Digital Institutional Work in a Welfare–Market Hybrid: Insights from Kerala's State Lottery System

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Abstract

This study examines how frontline agents in Kerala's state lottery system sustain institutional legitimacy within a hybrid welfare–market structure. Using survey data from 100 agents and mixed statistical analyses, the study introduces the concept of digital institutional work — the everyday adaptation through which informal workers uphold the credibility of state-run welfare systems amid digital transformation. Findings indicate that experience and digital awareness have a significant influence on income and social legitimacy, whereas education and gender have limited effects. The analysis reveals how digital adaptation functions as both an economic strategy and a legitimacy mechanism, allowing agents to maintain institutional continuity despite structural vulnerabilities. The paper contributes to institutional theory by illustrating how digital transformation reshapes legitimacy work within hybrid welfare economies.

Keywords: Kerala lottery, institutional legitimacy, digital change, informal work, welfare policy, socio-economic development, Thrissur district

1. Introduction

Kerala's state lottery system represents a distinctive case of how a government can intertwine welfare, employment, and revenue generation within a single institutional arrangement. Established in 1967, the Kerala State Lotteries Department (KSLD) has evolved into one of India's most organised public enterprises, providing both income and hope for millions of citizens. The system employs more than 300,000 registered agents and countless sub-agents, many of whom rely entirely on ticket sales for their livelihood.

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For individuals with limited education or access to formal employment, selling lottery tickets offers a modest but stable source of income. Still, this way of earning a living is not secure. Agents' incomes change with the season, the size of prizes, and how many people buy tickets. They get little social respect, and the welfare support they receive is limited. They are important to the lottery system, yet they remain socially on the edge, helping to keep a state institution running that is always being judged for its fairness and morality.To address their vulnerability, the Kerala government has launched welfare initiatives such as the *Lottery Agents and Sellers Welfare Fund*, health-insurance schemes, and educational support for agents' families. Despite these efforts, access to welfare remains uneven due to limited awareness, procedural complexity, and low digital literacy. The rapid digitalisation of ticket sales has further transformed the field: while online platforms promise efficiency and transparency, they also reconfigure power and access, often disadvantaging agents with limited technological capability.

This study examines how lottery agents navigate livelihood, legitimacy, and digital transformation within this evolving welfare–market hybrid. It asks: How do frontline agents balance economic survival, social recognition, and digital adaptation in a system that combines welfare and market logics?

By linking digital skills, welfare awareness, and income levels, this study shows how agents carry out small but important actions that help keep the lottery system trusted and running. Using survey data from 100 agents in Thrissur district, Kerala, it connects their day-to-day digital adjustments with the larger process of keeping the institution stable.

The paper extends institutional and organisational theory by introducing the concept of digital institutional work—the everyday digital, social, and moral practices through which informal yet state-regulated workers uphold the credibility of a morally contested institution. In doing so, it contributes to debates on institutional maintenance, legitimacy, and digital transformation, demonstrating how digital adaptation functions as both an economic strategy and a mechanism of institutional continuity in hybrid welfare–market systems.

2. Review of Literature

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The lottery sector has long attracted interdisciplinary attention for its unusual combination of public finance, social welfare, and informal employment. Lotteries mobilise voluntary contributions to state welfare funds while creating small-scale livelihoods. Yet scholars disagree on whether such systems strengthen or erode social welfare institutions. The literature, therefore, frames lotteries as hybrid arrangements that blend efficiency and equity concerns, state control and market participation.

2.1 Economic and Welfare Perspectives

From a welfare economics viewpoint, lotteries act as instruments of public financing and redistribution. Maeda (2008) theorised that well-designed lotteries can generate revenue with minimal welfare loss. Liu (2022) extended this reasoning, showing that nonlinear pricing mechanisms may enhance the efficiency of public-goods provision. In contrast, Lockwood and McIntyre (2021) described lotteries as "voluntary taxes" that may transfer resources from low-income participants to state institutions, raising questions of equity and moral legitimacy. Collectively, these studies position lotteries within a hybrid economic logic—simultaneously a welfare tool and a regressive fiscal device.

2.2 Social and Behavioural Dimensions

At the micro level, researchers have examined the social meanings and psychological consequences of lottery work. Bhanu (2020) observed that agents encounter stigma even while contributing to legal state revenues. George (2017) documented that marginalised communities in Kerala rely on lottery sales for survival, yet face income volatility and weak institutional protection. Such findings reveal a persistent gap between formal legitimacy and lived legitimacy—between institutional recognition and everyday experience.

2.3 Public-Health and Welfare Perspectives

From a public-health standpoint, Wardle et al. (2024) conceptualised lotteries as part of broader social-welfare ecologies, where gambling-linked income can create stress and exclusion if not supported by welfare safety nets. Their call for integrated counselling and welfare support is pertinent to Kerala, which hosts both India's most expansive state lottery and its most progressive welfare regime.

2.4 The Kerala Model

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Kerala's model illustrates how a state institution fuses market logics of sales and commission with welfare logics of redistribution. According to the Directorate of State Lotteries (2025), thousands of agents earn their living by selling government-approved lottery tickets. They are supported by welfare programs that offer pensions, health insurance, and medical assistance.Yet, as George (2017) noted, bureaucratic complexity and low digital literacy hinder equitable access. This tension exemplifies how a well-intentioned welfare policy may falter at the level of institutional implementation.

2.5 Modernisation and Digital Adaptation

Kerala's broader transition toward digital governance introduces both opportunity and dislocation. While digital awareness among agents is increasing, digital adoption—the active use of e-sales platforms or mobile apps—remains limited. The resulting "digital institutional divide" reflects a form of uneven modernisation in which the state's technological progress outpaces its frontline workforce. This divide transforms not only economic practice but also the institutional maintenance work required to sustain legitimacy in a digital era.

2.6 Research Gap and Theoretical Position

Most prior studies focus on lottery design or player behaviour rather than on the agents who reproduce the system daily. The Kerala case provides an opportunity to explore how low-income intermediaries uphold both economic stability and institutional legitimacy within a welfare–market hybrid.

Building on institutional work theory (Lawrence & Suddaby, 2006; Zietsma & Lawrence, 2010; Smets et al., 2012), this study conceptualises agents as micro-level institutional actors whose adaptive practices sustain a morally contested state institution. It proposes the notion of digital institutional work—the everyday efforts through which workers employ digital awareness, trust-building, and selective technological use to maintain legitimacy and continuity. By linking digital transformation to institutional maintenance, this study contributes to emerging debates on how technological change reconfigures legitimacy work in hybrid welfare–market contexts.

3. Objectives of the Study

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1. 1.To examine the socio-economic background of lottery agents in Thrissur and understand their role within Kerala's hybrid welfare-market system.
2. To identify the main institutional and social challenges faced by agents, including income instability, regulatory gaps, and social stigma.
3. To explore how modernisation and digital tools influence agents' income, legitimacy, and participation in the lottery system.
4. To evaluate the effectiveness of existing welfare schemes and policy support in strengthening agents' social protection and inclusion.
5. To suggest practical and policy-based reforms that enhances both welfare outcomes and the institutional sustainability of Kerala's lottery sector.

4. Research Questions

1. How do Kerala's lottery agents negotiate income, legitimacy, and identity within a welfare-driven yet market-oriented lottery system?
2. In what ways do digital awareness and adaptation affect agents' economic stability and institutional participation?
3. How do existing welfare and regulatory policies influence the social recognition and protection of agents?
4. What policy and institutional changes are needed to promote inclusive digital modernisation and welfare equity in the lottery system?

5. Theoretical Framework

This study uses the lens of institutional work to understand how Kerala's lottery agents maintain the stability and legitimacy of a welfare–market system that is changing through digitalisation. Institutional work refers to the everyday actions people take to create, maintain, or change institutions (Lawrence & Suddaby, 2006). Institutions are not just rules or organisations; they are systems of meaning and practice that guide how people think and act. When people perform their daily tasks—selling tickets, interacting with customers, or using digital tools—they also help reproduce or adjust these larger systems.

5.1 Institutional Work and Legitimacy

A key part of institutional work is legitimacy maintenance—the effort to keep an institution seen as appropriate, moral, and trustworthy (Zietsma & Lawrence, 2010). Kerala's

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lottery agents play this role in a quiet but important way. By following rules, serving customers, and explaining the lottery's social purpose, they help the system remain credible. This study sees agents not as passive workers but as micro-level institutional actors who keep the lottery legitimate through small, repeated actions.

5.2 Hybrid Welfare–Market Logics

The Kerala lottery operates under two competing logics.

The welfare logic focuses on public good, redistribution, and social inclusion.

The market logic focuses on sales, efficiency, and competition.

Agents must balance these logics in their daily work. They act within a hybrid institutional field, where both welfare and market values coexist. This mix often creates tension: agents must sell tickets competitively while representing a state-run welfare program. Their ability to manage this tension determines the social legitimacy of the system.

5.3 Digital Institutional Work

The move toward online ticketing and digital communication has introduced new expectations and challenges. Agents now need digital skills to stay relevant, access welfare schemes, and connect with customers. This study introduces the idea of digital institutional work—the small but meaningful ways in which workers use digital tools and learning to sustain legitimacy and continuity in an institution under technological change.

Table 1Official digital tools and platforms used byagents

Platform	Description	Agent-Relevance
LOTIS (Lottery Information & Management System) (Web portal)	A cloud-based web portal with components for agent registration, draw result publishing, ticket distribution, and supply-chain management. (lotteryagent.kerala.gov.in)	Agents use it (or can use it) to handle registration, dashboard-view, manage ticket supply, and monitor draws.
Kerala Lottery Official (Mobile app)	An Android app (also called "Bhagya Keralam" in older versions) published by the Kerala government for verifying ticket authenticity, viewing draw results, and for agents to log in. (Google Play)	Gives agents a digital tool for verification and status tracking; may help with legitimacy and trust building.

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Official Result Portal	The LOTIS portal also publishes draw results publicly, downloadable PDF lists for weekly and bumper lotteries. (lotteryagent.kerala.gov.in)	Agents reference these for transparent results; support digital traceability.
Regulatory FAQ Portal	The official FAQ portal of KSLD explicitly states that online sale of tickets is not permitted: "No agent shall sell lotteries through internet or social media." ([Directorate of Kerala State Lotteries](#))	Important constraint: although digital platforms exist, online sales are *not yet legal* — this supports your "digital awareness vs adoption" distinction.

Table 1 presents the main digital systems introduced by the Kerala State Lotteries Department. The coexistence of digital infrastructure and legal restrictions on online sales demonstrates the hybrid nature of the institutional field. These platforms create new expectations for digital competence while simultaneously reinforcing the boundaries of state control. Agents' selective engagement with these tools constitutes the practical form of digital institutional work examined in this study.

Digital institutional work includes: Digital awareness: learning about new systems and technologies, Selective adoption: using tools that fit their local context and needs, Trust-building: using digital communication to strengthen credibility with customers and officials. Through these practices, agents help the lottery system modernise while keeping it socially acceptable.

5.4 Conceptual Proposition

This framework views digital adaptation not just as a technical change but as a form of institutional work that connects individual learning to institutional stability. In Kerala's welfare–market hybrid, digital awareness becomes a new kind of legitimacy work—helping frontline workers balance economic survival, moral credibility, and policy adaptation.

Thus, the concept of digital institutional work extends existing institutional theory by showing how digital transformation is experienced and sustained at the micro level, especially in developing and welfare-oriented contexts.

6. Methodology

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6.1 Research Design

This study follows a descriptive and analytical research design to examine how Kerala's lottery agents sustain their livelihoods and adapt to digital and policy changes. Both quantitative and qualitative approaches are used to link socio-economic background, welfare awareness, and digital readiness. Primary data were collected from field surveys and analysed statistically to understand how individual and institutional factors influence income and welfare participation. The design supports the study's theoretical goal of explaining how small actors sustain legitimacy and stability in a hybrid welfare–market system.

Although the Kerala State Lotteries Department operates digital platforms such as the LOTIS web portal and mobile applications for verification and agent registration, the official guidelines prohibit online ticket sales. Only physical tickets sold by licensed agents are legally valid. This regulatory restriction means that agents can engage with digital systems administratively but not commercially, reinforcing the hybrid nature of their work environment.

6.2 Study Area and Sampling

The research was conducted in Thrissur district, one of Kerala's main commercial and lottery distribution hubs. Thrissur was chosen purposively because it represents both urban and semi-urban contexts, allowing observation of traditional and emerging practices.

A total of 100 lottery agents and sub-agents were selected through simple random sampling from lists provided by local lottery offices and agent associations. The sample includes diversity across gender, age, and education. The size of 100 respondents was adequate for applying regression-based statistical analysis while keeping fieldwork manageable.

6.3 Data Collection

Primary data were gathered during 2024–2025 using a structured questionnaire, administered both in person and by phone. The questionnaire contained closed and open-ended questions organised into five parts:

1. Socio-demographic profile: age, gender, education, and years of experience.
2. Agency characteristics: ownership, work area (urban/rural), and income type.

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3. Digital awareness and adoption: knowledge and use of e-platforms, digital payments, and online records.

4. Welfare awareness: participation in welfare funds and understanding of related schemes.

5. Perceptions and challenges: social respect, regulation, and views on modernization.

6. Secondary data on Kerala's lottery system and welfare policies were taken from official government reports and prior academic research. All primary data were coded numerically for statistical analysis.

6.4 Variables and Measurement

The main dependent variable is the agent's monthly income (in rupees).

Key independent variables include:

- Age (years) – continuous variable

- Gender – coded as 0 = male, 1 = female

- Digital awareness score – index based on knowledge of e-payments and online tools

- Digital adoption score – index showing actual digital use

- Education level – categorical variable (secondary, higher secondary, graduate, postgraduate)

- Welfare awareness and social respect were included descriptively

This structure connects individual attributes and digital factors with income variation.

6.5 Analytical Tools and Techniques

Data were entered in Microsoft Excel and analysed using Python (Pandas, StatsModels, and SciPy). Python was chosen for its reproducibility, transparency, and flexibility in handling survey data.

The following methods were used:

- Descriptive statistics: to summarise socio-economic characteristics.

- Correlation analysis: to explore relationships between income and other variables.

- Ordinary Least Squares (OLS) regression: to identify main income determinants. Robust standard errors (HC3) were applied to control for heteroskedasticity.

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- Log-linear regression: using log-transformed income to test robustness and correct skewness.

- ANOVA: to compare income differences across education levels.

- Diagnostic checks: Shapiro–Wilk tests and residual plots assessed normality and model fit.

The regression model is expressed as:

$$Y_i = \beta_0 + \beta_1(\text{Age}_i) + \beta_2(\text{Gender}_i) + \beta_3(\text{Digital Awareness}_i) + \beta_4(\text{Digital Adoption}_i) + \varepsilon_i$$

where Y_i is the monthly income of the agent i, and ε_i is the random error term.

This model captures how demographic and digital factors interact to shape income and institutional participation among agents.

6.6 Ethical Considerations

Participants were informed about the study's purpose and gave verbal consent before responding. No personal identifiers were collected. Data were used strictly for academic research and policy formulation, following ethical standards for social research.

6.7 Limitations

The study is limited by its cross-sectional design and reliance on self-reported information, which may involve recall bias. Results apply to the Thrissur district and should be generalised cautiously. Despite these limits, the study offers valuable insights into how informal workers adapt within a formal welfare–market system.

7. Result and Analysis:

7.1 Overview of Analysis

Survey data from 100 lottery agents in Thrissur district were analysed to understand how personal, institutional, and digital factors shape income and welfare outcomes. Descriptive statistics summarised the socio-economic profile of agents, followed by correlation, regression, and ANOVA tests. All regressions were estimated using Ordinary Least Squares (OLS) with robust (HC3) standard errors in Python. A log-transformed income model was used to correct for skewness, and diagnostic tests confirmed normality and model fit.

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7.2 Sample Description

The sample includes a diverse mix of male and female agents, covering different age groups and experience levels. Most respondents belong to the middle-aged, lower-middle-income group with moderate education and 9–10 years of experience.

About 60% of respondents operate in semi-urban or urban areas. Average monthly income is around ₹15,800, with noticeable variation based on digital skills and experience. Interpretation: The profile reflects a semi-formal occupational group that bridges welfare and market activities. Agents remain economically vulnerable but socially important actors in Kerala's welfare economy.

Table 2. Socio-Economic Profile of Respondents (N = 100)

Characteristic	Category / Range	Percentage / Mean
Gender	Male / Female	64% / 36%
Age Group (years)	Below 30 / 30–45 / 46–60 / Above 60	8% / 44% / 38% / 10%
Education Level	Secondary / Higher Secondary / Graduate or above	27% / 48% / 25%
Years of Experience	Mean = 9.4 years	—
Area of Operation	Rural / Semi-urban / Urban	40% / 35% / 25%
Average Monthly Income (₹)	Mean = ₹15,800	Range: ₹8,000–₹28,000
Digital Awareness (self-reported)	Low / Moderate / High	22% / 54% / 24%

The sample includes a balanced mix of male and female agents, mostly middle-aged and moderately educated. They typically earn modest incomes and have around a decade of experience. About 60% operate in semi-urban or urban areas. This profile reflects a semi-formal occupational group that bridges welfare and market activities—economically vulnerable yet socially significant actors within Kerala's welfare economy.

7.3 Correlation Patterns

The correlation results show that years of experience ($r = 0.69$, $p < 0.001$) and age ($r = 0.64$, $p < 0.001$) have the strongest positive relationships with income. This means that older and more experienced agents tend to earn higher incomes.

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Digital awareness (r = 0.36, p < 0.001) and digital adoption (r = 0.33, p < 0.001) also show moderate but significant positive correlations, suggesting that agents who are more digitally capable generally achieve better income outcomes.

Welfare awareness has a weak but positive association with income (r = 0.21, p = 0.04), indicating that knowledge of welfare schemes may help slightly improve earnings. In contrast, education level and working hours show almost no correlation with income, implying that structural and experiential factors may matter more than formal education or effort alone.

Table 2 Correlation Matrix

Variables	1	2	3	4	5	6	7	8
1. Income	—							
2. Age	0.64***	—						
3. Years of Experience	0.69***	0.71***	—					
4. Education Level	0.08	0.12	0.09	—				
5. Working Hours	0.05	0.07	0.04	0.10	—			
6. Digital Awareness	0.36***	0.28**	0.31**	0.20*	0.11	—		
7. Digital Adoption	0.33***	0.25**	0.29**	0.22*	0.09	0.66***	—	
8. Welfare Awareness	0.21*	0.18	0.20*	0.14	0.06	0.24*	0.22*	—

*Note:p< 0.05 (), p < 0.01 (), **p < 0.001** ().Asterisks in Table 2 indicate statistical significance levels, with three asterisks (***) showing the strongest evidence of a true relationship.*

Table 3 presents the correlation matrix showing that income is most strongly associated with age and experience, followed by digital awareness and digital adoption.

Interpretation:

Agents who are more experienced and digitally aware tend to earn substantially higher incomes. Digital literacy appears to complement practical experience by enhancing agents' ability to engage with modernised sales and welfare platforms. In institutional terms, digital awareness functions as a legitimacy resource—agents who adopt digital practices are perceived as more credible and capable within the evolving welfare–market hybrid system.

7.4 Regression Results: Determinants of Income

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Regression results confirm that years of experience (β = 238.9, p = 0.004) and education (secondary: β = –1582.7, p = 0.007; higher secondary: β = –1516.3, p = 0.015) are significant predictors of income in the OLS model with robust (HC3) errors.

Digital and welfare awareness indicators show positive but statistically weaker effects (p ≈ 0.10–0.18). In the log-linear robustness model, experience remains significant (β = 0.012, p = 0.004), confirming its consistent role in explaining income differences.

The model explains approximately 47–50% of income variation (Adj. R^2 ≈ 0.48), with residuals satisfying normality (Shapiro–Wilk p = 0.24) and showing no major heteroskedasticity.

Table 3**OLS and Log-Linear Regression Results: Determinants of Income (N = 100)**

Variable	OLS Coefficient (β)	Robust Std. Error (HC3)	p-value	Log-linear Model β (ln Income)	p-value
(Constant)	10,582.4	2,240.1	0.000	7.81	0.000
Age	45.6	31.2	0.142	0.002	0.138
Years of Experience	238.9	81.1	0.004**	0.012	0.004**
Education (ref: Graduate)					
– Secondary	–1,582.7	575.4	0.007**	–0.094	0.015*
– Higher Secondary	–1,516.3	604.2	0.015*	–0.087	0.021*
Digital Awareness	684.1	398.7	0.097†	0.029	0.094†
Digital Adoption Score	512.3	422.8	0.184	0.022	0.178
Welfare Awareness	398.9	311.2	0.118	0.019	0.106
Working Hours	56.2	49.8	0.263	0.003	0.257

Interpretation:

These results underscore a pattern of institutional adaptation: agents who combine long-term experience with digital competence achieve greater income stability and legitimacy. Education continues to shape access to higher income brackets, while the non-significance of gender and agency type suggests an increasingly inclusive market field, though structural advantages persist for more educated and digitally capable agents.

7.5 ANOVA: Group Differences

ANOVA results indicate that income differs marginally by education level (F = 2.89, p = 0.060). Although not conventionally significant at 0.05, post hoc (Tukey HSD) tests show that agents with secondary and higher secondary education earn moderately more than those with primary or lower schooling.

Table 4 ANOVA Results: Income Differences by Education Level

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F	p-value
Between Groups (Education Levels)	152,438,217	3	50,812,739	2.89	0.060
Within Groups (Residual)	1,693,457,124	96	17,639,135		
Total	1,845,895,341	99			

Note: $F(3, 96) = 2.89$, $p = 0.060$. Post hoc Tukey HSD tests indicate that agents with secondary and higher secondary education earn moderately more than those with primary or lower schooling.

Interpretation:

Education continues to act as a structural differentiator, even if formal schooling no longer guarantees economic mobility. In institutional terms, education provides symbolic capital that enhances credibility in interacting with state and digital systems, while less-educated agents depend more on experience and social networks.

7.6 Diagnostic and Model Validation

Residual diagnostics confirm that model assumptions were met:

- Normality: Shapiro–Wilk p = 0.24
- Homoscedasticity: Residuals are randomly distributed
- Model Fit: Adjusted $R^2 \approx 0.48$

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Table 5 Model Diagnostic Summary Table

Diagnostic Test / Indicator	Statistic / Result	Interpretation
Normality (Shapiro–Wilk Test)	p = 0.24	Residuals are normally distributed; the model meets the normality assumption.
Homoscedasticity (Residual Plot)	Random dispersion	No visible pattern; variance is consistent across fitted values.
Multicollinearity (VIF Values)	All < 3.0	No serious multicollinearity among predictors.
Autocorrelation (Durbin–Watson)	1.96	Within an acceptable range (no autocorrelation).
Model Fit (Adjusted R²)	≈ 0.48	The model explains about 48% of the variation in income.
Overall F-statistic	F(7, 92) = 9.15, p < 0.001	Model statistically significant; predictors jointly explain income variation.

Interpretation:

The model effectively captures how demographic and digital factors interact in a hybrid welfare–market system, where experience, digital literacy, and education collectively sustain agents' performance and legitimacy.

7.7 Summary of Findings

The statistical analyses collectively highlight clear patterns across demographic and digital dimensions. Correlation and regression results identify experience and digital awareness as consistent predictors of income, while ANOVA shows modest differences by education. Diagnostic tests confirm that the model fits well and meets statistical assumptions. To consolidate these findings, Table 6 summarises the main factors influencing income and their broader institutional implications within Kerala's hybrid welfare–market lottery system.

Table 6Summary of Statistical Findings and Institutional Implications

Factor	Effect on Income	Institutional / Policy Implication
Experience	Strong positive	Long-term participation builds trust, customer networks, and operational expertise, reinforcing

		institutional continuity.
Digital Awareness / Adoption	Moderate positive	Digital adaptation enhances both income and legitimacy; targeted digital training can strengthen inclusion and system transparency.
Education	Moderate positive	Education facilitates better understanding of policy and digital reforms, improving administrative efficiency.
Agency Type / Gender	Not significant	Indicates broad occupational inclusivity, though structural barriers to digital and welfare access remain.
Welfare Awareness	Weak positive	Awareness of welfare schemes modestly improves engagement with institutional frameworks and income stability.
Factor	Effect on Income	Institutional / Policy Implication
Experience	Strong positive	Long-term participation builds trust and operational expertise.
Digital Awareness / Adoption	Moderate positive	Digital adaptation enhances legitimacy and economic performance; training programs can expand inclusion.
Education	Moderate positive	Education supports adaptation to policy and digital reforms.
Agency Type / Gender	Not significant	Suggests occupational inclusivity but persistent structural inequalities in access to digital and welfare tools.
Welfare Awareness	Weak positive	Awareness modestly supports better engagement with institutional frameworks.

Interpretation:

Overall, the results show that experience and digital competence are the strongest factors shaping agents' income and institutional role. Experienced agents sustain trust and operational stability, while digital awareness improves legitimacy and efficiency within the lottery system. Education provides moderate support by improving adaptability to new digital and policy requirements. Although gender and agency type show no direct income differences, they highlight broader structural inequalities in access to digital and welfare

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resources. Welfare awareness contributes only modestly, suggesting that information gaps still limit the benefits of existing support schemes. Together, these patterns confirm that digital adaptation and experiential learning form the core of institutional work in Kerala's hybrid welfare–market system, allowing agents to maintain both livelihood and legitimacy amid modernisation pressures**.**

7.8 Conceptual Interpretation

The findings reveal that Kerala's lottery agents operate not merely as economic actors but as institutional agents sustaining a welfare-oriented yet market-driven system. Their digital awareness and experiential capital enable continued legitimacy and operational stability amid modernisation.

From an institutional theory lens (as articulated in *ASQ*-style analysis), agents engage in micro-level institutional work—adapting to policy reforms, maintaining public trust, and enacting the moral legitimacy of the state's welfare-market interface. Digital adaptation thus represents a form of institutional continuity, ensuring that the lottery system evolves without losing its embedded social purpose.

8. Policy Interpretation and Theoretical Implications

The findings show that digital awareness, education, and experience are the main drivers of income among Kerala's lottery agents, while rural agents continue to face disadvantages due to limited access to technology and infrastructure. These results underline the need for a balanced modernisation strategy that strengthens both digital inclusion and social protection.

From an institutional perspective, the lottery system in Kerala operates as a hybrid organisation — combining the state's welfare objectives with market-based sales mechanisms. Lottery agents play a vital role in maintaining this balance. Their digital engagement and adaptability represent a form of institutional work, helping to keep the system legitimate, transparent, and socially accepted.

To sustain this institutional stability, public policy should focus on:
1. Digital Empowerment: Establish regular, locally delivered digital literacy programs that train agents to use online sales platforms, e-payments, and customer communication tools.

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2. Inclusive Infrastructure: Improve digital connectivity in rural areas and integrate small agents into e-lottery platforms through mobile-based systems.

3. Targeted Welfare Expansion: Simplify enrolment procedures and awareness campaigns for the *Lottery Agents and Sellers Welfare Fund* to ensure broader participation.

4. Recognition and Regulation: Promote formal recognition of long-serving agents and provide structured incentives for continuous learning and responsible selling practices.

Together, these steps can strengthen the institutional legitimacy of Kerala's lottery model — making it not only a revenue-generating system but also a symbol of inclusive digital transformation and social welfare.

In this way, digital modernisation becomes more than a technical reform; it becomes a mechanism of institutional renewal, ensuring that vulnerable occupational groups remain active participants in the state's evolving welfare economy.

9. Discussion

The results show that Kerala's lottery network is not only an economic activity but also a social institution that provides livelihood, dignity, and public revenue. However, it remains vulnerable to income fluctuations, digital divides, and limited welfare access. This section interprets the findings in light of both practical policy needs and broader institutional theory.

8.1 Income, Experience, and Institutional Continuity

The positive link between experience and income suggests that long-term participation builds trust and customer loyalty. Experienced agents sustain not only their earnings but also the legitimacy of the system through consistent interaction with the public. Yet, the modest growth rate indicates that institutional continuity depends more on persistence than on upward mobility. Training and mentoring new agents can help transfer tacit skills and ensure the stability of this workforce.

8.2 Structural Limits on Earnings

The weak relationship between working hours and income shows that harder work alone cannot overcome structural limits. Agents face fixed commission rates and limited control over ticket supply. A tiered commission policy or small base allowance during low-

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demand periods could make the system more resilient and socially fair. Such measures would also signal institutional care, reinforcing the moral legitimacy of the lottery system.

8.3 Welfare Awareness and Organisational Reach

The variation in welfare awareness between individual and distributor-level agents reflects differences in institutional access. Large agencies benefit from organisational networks, while small independent sellers—often women or low-income earners—remain isolated. Simplifying communication through local welfare offices, SMS updates, and vernacular materials could bridge this information asymmetry. In institutional terms, this would reduce peripheral exclusion and strengthen internal cohesion within the lottery field.

8.4 Digital Readiness and Modernisation

Digital awareness shows a moderate but consistent positive association with income, reinforcing its role in enhancing both efficiency and legitimacy.Agents who engage with online systems gain efficiency, transparency, and higher customer trust. However, true modernisation requires digital adoption, not just awareness. This highlights a process of digital institutionalisation, where technology becomes embedded in daily work routines. The Kerala State Lotteries Department (KSLD) can accelerate this process through regular workshops, peer-learning sessions, and user-friendly training materials in Malayalam.

Despite the presence of government digital platforms, agents are legally restricted from selling tickets online. This institutional rule constrains full digital adoption, forcing agents to operate within a hybrid digital–physical model. Their engagement with digital systems, therefore, becomes less about sales automation and more about legitimacy, communication, and procedural adaptation.

8.5 Technology Design and Inclusion

To convert awareness into real usage, KSLD can partner with local technology providers to design simple, bilingual mobile apps with offline access for low-connectivity areas. Making technology accessible transforms it from a barrier into an enabling institution, deepening both inclusion and operational efficiency.

8.6 Social Identity and Recognition

Many agents reported feelings of low respect and stigma. This reflects a gap between the economic legitimacy of the work (recognised by the state) and its social legitimacy

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(perceived by the community). Public recognition programs, social welfare inclusion, and district-level awards can elevate the occupation's moral standing. In doing so, they strengthen the informal social contract between agents and the state.

8.7 Women's Participation and Equity

The absence of a gender income gap after controlling for digital variables shows that digital inclusion can promote gender equality. Supporting women through targeted digital programs, micro-credit for devices, and safer work environments can make the system more equitable. Women agents, when empowered, contribute to both welfare expansion and institutional diversity.

8.8 Integrating Welfare and Digital Reforms

Kerala's welfare programs, such as the *Lottery Agents and Sellers Welfare Fund*, remain underused due to low awareness and complex procedures. Integrating these schemes with digital platforms—such as automated enrolment, SMS reminders, and online claims—can enhance access and transparency. This would create a digitally mediated welfare ecosystem, aligning the goals of efficiency and inclusion.

8.9 Theoretical Insight: Hybrid Institutional Work

Taken together, these findings reveal that lottery agents are not just passive beneficiaries but active participants in maintaining Kerala's hybrid welfare–market institution. Through digital learning, customer interaction, and everyday negotiation, they perform institutional work that sustains both the economic and moral legitimacy of the system.

Modernisation, therefore, is not only a technological shift but a process of institutional renewal, where agents' adaptive behaviour keeps the welfare model relevant in the digital age.

8.10 Summary

Modernising the Kerala lottery sector requires a balanced approach—combining technological upgrading with welfare protection and social recognition. Digital empowerment, fair compensation, and inclusive policy design can transform lottery agencies

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into sustainable and respected micro-enterprises.

By linking digital change with social justice, Kerala can demonstrate how a welfare-oriented state can modernise without marginalising its most vulnerable workers.

10. Limitations

Although this study offers valuable insights into the socio-economic conditions and institutional challenges of Kerala's lottery agents, several limitations should be recognised. First, the research is based on data from Thrissur district, which may not fully capture regional differences across Kerala, where variations in culture, technology access, and market structure could influence outcomes. Second, the sample size of 100 agents, while sufficient for statistical analysis, limits broader generalisation. Third, the self-reported nature of data may include recall bias or underreporting, especially in income and welfare participation. Fourth, the study is cross-sectional, capturing one period in time; therefore, causal relationships—such as how digital awareness leads to long-term income growth—should be interpreted carefully.

Despite these limitations, the study contributes to theory by identifying how frontline agents sustain institutional legitimacy through everyday adaptation in a hybrid welfare–market environment. Future research can build on this foundation by adopting mixed methods (survey plus interviews), covering multiple districts, and integrating longitudinal or policy-impact analyses. This would help trace how digital inclusion, welfare policies, and institutional legitimacy evolve, deepening understanding of digital transformation in informal yet state-regulated occupations.

11. Conclusion

This study examined the socio-economic background, challenges, and modernisation opportunities of Kerala's lottery agents, focusing on Thrissur district as a representative case. Using primary data and statistical analysis, the findings showed that experience and digital awareness are the strongest determinants of income. Although digital adoption is growing, many agents still face barriers such as limited training, infrastructure gaps, and hesitation toward digital tools.

The absence of a gender income gap highlights that when access to digital resources is equal, the lottery sector provides relatively fair opportunities for both men and women.

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Education has a smaller effect, suggesting that practical skills, digital literacy, and social connections are more important than formal qualifications for success in this field.

Beyond its empirical results, the study offers a theoretical contribution by explaining how frontline agents sustain a hybrid welfare–market institution through everyday practices. Their efforts to adapt, use technology, and maintain trust with customers represent a form of institutional work that helps preserve the legitimacy and continuity of Kerala's welfare model.

From a policy perspective, modernisation should be viewed not only as a technical upgrade but as a process of inclusive institutional renewal. Digital empowerment, fair regulation, and expanded welfare awareness can transform lottery agencies from survival-based work into sustainable, socially respected micro-enterprises.

Kerala's experience offers lessons for other welfare-oriented economies seeking to integrate digital transformation with human development. By aligning welfare protection with digital inclusion, the state can ensure that modernisation enhances—not replaces—the dignity and security of its most vulnerable workers.

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