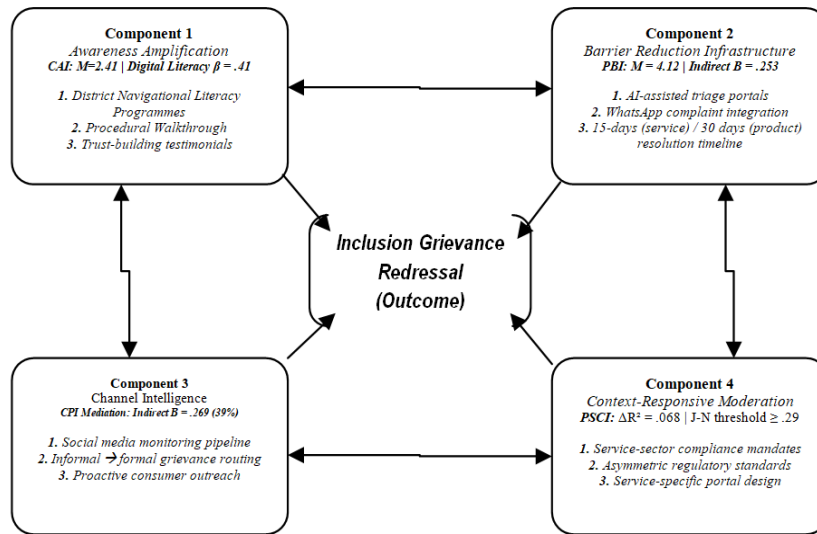
Partially mediating the relationship between awareness and file was channel preference. A significant

rise in channel savviness was recorded due to the increase in awareness (Path a:  $B = .617$ ,  $SE = .038$ ,  $t = 16.24$ ,  $p < .001$ ). Filing behaviour was predicted positively by channel preference (Path b:  $B = .436$ ,  $SE = .041$ ,  $t = 10.63$ ,  $p < .001$ ). The influence of channel preference was significant ( $B = .269$ , 95% CI [.195, .351]), accounting for roughly 39% of the overall impact (somewhat larger than that observed with the barrier-mediation pathway). The direct influence of channel preference was also significant ( $B = .415$ ,  $t = 9.02$ ,  $p < .001$ ), supporting the notion of partial mediation of the relationship between awareness and poster use. Using channel preference as a predictor increased the total variance explained from  $R^2 = .372$  to  $R^2 = .557$  ( $\Delta R^2 = .185$ ). Therefore, H4 is supported.

## H5

Moderation by Product–Service Context.

In introducing three interaction terms into Model 2 (Table 5), hierarchical regression analysis was performed. All interaction terms were significant: awareness  $\times$  context ( $\beta = .154$ ,  $t = 4.56$ ,  $p < .001$ ); barriers  $\times$  context ( $\beta = -.142$ ,  $t = -4.38$ ,  $p < .001$  — this is a barrier to fulfilling expectation of outcome); and channel  $\times$  context ( $\beta = .159$ ,  $t = 4.41$ ,  $p < .001$ ). Model 2 accounted for 61.2% of the variance explained, increasing substantially when compared to Model 1 ( $R^2 = .544$ ), with increases in variance accounted for:  $\Delta R^2 = .068$ ,  $\Delta F = 18.74$ ,  $p < .001$ ). Simple slope analysis demonstrated that all three variables had markedly stronger effects on services versus products: awareness ( $\beta$  increased from .29 to .47), barriers ( $\beta$  grew from -.26 to -.41), and channel preference ( $\beta$  improved from .31 to .49). The Johnson–Neyman procedure found that service-dominance score  $\geq .29$  is the cutoff for identifying service-specific awareness effects ( $B = .472$ ,  $t = 9.08$ ,  $p < .001$ ), offering clear and targeted information for service-specific intervention design. Therefore, H5 is supported.



Source: Authors' construct based on empirical findings.

Figure 1: The Stakeholder Grievance Intelligence Framework (SGIF).

## DISCUSSION

The empirical results provide robust support for the integrated theoretical framework and yield several insights that extend beyond the Sivaganga context to broader debates on digital consumer rights, grievance mechanisms, and access to justice.

### The Knowledge–Action Paradox in the Indian Context

The central finding that awareness significantly predicts grievance filing ( $\beta = .610$ ) yet remains low in absolute terms ( $M = 2.41$ ) validates the knowledge–action paradox identified in prior Indian and global literature (Arora & Chakraborty, 2020; Debbarma, 2025). This paradox has been theorized largely at the macro level; the present study provides micro-level, district-specific evidence through moderate mediation architecture. The finding that digital literacy outperforms formal education as a predictor of awareness ( $\beta = .41$  vs.  $.32$ ) is consistent with (Sharma et al., 2025) and with international evidence that digital capability is more proximate to e-government adoption than academic credentials (Rana et al., 2016). This has direct implications for capability-building policy: interventions should target digital navigational skills procedural walkthroughs, trust-building testimonials rather than relying on formal educational attainment as a proxy for grievance readiness.

### Mediation: Barriers and Channel Substitution

The partial mediation by both perceived barriers and channel preference provides a more nuanced explanation of the awareness–behaviour gap than prior single-mediator models (Rahman et al., 2017; Singh et al., 2016).

The barrier pathway (indirect  $B = .253$ , 37% of total effect) confirms that procedural opacity, institutional distrust, and perceived time costs attenuate consumers' capacity to convert awareness into formal action a finding consistent with access-to-justice scholarship documenting how 'wave after wave' of institutional reform fails to reduce effective demand barriers (Cappelletti & Garth, 1978). The channel preference pathway (indirect  $B = .269$ , 39% of total effect) is comparably strong and extends this literature by demonstrating that informal channel substitution social media, direct negotiation is not merely a passive default but an active mediating mechanism. Consumers who are more aware are also more capable of identifying responsive informal channels, redirecting grievance expression away from formal forums. This aligns with (He et al., 2019) and with (Komal, 2021) observation that online consumers prefer fast, expressive channels, but provides quantitative mediation evidence previously absent in the Indian context. Together, the dual mediators explain a 17-percentage-point increase in model  $R^2$  (from  $.372$  to  $.542/.557$ ), confirming that barriers and channels are integral, not peripheral, to grievance behaviour.

### Moderation: Service Context as an Amplifier

The product–service context moderation ( $\Delta R^2 = .068$ ) reveals that service-dominant conditions amplify all three predictors. Awareness effects increase by approximately 62% in service contexts ( $\beta: .29$  to  $.47$ ); barrier effects intensify by 58% ( $\beta: -.26$  to  $-.41$ ); and channel preference effects grow by nearly 58% ( $\beta: .31$  to  $.49$ ). These asymmetries are theoretically explained by the distinctive characteristics of service encounters: intangibility, simultaneity, and relational embeddedness create greater attributional ambiguity and emotional salience, raising the

cognitive and procedural stakes of formal complaint filing (Yu et al., 2024). The Johnson–Neyman threshold at  $PSCI \geq .29$  provides an empirically grounded diagnostic tool for identifying when service context becomes decisively significant, a methodological contribution absent in existing Indian consumer complaint research. This finding aligns with (Anjaiah & Adinarayana, 2025; Mathew, 2025) on the disproportionate underreporting of service grievances but advances those descriptive observations with causal moderation evidence.

### Implications for Digital Consumer Rights and Grievance Mechanisms

Internationally, the literature on digital consumer rights emphasizes that platform proliferation creates asymmetric access: digitally capable consumers gain new complaint channels while digitally marginalized consumers face new exclusion risks (Ganatra et al., 2025). The Sivaganga findings instantiate this dynamic in a semi-urban Indian district, where advanced digital literacy represents only 34.1% of the sample. The implication is that platform-centric grievance reforms such as INGRAM and the National Consumer Helpline may inadvertently widen the access gap without targeted capability interventions. This is consistent with broader access-to-justice scholarship arguing that formal legal reforms alone are insufficient without complementary social supports (Cappelletti & Garth, 1978; Debbarma, 2025). The present study contributes to this international debate by demonstrating that the mediation and moderation mechanisms operate independently of formal legal awareness, suggesting that attitudinal and structural barriers require distinct policy responses.

### The Stakeholder Grievance Intelligence Framework (SGIF)

Drawing on the empirical findings, this study proposes the Stakeholder Grievance Intelligence Framework (SGIF) as an integrated architecture for enhancing grievance redressal in digitally expanding emerging markets. SGIF comprises four interconnected components designed to convert the study’s moderation and mediation insights into operational policy tools.

First, Awareness Amplification addresses the district’s low CAI mean ( $M=2.41$ ) and provides district level literacy initiatives in navigating complex grievances in all sectors of the consumer life cycle that will address procedural competence and build trust towards established formal grievance avenues.

Second, to address the district’s high service-related profile (PBI:  $M=4.12$ ), digital service-specific triage portals with intuitive user interfaces will be developed to replicate informal grievance channels (e.g. conversational AI agents, WhatsApp-in). For consumer services, timelines for resolution will be 15-days, while timelines for resolution will be 30-days for product grievances. The shortened

timelines will address the expanding barriers as shown by the Johnson-Neyman analysis.

Third, Channel Intelligence reflects the mediation of the strong channel preference pathway in addressing the amplified barriers presented within the Johnson-Neyman Analysis by creating comprehensive real-time social media monitoring systems to capture informal grievance signals and facilitate proactive consumer outreach prior to escalation. The Channel Intelligence component also provides the mechanism to operationalize the systems of accountability identified in the channel substitution mechanism.

Fourth, Context-Responsive Moderation implements governance asymmetry of products versus services; service regulators in the financial services, e-commerce, and telecommunications industries will have a higher standard of compliance due to the amplified effects outlined in the Johnson-Neyman Analysis.

Conceptually, SGIF integrates the capability approach (addressing conversion factors), access-to-justice theory (reducing institutional barriers), and consumer behaviour theory (leveraging channel dynamics) into a single policy architecture. It advances beyond prior framework proposals such as the Integrated Grievance Management models reviewed by (Rana et al., 2016) by incorporating empirically derived moderation thresholds and by explicitly accounting for product–service asymmetries. Longitudinal validation of SGIF implementation effectiveness, using digital trace data and panel surveys, is recommended as a priority for future research.

### Policy And Practical Implications

For policymakers, the findings call for reorientation from legal rights provision to capability enablement. The Consumer Protection Act 2019 and associated digital platforms have expanded the formal architecture of grievance redressal, but the present evidence confirms that structural and attitudinal barriers prevent educated consumers from exercising these rights. District Consumer Forums should be mandated to conduct periodic barrier diagnostic surveys, using instruments derived from the validated PBI scale, to identify and address location-specific obstacles.

For service providers, particularly in e-commerce, financial services, and telecommunications where service-context effects are most pronounced the study recommends investment in proactive grievance detection systems that monitor social media and informal complaint channels. Providers should benchmark complaint portal usability against informal channel standards and consider offering guided complaint initiation through widely used messaging platforms.

For researchers, the validated PROCESS macro moderated mediation model and the SGIF provide a replicable framework for comparative studies across Indian districts and developing economy contexts.

Replication with panel data, examination of longitudinal capability building effects, and cross-cultural validation are recommended next steps.

## CONCLUSION

This study has systematically examined why formally educated consumers in Sivaganga District, Tamil Nadu, fail to engage with available grievance redressal mechanisms despite possessing awareness of their rights. Integrating consumer behaviour theory, Sen's capability approach, and access-to-justice theory into a moderated mediation model tested on 451 respondents, the findings demonstrate that perceived barriers and channel preferences partially mediate the awareness-filing relationship, and that product-service context significantly moderates these pathways. Digital literacy emerges as a stronger predictor of grievance awareness than formal education, and service contexts amplify all predictive effects by 58–62%.

These findings contribute to the consumer grievance redressal literature by providing district-level empirical evidence for the knowledge-action paradox, by quantifying the dual mediation mechanisms, and by empirically establishing product-service asymmetry in grievance behaviour. The proposed SGIF translates these insights into an integrated policy framework applicable across emerging digital markets. Future research should extend this model longitudinally, incorporate objective behavioural measures of grievance filing, and examine the SGIF's implementation effectiveness across diverse Indian districts.

## LIMITATIONS

Several limitations qualify for the generalizability of these findings. First, the cross-sectional design establishes correlational rather than causal relationships. Longitudinal or experimental designs are needed to confirm the direction of proposed effects, particularly whether capability-building interventions produce durable changes in grievance filing behaviour. Second, all measures rely on self-reported perceptions, introducing social desirability and recall biases; future research should incorporate objective behavioural data (e.g., actual complaint filings from regulatory databases) to validate self-report measures. Third, the geographic restriction to Sivaganga District limits external validity; findings may not generalize to metropolitan consumers with different digital infrastructure access, or to districts in other Indian states with distinct regulatory environments. Fourth, the purposive sampling of formally educated respondents while theoretically justified means the findings cannot be extended to the broader Sivaganga population, including those with non-formal education. Fifth, although Harman's single-factor test indicates that common method bias is not a major concern, future studies should employ procedural and statistical controls, such

as marker variable techniques or temporal separation of predictor and outcome measures, to more rigorously rule out method variance. Finally, SGIF is a conceptual framework derived from cross-sectional survey data; its operational effectiveness requires prospective evaluation through pilot implementation studies.

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