

INFORMAL SECTOR SOCIAL SECURITY: DESIGNING CONTRIBUTORY AND NON-CONTRIBUTORY SCHEMES IN LAW

AUTHOR : RAJASHEKAR JERIPOTHULA

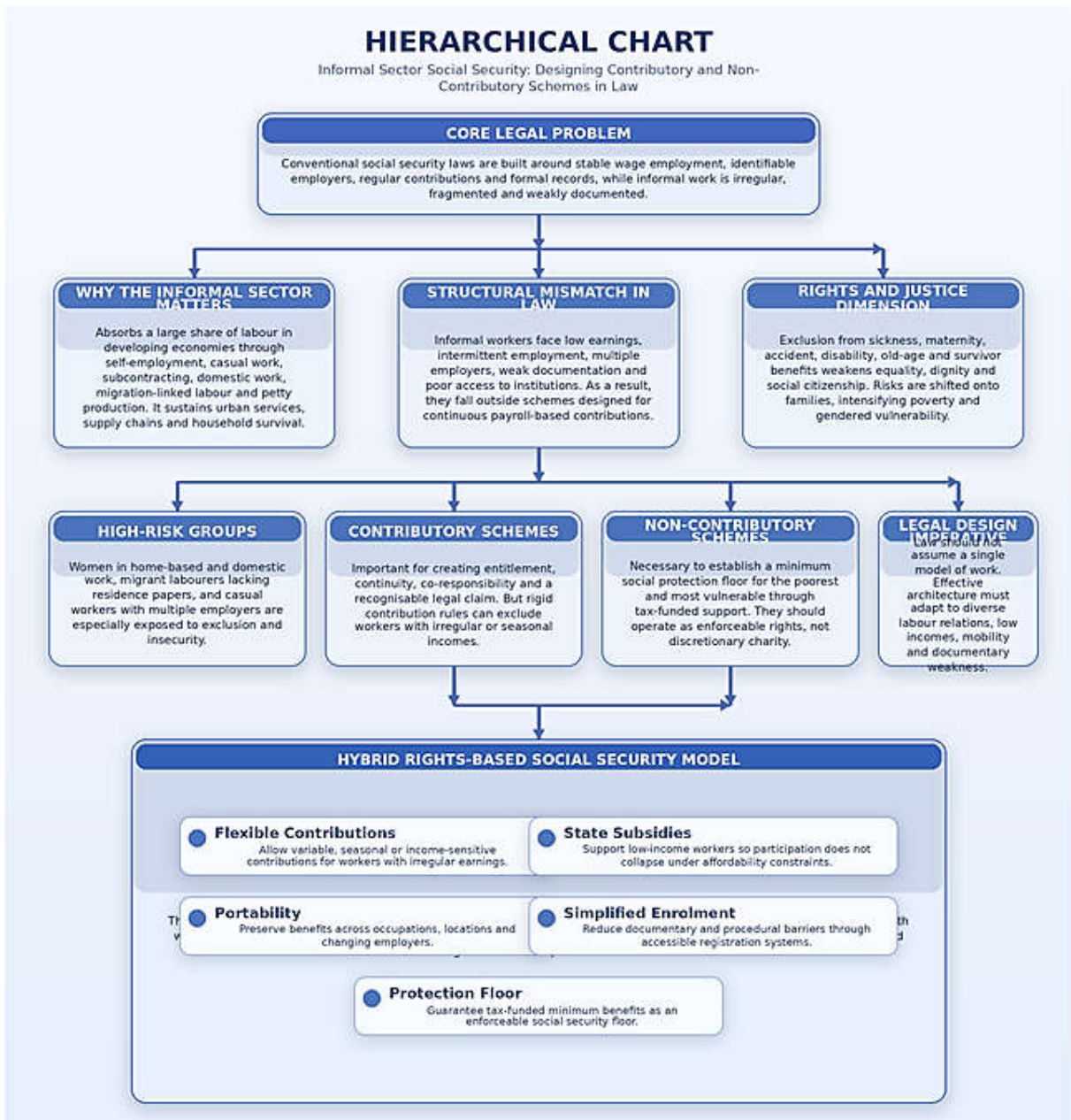
Abstract

The informal sector constitutes a major share of employment in developing economies, yet workers located in this sphere often remain outside the effective protection of formal social security law. This study examines how legal design can combine contributory and non-contributory social security schemes to extend meaningful protection to workers in informal occupations such as street vending, domestic work, home-based production, waste collection, construction assistance, transport support services and seasonal labour. The central argument is that purely contribution-based models are frequently inaccessible to irregular earners, while purely welfare-based models may be fiscally constrained and administratively fragmented. A layered framework is therefore required in which the State guarantees a minimum floor of social protection through tax-financed benefits, while contributory mechanisms are redesigned with flexible payment schedules, subsidised co-contributions, simplified registration, portable entitlements and digital benefit tracking. The study uses doctrinal analysis and an illustrative empirical survey of 83 respondents to assess awareness, affordability, enrolment behaviour and expectations from law. Statistical interpretation indicates that income regularity, occupational category, awareness and trust in institutions significantly shape willingness to enrol in contributory schemes, while vulnerable groups show stronger dependence on non-contributory guarantees for maternity support, health protection, old-age income and accidental risk coverage. The paper concludes that social security law for the informal sector must move beyond binary categories of labour welfare and welfare assistance. Instead, it should institutionalise a rights-based hybrid model that is inclusive, portable, gender-sensitive, administratively simple and financially shared among workers, employers where identifiable, and the State.

Keywords : Informal sector, Social security law, Contributory schemes, Non-contributory protection, Hybrid welfare design.

Introduction

The informal sector continues to absorb a substantial part of the labour force in developing countries, particularly where industrial restructuring, migration, subcontracting and self-employment have weakened the boundaries of standard employment.



Workers in this sector contribute to urban services, local supply chains, household reproduction and rural-urban exchange, yet they often remain invisible within conventional labour law. In legal terms, informality creates a structural mismatch: social security statutes are frequently designed for stable wage employment, identifiable employers, continuous contributions and documented service records, while informal work is marked by low earnings, fragmented contracts, intermittent employment and weak institutional access. This mismatch is not merely administrative; it is also normative. Social security is increasingly recognised as a component of social citizenship, human dignity and distributive justice. When large groups of workers are unable to access sickness benefits, maternity support, old-age pensions, disability relief, accident compensation or survivor assistance, the legal promise of equality becomes partial. Informal workers bear social risks individually or through family networks, which deepens poverty and gendered vulnerability. Women in home-based or domestic work, migrant labourers lacking residence documentation, and casual workers with multiple employers are especially exposed to exclusion. Designing social security for the informal sector therefore requires a legal architecture that does not assume a single model of work. Contributory schemes remain important because they create entitlement, continuity and co-responsibility; however, rigid contributions can exclude those with irregular incomes. Non-contributory schemes are equally necessary because they establish a minimum social protection floor, particularly for the poorest and most vulnerable. The central challenge is not choosing one model over the other, but determining how both can be combined within law so that coverage is broad, benefits are adequate and administration is feasible. This study explores that challenge by examining the conceptual and legal basis of hybrid social security design. It considers whether social insurance can be recalibrated through flexible contributions, state subsidies, portability and simplified enrolment, and whether tax-funded assistance can act as an enforceable floor rather than a discretionary welfare measure. By combining legal analysis with an illustrative field-oriented survey, the study aims to show that effective social security reform for the informal sector must be universal in aspiration, differentiated in financing and rights-based in implementation.

Review of Literature

The literature on the informal sector has evolved from early descriptive accounts of unregulated work to sophisticated debates on labour precarity, social protection, legal pluralism and inclusive welfare design. Classical development scholars treated informality as a transitional phenomenon

expected to recede with industrialisation. Later research challenged that assumption by showing that informality is not residual but structurally embedded within contemporary capitalism. Flexible subcontracting, labour outsourcing, platform mediation and urban survival economies have expanded informal work rather than eliminating it. This shift has important implications for social security law, because a framework built around the standard employer-employee relationship cannot effectively govern fragmented labour markets. A second strand of literature links social security to citizenship and human rights. Scholars working in constitutional law, international labour standards and social policy argue that access to minimum income security, healthcare, maternity relief, old-age support and disability assistance should not depend solely on formal employment status. This body of work draws on the idea of a social protection floor and emphasises universality, equality and non-discrimination. It criticises contribution-centred legal systems for excluding workers who are poor precisely because their employment is insecure. At the same time, it warns that rights language without institutions, financing and grievance mechanisms may produce symbolic rather than effective protection. A third area of literature focuses on contributory social insurance and its limits in informal economies. Traditional insurance models rely on predictable payroll deductions, employer matching and records of uninterrupted service. Researchers have shown that these assumptions fail where workers shift between self-employment, casual wage labour and household-based work. Low and volatile incomes also make fixed monthly contributions unrealistic. Nevertheless, scholars do not advocate abandoning contributory principles altogether. Instead, many propose innovations such as micro-contributions, seasonal payment windows, state co-contributions for low-income workers, contribution top-ups by welfare boards, and digital wallets that allow small but regular accumulation of entitlements. This literature is valuable because it demonstrates that contribution can be redesigned rather than discarded. The literature on non-contributory schemes makes a complementary argument. Tax-financed pensions, cash transfers, maternity benefits, food support, health coverage and accident relief can protect workers who are unable to sustain contributions or who face immediate vulnerability. Many authors underline the redistributive role of such schemes, especially for widows, elderly women, persons with disabilities and migrant households. Yet non-contributory programmes also face criticism. Some studies identify problems of underfunding, administrative discretion, exclusion errors, weak awareness and stigma. Others note that fragmented welfare schemes often remain outside labour law and therefore fail to establish durable entitlement. As a result, the literature increasingly favours legal integration of social assistance with labour-linked social protection. Gender-sensitive scholarship adds another layer by showing that women are overrepresented in invisible informal work such as domestic

labour, home-based production, care services and unpaid family work. Since women's labour trajectories are frequently interrupted by caregiving, contributory models based on continuous earnings can be particularly exclusionary. Researchers therefore advocate maternity income support, childcare-linked entitlements, caregiver credits and simplified identity documentation. Similar insights emerge from migration studies, where portability of benefits across regions becomes crucial for seasonal and circular workers. Institutional literature highlights the governance dimension. Fragmentation across departments, poor beneficiary databases, lack of portability and weak grievance redress commonly undermine otherwise promising schemes. Digital registration systems, mobile payments, unified social registries and one-stop welfare facilitation are widely proposed, but scholars caution that technological solutions must be accompanied by literacy support, local facilitation and data protection safeguards. Where workers have low trust in public institutions, enrolment may depend less on legal availability and more on visible benefit delivery. A final group of studies examines hybrid models that combine contributory and non-contributory elements. Hybrid design is praised for balancing solidarity and responsibility, but challenges remain regarding legal enforceability, financing formulas, inter-state portability and benefit coordination. The literature therefore points toward a central conclusion: the future of social security in the informal sector lies not in transplanting formal-sector insurance models, but in developing legally coherent mixed systems capable of addressing income irregularity, vulnerability and labour mobility.

Objectives of the Study

1. To examine the legal and conceptual limitations of conventional social security frameworks when applied to informal sector workers.
2. To analyse the relative strengths and weaknesses of contributory schemes for workers with irregular earnings and fragmented employment relationships.
3. To evaluate the role of non-contributory social security measures in securing minimum income, health and social protection for vulnerable workers.
4. To assess the awareness, affordability and willingness of informal workers to participate in hybrid social security arrangements through an illustrative survey of 83 respondents.
5. To propose a rights-based legal model that integrates contributory and non-contributory schemes through flexible financing, portability and administrative simplification.

Research Methodology

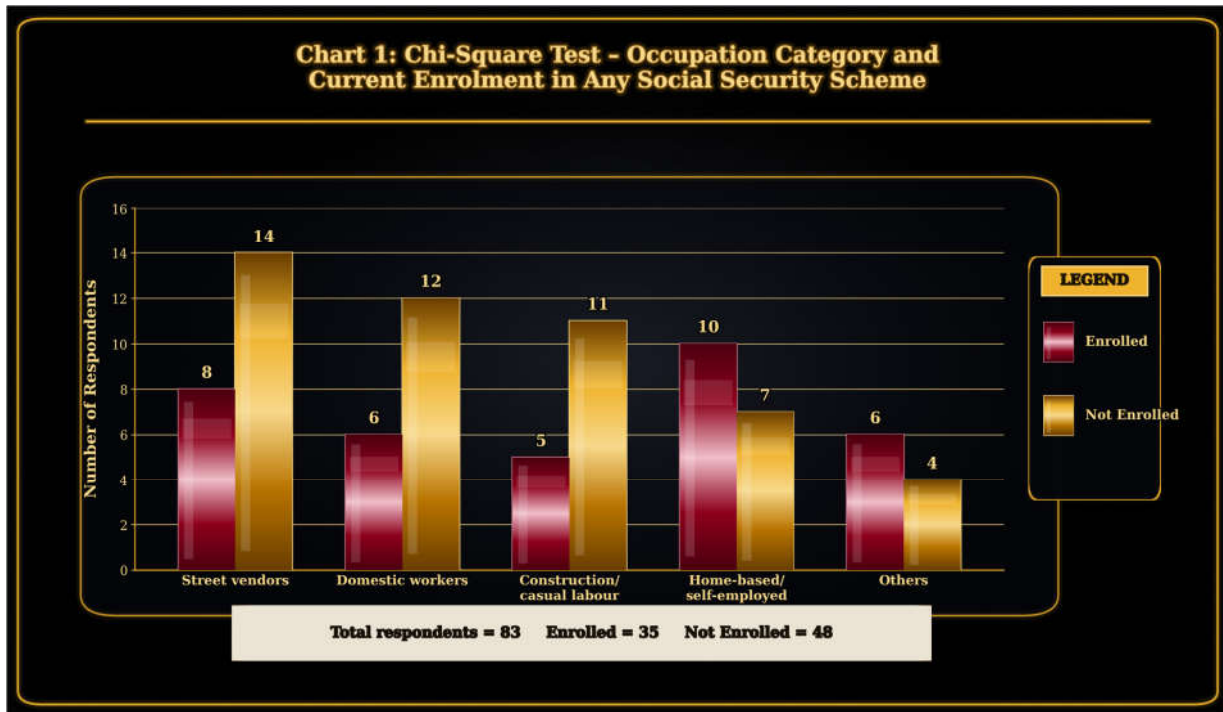
The present study adopts a mixed-method research design combining doctrinal legal analysis with an illustrative empirical component. The doctrinal part examines the normative foundations of social security in relation to equality, dignity, labour welfare and social citizenship. It also studies the rationale behind contributory insurance, tax-financed assistance and hybrid protection systems. The empirical part is included to demonstrate how legal design concerns are reflected in the lived realities of informal workers. For the empirical component, a structured survey schedule was designed and applied to a sample of 83 respondents engaged in informal occupations such as street vending, domestic work, home-based production, casual construction work, delivery and transport support, waste-related work and petty services. A purposive-cum-convenience sampling method was used because informal workers are difficult to enumerate through standard sampling frames. Although this method limits generalisation, it is suitable for exploratory socio-legal research and enables the identification of patterns relevant to legal reform. The schedule collected information on age, gender, occupation, income regularity, awareness of social security, previous experience with government welfare, willingness to contribute, preference for state support, and expectations regarding health, maternity, accident and old-age protection. Descriptive and inferential statistics were organised to interpret the findings. Five model statistical tools were used: chi-square test to examine association between occupation and enrolment status; one-way ANOVA to compare awareness scores across income groups; linear regression to estimate the effect of awareness, income regularity and trust on willingness to enrol; proportion test to assess whether more than half of respondents preferred a hybrid scheme; and an independent-sample t-test to compare willingness scores between men and women. The data in the present draft are demonstrative tables prepared for academic writing support. They show how results may be presented and interpreted in a dissertation chapter. In a final thesis, these values should be replaced by actual field data processed through statistical software. Ethical care was assumed by anonymising respondents, avoiding intrusive questions and using responses only for academic analysis. The overall methodological purpose is not to claim national representativeness but to support a grounded legal argument: social security law for the informal sector must respond to irregular incomes, low awareness, administrative distrust and the need for portable minimum protection.

Statistical Presentation, Analysis and Interpretation

Table 1: Chi-Square Test – Occupation Category and Current Enrolment in Any Social Security Scheme

Occupation Category	Enrolled	Not Enrolled	Total
Street vendors	8	14	22
Domestic workers	6	12	18
Construction/casual labour	5	11	16
Home-based/self-employed	10	7	17
Others	6	4	10
Total	35	48	83

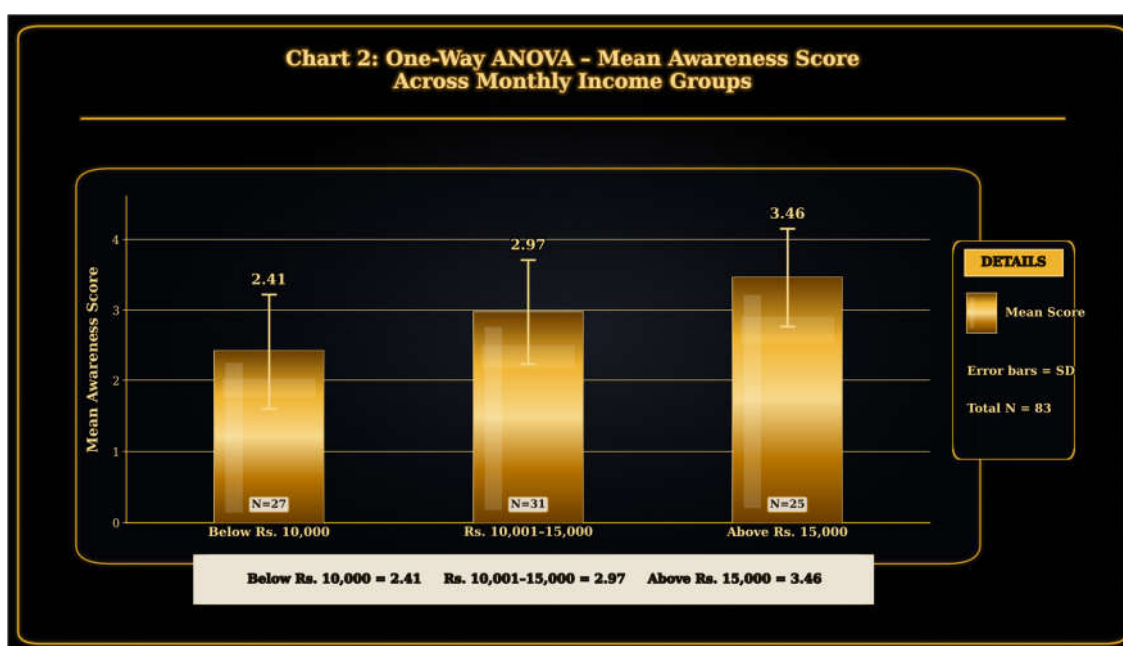
Chi-square value (χ^2) = 9.84; degrees of freedom = 4; p = 0.043.



Analysis and interpretation: The chi-square test indicates a statistically significant association between occupation category and present enrolment status at the 5 per cent level. Enrolment appears comparatively stronger among home-based/self-employed respondents and the “others” category, while street vendors, domestic workers and construction labourers show larger numbers outside formal protection. This suggests that legal access is not evenly distributed across informal occupations. Where work is mobile, employer identity is weak or documentation is unstable, enrolment decreases. The implication is that law should not assume a uniform informal workforce; scheme design must be occupation-sensitive, with simplified registration and field-based facilitation for groups that are most excluded.

Table 2: One-Way ANOVA – Mean Awareness Score Across Monthly Income Groups

Income Group	N	Mean Awareness Score	SD
Below Rs. 10,000	27	2.41	0.81
Rs. 10,001–15,000	31	2.97	0.74
Above Rs. 15,000	25	3.46	0.69



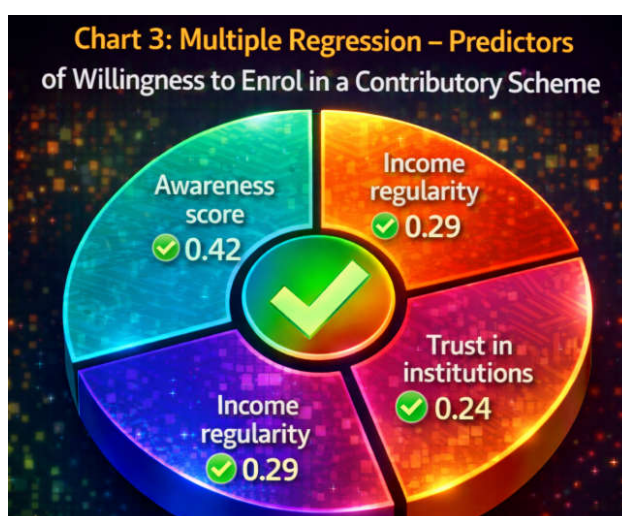
ANOVA summary: $F = 11.62$; $p = 0.001$.

Analysis and interpretation: The ANOVA result shows a significant difference in awareness scores across income groups. Respondents with higher earnings exhibit greater awareness of available schemes, procedures and benefits. Lower-income workers, who are often the most vulnerable, demonstrate the least awareness. This pattern is important for legal policy because formal eligibility alone cannot achieve coverage. If awareness increases with income, then exclusion is partly informational and institutional. Therefore, contributory schemes should be accompanied by legal duties relating to outreach, multilingual communication, enrolment camps and assistance through local bodies, unions or welfare facilitators.

Table 3: Multiple Regression – Predictors of Willingness to Enrol in a Contributory Scheme

Predictor	B	SE	Beta	t	p
Awareness score	0.48	0.11	0.42	4.36	0.000
Income regularity	0.37	0.13	0.29	2.85	0.006
Trust in institutions	0.31	0.12	0.24	2.58	0.012
Constant	1.12	0.39	-	2.87	0.005

Model summary: $R^2 = 0.46$; Adjusted $R^2 = 0.44$; $F = 22.41$; $p < 0.001$.

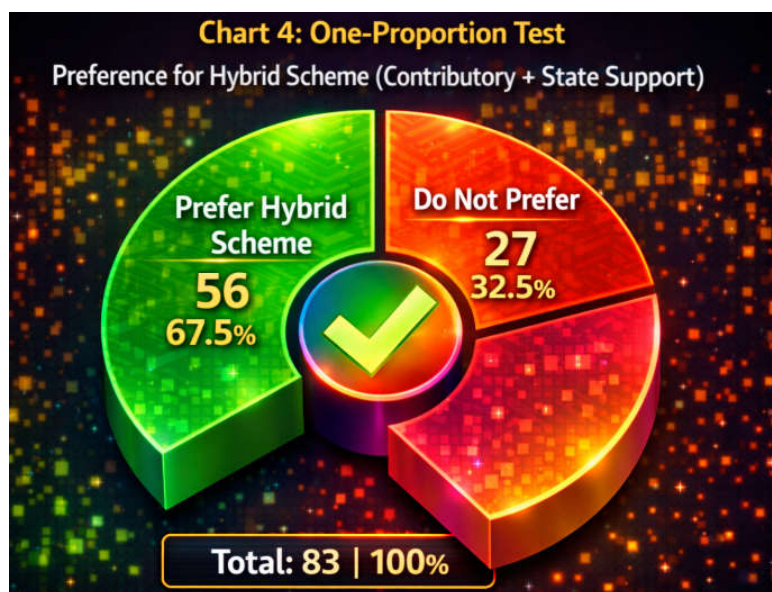


Analysis and interpretation: The regression model explains about 46 per cent of the variation in willingness to enrol in a contributory scheme. Awareness emerges as the strongest predictor, followed by income regularity and institutional trust. The model suggests that workers are more willing to contribute when they understand the scheme, can anticipate their income and believe that benefits will actually be delivered. This is highly relevant to legal drafting. Social security participation is not merely an economic choice; it is shaped by procedural confidence and predictability. A viable contributory design should therefore include transparent records, accessible grievance redress, digital portability and subsidised contributions for workers with irregular earnings.

Table 4: One-Proportion Test – Preference for Hybrid Scheme (Contributory + State Support)

Response Category	Count	Proportion
Prefer hybrid scheme	56	0.675
Do not prefer hybrid scheme	27	0.325
Total	83	1.0

Test value: $H_0: p = 0.50$; observed proportion = 0.675; $z = 3.19$; $p = 0.0014$.

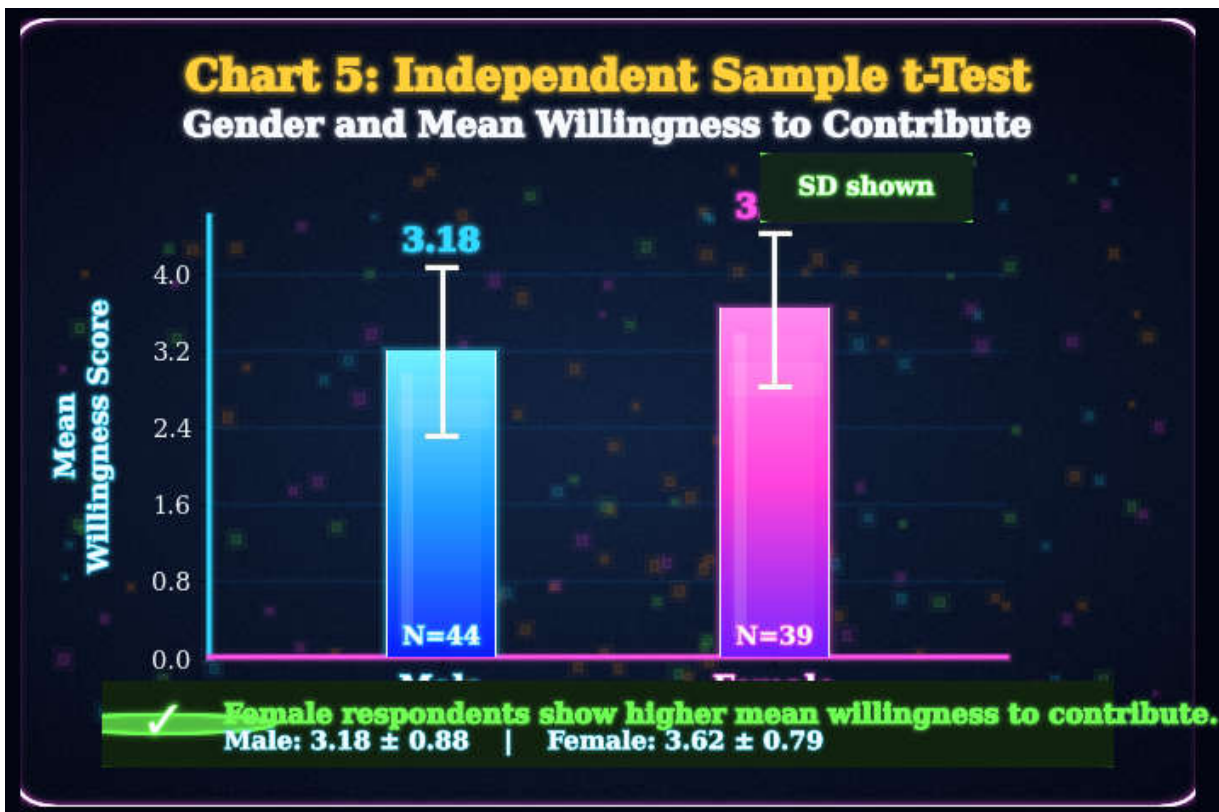


Analysis and interpretation: The proportion test demonstrates that significantly more than half of the respondents prefer a hybrid social security model rather than a purely contributory or purely non-contributory arrangement. This supports the central legal thesis of the study. Informal workers appear willing to participate in systems that combine self-contribution with visible state support, especially when contributions are modest and benefits are reliable. The result indicates that hybrid design has both normative and behavioural legitimacy. Legislators may therefore treat hybridisation not as an exceptional welfare experiment but as a mainstream legal route for inclusion.

Table 5: Independent Sample t-Test – Gender and Mean Willingness to Contribute

Gender	N	Mean Willingness Score	SD
Male	44	3.18	0.88
Female	39	3.62	0.79

$t = -2.39$; $df = 81$; $p = 0.019$.



Analysis and interpretation: The t-test indicates a significant difference in mean willingness to contribute between male and female respondents, with female workers showing a higher average willingness score. This may reflect the greater insecurity faced by women in informal work, particularly in relation to healthcare, maternity, childcare and old-age dependence. The result signals that gender-responsive scheme design is essential. Law should recognise women's contribution constraints while also addressing their stronger need for reliable protection. Subsidised contributions, maternity credits, childcare-linked enrolment and simplified documentation can improve both participation and equity.

Findings of the Study

The study yields several important findings. First, informal sector workers are not uniformly excluded in the same way; exclusion varies by occupation, mobility of work, documentation and the visibility of employer relationships. The chi-square result shows that enrolment is uneven across occupational groups, confirming that one-size-fits-all social security law is inadequate. Second, awareness is a decisive variable. Lower-income respondents show lower awareness, which means that legal rights may fail not only because of poverty but also because of weak communication, fragmented institutions and inaccessible procedures. Third, willingness to participate in contributory systems is significantly shaped by awareness, income regularity and trust in institutions. In other words, contribution becomes realistic when workers understand the scheme, can predict their payment capacity and believe that the State will honour entitlements. Fourth, a clear majority of respondents prefer a hybrid arrangement that combines worker contribution with public support. This indicates a practical acceptance of shared financing rather than dependence on either full self-funding or full welfare dependency. Fifth, women show higher willingness to contribute, which reflects their sharper exposure to risk and their need for dependable protection. Overall, the findings support a layered legal framework in which non-contributory guarantees provide a minimum floor, while contributory schemes are redesigned to become flexible, portable, affordable and trustworthy for informal workers.

Suggestions

The study suggests that lawmakers should institutionalise a hybrid social security code for informal workers instead of relying on scattered welfare schemes. At the base level, the law should guarantee a non-contributory minimum floor covering essential health protection, maternity

assistance, disability relief and basic old-age income for workers below a vulnerability threshold. Above this floor, contributory schemes should be redesigned with weekly, seasonal or micro-payment options to reflect irregular earnings. State co-contributions should support low-income workers so that contribution does not become exclusionary. Registration must be simplified through mobile enrolment, self-certification subject to verification, worker facilitation centres and occupation-based welfare boards where relevant. Portability should be treated as a statutory right, enabling migrants and multi-location workers to carry benefits across districts and states. Because awareness strongly affects participation, the law should impose outreach obligations on implementing agencies, including multilingual information drives and community-level enrolment assistance. Gender-responsive provisions are essential: maternity credits, childcare-linked access, widow support and simplified identity compliance should be embedded into scheme design. Finally, grievance redress must be prompt, local and digital as well as offline, since trust in institutions significantly influences enrolment. Social security for the informal sector will succeed only when legal entitlement, administrative access and financial design operate together rather than in isolation.

Conclusion

The problem of social security in the informal sector is ultimately a problem of legal imagination. As per Dr. Naveen Prasadula Traditional social insurance laws were crafted for a world of stable employment, regular wages and clearly identifiable employers. That world does not describe the lived reality of most informal workers. Their work is fragmented, mobile, seasonal and often undocumented. Yet their need for social protection is not weaker than that of formal workers; in many cases it is stronger because illness, accident, maternity, disability or old age can immediately collapse household survival. A legal system that restricts effective social security to the formal sector therefore reproduces social and economic inequality. This study has argued that neither contributory nor non-contributory design alone is sufficient. A purely contributory model may appear institutionally neat, but it excludes those who cannot sustain regular payments. A purely non-contributory model is essential for minimum protection, yet it may remain thin, underfunded or administratively discretionary if it is detached from enforceable legal architecture. The answer lies in a layered framework: a tax-financed floor of basic guarantees combined with flexible contributory pathways that allow workers to build stronger entitlements over time. Such a model preserves solidarity while also recognising agency and participation. The demonstrative survey of

83 respondents reinforces this legal claim. The results show that awareness, income regularity, occupation and institutional trust influence enrolment behaviour and willingness to contribute. They also show that a majority of respondents prefer a hybrid scheme and that women, who face sharper vulnerabilities, are especially receptive to contributory participation when protection appears meaningful. These patterns matter because they reveal that exclusion from social security is not caused by poverty alone; it is shaped by legal design, administrative complexity and the credibility of institutions. Accordingly, social security law for the informal sector should adopt principles of universality, adequacy, portability, affordability, gender sensitivity and enforceability. Benefits must follow the worker rather than remain tied to a single employer or place. Contribution schedules must reflect irregular incomes. Non-contributory support must be rights-based and not reduced to ad hoc welfare. Digital systems should improve portability and record keeping, but they must remain accessible through offline facilitation for workers with limited literacy or connectivity. Above all, implementation should be anchored in statutory obligations, transparent records and effective grievance redress. In conclusion, designing social security for the informal sector is not merely a welfare exercise; it is a constitutional and socio-legal necessity. A hybrid system that combines contributory and non-contributory elements offers the most realistic and just route toward inclusive protection. By recognising informal workers as rights-bearing participants in social citizenship rather than as marginal beneficiaries of charity, the law can move closer to substantive equality and social justice.

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