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CONTENTS

Articles

UDF's Return in Kerala's 2025 Local Body Elections
Josukutty C.A., & Deepak Krishnakumar

Traditional Indian Medicine and IP : Issues and Challenges
Raju Narayana Swamy

Theoretical Perspectives on Poverty in Zambia: A Multidimensional Analysis
Milimo Mwami & Prasad A. K.

Normative vs Descriptive Economics: A Behavioural Interpretation
Jagan Sebastian George

"Plugged In or Holding Back? A Study of Consumer Buying Behaviour Towards Electric Vehicles in Kerala"
Aparna Das

Democratic Decentralization and Atmanirbhar Bharat: Synergizing Self-Reliance and Local Governance
Harikumar S.L

Working Conditions and Decent Work Deficit in Kerala's IT Sector
Dhanya M

Financial Burden of Healthcare Among the Elderly in Kerala: A Critical Analysis Based on the NSS 75th Round
Resmi R. Nair & Nandu C.J.

Introducing New Books

Rebuilding the Bonds of Trust
Saurav Kumar Rai

Introducing New Book

Rebuilding the Bonds of Trust

Vedabhyas Kundu and Munazah Shah, *Building Trust Together: Collective Healing Through Joyful Talisman Values*, Naamak Publications, New Delhi, 2026, xxx + 165 pages, Rs. 349/-

Saurav Kumar Rai

According to a Dutch proverb, 'trust arrives on foot but leaves on horseback'. In today's world, we are witnessing a pervasive deficit of trust in almost every sphere of life - private as well as public. This erosion of trust has made human relationships, institutions, and social interactions increasingly complex and fragile.

It is against this backdrop that this timely book by Vedabhyas Kundu and Munzah Shah explores the many dimensions of trust through lived experiences, conversations, and reflections. It begins by recognising trust not merely as a psychological state or a functional requirement of social systems, but as something far more fundamental - the essential glue of our civilisational values and a silent covenant that makes human life possible. Rather than treating trust as an abstract ideal or a fixed virtue, the authors present it as a living and renewable practice. Through diverse experiences and reflective conversations, they demonstrate how trust can be nurtured, restored, and strengthened, enabling it to heal not only individuals but also communities and, ultimately, society at large.

Written in conversational style between Kundu and Shah, this book emphasises on collaborative approach to restore trust in different walks of life. The authors believe that trust cannot be built in isolation; it is inherently co-created. While personal integrity and inner discipline are essential, trust flourishes only when values are practised collectively (p. xxvii). Relationships, communities, and institutions, thus become the living laboratories where trust is tested, broken, and rebuilt.

In the course of their conversation, the author duo discuss the themes such as why everything depends on trust, basic pillars of trust, the psychology of trust, exploring mistrust and trust deficit, building self-trust through the joyful talisman approach, relational trust and introduction of the joyful talisman repair model. Added to this are discussions on building trust in families and parenting along with workplace.

Particularly interesting is the 'joyful talisman trust repair model' presented by Kundu and Shah (pp. 97-100). As delineated, it is based upon five basic principles: working for inner sanctuary or self-grounding (to prevent impulsive reactions, escalation, blame and emotional flooding after breach of trust); compassionate clarity (to ensure honest communication with empathy addressing breaches without blame or shame); nurturing non-violent communication (to prevent verbal aggression and emotional withdrawal); interdependence literacy (to develop sense of mutual connectedness); and finally courageous stewardship of relationships (to develop moral courage to acknowledge mistakes, take accountability, and rebuild trust). The authors further demonstrate the practical applicability of these principles through a range of illustrative case studies, bringing the ideas discussed in the book to life through real-world examples.

Thus, the present book offers not a simplistic solution but a demanding and hopeful pathway for trust renewal thereby mitigating trust deficit. It insists that social trust cannot be rebuilt through structural reforms alone. While policies, regulations, and governance mechanisms are necessary, argue the authors, they are insufficient without moral realignment. According to Kundu and Shah, institutions are not value-neutral entities; they are extensions of the inner states, intentions, and ethical orientations of those who design and lead them.

Hence, trust is restored when leadership embodies integrity, humility, accountability and service – when power is exercised not as domination but as stewardship (p. 163). It resonates deeply with the ethical and political philosophy of Mahatma Gandhi. While policies, regulations, and institutional mechanisms are necessary for a functioning society, Gandhi consistently emphasised that no system can remain just or humane unless it is sustained by the character and moral conduct of the people who operate it. For him, the transformation of society had to begin with the transformation of the individual. It also finds a natural echo in Gandhi's idea of 'means and ends' - that worthy ends cannot be achieved through unethical means.

The language of the book is equally delightful - warm, accessible, and deeply engaging. It is noteworthy that the authors have dedicated the book to the girl child, giving its central theme of trust an especially meaningful social dimension. All royalties accruing from the sale of the book will be devoted to the education of underprivileged girls. In this way, the book's message of trust extends beyond its pages and takes the form of a tangible commitment to creating opportunities for those who need them most.

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Working Conditions and Decent Work Deficit in Kerala's IT Sector

Dhanya M

Decent work in employment is characterized by fair and dignified working conditions, as defined by indicators established by the International Labour Organization (ILO). These indicators are designed to foster an employment environment free from exploitation and excessive stress, while ensuring employees' basic rights and protection from unfair practices. Decent Work Indicators provide a framework for evaluating job quality and working conditions. A decent work deficit arises when essential elements of quality employment - such as fair wages, reasonable working hours, job security, safe and healthy working conditions, work-life balance, social protection, and labour rights - are lacking. Despite the perception of IT jobs as high-skilled and prestigious, many professionals in Kerala experiense a decent work deficit, facing long working hours, intense deadline pressures, job insecurity, and stress that undermine work-life balance and overall well-being.

Keywords: Work environment, job satisfaction, work-life imbalance, decent work deficit nb

1. Introduction

The Information Technology (IT) sector is a significant driver of economic growth and employment in Kerala. Initiatives such as Technopark in Thiruvananthapuram and Infopark in Kochi have generated employment opportunities for skilled professionals. The International Labour Organization (ILO) defines decent work as employment that ensures fair income, job security, safe working conditions, social protection, and opportunities for personal development. When these standards are not met, a decent work deficit occurs. Despite the IT sector's expansion, many professionals continue to encounter challenges related to working conditions, job security, wages, and work-life balance, resulting in a persistent decent work deficit.

2. Objectives

1. To examine the major causes of the decent work deficit in IT sector in Kerala
2. To analyse the status of Decent Work Deficit with respect to gender, age, marital status

3. Data Source and Method

This study has utilized both secondary and primary data sources. Secondary data were obtained from journals, brochures, research publications, and official websites of organizations such as NASSCOM (National Association of Software and Service Companies), the Ministry of Electronics and Information Technology, Government of India (GOI), Government of Kerala (GOK), STPI (Software Technology Parks of India), and Technopark, Thiruvananthapuram. Primary data were collected from 300 IT professionals in Thiruvananthapuram district using a structured interview schedule. Data collection focused on IT professionals employed in Technopark to assess potential differences in work quality. The majority of respondents were drawn from various IT firms located in and around Technopark, Thiruvananthapuram.

4. Results and Discussion

The IT industry has played a pivotal role in India's transition from a rural, agriculture-based economy to a knowledge-based economy. The country's economic growth has supported the IT sector's competitiveness in the global market. Working conditions are a critical determinant of job satisfaction among IT professionals. A decent work deficit in the IT sector indicates that, despite employment opportunities, jobs may not always offer a supportive working environment. This study examines the underlying causes and the extent of the decent work deficit within the IT sector.

4.1 Causes of Decent Work Deficit in IT Sector

4.1.1 High Work Stress and Long Working Hours

One of the most serious problems faced by IT professionals in Kerala is workplace stress. Tight project deadlines, high productivity expectations and long screen hours create significant mental pressure. A survey by the Kerala State Youth Commission found that around 85% of employees in the IT and media sectors experience severe workplace stress. The study also pointed out that employees struggle with balancing professional responsibilities and family life.Continuous stress can lead to burnout, anxiety, sleep disorders, and reduced job satisfaction.

Due to the deadline pressure of project completion, most of the IT employees leave their workplace only after 7 or 8 pm on normal days and along with this they have to work on weekends and public holidays.It will negatively affect the physical and mental well-being of an employee. Since the majority of the market is US based, the difference in time zones led to the introduction of 'flexi time' which also led to increase in duration of work. This excessive work or overstay is considered as an indicator of promotion or increments or bonus in IT sector.This long working hours is considered more vulnerable and is not considered decent. Excess work pressures in IT sector affects the quality of work and hence it violates Decent Work Indicators. Nizami and Prasad (2011) opines that flexi-time improves employee well-being and productivity or creates additional stress and work pressure. Flexi-time work allows employees to choose their working hours according to their convenience instead of following a fixed schedule. In the IT industry, this system became popular because companies often work with international clients across different time zones.

The IT sector in Kerala has experienced rapid growth, but it is accompanied by increasing workplace stress due to tight deadlines, high productivity demands, and long working hours. The workplace stress experienced by IT professionals in Kerala has several important social implications. Long working hours, tight deadlines, and high productivity demand to reduce the time that the employees can spend with their families, leading to weaker family relationships and poor work-life balance. Continuous stress also contributes to mental health problems such as anxiety, burnout, and sleep disorders, which affect overall well-being in society. The lack of personal and social time reduces the quality of life and limits the participation in social activities. In addition, the growing work culture that values overwork as a sign of success encourages unhealthy social norms. These conditions also place a burden on healthcare systems and may discourage young professionals from continuing long-term careers in the IT sector, affecting future workforce stability.

4.1.2 Effect of Longer Working hours

The harmful effects of overtime work are more evident in the case of IT employees. Almost half of the employees suffer from deterioration of physical and mental health.

Table 1 : Effects of Overstay (in percentage)

Effect of longer working hours	Percentage
Deterioration in physical and mental health	45
Disturbance in work-life balance	30
Reduced productivity	5
Excessive work pressures	20

Sample Survey

In addition to the decline in physical and mental health, disruption of work-life balance is a significant concern in the IT sector, with 30 percent of employees reporting related complaints. Excessive work pressure further contributes to the decent work deficit. The demanding schedules and highly modernized, self-contained work environments in the IT sector often discourage IT professionals from considering the formation of unions (Sarkar, 2008). The presence of trade unions could help uphold fundamental employee rights and promote decent working conditions.

The issue of overstay or longer working hours in the IT sector has significant social implications, as shown by the distribution of its effects. The most serious impact is the deterioration of physical and mental health, accounting for 45%, which indicates that nearly half of the employees experience health-related problems such as stress, fatigue, and burnout. Another major concern is the disturbance in work–life balance (30%), where employees are unable to spend adequate time with family and social life, leading to strained relationships and reduced social interaction. Excessive work pressure contributes 20%, further intensifying stress and lowering overall well-being. Reduced productivity is also observed (5%), showing that longer working hours do not necessarily improve efficiency and may instead negatively affect work output. Overall, these effects highlight serious social consequences, including declining health, weakened family relationships, and reduced quality of life among IT professionals.

4.1.3 Health Problems from Career

Excessive work and longer working hours have a detrimental impact on the physical and mental health of the worker. In IT sector, professionals have to work more than 9 hours. Even though, work in IT sector is physically risk free, it negatively affects the well-being of the employee. This leads to a number of physical health problems like frequent backaches, eye strain, cervical spondylitis and insomnia. This also has huge impact in the mental health of the employees. Many of them suffer from depression, anger, excessive stress and overall a negative attitude to entire life. This affects the employees' overall performance and promotion chances in his/her career. Health problems also negatively affect the family life, hence makes a reflection in the work-life balance of the employees.

Table 2 : Health Problems of Workers (in Percentage)

Health Problems	Total
Eye strain/ weak eyesight	40
Frequent backaches	31.5
Cervical spondylitis	6.5
Obesity	4
Depression	3.5
Insomnia	4
Stress/ mental strain	10.5
Any other (please specify)	0
Total	100

Sample Survey

According to Table 2, eye strain and weak eyesight are the major health problem faced by employees followed by incidents of frequent backaches. The health problems faced by IT employees have serious social implications. Eye strain and weak eyesight, affecting 40% of employees, along with frequent backaches (31.5%), show the physical burden caused by long screen hours and poor work conditions. Health issues such as cervical spondylitis, obesity, insomnia, depression, and mental stress negatively affect employees' quality of life and overall well-being. Mental health problems like stress and depression may reduce social interaction, create emotional instability, and affect family relationships. Sleep disorders and physical pain can also lower work efficiency and increase healthcare expenses. These conditions not only affect individuals but also create a wider social burden by reducing productivity, weakening work-life balance, and increasing dependence on medical support systems.

4.1.4 Work-Life Imbalance

IT professionals often work beyond normal office hours to meet project deadlines or coordinate with international clients in different time zones.Many professionals suffered irregular sleep patterns, lack of personal time and difficulty in managing family responsibilities.

Table 3 : Work life Imbalance (Percentage)

Work Life Balance	Overall
Longer working hours and flexi time work	61.06
Health problems due to nature of work	77.02
Absence of workers Union	62.02
Night Shifts	28.15
Lack of socializing with relatives, friends etc.	65.29
Lack of recreations	63.81

Sample Survey

Table 3 shows the work life imbalance of persons in IT sector. 77.02 percent of persons have some health problems due to the nature of work, most of the workers face lack of socialization with relatives and friends, lack of recreations etc. Most of the professionals work longer hours i.e, 61.06 percent. All these factors led to work-life imbalance. It concerns the employers as the ill-health of their employees translates into concentrated efficiency.

The issues affecting work-life balance among IT employees have serious social implications. Health problems caused by the nature of work (77.02%) show that continuous stress, long screen hours, and unhealthy work patterns negatively affect employees' physical and mental well-being. Longer working hours and flexi-time work (61.06%) disturb personal life and reduce the time employees can spend with family. The absence of workers' unions (62.02%) limits employees' ability to express concerns and protect their rights. Lack of socializing with relatives and friends (65.29%) and lack of recreation (63.81%) reduce social interaction and emotional relaxation, leading to isolation and stress. Night shifts (28.15%) further affect sleep patterns and social life. Overall, these factors weaken family relationships, reduce quality of life, and create an unhealthy social environment for IT professionals.

4.1.5 . Job Insecurity and Hiring Uncertainty

Stability and Security of work has become an important feature of decent work paradigm and for the economic and mental well-being of an employee, job should be stable and secure. In IT sector, there is contractual nature of employment and on the basis of performance appraisal of employees, contracts are revised. Another peculiar feature of IT sector is insecurity of job and at any time they lose their job without any prior information. Even, senior professionals face the threat of job loss. Another problem faced by employees

is signing of bond. If they face any problems, they could not leave or change the job. The stability and security of IT sector can be assessed with the criteria of decent work like mode of appointment, experience of IT professionals and signing of Bond. Most of the professionals face the issue of job insecurity. Bhangoo and Singh (2008) expressed the opinion that there is an urgent need of trade unions in the new economic environment to address the new problems and challenges to ensure the protection of workers and a future devoid of poverty, destitution, deprivation and injustice. In every way, it can be understood that trade union is a necessity in IT sector in order to ensure Decent Work conditions in this new emerging field.

4.1.6 Limited Employment Growth

IT sector is considered to be highly paid job and more youngsters are attracted to this sector. Within a few years, they easily get promoted and earn huge income and after a stage, they will get the same income.Promotion becomes standstill. But another problem in this sector is that there are no norms for salary and some people get only low income even though they are qualified. Productive employment depends on whether the employees get training or not.In this IT sector, most of the young people get training even at the entry stage. Most of the sample respondents received income in the range of 20,000-40,000. The respondents with higher income level was only a few in number in IT sector. In IT sector, the salary structure has an unjustifiable discrepancy and this means that the Decent Work agenda is reversed against the interest of employees. In IT sector, only 1 percent of employees received monthly income of above 1,00,000.

4.1.7 Skill Gap and Employability Issues

Another challenge contributing to the decent work deficit is the gap between industry requirements and the skills of graduates. Skill and education play an important role in determining workers' earnings. Workers possessing technical skills, experience, or specialised knowledge received comparatively higher wages than unskilled labourers (Misra, 2008) Studies indicate that around 39% of engineering graduates in Kerala face skill deficits, making it difficult for them to meet the expectations of IT companies. This gap can lead to underemployment, lower salaries, and fewer career opportunities. Mukherjee (2008) concluded that gender bias in IT sector exists due to difference in wages. She also showed her concern over depreciating quality of employment of women because of lower wages.

4.2 Status of Decent Work Deficit with respect to Selected Socio-Demographic Variables of IT Professionals in Kerala

This section analyzes the status of the decent work deficit in relation to selected socio-demographic variables, including gender and marital status.

4.2.1 Gender of the IT professionals and Decent Work Deficit

Discrimination means unequal treatment. Gender equality is a part of the Indian Constitutional rights and article 14 of the Indian Constitution confers equal rights and opportunities to both men and women in politics, economic and social spheres. In IT sector since work is based on performance, it is considered non-discriminatory. But only a few women enter higher grades of job hierarchy and most of them are doing only low level work. Gender discrimination is a serious issue in IT sector.Vijayalekshmi et.al. (2006) is of the opinion that there are several reasons for discrimination in Indian society such as gender, caste, region of origin and marital status than other factors like religion, race, age and seniority. Impact of discrimination can be seen in recruitment, job allocation, promotion, transfers etc. The study of Anupama (2008) revealed the same fact that though the share of women in total employment in IT sector has increased , decent work deficit still exists as women are doing only lower strata of jobs.

Table 4 : Cross tab between Gender of the IT professionals and Decent Work Deficit

			Decent Work Deficit			
			Low Deficit	Medium Deficit	High Deficit	Total
Gender	Male	Number	26	114	25	**165**
		% within the Gender	15.7	69.1	15.2	**100**
		% of the Total	8.7	38.0	8.3	**55**
	Female	Number	23	81	31	**135**
		% within the Gender	17.0	60.0	23.0	**100**
		% of the Total	7.7	27.0	10.3	**45**
	Total	Number	49	195	56	**300**
		% of the Total	**16.3**	**65**	**18.7**	**100**

Source:Sample Survey

Table 4 depicts that cross tabulation between Decent Work deficit and gender, which provide a way of analyzing and comparing the results for one or more variables with the result of the other. It is found that 69.1 percent of the male have medium Decent Work deficit and 38 percent of the total, have medium decent work Deficit. Also 60 percent of the female have medium decent Work deficit. Majority of the IT professionals in Kerala have medium Decent Work deficit (65 percent).

The data on decent work deficit among male and female employees shows important social implications in the IT sector. A majority of employees experience a medium level of decent work deficit, while a significant percentage face a high deficit, especially among female employees (23%) compared to male employees (15.2%). This indicates that many workers do not receive healthy and balanced working conditions. Higher work deficits can lead to stress, job insecurity, poor work-life balance, and reduced job satisfaction. Female employees facing a higher deficit may experience greater social and professional challenges, including difficulty balancing family responsibilities and career growth. Such conditions can affect mental health, reduce productivity, weaken family relationships, and create gender inequality in the workplace. Overall, the lack of decent working conditions negatively impacts both employees' well-being and the social environment of the workforce.

4.2.2 Marital Status of IT professionals and Decent Work Deficit

Table 5 : Cross tab between Marital Status of the IT professionals and Decent Work Deficit

Marital Status of the IT professionals	Decent Work Deficit				Total
	Number and Percentage	Low Deficit	Medium Deficit	High Deficit	
Single	Number	30	96	22	**148**
	% within the Marital Status	20.3	64.9	14.8	**100**
	% of the Total	10.0	32.0	7.3	**49.3**
Married	Number	17	91	33	**141**
	% within the MaritalStatus	12.1	64.5	23.4	**100**
	% of the Total	5.7	30.3	11.0	**47.0**

Widow	Number	0	4	0	4
	% within the Marital Status	0.0	100.0	0.0	100
	% of the Total	0.0	1.3	0.0	1.3
Divorced	Number	1	0	0	1
	% within the Marital Status	100.0	0.0	0.0	100
	% of the Total	0.3	0.0	0.0	0.3
Separated	Number	1	4	1	6
	% within the Maritalstatus	16.7	66.6	16.7	100
	% of the Total	0.3	1.3	0.3	2.0
Total	Number	49	195	56	300
	% of the Total	16.3	64.9	18.6	100

Source:Sample Survey

The relationship between marital status and decent work deficit was qualitatively analyzed. Table 5 indicates that 64.9 percent of single IT professionals experience a medium level of decent work deficit. Among married IT professionals, 30.3 percent fall into the medium decent work deficit category. Overall, 64.9 percent of the total sample report a medium decent work deficit.

The data on marital status and decent work deficit among IT professionals reveals important social implications. Most employees experience a medium level of decent work deficit, while married employees show a higher percentage of high deficit (23.4%) compared to single employees (14.8%). This suggests that married employees may face greater pressure in balancing professional responsibilities and family life. Long working hours, workplace stress, and lack of decent working conditions can create family conflicts, emotional strain, and reduced quality of life. Employees experiencing high work deficits may also suffer from stress, anxiety, and reduced social interaction. The findings indicate that poor work conditions not only affect employees individually but also negatively influence family stability, social relationships, and overall social well-being.

4.2.3 Correlation between Age and Decent Work Deficit of IT Professionals in Kerala

In this part, the hypothesis stated in the introductory part were analysed using Karl Pearson's Coefficient of Correlation.

Hypothesis: There will be no significant correlation between Age of the IT professionals and Decent Work deficit.

Table 6 : Correlation between Age and Decent Work Deficit of IT Professionals

Age of the IT professionals		Decent Work Deficit
	Pearson Correlation	0.150*
	Sig.(2 tailed)	0.011
	N	258

**Correlation is significant at the 0.05 level.(2 tailed)*

From the Table 6, r= 0.15 at $p<0.05$i.e, there is significant correlation between age of the IT Professionals and Decent Work deficit. This means that when the age of the IT professionals is increasing the Decent Work deficit also increasing. As age increases, the professionals become more aware of their duties and responsibilities. When age increases, their personal responsibilities increases, then Decent Work deficit like inadequate earnings, lack of saving, job insecurity, lack of social securities like pension, PF etc, long hours of work and work-life balance also increases. This may affect the aged persons more seriously than youngsters.

The correlation between age and decent work deficit among IT professionals shows important social implications. The positive correlation indicates that as age increases, employees tend to experience a higher level of decent work deficit. Older employees may face greater work pressure, health issues, stress, and difficulties in maintaining work–life balance due to long working hours and demanding work conditions. This can negatively affect their physical and mental well-being, family relationships, and social life. Increased work deficits among older employees may also reduce job satisfaction and productivity, creating insecurity and emotional strain. Overall, the findings suggest that unhealthy working conditions in the IT sector can have long-term social consequences on employees' quality of life and social stability.

4.2.4 Association of Decent Work Deficit with respect to Gender

In this part, the researcher analysed the following Hypothesis

Hypothesis: There will be no significant association between Decent Work deficit with respect to Gender

Table 7 : Decent Work Deficit with respect to Gender

	Value	df	Asymp.Sign (2-sided)
Pearson Chi-square	3.446[a]	2	0.179

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 22.05.

The above hypothesis is tested using Chi-sqaure test and the value 0.179 > 0.05.Therefore we accept the hypothesis that there will be no significant association between Decent Work deficit with respect to Gender.

The Pearson Chi-square test result shows that there is no statistically significant association between the variables, as the significance value (0.179) is greater than the standard level of 0.05. This indicates that the observed differences are not strong enough to confirm a meaningful relationship between the factors studied. However, the findings still highlight important social implications related to workplace conditions in the IT sector. Employees may continue to experience issues such as stress, work pressure, poor work-life balance, and health problems regardless of differences among groups. These conditions can negatively affect mental well-being, family relationships, and social interaction. Continuous workplace challenges may also reduce job satisfaction and overall quality of life, showing the need for healthier and more balanced working environments in the IT industry.

4.2.5 Association of Decent Work Deficit with respect to Marital Status

In this part, the researcher analysed the following Hypothesis

Hypothesis: There will be no significant association between Decent Work deficit with respect to Marital Status

Table 8 : Decent Work deficit with respect to Marital Status

	Value	df	Asymp.Sign(2-sided)
Pearson Chi-square	13.122[a]	8	0.108

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .16

The above hypothesis is tested using Chi-sqaure test and the value 0.108.Therefore we accept the hypothesis that there will be no significant association between Decent Work deficit with respect to Marital status.

Chi square test was applied to test the validity of the results on socio demographic variables of the sample and it was found that gender, marital status, nature of ownership, schooling, native place and experience are independent of the range of decent work provision.This is an important result as it justifies that the selected variables of socio demographic profile of the IT professionals and the Aggregate Decent Index are un correlated.

The analysis of decent work deficit with respect to marital status shows that there is no statistically significant relationship between marital status and decent work deficit, as the significance value (0.108) is greater than 0.05. This indicates that workplace difficulties and lack of decent working conditions affect employees irrespective of their marital status. The findings suggest important social implications, as both single and married employees may experience stress, long working hours, poor work-life balance, and reduced job satisfaction. Married employees may face additional pressure in balancing family responsibilities and professional demands, while single employees may experience social isolation and mental strain. Overall, unhealthy work conditions in the IT sector can negatively affect family relationships, emotional well-being, and social stability, highlighting the need for better employee welfare and supportive work environments.

The study reveals that IT industry in Kerala lack the provision of decent work. Youth in India is attracted to IT sector because of the sophisticated work environment and flexi timings, IT sector projects the image of a progressive job with state of the art facilities. Despite the image it projects, the study reveals that adequate earning index (DWI-1) is 0.43. This underlines the fact that there is decent work deficit in income and productive work. This study also reports that 63 percent of IT professionals in Kerala quit their early job in the prospect of getting high salary. The study has examined the status of decent work in terms of working hour provisions in IT industry. The study has examined the status of Decent Work in terms of working hour provisions in IT industry. Analysis of DWI showed that overtime work has negative impacts on worker's health. This study also assures that longer working hours are also an obstacle to attain work life balance.

Highly inadequate provision of social security to the professionals is found in IT industry. Stability of current employment is one of the primary concerns for all employees, because it is the most important means for their economic well-being. Since they lack stability and security in job, they are unable to plan their financial future. Moreover, earnings and productivity of the employment can be ensured only if the professionals are confident about their security of the job. High value of the work life index (DWI-4) reveals that majority of the IT professionals are disturbed by work life balance. They spend less time for family which brings about stress in their family life. In order to sustain economic well being of the family, they are forced to remain in IT sector. IT professionals are found to be depressed and dissatisfied due to the less time for self and social life. In short, they are over-stressed. Unfair treatment is experienced by IT professionals at the time of job assignment, promotion and recruitment, which indirectly affects the career development. Dissatisfaction in professional life affects the personal life. High value of social dialogue index (DWI-7) 0.59 reflects that majority of the IT professionals lack social dialogue provision at their respective work place. Professionals are deprived of their rights to participate in decision making meetings. Absence of unions aggravates the situation. In this study safe work index is correlated with the extent of safe and Decent Work provision in the IT industry. The nature of work in the IT sector involves work pressure due to the deadlines of the project completion. Findings of the study reveal that the nature of work in IT sector is adversely affecting the health status of the professionals. All the indices of the Decent Work indicators show the deterioration in the health status of younger professionals in Kerala.

Although the IT sector in Kerala plays a vital role in economic development, many professionals still face challenges related to working conditions, stress, job security, and career growth. These issues highlight the presence of a decent work deficit in the sector.The decent work deficit in the IT sector can have several consequences like mental health problems, reduced productivity and job satisfaction and skilled workers migrated to other states and countries. Addressing these problems requires coordinated efforts from government authorities, IT companies, and educational institutions to ensure better employment quality and sustainable career opportunities for IT professionals in Kerala. Companies should adopt flexible working hours, hybrid work models, and leave policies to improve work-life balance of IT professionals. Organizations should provide counseling services and stress-management programmes to support mental health.

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Democratic Decentralization and Atmanirbhar Bharat: Synergizing Self-Reliance and Local Governance

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This study explores the intersection of democratic decentralisation and India's Atmanirbhar Bharat Abhiyaan (ABA), examining how local governance frameworks enhance self-reliance and sustainable development. By employing a mixed-method approach that combines qualitative analysis with quantitative data interpretation, this study evaluates how administrative and fiscal decentralisation contributes to inclusive economic resilience. The findings reveal that decentralisation not only strengthens grassroot participation but also promotes equitable resource allocation and local innovation. This study further investigates the impact of the Atmanirbhar Bharat policy on Micro, Small, and Medium Enterprises (MSMEs), employment generation, and women-led economic transformation. The study concludes that a cooperative, decentralised framework is indispensable for achieving genuine self- reliance in India's post-pandemic economic landscape.

Keywords: Democratic decentralization, atmanirbhar bharat, self-reliance, local governance, women empowerment.

Introduction

The principle of self-sufficiency in contemporary India trace their roots to the "Swadeshi Movement" during the Indian independence struggle, particularly under the leadership of Mahatma Gandhi. Gandhi articulated the concept of "Swadeshi" as encompassing an economic dimension intertwined with a moral obligation, advocating for the boycott of foreign goods in favour of domestically produced items. He perceived British commercialisation of Indian markets and the economy as an exclusionary agenda designed for the elite, thereby fragmenting the collective spirit of Indians. Gandhi's call for the Swadeshi movement aimed at fostering an inclusive, self-sufficient Indian society. He asserted that without achieving self-sufficiency and inclusivity, 'swaraj' will not be attained or benefit the broader population, as Western industrialisation is rooted in capitalism and exploitation, undermining the welfare of rural communities (Kumar, 2021:40). Tagore's practical models of self-reliant communities, such as Viswa Bharathi Vidyalaya, and the Bombay Plan by Indian entrepreneurs such as G. D. Birla and J.R.D. Tata proposed similar self-sufficient commercial practices, demonstrating some pre- independence ideas concerning the concept of self-sufficiency in India.

The Post-Independent era has been characterised by the inclusion of self-reliance principles in the Directive Principles of State Policies of the Constitution. This was followed by the imposition of the 73rd and 74th Amendments. During the structural adjustment policies of 1991, India's accommodation of liberalism and globalisation impacted its journey towards self-sufficiency. By joining the World Trade Organization, India had to open its economy to foreign goods, hurting indigenous producers since these imports were cheaper than domestic industries previously protected by trade protectionism before 1991. However, the failure of economic resilience during the pandemic, characterised by disrupted global supply chains, exposed its vulnerabilities and the need for self-reliance to mitigate global crises. This led to the formulation of the 'Atmanirbhar Bharath' initiative in 2020, aimed at promoting economic self- sufficiency, focusing on resilience rather than pursuing a policy of isolationism from global markets, with an emphasis on improvements in local

manufacturing systems, aided by developments in innovation and research, thereby equipping Indian products to be competitive with global standards (Dalal & Malik, 2024).

The Atmanirbhar Bharath Abhiyaan seeks a five-dimensional self-reliance approach based on economy, infrastructure, system, demography, and demand. The vision aims to achieve economic resilience that will enable India to become an economic superpower and a strong global player. This self-sufficiency is characterised by infrastructural improvements reflecting India's Atmanirbhar Bharata and investments in research to enhance domestic technologies. Skilled human resources are the base and fuel that drive India's Atmanirbhar Bharata. Equipping India's population with emerging skills integrates them into the realisation of policy goals. The strengthening of India's demand and supply network provides unique economic strength when used strategically. These pillars form India's Atmanirbhar Bharat Strategy, guiding the self- reliance movement post-pandemic (Embassy of India in Oman, 2020).

The concept of democratic decentralisation is gaining significance worldwide in both administrative and academic discourses. The concept of 'administrative decentralisation as a framework through which day-to-day functions related to local governance should be exercised, which will in turn foster vibrant civic participation and serve as bulwarks against centralised administrative authoritarianism' (Ezekwe, 2025). Similarly, classical theorists such as Tiebout and Musgrave argued for decentralisation for better democratic governance, primarily providing the justification of 'proximity' (Dick-Sagoe, 2020). This implies that the local governing mechanism serves as the first access point for governance and the empowerment of individual citizens and the community. It also serves as a mechanism for ensuring 'justice, as noted by John Rawls, fostering all-inclusive overall development, facilitating participatory democracy, enhancing poverty alleviation efforts, and fair allocation of resources.

Research Methodology

The concepts of democratic decentralisation and the policies of Atmanirbhar Bharat are both interdependent; one does not contradict the other; rather, it qualifies the other. To examine the above thesis statement, I employ the following research questions and methodology to have an analytical and scientific enquiry to understand, analyse, and demonstrate the co-existence of democratic decentralisation, which is facilitated under the Atmanirbhar Bharath Abhiyaan scheme. The first question of rational enquiry is how the administrative frameworks involved facilitate democratic decentralisation under the Atmanirbhar Bharat Abhiyaan. We then analyse whether the perceived policy outcomes meet India's self-reliance objectives. Finally, to what extent has the Atmanirbhar Bharat Abhiyaan enhanced the livelihood of the local population. This research was carried out using a mixed methodological approach, where qualitative-analytical descriptions were validated through quantitative interpretation and analysis of authoritative data. Statistical trends analysed by correlating descriptive methods elucidated by graphical representation of data. By employing a mixed methodological approach, this study attempts to evaluate the policy implications of Atmanirbhar Bharat on democratic decentralisation.

Overview of Democratic Decentralisation in India

In India, the decentralisation of governance is structured in four realms: political decentralisation', 'fiscal decentralisation', functional decentralisation, and 'administrative decentralisation' (Chhetri, 2013). Political authority is devolved to elected local bodies, giving Panchayats and municipalities the power to make local decisions. Administrative responsibilities, such as schools, health services, welfare programmes, and infrastructure, are managed by these institutions. Fiscal powers allow local governments to raise revenue and use transfers for development. Specific functions in sanitation, agriculture, and education were assigned to improve accountability. However, the decentralisation framework in India has its own limitations. A primary challenge is the fiscal differentiation in managing financial funds in local self-institutions. Fiscal decentralisation follows a top-down three-tiered approach, like political decentralisation, where the Central Government forms the apex of the pyramid with a huge capital base, followed by state governments and local institutions. The

first realm is transfers by the Central and State Governments, usually following a two-tiered approach, withsome exceptions where the central government directly funds local bodies. The Central Finance Commission recommends grants and transfers from central revenue to state governments or local bodies, as seen in projects such as AMRUT and SMART City. The second tier involves state funds transferred to local bodies for their functioning and project implementation. Like the first realm, local bodies receive grants-in-aid from the state government as a significant income source (Lalthlamuana & Lalhriatpuii, 2024). Urban Local Bodies and Panchayati Raj Institutions may borrow from financial markets, subject to state approval.

The third realm consists of 'own source revenues' derived from local bodies. At the Panchayat level, these sources are classified into tax and non-tax revenues. Tax revenues are derived from house and property taxes and local market taxation. Non-tax revenues are sourced through user fees, fines, water charges, and income from Panchayat properties. Urban Local bodies follow a similar channel with compulsory and discretionary tax categories. The compulsory category includes Property Tax, Water charges, and sanitation charges, which must be levied mandatorily. Discretionary taxes include entertainment, advertisement, and vehicle entry taxes, as well as business licences, which can be imposed at the discretion of local bodies. Urban bodies collect non-tax revenue through user fees, service charges, property rents, licence fees, and fines. Large metropolitan Urban Local Bodies can derive revenue through 'innovative instruments like municipal bonds and loans from government agencies or financial investors (Singh & Singh, 2015), with the obligation to repay within a fixed period. As per the current decentralisation system, local self-bodies heavily depend on the centre and state governments for revenue. Their own source revenue generation is limited by state laws, raising questions regarding financial autonomy. This scenario challenges their independence and creativity. This creates fiscal imbalances, where local service delivery demands increase due to the growing population and rural-urban migration, while revenue sources remain limited and insufficient for effective governance. The average property tax in India is only 0.2 percent of GDPcompared to 2-3 percent in OCED countries (Awasthi et al., 2021), which shows the effect of limited fiscal autonomy. These limitations reduce the incentives for efficiency and innovation, preventing local bodies from materialising their visions for inclusive development despite their potential for innovative governance.

Atmanirbhar Bharath-India's Quest for Self-Reliance in an era of interconnectedness

During the pandemic, global economic activity had come to a halt. The crisis led to supply chain disruptions, employment loss, and a deep economic crisis. The interdependencies of global economic relations defined by globalisation have not improved the resilience of economies, including that of the United States. However, China developed a model of resilience, achieving positive economic growth in 2020-2021, while other major economies faced setbacks (Norrlöf, 2020). China's dual circulation and population mobility models helped insulate them from supply chain disruptions. China has prioritised internal circulation through domestic production and consumption as the key economic driver, reducing dependence on foreign markets through internal production. This helped China to maintain its internal supply chains despite global disruptions (Lee et al., 2022). China also served as a production safe harbour due to its robust internal circulation, becoming a world supplier of Covid testing kits, PPE kits, and electronic devices, achieving record exports during the pandemic (Song et al., 2021). This self-reliance mechanism insulated the Chinese economy from external shocks, ensuring economic progress during the crisis.

Similarly, in 2020, our Prime Minister initiated the Atmanirbhar Bharath Abhiyaan scheme, which is rooted in achieving self-reliance by improving Indian quality standards and production to secure internal circulation and supply chain resilience through exports. The increasing trend of developed states using tariffs and protectionism as tools for geo-political advantages in international trade negotiations positions developing states as vulnerable, resulting in neo-colonialism. The lack of internal capabilities to address trade disruptions creates a cycle of dependency, in which the rich become richer while the poor remain stagnant. The increasingly protectionist global trade environment challenges emerging countries' economic growth, requiring robust alternative mechanisms. The rise of nationalism and xenophobia in Europe and the America threatens India's

foreign remittances and labour markets through immigrant deportations. This necessitates India to accommodate expatriates and integrate them into its economic space, addressing potential unemployment and reduced remittances through appropriate policies implemented at the grassroots level to maximise output.

Policy Delivery Mechanisms of Atmanirbhar Bharath Abhiyaan

According to the (norms preset by the Indian Constitution, interpreted through judicial rulings), India has federalism with a strong unitary bias, rooted in cooperative understanding, as Constitutional makers acknowledged the importance of consensus between federal units and the union. Cooperative federalism refers to a system in which federal, state, and local governments work together to address shared issues and provide the public with products and services. The Indian government operates on a cooperative basis, as stated in the State of Rajasthan v. Union of India" (Mishra & Tonage, 2024:1751). Policy structures should deliver benefits to the most vulnerable individuals in society. As per the Atmanirbhar Bharath Abhiyaan, one key pillar includes transforming individuals (demographic pillar) towards self- reliance. If Atmanirbhar Bharat fails to transform its citizens, the project fails in its basic idea of transformation. Only through democratic decentralisation, grassroot resource delivery can be ensured. The Government of India has established a framework at each level to monitor policy implementation.

At the national level, the National Institution for Transforming India (NITI Aayog) serves as a nodal agency to facilitate policy execution through cooperative federal consultations. NITIAayog has been designed as a framework to serve as a platform for 'Team-India' cooperative governance, where it seeks to active participation of states in national development decision- making discourse for the proper execution of such policy missions. It encourages the notions of 'Competitive' and 'Competitive' federal essences, where the cooperative factor is fostered hierarchically that determines the Centre-State relations, and the competitive factor is facilitated by the ranking scheme of states by NITI Aayog, based on their performance, thereby fuelling the spirit among the states to drive their developmental goals competitively. By utilising performative analysis and collaborative efforts, NITI Aayog seeks to involve and integrate states in achieving national development goals (Yadav, 2025). Meanwhile, certain obstacles hinder the 'cooperativeness' of the federal states, such as the political friction that occurs, especially between the Union and non-BJP ruling states, where differences in GST compensation arise, thereby creating an asymmetry of fund allocation among the states, causing developmental imbalances that may distort the quality of the objectives encompassed under Atmanirbhar Bharath, and also leading to geographic imbalances in nourishing developmental progress, hindering those particulars from achieving the outcomes of Atmanirbhar Bharata. To foster the spirit of cooperativeness, the federal and decentralised units should be equipped with additional autonomy and creativity in their policy formulation and execution.

Atmanirbhar Bharath's basic implementing mechanism is that, the broader outline and strategy for formulation, facilitation and implementations resides with the Union government. It also consistently seeks the active participation of decentralised units of governance, such as both the state and local bodies, for its effective execution. These decentralised units are the immediate beneficiaries of the initiative, and the administrative framework has been decentralised through a multitude of channels. By reforming the regulatory and business environment (ease of doing business), a framework crucial for the generation of industrial establishments and employment facilitators is created. It encompasses various land and labour laws determining the extent of the 'ease of doing business' factor which is a positive indicator for industrial and business investments (Kumar et al., 2024). By delegating these powers to the decentralised units of power, it entrusts autonomy to regulate the laws concerning land and labour codes, which aligns with the socio- economic context of each region.

Similarly, through mechanisms such as fiscal decentralisation, the Union allocates funds and credits to kick-start MSMEs or to support stressed MSMEs, since they are considered as power tools that steer India closer to its self-reliance ambition by boosting domestic production, skill enhancement, infrastructural

mechanisms, and employment opportunities. These factors, in one way or another, help fulfil Atmanirbhar Bharat. The decentralised units are further delegated the responsibility of enhancing the 'Vocal for Local' initiative under the Atmanirbhar Bharat Abhiyaan, which includes the 'One District, One Product' scheme (Pandey & Tiwari, 2023), where decentralised units are entitled to identify, promote, and brand a unique product from each district. It seeks to enhance and convert local arenas into economic zones, often based on the clustered management of industries. Because many of the industries under MSME schemes are classified as micro or small enterprises, the sustainability of such enterprises which require techno-intensive facilities to enhance the quality and quantity of production, is difficult. To mitigate this challenge, the Union and State governments, with the help of district administration along with local bodies, sustain Common Facilitation Centres (CFCs) adjunct to those clusters, which provides a 'platform for the development of common facilities such as R&D Labs, Skill up-gradation centre, Common Effluent treatment Plant (CETP) and other basic infrastructures required for the sustainment of such industries. Interestingly, most of such clusters are self-sustainable' (Ministry of Commerce and Industry, 2025:98).These mechanisms call for the production and utilisation of domestic produce, replacing foreign goods, thereby reducing dependency and imports, while boosting domestic production, expanding internal trade, increasing exports, and becoming a major supplier of such products, thereby attaining self-sufficiency and economic might. Industrial outputs or any such MSME are established not only with the primary aim of replacing import-reliant products but also for producing high-quality innovative and value-added products which are of high global standards and export qualities. The promotion of such enterprises boosts the domestic economy and local productivity, increases employability with skill enhancement and infrastructural developments which in turn generates own-source revenues for the local bodies. By increasing productivity in the economic and employment sense, it helps to reduce the wide array of 'rural-urban' migration and thereby limiting the uncontrollable inflow of migrants into the urban areas, which results in overcrowding and environmental degradation. As this trend is substantiated, such claims are reflected in the drop in the annual unemployment rate which has now been reduced by 4.7 percent, giving a positive outcome to the government's self-reliant initiative.

Transformation of India under Atmanirbhar Bharath

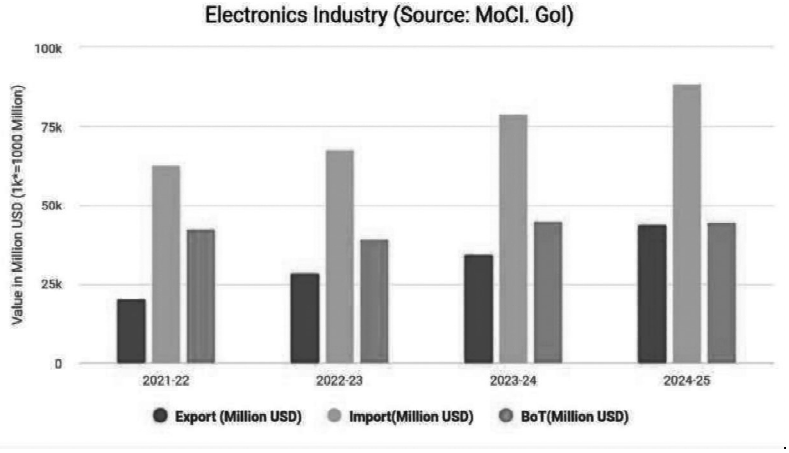
The Atmanirbhar Bharath was constituted to foster transformation in India's domestic production and supply chain enhancement, to enhance improvements in service production and delivery across diverse sectors, especially as enshrined in the key pillars of the Atmanirbhar Bharath mission. As per the objectives of Atmanirbhar Bharath, the reduction of import dependencies is a crucial objective and policy indicator for analysing the extent to which India has achieved its desired objectives. The sectoral importance in import reduction was given to electronics, defence equipment, chemicals, gold, and petroleum.

One of the key drivers of a state's development is its economic background and how resilient it is in mitigating an unprecedented crisis. If it fails to be resilient, the entire system willcollapse. As an emerging economic power, India requires robustness in insulating its economy from external shocks to grow sustainably. The economic model conceptualises the notion of 'Quantum Jumps' over marginal improvements in strengthening economic actors (Devaki, 2021). This implies an immense and heavily loaded transformation in key economic drivers and institutional mechanisms to facilitate the objectives of Atmanirbhar Bharath Abhiyaan. Initially, the government aimed to transform India into a five-trillion-dollar economy by 2025 (Sindhu & Uma, 2022).

Trend analysis of the latest data available demonstrates that despite the claims of a growing market for electronics and electrical equipment, India is still heavily dependent on imports, which shows no considerable decline in its imports. Meanwhile, India's exports are increasing, culminating at $39.4 Billion, so as its imports too, are increasing equated to $83 billion, causing a deficit of $ 43.6 billion, showing a slight decline from 2023 deficit value of $43.8 billion. Despite efforts to increase exports and reduce imports to achieve self-reliance, the huge deficit in the electronic balance of trade is a hurdle for India's sustained and self-reliant policy progression. The primary reason for this phenomenon is the lack of raw material production in India.

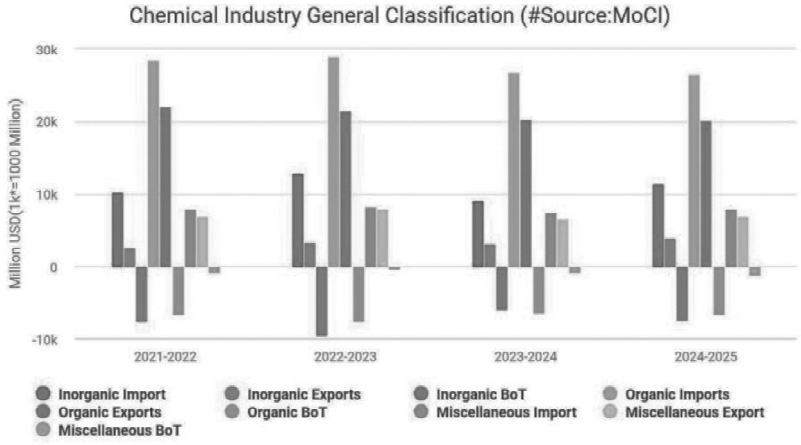
While India has managed to establish production processing hubs, its core functionality is the assembly of electronic products and circuits to recraft them into finished goods, indicating that India is still heavily reliant on the import of raw materials, of which China constitutes nearly 40 percent of the supply share of critical components like semiconductors and circuits. This makes India's electronic market more fragile and vulnerable to global supply chain disruptions and geopolitical tensions, potentially harming India's self-reliant efforts objectives. Although the Atmanirbhar Bharath scheme was initiated in 2020, its failure to incorporate an alternative strategy to reduce such vulnerabilities is a matter of serious concern and indicates a lack of proper strategy. As of October 2025, the government had initiated another scheme, the Electronics Component Manufacturing Scheme, which aims to bolster the local manufacturing of electronic components such as camera modules and high-density PCBs used in smartphones and wearable devices (Salve, 2025). The Electronics Component Manufacturing Scheme aims to build a robust component manufacturing ecosystem by attracting domestic and global investments linked to capacity building and the integration of Indian companies with global value chains (Ministry of Electronics and Information Technology, 2025). Even though the scheme had received applications of interest, its progress and effectiveness are yet to be determined; thus, the scheme is still in its developing stage.

See Graph 1; Electronic Industry in India



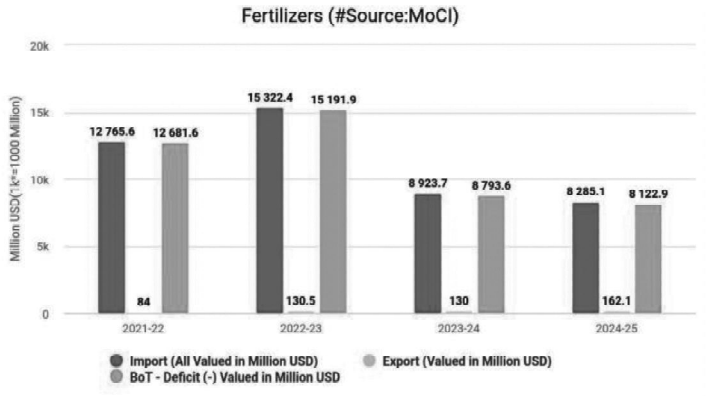
When analysing the chemical industry with a key focus on Inorganic, Organic and Miscellaneous Chemicals belonging to ITC HS Codes 28, 29, and 38, respectively, the figures are concerning for India's self-reliance ambitions in the chemical market, including these three categories. Across these three broad categories, India is a net importer, which means that its imports outplay its exports to the global markets. Within the Inorganic and Organic sectors, India is incurring a large trade deficit in its Balance of Trade, while the miscellaneous category shows a recovery motion, significantly narrowing its deficit gap.

See Graph 2: Chemical Trade Statistics (Inorganic, Organic, Miscellaneous combined data)



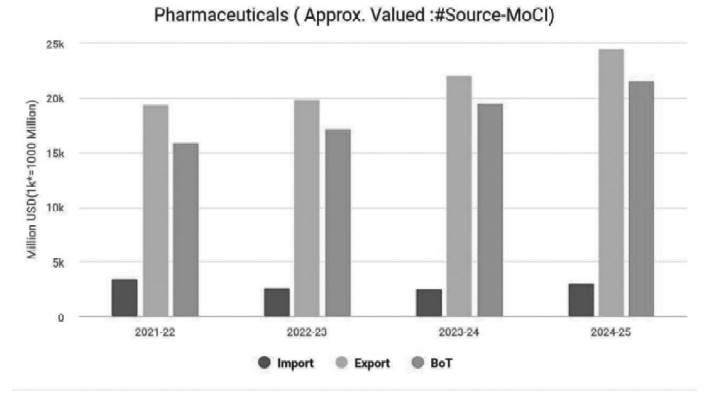
Further devolving into the Atmanirbhar Bharath's directive action under grassroots empowerment, it is mainly guided through the empowerment of MSME's with a special focus on chemical products such as fertilisers, soap, pharmaceutical products, and the textile industry, encompassing a diverse range of products. Considering the statistical data on fertilisers, it is observed that India is heavily dependent on imports for the use of fertilisers and has a significant deficit in its balance of trade. However, the facilitation of MSME's with a focus on improving fertilisers is demonstrating a positive sign by declining imports, improving exports, and considerably declining India's deficit. Although minimal, with the existing and add-on infrastructure, it could be apprehended that India's Atmanirbhar vision in this sector is gradually materialising.

See Graph 3: Trade Statistics of Fertilizers



Similarly, in the pharmaceutical sector, where Atmanirbhar Bharath was shown to be crucially successful initially during the Covid-19 crisis, India became the pharmaceutical hub of the world, where India had extended its exceptional support by facilitating the production and distribution of Covid vaccines, employing diplomatic strategies such as 'Vaccine-Maitri, which had a determinable impact on India's bilateral and multilateral cooperative efforts. The sector is showing a steady and consistent growth rate by reducing import volume and raising export volume, thereby increasing the surplus value in the Balance of Trade, making this sector a solid ground for MSME's to build on the goal of Atmanirbhar Bharath.

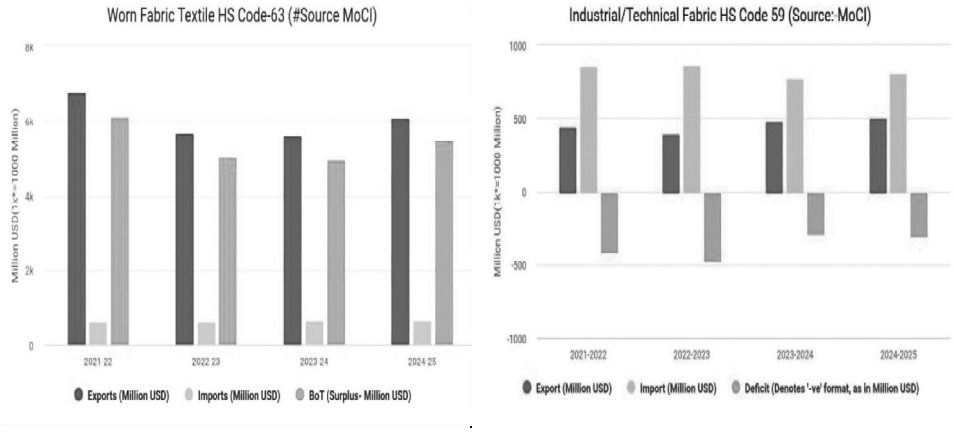
See Table 4: Trade Statistics of Pharmaceutical Industry



Likewise, the Textile sector also denotes a positive impact on India's self-reliant strategy, as the small cottage industries and MSME to produce varied textile products and raw materials have been described as a surplus sector, as its exports outplay its imports. It should also be considered that both exports and imports are showing growth over the few years, where the surplus value had an initial fall during the 2022-23 period, but is picking up gradually since then. However, when the whole segment is broken down into five subcategories as entailed by the Ministry of Commerce, it is observed that India has trade deficits in segments like 'industrial silk', where it highlights growth in both imports and exports and in deficit subsequently, alarming the lack of technologically intensive industries, due to limited R&D. However, on other grounds, the data show a favourable

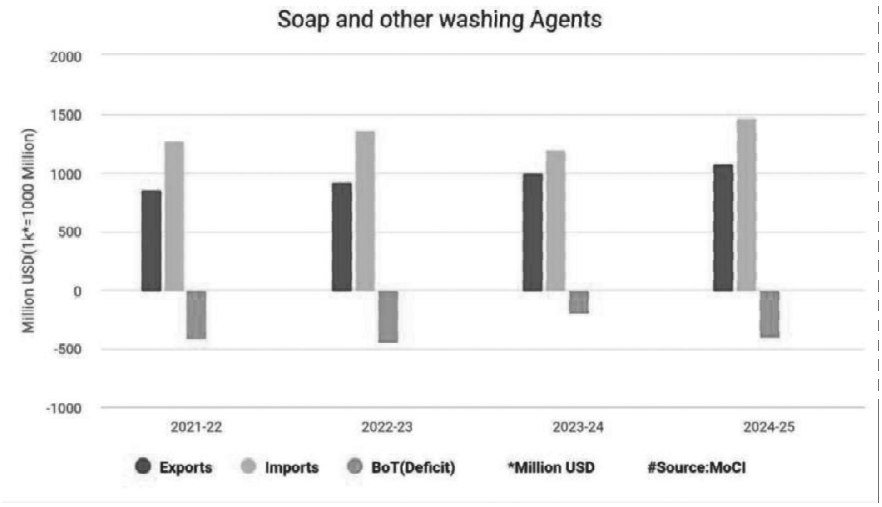
conceptualisation of labour productivity, consequently enriching India's textile trade dynamics. This utilisation of labour is a source of creating employability and development in the concerned project.

See Table 5: Trade Statistics of Textile Industry



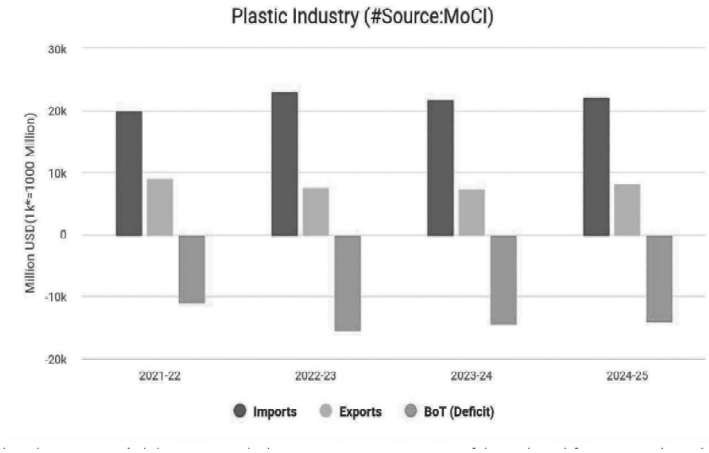
However, when it comes to some other flagship target areas, where MSME's are promoted to facilitate the Atmanirbhar Bharath objectives, particularly regarding the Soap and Plastic sector, India's improvement and its progression towards Atmanirbhar Bharath is not as expected. The soap industry, which was promoted as a way for village inclusive cottage industries, has shown consistent growth in its exports, which serves as a positive sign for assessing the effectiveness of Atmanirbhar Bharath Abhiyaan. Simultaneously, India is still heavily reliant on imports which, despite fluctuating, demonstrates a tendency of progression as of the current availability of data. The same case of analysis is observed with the trade deficit that India incurred with respect to this sector; that is, even though fluctuating, it could be analysed that it shows a tendency to widen the trade gap.

See Graph 6: Soap Industry



Similarly, plastic manufacturing industries under MSME management also suffer from a significant deficit in their balance of trade, where India's imports in the concerned sector are showing progression and exports are fluctuating, but as compared to previous year (2023-2024) data, it is in progression. Further analysis of the 'deficit factor' implies that the trade deficit gap is in a declining or narrowing stage which provides a positive indication for self-reliant policy efforts, especially coordinated under MSME and facilitated by local self-institutions. This nourishes both Atmanirbhar Bharat and the empowerment of local self-governing institutions.

See Table 7: Trade Statistics of Plastic sector



Moreover, the recent report released by MoSPI is worth analysing which gives us insights into the Labour Force Participation Rate (LFPR) and Worker Population Rate (WPR), which demonstrates growth, and the unemployment rate is declining, with the given employment rate growth in rural areas, indicating that India's self-reliance efforts are being effectively decentralised to a certain extent. Additionally, the report findings show that the women's employment rates are further improving, showing positive signs on the establishment of women's self-help groups and other community-based organisations, along with skilldevelopment centres established at the grassroots level, aiding in improving the women's employment status.

The facilitation of MSMEs under the Atmanirbhar scheme demonstrates that as of 2025, around "5.93 crores of new registrations of enterprises have occurred, and 5.92 crores have been classified with 5.84 crores establishments as micro enterprises, 7.37 lakhs of small enterprises, and 69.3 thousand of medium enterprises, generating around 25.18 crores of employment opportunities" (Press Information Bureau, 2025). This has boosted India's sluggish economy and helped it regain its momentum. The global economic analysis report released by the International Monetary Fund assessed that India has relative strength among all major economies, mainly due to its robust outlook which is significantly higher than the global average and advanced economies despite global trade headwinds, and also having a strong surge in domestic demand, consumption, investment, and structural reforms which gives India in weathering global external shocks, and the IMF is both cautious and optimistic about India's economic performance (International Monetary Fund, 2025). This observation is a positive indication of the materialisation and visible effect of the Atmanirbhar Bharath Abhiyan in a state of transitional progression in meeting its relative goals.

A major increase in fiscal and policy support serves as the foundation for India's strategic shift from women's development to a women-led development model. Gender-specific budgeting has increased by 429 percent over the past ten years from Rs. 0. In FY 2013-14, it was Rs. 85 lakh crores, and it is expected to be Rs. 4.49 lakh crores in FY 2025-26 is indicative of this paradigm shift in India's economy. According to the PLFS data, female self-employment increased from

51. 9 percent in 2017-18 to 67.4 percent in 2023-2024 because of this strong financial support which is spread across 400 state-level and 70 central programs. The PM Mudra Yojana, where women make up 68% of loan recipients overall, and PM SVANidhi which supports a 44% female beneficiary base among street vendors, are important forces behind this economic autonomy. In the field of entrepreneurship, at least one female director is now present in nearly half of DPIIT-registered startups. In addition to creating over 89 lakh new jobs for women between FY 21 and FY 23 this ecosystem has allowed women-led MSMEs to nearly double in number, reaching 1. 92 crores in 2023-2024. Finally, the increase in proprietary ownership is 26. The 2 percent signifies a revolutionary period in Atmanirbhar Bharata, where women are increasingly acting as designers of India's economic growth (Ministry of Labour and Employment, 2025).

Conclusion

All these evaluations of the policy highlights that Atmanirbhar Bharath's developments are multitude in nature, and are reaching the utmost needed individuals of the society, which would only be possible to be achieved through effective decentralisation strategy and institutional executions since they will be well-informed to identify the economically viable domains in their localities, enabling the formulation of taxation and other fiscal policies which give the people the best utility, technically referred to as allocative efficiency, that facilitates the efforts in tailoring the fair and just allocation of resources. Therefore, the decentralisation framework not only serves as a convenient mechanism for enhancing governance, but it is also important to consider that India has a long way to go to become self-reliant. The positive growth indications are gradual, and some are fluctuating which does not guarantee growth in forecasting. Considering such facts along with some notable administrative hindrances in its effective implementation, arising often due to political favouritism, especially in the allocation of funds and limited autonomy of the federal units to recraft the policy designs that align with the characteristics of each region accordingly, which can be utilised to materialise the maximum benefit, are all obstacles in our drive towards Atmanirbhar Bharata.

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Normative vs Descriptive Economics: A Behavioural Interpretation

Jagan Sebastian George

Behavioural economics is often described as a radical departure from neoclassical economics, especially in its critique of the assumption of rational choice. This paper argues that much of this perceived conflict arises from a long-standing confusion between normative and descriptive analysis in economic theory. Expected Utility Theory and related rational choice models were originally developed as normative standards of consistency and coherence, not as literal descriptions of how individuals actually make decisions. Over time, however, these models came to be treated implicitly as descriptive accounts of behaviour, so that systematic deviations appeared as evidence of irrationality. Drawing on key insights from behavioural economics - particularly Prospect Theory and framing effects - this paper shows that behavioural findings primarily reveal the limits of applying normative models as descriptive tools. The paper concludes with implications for economic policy analysis and the teaching of economics.

Keywords : Normative economics, descriptive economics, behavioural economics, rationality, prospect theory.

Introduction

Economic theory has long relied on models that portray individuals as rational decision-makers who consistently maximize utility. These models have delivered powerful analytical results and have shaped much of modern economic reasoning. Yet a substantial body of experimental and empirical evidence demonstrates that actual choices frequently violate the predictions of such models. Behavioural economics emerged from this tension, documenting regular and predictable patterns of decision-making that appear inconsistent with standard rational choice theory. These findings are often interpreted as showing that individuals are systematically irrational. This paper advances a different interpretation. It argues that the tension between neoclassical and behavioural economics reflects a methodological confusion between normative and descriptive analysis. Expected Utility Theory (von Neumann & Morgenstern, 1944) was constructed as a normative framework, specifying conditions under which preferences can be regarded as internally consistent. When such a framework is treated as a descriptive account of human psychology, deviations from its axioms are almost inevitably labelled as errors(Friedman, 1953). Behavioural economics does not merely catalogue departures from rational choice. By demonstrating that such departures are systematic, context-dependent, and predictable, it highlights the limitations of using a single normative benchmark as a descriptive model of behaviour. The central claim of this paper is that behavioural economics restores the appropriate boundary between normative evaluation and descriptive explanation, thereby clarifying the proper role of rationality in economic analysis.

Normative and Descriptive Economics: Original Intent.

The distinction between normative and descriptive economics is foundational yet frequently misunderstood. Descriptive economics seeks to explain and predict how economic agents actually behave. Normative economics, by contrast, is concerned with evaluation - how agents should behave according to specified criteria such as efficiency, consistency, or welfare maximization. Expected Utility Theory (EUT), formalized in the mid-twentieth century, exemplifies this distinction. The axioms of EUT - completeness, transitivity,

independence, and continuity - define a set of consistency conditions under which preferences can be represented by a utility function. These axioms do not claim that individuals consciously calculate utilities or probabilities. Rather, they specify the conditions under which choices can be deemed internally coherent (von Neumann & Morgenstern, 1944). Early theorists were explicit about this normative orientation. Rationality was understood not as a psychological description but as a standard of logical consistency. Much like logic in philosophy, rational choice theory was intended to provide a benchmark against which behaviour could be evaluated, not a literal account of mental processes. In this sense, rationality functioned as an ideal type rather than an empirical generalization.

From Normative Benchmark to Descriptive Model.

Despite its normative origins, rational choice theory gradually acquired a descriptive interpretation. Several developments contributed to this shift. First, the rise of revealed preference theory encouraged economists to infer preferences directly from observed behaviour, blurring the distinction between evaluative standards and empirical description. If choices reveal preferences, and preferences are assumed to be rational, then observed behaviour itself appears to embody rationality. Second, the success of rational choice models in predicting aggregate outcomes reinforced their descriptive status. Market-level regularities often appeared consistent with rational behaviour, even if individual-level decisions were noisy or inconsistent. Over time, this success fostered the implicit belief that rational choice theory accurately described individual decision-making. As a result, deviations from rational choice predictions were increasingly interpreted as anomalies or errors. Inconsistencies such as preference reversals, framing effects, and violations of independence were treated as failures of rationality rather than as signals that the model was being applied outside its intended domain. Normative benchmarks had quietly become descriptive claims.

Behavioural Economics as a Descriptive Project.

Behavioural economics emerged by taking deviations from rational choice seriously. Through controlled experiments and empirical studies, behavioural economists demonstrated that departures from rational choice are not random mistakes but systematic patterns. Individuals respond differently to equivalent outcomes depending on framing, reference points, and contextual cues. Losses loom larger than gains, probabilities are weighted non-linearly, and preferences are often constructed rather than merely revealed (Thaler, 2015). Prospect Theory provides a clear illustration. Instead of evaluating outcomes in terms of final wealth, individuals assess gains and losses relative to a reference point. The resulting value function exhibits loss aversion and diminishing sensitivity, features that directly contradict the assumptions of Expected Utility Theory. Importantly, these features do not represent noise around rational choice; they constitute an alternative descriptive account of how choices are formed (von Neumann & Morgenstern, 1944; Kahneman & Tversky, 1979).

Teaching Rationality: A Classroom-Level Classification Problem.

The confusion between normative and descriptive economics becomes especially visible in the classroom. When students are introduced to rational choice theory, they often interpret its axioms as factual claims about how people actually behave. As a result, subsequent exposure to behavioural findings is experienced not as clarification but as contradiction. Students ask why economists assume rationality when everyday experience seems to contradict it so readily. This pedagogical difficulty is not accidental. It reflects the same classification error that underlies much of the behavioural critique. Normative models are presented without sufficient emphasis on their evaluative purpose, while descriptive limitations are introduced later as exceptions or anomalies. From the student's perspective, behavioural economics then appears to undermine what was previously taught as foundational. Reframing rational choice theory explicitly as a normative benchmark changes this dynamic. Once students understand that rationality is a standard for consistency rather than a claim about psychological realism, behavioural findings acquire a different meaning. They no longer signal human failure, but instead illustrate the gap between evaluative ideals and descriptive reality. In this sense, the classroom provides a microcosm of the broader methodological confusion within economics itself.

Reinterpreting Rationality After Behavioural Economics: Selected Literature and Intellectual Context.

The distinction between normative and descriptive rationality has been explored across economics and philosophy. Friedman's instrumentalist defence of assumptions (Friedman, 1953), Sen's critiques of rationality as internal consistency (Sen, 1977), and later debates on revealed preference all contribute to understanding how rational choice acquired descriptive status. Behavioural economists such as Kahneman and Tversky reframed these debates by grounding descriptive claims in experimental evidence, while subsequent critics have questioned the universality and stability of documented biases. This paper situates behavioural economics within this broader methodological conversation. Rather than viewing behavioural findings as refutations of rational choice, they are better understood as evidence supporting a pluralistic methodology in which normative benchmarks and descriptive models serve distinct but complementary roles. The key contribution of behavioural economics lies in clarifying the role of rationality. Rational choice models retain their normative significance as standards of coherence and efficiency. However, behavioural findings demonstrate that these standards cannot be uncritically treated as empirical descriptions. This reinterpretation has important implications. First, it suggests that multiple normative frameworks may be relevant, depending on context and objectives. Second, it cautions against labeling behaviour as irrational simply because it violates a particular model. Finally, it invites a more pluralistic approach to economic modeling, one that distinguishes clearly between evaluative benchmarks and explanatory mechanisms. Policy applications further highlight this distinction. Behavioural interventions such as nudges rely on descriptive insights into human behaviour while often appealing to normative goals such as welfare improvement (Sen, 1985). The ethical debates surrounding paternalism reflect precisely this tension between descriptive realism and normative aspiration (Thaler & Sunstein, 2008).

Implications for Economics Education

The confusion between normative and descriptive economics has significant pedagogical consequences. Students are often introduced to rational choice models as if they were factual descriptions of behaviour, only to encounter behavioural anomalies later as exceptions. This sequencing reinforces the misconception that behavioural economics merely catalogues deviations from an otherwise accurate theory. A clearer pedagogical approach would present rational choice theory explicitly as a normative benchmark, followed by behavioural economics as a descriptive correction. Such an approach not only enhances conceptual clarity but also reflects the historical and methodological development of economic thought.

Conclusion

Behavioural economics is frequently portrayed as a challenge to the foundations of economic theory. This paper has argued that its more significant contribution lies elsewhere. By documenting systematic patterns of choice that violate the predictions of rational choice theory, behavioural economics exposes the limits of treating normative models as descriptive accounts of behaviour. Rationality, as formalized in Expected Utility Theory, remains indispensable as a benchmark of coherence and consistency, but it cannot be assumed to provide a complete description of how individuals actually decide. (von Neumann & Morgenstern, 1944). Recognizing this distinction allows for a more coherent integration of behavioural insights into economics. It tempers claims about widespread irrationality while preserving the evaluative role of rational choice models. For policy analysis, this perspective clarifies why descriptive realism and normative goals must be kept analytically distinct, particularly in debates surrounding nudges and paternalism (Thaler & Sunstein, 2008). For economic education, it suggests that students should be introduced to rational choice explicitly as a normative framework, followed by behavioural economics as a descriptive refinement rather than a collection of anomalies. Behavioural economics did not discover irrationality; it clarified the limits of treating rationality as a description. This clarification strengthens, rather than weakens, the methodological foundations of economic analysis.

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UDF's Return in Kerala's 2025 Local Body Elections

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This paper explains the outcome of Kerala's 2025 local body elections, which produced a decisive UDF victory over the incumbent LDF, using evidence from a pre-poll survey conducted by the Survey Research Centre, University of Kerala. It argues that although the contest was formally an election to local self-government institutions, it functioned in effect as a referendum on the state government, and that the result reflects the convergence of four forces rather than any single explanation. Structural anti-incumbency, multidimensional in character, spanning economic management, service delivery, and the personal standing of the Chief Minister, reasserted itself once the extraordinary conditions behind the LDF's 2021 Assembly win had passed. The paper contributes to the literature on retrospective voting, welfare politics, candidate-centric evaluation, and communal dynamics in bipolar party competition.

Keywords : Kerala local body elections 2025, Anti-incumbency / retrospective voting, Welfare politics and electoral accountability,

1. Introduction

Local self-government elections in Kerala have long functioned as sensitive barometers of political sentiment; they are simultaneously referendums on state-level governance and personalised contests shaped by candidate credibility and ward-level dynamics. The 2025 Kerala Local Body Election, held against the backdrop of nine and a half years of LDF governance under Chief Minister Pinarayi Vijayan, offers a particularly rich site for electoral analysis. It produced a decisive reversal of the LDF's historic 2020 mandate and reshaped the political landscape ahead of the 2026 Assembly elections.

The outcome was unambiguous: the UDF secured 38.81% of the statewide vote, compared to 33.45% for the LDF and 14.71% for the NDA (The Hindu, 2025). In institutional terms, the UDF won 505 of 941 grama panchayats against the LDF's 340, 4 of 6 corporations, and 54 of 87 municipalities (Kerala State Election Commission, 2025). This represents a reversal of historic proportions from 2020, when the LDF had won 581 grama panchayats, 5 corporations, and 44 municipalities (Mathrubhumi, 2020; Ramachandran, 2025; Varma, 2020).

This paper draws on a pre-poll survey conducted by the Survey Research Centre (SRC), University of Kerala, covering 2,488 respondents across 120 randomly selected polling booths. The survey employed a quantitative research design, using a structured closed-ended questionnaire administered through face-to-face interviews to measure voter attitudes, governance evaluations, issue salience, welfare perceptions, candidate preferences and communal dynamics across a systematically sampled electorate. The survey data serve in this paper not as a predictive exercise but as an empirical evidence base for explaining the electoral outcome, providing systematic, quantified evidence of the voter attitudes and concerns that drove the 2025 result. The paper is structured as follows: Section 2 situates the study within existing scholarship; Section 3 addresses methodology; Sections 4 through 8 present a thematic analysis of the survey evidence and its explanatory relationship to the result; Section 9 synthesises these threads into a unified explanatory account; and Section 10 concludes.

2. Situating the Study: Literature Review

This section situates the 2025 Kerala local body elections within four bodies of scholarship: retrospective accountability, welfare voting, candidate-centric evaluation, and bipolar competition. Because the paper's central claims are empirical, the theoretical literature is used here to generate expectations tested against the survey data in later sections.

2.1 Anti-Incumbency and Electoral Accountability

The phenomenon of anti-incumbency, the electoral disadvantage faced by ruling parties or candidates seeking re-election, is a well-documented pattern in electoral politics. Key (1966) argues that the electorate functions as a retrospective judge, an appraiser of past events, past performance, and past actions, expressing approval or disapproval of that which has happened before, rather than being drawn by promises of the novel or unknown. Yadav (1999) provides empirical validation of this logic in the Indian context through an analysis of India's third electoral system (1989-99), demonstrating that the failure rate of incumbent governments at the hustings was as high as 77 per cent, indicating that Indian voters exercised their right to reject very frequently and often in a very discerning manner.

In the context of Kerala, Gopa Kumar (2004) established that since the 1980s the leadership of state politics has swung alternatively between the LDF and the UDF within a clearly bipolar framework. This consistent pattern of incumbent electoral defeat confirms that anti-incumbency operates as a near-structural feature of Kerala's competitive two-front electoral system, with the sole recent exception being the LDF's 2021 Assembly return, attributable to the government's pandemic-era welfare delivery and crisis management, which temporarily suspended the alternation dynamic. The 2025 local body results, in which the UDF made significant gains against the incumbent LDF, offer a case for examining whether retrospective accountability of the kind Key theorises reasserted itself at the local level once those extraordinary conditions had passed.

2.2 Welfare Politics and Voting Behaviour

A significant body of scholarship has examined the relationship between welfare provisioning and electoral outcomes. Tufte (1978) demonstrated that incumbents systematically time welfare transfers to maximise electoral returns; in effect, treating social protection as an instrument of political survival rather than a commitment to public good. Park and Shin (2019) found that strong welfare protection weakens the linkage between macroeconomic conditions and incumbent electoral fortunes, implying that welfare delivery shields politicians from blame for economic failures. In the Indian context, Deshpande et al. (2019), drawing on national election survey data, confirm this nuance, demonstrating that citizens' assessment of the overall performance of state governments mattered most in deciding the vote of welfare beneficiaries, even at a time of extensive welfare expansion. This qualification is theoretically significant for Kerala 2025. The LDF government presided over an expansive welfare architecture, yet lost ground at the local level. This logic generates a testable expectation: welfare delivery should translate into incumbent support only where beneficiaries also rated the government's overall governance favourably, and should weaken where that broader assessment turned negative. Section 5 tests this against the survey's welfare-beneficiary cross-tabulations.

2.3 Candidate-Centric Voting at the Local Level

Stokes (1963) distinguishes between position-issues, which involve advocacy of government actions from a set of alternatives over which voter preferences are distributed, and valence-issues, which merely involve the linking of parties with a condition that is positively or negatively valued by the electorate, arguing that the people's choice too often depends on valence considerations and that the machinery of positional competition cannot work when voters are simply reacting to the association of parties with such a condition. According to Vaishnav (2017), in the Indian context, where political institutions are unable to deliver on their core obligations to citizens, voters engage in a deliberate search for credible governance, evaluating individual

candidates on their personal capacity to represent constituent interests and fill the resulting vacuum of representation.

This logic is particularly apposite at the local level, where ward representatives function as the primary interface between citizens and the developmental state. The proximity, accessibility, and direct service-delivery role of the ward member make candidate-level valence evaluation structurally more salient in local body elections than in Assembly or Lok Sabha contests, where party and coalition labels dominate voter choice.

Together, Stokes and Vaishnav generate a clear expectation rather than a finding: as the LDF's collective party-level valence weakened under governance failures and corruption allegations, voters should have shifted toward candidate-level evaluation, with individual candidates functioning as the operative valence referent, assessed on competence, accessibility, and local service delivery. If so, LDF candidates with strong personal ward reputations should show partial insulation from the broader anti-incumbent swing. Whether this candidate-level shift in fact occurred, and how far it moderated the front-level result, is examined in Section 6.

2.4 Bipolar Competition and Minority Consolidation in Kerala

Kerala's political system has been theorised as a stable bipolar competition between the LDF and UDF since the 1980s, with the leadership of state politics swinging alternatively between the two main coalitions, underpinned by the sizeable demographic presence of Muslims and Christians, together forming 46 per cent of the population, which structurally resisted the rise of Hindutva elements and shaped the communal contours of bipolar competition in the state (Gopa Kumar, 2004). Downs (1957) offers a theoretical framework for understanding such systems, arguing that in a two-party system, parties converge towards the median voter, becoming increasingly moderate and nearly identical in their platforms as each moves towards the centre to capture the crucial middle-of-the-road voters positioned between them. Kerala's bipolar competition between the LDF and UDF broadly conforms to this logic, as neither front can afford ideological extremism in a system where power alternates regularly, and both coalitions compete for the same centrist median voter, producing a convergence of programmatic positions on welfare, development, and governance.

The BJP's emergence as a growing third force raises a direct question about the bipolar stability just described: as the two established fronts converge toward the centre on programmatic questions, does a genuine third contender's rising vote share leave that bipolar structure intact, or does sustained growth eventually convert into institutional pluralisation? The party's national vote share has risen steadily, and in the 2024 Lok Sabha election it won its first-ever seat in the state, Thrissur, its most concrete gain yet against the very convergence described above (Josukutty et al., 2026). Whether this growth has begun to translate into a lasting institutional presence in Kerala's local body politics, or whether the state's electoral outcomes continue to resolve in bipolar terms regardless of vote fragmentation, is examined in Section 8.

Downs's model, however, cannot by itself account for Kerala's communal and caste axes, which cut across ideological convergence. Minority community voting behaviour operates as an independent structural variable that neither front captures through median voter positioning alone, making minority consolidation a distinct empirical dimension the survey is designed to measure. Campbell et al. (1966) sort elections by whether the long-standing balance of party attachments holds or breaks: a *maintaining* election simply re-expresses that balance; a *deviating* election sees transient pressures hand victory to the weaker claimant while leaving underlying loyalties intact, so the old balance returns once those pressures fade; a *realigning* election durably reshuffles the loyalties themselves. Read at the community level, Kerala's minority vote fits this grammar: the UDF holds the standing claim, anchored in the IUML and the Kerala Congress factions. In 2021, transient pressures, specifically anti-CAA positioning (Mathur, 2020), pandemic welfare delivery (Shaji, 2021), and the KC(M) induction (The Times of India, 2026), deflected part of the minority vote to the LDF without dislodging the UDF's underlying majority. The LDF's subsequent turn towards Hindu-sentiment cultivation removed those pressures by its own hand. If 2021 was a deviation, 2025 should show the minority vote flowing

back to the UDF; if loyalties persist with the LDF, it was a realignment. Section 7 tests the two readings against the religion-disaggregated cross-tabulations.

3. Methodology

3.1 Survey, Design and Sampling

The pre-poll survey was designed and administered by the Survey Research Centre, University of Kerala, in the months preceding the December 2025 elections. A quantitative research design was adopted, employing a structured, closed-ended questionnaire as the primary data collection instrument. This design was chosen to enable systematic, statistically comparable measurement of voter attitudes across a large and geographically dispersed sample, capturing patterns of governance evaluation, issue salience, welfare perception, and voting intention in a form amenable to descriptive and cross-tabular analysis.

The sampling frame consisted of the State Election Commission's final electoral rolls for 2025, covering all registered voters across the state, and respondents were selected through systematic random sampling. A total of 120 polling booths were selected randomly, with 30 respondents targeted per booth, yielding a planned sample of 3,600. The final achieved sample comprised 2,488 respondents, a realisation rate of 69.1%. The shortfall is attributable to non-response, respondent unavailability during field visits, and logistical constraints in accessing certain areas. The 120 booths were distributed across all 14 districts of Kerala, providing geographic coverage of both urban and rural constituencies and both phases of the election (9 December and 11 December 2025).

3.2 Data Collection and Analysis

Data collection was conducted through face-to-face interviews administered by trained field investigators, ensuring consistency in questionnaire administration and minimising social desirability bias that may arise from self-administered instruments. Participation was voluntary, with informed consent obtained from all respondents. Strict data confidentiality was maintained throughout. The questionnaire covered: socio-economic profile variables (age, gender, religion, caste, education, income, occupation); governance performance evaluations across multiple domains; perceptions of specific issues and controversies; welfare programme assessments; candidate and leadership preferences; and voting intention. Data were processed and analysed using Microsoft Excel, employing descriptive statistical techniques including frequency distributions, percentage analysis, and cross-tabulations to identify patterns across variables.

3.3 Analytical Approach

The paper's analytical approach uses the survey data as the primary evidential base for explaining the 2025 election result. The survey findings across thematic domains, governance evaluation, issue salience, welfare perception, candidate factors, and voting intention, are treated as evidence of the voter attitudes that drove the electoral outcome. In each thematic section, the paper identifies what the survey data reveal about voter sentiment, and then explains how that sentiment manifested in the actual result. The actual election result, drawn from the State Election Commission of Kerala (2025), is the dependent variable to be explained, while the survey data provide the independent explanatory evidence. This approach treats the survey not as a predictive instrument but as a diagnostic tool that illuminates the attitudinal conditions underlying electoral behaviour.

4. Governance Evaluation and Anti-Incumbency

4.1 State-Level Dissatisfaction

The survey's governance indicators consistently signalled a structurally hostile environment for the LDF. A majority of 60.14% of respondents expressed dissatisfaction with the LDF government's overall nine-and-a-half-year performance. Dissatisfaction was near-universal on economic dimensions: 79.58% were dissatisfied

with Kerala's economic condition, 81.48% with employment availability, 87.10% reported that commodity prices had increased, and 73.71% were dissatisfied with road conditions. These figures represent the sharpest negative scores in the entire survey, indicating that the retrospective appraisal of past performance theorised by Key (1966) operated in 2025 primarily through the economic domain.

Governance Indicator	Satisfied	Dissatisfied	Signal
LDF Overall Performance	38.06%	60.14%	Anti-LDF
Development Activities	39.87%	58.04%	Anti-LDF
CM Pinarayi Vijayan Performance	37.90%	59.65%	Anti-LDF
Economic Condition of Kerala	15.55%	79.58%	Strong Anti-LDF
Employment Availability	15.72%	81.48%	Strong Anti-LDF
Commodity Price Rise	3.54% (Decrease)	87.10% (Increase)	Strong Anti-LDF
Road Conditions	25.32%	73.71%	Anti-LDF
LSG Institutions Overall (5 Yrs)	40.71%	57.60%	Anti-LDF
Waste Management (Haritha Mission)	71.98%	26.97%	Pro-LDF
Housing (LIFE Mission)	55.02%	41.92%	Moderate Pro-LDF
Education Sector	58.36%	37.58%	Moderate Pro-LDF
Health Sector	53.58%	44.73%	Narrow Pro-LDF

Table: 1; Source: (SRC, 2025)

4.2 The Leadership Dimension

Dissatisfaction with the performance of Chief Minister Pinarayi Vijayan stood at 59.65%, against 37.90% expressing satisfaction, a gap of more than twenty percentage points that marks the discontent as substantial and politically consequential rather than marginal (Table 1). The object of this dissatisfaction gives it particular weight: in a government widely characterised by the centralisation and personalisation of authority around the Chief Minister, an adverse verdict on the leader operates not as one grievance among many but as a condensation of the retrospective judgement on the government as a whole. Read alongside the domain-level scores, this finding establishes that the anti-incumbency of 2025 was genuinely multidimensional, operating at once on economic management, service delivery, and the personal standing of the Chief Minister who had become the government's principal public face.

4.3 The Comparative Decline: First vs Second Pinarayi Government

A particularly significant finding is the comparative assessment of the two Pinarayi Vijayan governments. A striking 75.96% of respondents considered the first Pinarayi government (2016-2021) to have performed better than the second (2021-2026) (SRC, 2025). This pattern of within-party comparative decline is analytically important: it signals that voters were not rejecting the LDF's historical record or its governing capacity in principle, but expressing specific dissatisfaction with the second term's performance. This distinction, between rejection of a party and punishment of a term, is the retrospective judgement anticipated in Section 2.1: an electorate appraising past performance and past actions rather than being drawn by promises of the novel (Key, 1966), and exercising the discerning willingness to reject incumbents that Yadav (1999) identifies as a defining feature of Indian electoral behaviour.

4.4 Electoral Confirmation

The actual results confirmed this hostile attitudinal environment. The LDF's vote share fell from approximately 41.55% in the 2020 local body elections to 33.45% in 2025, a loss of over 8 percentage points (Krishnakumar, 2020; The Hindu, 2025). The party lost control of 4 corporations, fell from 44 to 28 municipalities, and lost 241 grama panchayats (Ramachandran, 2025). The sharpness of the loss in urban areas, where the LDF lost 4 corporations, is consistent with the survey's finding that economic, infrastructure, and governance grievances are particularly acute in urban constituencies whose voters are most exposed to cost-of-living pressures and administrative performance expectations. Retrospective accountability of the kind anticipated in Section 2.1 thus reasserted itself at the local level once the extraordinary conditions that had produced the 2021 exception passed, with the electorate penalising the incumbent primarily on its governance record.

Although the 2025 contest was formally an election to local self-government institutions, it functioned in effect as a referendum on the state government, and this referendum character is central to explaining the scale of the LDF's defeat. The dissatisfaction the survey recorded was directed overwhelmingly at state-level performance, including economic management, price rise, employment, and the Chief Minister's leadership, rather than at the local institutions actually being contested, whose representatives in fact enjoyed markedly higher personal satisfaction (64.11%) than the state government (39.86%) (SRC, 2025). That a state-level verdict nonetheless drove a local outcome is most starkly visible in the LDF's losses within its own traditional strongholds: the party surrendered grama panchayats it had held across successive terms, including in areas of historic left strength, indicating that the referendum on the state government overrode the entrenched local loyalties that would ordinarily have insulated such seats. The local election thus became the institutional vehicle through which the accumulated anti-incumbency against the second Pinarayi government was expressed and registered.

5. Welfare Legitimacy and Its Electoral Limits

Despite the pervasive governance dissatisfaction, the survey revealed significant welfare-based credit for the LDF. The welfare pension increase to Rs. 2,000 was cited by 54.34% as the most favourable factor for the LDF, the highest single positive score in the survey. Welfare activities were recognised as the government's most important achievement by 40.64% of respondents. The Haritha Kerala Mission (waste management) recorded the highest programme-level satisfaction at 71.98%, followed by education (58.36%), the LIFE Mission (55.02%), and health (53.58%).

Welfare/Programme Indicator	Positive Response
Welfare pension (Rs.2000) as most favourable LDF factor	54.34%
Welfare activities as most important LDF achievement	40.64%
Development activities as LDF achievement	22.59%
Haritha Kerala Mission (Waste Management) satisfaction	71.98%
LIFE Mission (Housing) satisfaction	55.02%
Education sector satisfaction	58.36%
Health sector satisfaction	53.58%
Poverty eradication programme effectiveness	46.42%

Table: 2; Source: (SRC, 2025)

The paradox the results reveal is that this welfare credit was genuine but insufficient. The LDF retained 33.45% of the statewide vote, precisely the welfare-grounded constituency that the survey had captured.

However, the welfare credit plateaued as an electoral shield. This finding bears out the expectation derived in Section 2.2: welfare delivery translated into incumbent support only where voters' assessment of the government's overall performance remained favourable, and lost its electoral force once that broader assessment turned negative. It equally marks the limit of the shielding effect identified by Park and Shin (2019), Kerala's expansive welfare architecture did not insulate the incumbent from blame for economic underperformance. More specifically, the survey data reveal a voter psychology of compartmentalisation: respondents acknowledged programme-level achievements while simultaneously expressing dissatisfaction with aggregate governance and economic management. When these two evaluations diverged, the aggregate assessment proved the stronger predictor of vote choice.

6. Candidate-Centric Voting and Local Level Insulation

One of the survey's most theoretically significant findings was the primacy of candidate merit in ward-level electoral decisions. A clear majority of 63.14% of respondents identified candidate merit as the most important factor, far exceeding party affiliation (15.19%), evaluation of the panchayat administration (13.38%), and state government evaluation (6.51%). This finding confirms the expectation derived in Section 2.3 from Stokes (1963) and Vaishnav (2017): with the LDF's collective party-level valence weakened by governance failures and corruption allegations, voters treated the individual candidate as the operative valence referent, evaluated on personal capacity to represent constituent interests rather than on party position.

Most Important Factor in Ward-Level Election	Percentage
Candidate's Merit	63.14%
Party Affiliation	15.19%
Evaluation of Panchayat Administration	13.38%
Evaluation of State Government	6.51%
Others	1.77%

Table 3; Source: (SRC,2025)

This finding explains an apparent paradox in the results: while the LDF suffered a decisive overall defeat, it still retained 340 grama panchayats and 64 block panchayats, a substantial residual institutional presence (Kerala State Election Commission, 2025). Where LDF candidates had strong local reputations, personal relationships, and ward-level service delivery records, they were partially insulated from the broader anti-incumbent wave. This is also consistent with the survey's finding that local representative satisfaction (64.11%) was substantially higher than state government satisfaction (39.86%), voters in Kerala's local elections are capable of disaggregating their judgment across governance levels (SRC, 2025).

The urban-rural differential in the results further supports this interpretation. LDF losses were sharpest in corporations and municipalities, more party-driven, more media-exposed, more exposed to aggregate governance narratives, and relatively more contained in grama panchayats, where personalised candidate-centric factors remain dominant.

This candidate-centric insulation should be read alongside the state-government referendum identified in Section 4.4; the two are complementary rather than contradictory, describing two layers of the same result. The referendum on the state government set the direction and magnitude of the aggregate swing, carrying the LDF's losses even into its strongholds, while candidate-level factors operated at the margin to determine how far individual seats resisted that swing, accounting for the grama panchayats the LDF retained where a candidate's personal reputation was strong enough to withstand the state-level tide. The dominant force was the mandate against the state government; the mitigating force was the personal standing of individual candidates.

7. The LDF's Communal Strategy: Ideological Contradiction and the Minority Vote

Section 2.4 theorised Kerala's bipolar competition as resting on a standing alignment in which minority communities hold to the UDF. This section tests that framework against the 2025 result, examining the LDF's communal strategy and its consequences for the minority vote.

The Sabarimala Gold Theft Controversy dominated the survey's issue-salience findings, cited by 41.76% of respondents as the single most damaging issue for the LDF, more than twice the next-ranked concern, with 67.93% considering it credible.

Issue	% Citing as Most Damaging to LDF
Sabarimala Gold Theft Controversy	41.76%
Unemployment	14.27%
None is Detrimental	11.05%
Economic Crisis	10.73%
Failures in Health Sector	7.96%
Anti-Incumbency Sentiment	7.80%
PM-SHRI Controversy	1.33%

Table 4; Source: (SRC,2025)

The actual results revealed a more complex dynamic than straightforward Hindu voter anger. The controversy intersected with a broader ideological contradiction: seeking to consolidate Hindu votes against the BJP, the LDF made a series of 'soft Hindutva' moves, the Chief Minister's 'league alliances' remark, the initial acceptance of PM-SHRI school scheme, and the Ayyappa Sangamam initiative (Basheer, 2025), that backfired on both fronts simultaneously. In northern Kerala, Muslim voters consolidated sharply toward the UDF (Mathew, 2025). The Hindu voters, meanwhile, migrated toward the BJP rather than the LDF, leaving the LDF caught between both vote banks and satisfying neither (Basheer, 2025).

Read through the Campbell et al. (1966) typology (Section 2.4), this strategy supplies the mechanism for reversion rather than realignment, and the SRC's own local-body series confirms the direction. In 2020, before this turn, the UDF held 39.00% of the Muslim vote and 41.10% of the Christian vote against the LDF's 31.20% and 21.60% (with 26.90% and 33.90% still undecided) (SRC, 2020). By 2025, the UDF's position had strengthened to 57.46% and 53.32% respectively, while the LDF's minority support rose only modestly, to 33.78% and 27.29%, a gain of roughly 18 points among Muslims and 12 among Christians beyond the LDF's, consistent with the UDF's standing alignment reasserting and strengthening rather than a durable LDF realignment (SRC, 2025).

The 2020-to-2025 comparison alone cannot distinguish a deviating election from a realigning one, since Campbell's test turns on the shape of the disruption in between, not just the start and end points. Two further arguments support the deviating reading. First, the 2021 gains are traceable to identifiable, short-term pressures (anti-CAA positioning, pandemic welfare, and the KC(M) induction) rather than to a durable shift in party position. Second, the minority vote's organisational anchors, the IUML and Kerala Congress factions, remained continuously allied with the UDF throughout, with no formal defection to the LDF. Since Campbell's distinction rests on whether underlying attachments move or only the vote does, this organisational continuity indicates that 2021 shifted votes without shifting loyalty.

8. The NDA's Performance: Thiruvananthapuram and the Limits of BJP Growth

Section 2.4 posed a direct question: as the BJP's national vote share rises, does Kerala's bipolar structure remain intact, or does that growth begin converting into institutional pluralisation? The survey placed NDA

voting intention at 11.01%, a figure that reflected the BJP's growing but structurally limited presence (SRC, 2025). The actual statewide NDA vote share was 14.71%, a gap of 3.70 percentage points that reflects the survey's underestimation of the BJP's benefit from the LDF's ideological repositioning. In institutional terms, the NDA won Thiruvananthapuram Corporation (50 of 101 wards), retained Palakkad Municipality, won Tripunithura Municipality, and led 26 grama panchayats, modest numbers in absolute terms but representing the BJP's strongest local governance performance in Kerala's history (Kerala State Election Commission, 2025; The News Minute, 2025).

Read against the question posed in Section 2.4, however, this performance falls short of institutional pluralisation. The party's gains were geographically concentrated and do not represent a statewide breakthrough. In Palakkad municipality, previously the BJP's strongest urban foothold, its dominance weakened, and it lost Pandalam municipality adjacent to Sabarimala despite the controversy's salience, a finding that complicates any simple narrative of Hindu consolidation towards the BJP (The News Minute, 2025). At the statewide level, the BJP's 14.71% vote share translates to approximately 2.4% of total seats, a vote-share-to-seat gap that is itself evidence against institutional pluralisation, since a party converting rising support into a durable institutional presence would show seat shares tracking closer to its vote share, not lagging well behind it (Kerala State Election Commission, 2025; The Hindu, 2025). The survey data showing that only 17.85% of respondents considered the BJP the stronger opposition confirms that the party has not yet broken into the dominant bipolar competition that characterises Kerala politics (SRC, 2025). This answers the question posed in Section 2.4: the BJP's rising national vote share and 2024 breakthrough in Thrissur have not yet converted into institutional pluralisation at the local body level in 2025, and the bipolar structure between the LDF and UDF remains intact.

9. Synthesis: Explaining the 2025 Result Through Survey Evidence

The preceding sections have examined the survey evidence thematically, covering governance evaluation, welfare perception, candidate factors, and bipolar competition dynamics. This section draws those threads together into a unified explanatory account of the 2025 result. Read against the theoretical expectations set out in Section 2, the evidence returns four verdicts: retrospective accountability reasserted itself across economic, service-delivery, and leadership dimensions once the extraordinary conditions of 2021 had passed (Section 4); welfare credit proved conditional on the overall governance assessment rather than independently protective (Section 5); weakened party-level valence shifted evaluation to the individual candidate, partially insulating incumbents with strong local reputations (Section 6); and the minority vote reasserted the UDF's standing alignment in both communities, with the UDF's 2025 position clearing its own 2020 baseline while the LDF's organisational anchors among minorities never materialised, consistent with a deviating rather than a realigning classification of 2021 (Section 7).

Taken together, these forces did not operate in isolation but converged within a contest that, though formally local, functioned as a referendum on the state government. Structural anti-incumbency set the baseline hostility, and the welfare-governance paradox explains why it held: voters credited the LDF's welfare achievements but subordinated them to a negative aggregate judgement, so that governance dissatisfaction, not programme delivery, became the operative basis of choice (Sections 4-5). The communal axis gave that hostility its direction among minorities, the LDF's soft-Hindutva positioning around the Sabarimala controversy consolidating Muslim and Christian voters behind the UDF's standing alignment without a compensating gain in Hindu consolidation. Against these convergent pressures, candidate-centric insulation was the sole counter-force, the primacy of candidate merit over party affiliation cushioning the LDF at the ward level, accounting for the grama panchayats it retained and the fact that the defeat was not a collapse, even as the referendum carried the swing into its traditional strongholds. The UDF, for its part, benefited less from positive endorsement, 67.48% were dissatisfied with V.D. Satheesan as Leader of the Opposition, than from its position as the sole credible beneficiary of anti-LDF consolidation in a bipolar system (SRC, 2025). The NDA's gains, locally

significant in Thiruvananthapuram Corporation but structurally marginal statewide, left that bipolar structure intact.

10. Conclusion

The 2025 Kerala Local Body Elections produced a decisive UDF victory that the survey evidence explains through four interacting forces, all operating within a contest that, though formally local, functioned as a referendum on the state government, which is why state-level judgement reached even the LDF's traditional grama panchayat strongholds. First, structural anti-incumbency reasserted itself once the extraordinary conditions behind the 2021 win had passed, embodying the retrospective rejection Key (1966) and Yadav (1999) describe, and registering across economic, service-delivery, and leadership dimensions alike. Second, welfare legitimacy reached the limits of its protective capacity: consistent with Deshpande et al. (2019), welfare credit sustained incumbent support only so long as the aggregate governance assessment remained positive, and was outweighed once that assessment turned decisively negative. Third, candidate-centric insulation, the shift to individual valence that Stokes (1963) and Vaishnav (2017) anticipate, softened the losses at the margin and explains the LDF's residual presence. Fourth, the LDF's soft-Hindutva turn around the Sabarimala controversy backfired on both fronts, consolidating minority voters behind the UDF without winning Hindu support, confirming, in Campbell et al. (1966) terms, 2021 as a deviating rather than a realigning election.

Kerala's electorate, as this study demonstrates, disaggregates its judgement between welfare and economic management, between local representatives and state governments, and between party loyalty and term-specific performance, even as it turned a local election into a verdict on the state. In doing so the paper speaks to four literatures at once: retrospective accountability, welfare voting, candidate-centric evaluation, and the communal dynamics of bipolar competition. That conditional, calibrated rejection, discriminating in what it punished and what it spared, is the defining characteristic of democratic accountability in Kerala.

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Theoretical Perspectives on Poverty in Zambia: A Multidimensional Analysis

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This paper examines poverty in Zambia through a theoretical and multidimensional perspective. Using a qualitative and descriptive approach, the study reviews major poverty theories and poverty measurement methods relevant to the Zambian context. The paper discusses key theoretical perspectives, including the culture of poverty theory, individual deficiency theory, structural theory, geographical disparities theory, cyclical interdependence theory, and social exclusion theory, to explain the persistence of poverty in Zambia. In addition, the study explores various poverty measurement approaches such as the headcount ratio, poverty gap index, inequality measures, and multidimensional poverty measures. The findings show that poverty in Zambia is complex and cannot be explained by a single theory or indicator alone. Rather, poverty is shaped by interconnected structural, economic, social, and geographical factors that reinforce deprivation and inequality.

Keywords : Poverty, multidimensional poverty, poverty measurement, social exclusion, structural inequality, rural poverty.

1. Introduction

Poverty remains one of the major socio-economic challenges affecting populations across the world. The condition affects various aspects of human life in developing countries (Remenyi, 2004). It is multidimensional, which means that it includes numerous deprivations in life like low income, social aspects of living conditions, lack of access to public healthcare & education, and vulnerability among other factors (De Schutter et al., 2023). Historically, poverty was primarily understood in monetary terms; however, contemporary perspectives increasingly recognize its multidimensional nature. In recent years, poverty has increasingly been understood as a multidimensional phenomenon that extends beyond income deprivation to encompass social, political, and environmental dimensions of human well-being (Thorbecke, 2015). The definition of poverty has evolved over time to include not just income deprivation but also social exclusion, lack of participation in the political affairs of a country, and much more (Rowley et al., 2021). Poverty is one of the most critical development problems in Zambia. Despite experiencing economic growth and possessing abundant natural resources, Zambia continues to face widespread poverty and high levels of deprivation among its population (Chikalipah & Makina, 2019). Poverty is prominent in Zambia because many citizens are left poor due to their inability to meet basic needs. These basic needs include, but are not limited to, adequate income, infrastructure, education, healthcare services, and access to markets and other essential socio-economic opportunities (Bird et al., 2002). Despite Zambia's abundant natural resources and economic growth, poverty remains widespread, raising questions regarding the inclusiveness and effectiveness of development outcomes. This raises important questions regarding the underlying factors contributing to the persistence of poverty and the extent to which economic growth has translated into improved living standards for the broader population (Adeniyi, 2021).

Zambian poverty is linked with historical structures, geography, and conditions that are found within the country (Imboela, 2005). Lives lived under the pressures of rural urban imbalances, poor infrastructure,

limited access to resources needed for production and limited exposure to shocks like drought explain the harsh conditions many Zambians face (Jamshed et al., 2020). Marginalization from jobs and inequitable sharing of national resources create social exclusion and poverty traps (Gallie et al., 2003). Neither of these approaches fully explains poverty in Zambia. Instead, there is need to have a multi-dimensional look at poverty given the different shades of poverty people face. Theoretical perspectives, therefore, become essential in understanding the complexity of poverty. Various theories highlight different causes and explanations for why people are poor, ranging from individual factors to systematic conditions (Brady, 2019). Applying these theoretical frameworks to the Zambian context enables a deeper understanding of how various factors interact to sustain poverty and limit opportunities for advancement. This paper, therefore, seeks to examine poverty in Zambia through a theoretical and multidimensional lens. By integrating key poverty theories with the realities observed within the country, the study aims to provide a comprehensive understanding of the nature, causes, and persistence of poverty. In doing so, it contributes to the broader discourse on poverty by emphasizing the importance of context-specific analysis and the need for holistic approaches in the design and implementation of poverty alleviation strategies.

There have been various poverty-reducing policies and programmes that have been implemented in Zambia with the intention of reducing poverty if not eliminating it. The interventions might have been in sector-specific areas but had a poverty reducing focus with the aim of improving livelihoods; the sectors being targeted include agriculture, education, health, and rural development among others. Zambia has had various programmes and policies implemented by Government and development partners over the years targeting poverty reduction which cut across both income and non-income poverty. The efforts of Zambia to implement multiple poverty-reducing programmes have not eradicated poverty, particularly rural poverty (World Bank, 2015). In fact, poverty levels in Zambia have continued to increase despite recent economic growth, raising questions about how impactful and widespread current policy changes are. Zambia has experienced growth mixed with occurrences of poverty similar to other developing economies. For example, Structural Adjustment Programmes (SAP) implemented in Zambia throughout the 1980s and 1990s had varying effects on poverty (Nondo & Kumah-Abiwu, 2022). These changes were designed to help liberalise the economy while cutting government spending, removing subsidies, and limiting government involvement in social services. As such, families had lower access to public services, higher costs of living, and struggled to meet basic needs (Ngoma et al., 2024). Critics argue that these economic reforms contributed to the expansion and deepening of poverty in Zambia by increasing social vulnerability, reducing access to essential public services, and widening existing socio-economic inequalities. The reforms were known to promote privatisation and reduced regulations on businesses while opening up Zambia to trade. Without the proper institutional knowledge and support, many Zambian businesses were unable to compete.

The limited effectiveness of poverty reduction programmes in Zambia can partly be attributed to weaknesses in programme design, inadequate implementation and coverage, policy inconsistencies, financial constraints, and governance-related challenges (Mafukata et al., 2014). Zambia's poverty reduction strategies have largely focused on grant schemes, credit facilities, and income-generating initiatives targeting micro, small, and medium enterprises, as well as vulnerable households. Although many people benefitted from these programmes especially in the short run, they were not able to create a lasting impact because they did not take into account structural factors that hinder economic growth such as lack of infrastructure, market, high cost of production among other issues facing Zambia particularly during periods of economic instability. Policies that Zambia has put in place to stimulate economic growth, entrepreneurship and welfare services have failed to substantially reduce poverty (Jerome, 2011). There is need to look at poverty reduction from a dynamic and multidimensional angle taking into consideration Zambia's economic structure and the institutions in place. This paper hopes to add to the body of literature by analysing poverty in Zambia from some theoretical points of view.

2. Concept of Poverty

Although poverty has been a subject of continuous study and is the focus of a huge amount of existing literature, no standard definition exists. Researchers do not agree on what constitutes poverty, how to measure poverty and what process individuals and households fall into poverty and how they can escape poverty (Nyasulu, 2010). Poverty has both material and immaterial characteristics (Nyasulu, 2010). Therefore, because poverty has no standard definition, we can agree that it is multi-dimensional. Poverty is widely understood as a condition in which individuals or communities lack access to the basic necessities required for a decent standard of living and human well-being. Poverty occurs when people experience deprivation across many aspects of their lives. Poor people have low income, they lack education, health care, access to clean water and sanitation as well as adequate housing (Alkire & Santos 2013). Poor populations often experience vulnerability, powerlessness, and limited participation in decision-making processes (Smith, 2015). All these factors deny them the ability to develop to their full potential. Poverty can undermine human dignity, self-confidence, and overall well-being.

In the context of Zambia, the concept of poverty is particularly relevant given the significant disparities between rural and urban areas, as well as among different regions of the country. A large proportion of the population, especially in rural communities, experiences deprivation not only in terms of income but also in access to infrastructure, markets, education, and healthcare services (World Bank, 2025). These conditions highlight the limitations of defining poverty solely in monetary terms and underscore the importance of adopting a broader conceptual framework. Traditionally, poverty has been categorized into absolute and relative forms. Absolute poverty refers to the inability of individuals or households to meet basic needs such as food, shelter, clothing, and other essentials required for survival. It is commonly measured using a poverty line, below which individuals are considered poor based on their income or consumption levels. Relative poverty, on the other hand, is defined in relation to the average standard of living within a given society. Individuals are considered poor if their resources are significantly lower than those of the general population, thereby limiting their ability to participate in normal social and economic activities (Saltkjel & Malmberg-Heimonen, 2019).

However, contemporary approaches increasingly emphasize multidimensional poverty, which incorporates both monetary and non-monetary indicators of well-being (Hulme & McKay, 2015). This perspective recognizes that poverty in Zambia cannot be fully understood without considering factors such as education, health, living conditions, and access to opportunities. For instance, households may have some level of income but still experience severe deprivation due to lack of access to clean water, electricity, or quality education. As such, poverty is better understood as a condition of capability deprivation (Hick & Burchardt, 2016), where individuals lack the means to achieve basic functioning and improve their quality of life. Furthermore, subjective dimensions of poverty have gained attention in recent years, focusing on how individuals perceive their own well-being and living conditions. In Zambia, perceptions of poverty are often shaped by local contexts, cultural expectations, and social comparisons (Phiri & Abebe, 2016), making it important to incorporate these perspectives into poverty analysis. This approach provides a more comprehensive understanding of poverty by capturing lived experiences and the realities faced by affected populations. The concept of poverty is complex and dynamic, requiring a multidimensional and context-specific approach. In the case of Zambia, understanding poverty involves not only examining income levels but also analyzing structural inequalities, access to services, and the broader socio-economic environment in which individuals and households operate.

3. Measurement of Poverty

There is no standard poverty measure that has been universally accepted; on the contrary poverty has proven difficult to measure because it is a multidimensional concept (Alkire & Santos, 2013). However, a poverty measure should consist of two processes; the first process identifies who is poor while the second aggregates those that are poor into an index (Alkire & Santos, 2013). Poverty measurement has evolved and improved over time with methods that capture income-based poverty to composite indices that measure multiple social and economic indicators(Ele Ojo, 2013).

3.1 Headcount Ratio (Incidence of Poverty)

One frequently used measure is the headcount ratio, which attempts to measure what proportion of the population falls below a set poverty line (Churchill & Smyth, 2017). This measure has been utilized often when referring to poverty levels in Zambia because it demonstrates the high frequency of poverty that is seen, especially in rural areas. However, one drawback of using the headcount ratio is that although it measures how common poverty is, it does not measure how severe it is (Castleman et al., 2015).

3.2 Poverty Gap Index (Depth of Poverty)

To overcome this drawback, the poverty gap is used which is an attempt to gauge how far below the poverty line the poor live (Foster, 1984). The index reflects the mean distance below the poverty line which can be interpreted as how much it would take to raise the income of the poor up to the poverty line. Given the high levels of chronic deprivation in Zambian households, focusing on the poverty gap offers a clearer picture of poverty's intensity than simply looking at its incidence.

3.3 Income Inequality (Lorenz Curve and Gini Coefficient)

A further measure of poverty is inequality which looks at how income or sometimes consumption is distributed across a population, with tools like the Lorenz Curve or Gini Coefficient being implemented to assess this (Bakare, 2012). Large degrees of inequality are linked to uneven distribution of income across society. Countries which have high inequality are often developing countries like Zambia, which indicates that increases in income are not benefiting everyone thus causing poverty to continue (Alvaredo & Gasparini, 2015).

3.4 Composite Poverty Measures (FGT and Sen Index)

To overcome the limitations of single indicators, composite poverty measures have been developed to provide a more comprehensive assessment of poverty. Indices such as the Foster-Greer-Thorbecke (FGT) index and the Sen index combine information on poverty incidence, depth, and severity into a single framework (Foster & Thorbecke, 2010). These measures allow for a more nuanced understanding of poverty by capturing variations among the poor themselves. However, their application is often constrained by data availability and may not fully reflect the complexity of poverty within specific national contexts such as Zambia.

3.5 Human Development and Quality of Life Measures (HDI and PQLI)

Other methods to measure poverty include tools like the Physical Quality of Life Index (PQLI) and Human Development Index (HDI) which take into account life expectancy, education, and literacy rather than income (Morris, 1979). They demonstrate how the conceptualization of poverty has changed and expanded beyond mere monetary well-being to include human welfare more generally. For Zambia, measures like this could be used to track disparities in health care, education, and living standards between rural and urban citizens.

3.6 Multidimensional Poverty Index (MPI)

More recently, there has been growing interest in multidimensional poverty analysis (MPI), measuring the MPI as one factor that contributes to poverty (Alkire, 2021). The MPI assesses various aspects of poverty, taking into consideration multiple deprivations that individuals may face simultaneously (Poverty & Human Development Initiative, 2018). This becomes important because there are households that may not be income poor but are multidimensionally poor. For example, looking at the conditions that we experience in Zambia. Some households have deprivations in aspects such as clean drinking water, toilets, electricity, and quality education. Measuring poverty from a multidimensional lens would provide a clearer picture of the households' poverty level and also help capture the aspects they are deprived of (Alkire, 2018).

3.7 Subjective Measures of Poverty

Subjective measures of poverty have increasingly gained prominence within contemporary poverty analysis. Unlike conventional objective measures that rely primarily on income or consumption thresholds, subjective approaches emphasize individuals' own perceptions and evaluations of their living conditions and well-being (Ravallion, 2014). These measures are founded on the premise that poverty is not solely an economic condition, but also a socially and psychologically experienced reality shaped by social norms, cultural expectations, and economic circumstances. Consequently, perceptions of poverty may vary across societies and communities depending on prevailing standards of living and societal expectations. In the Zambian context, subjective perceptions of poverty are often influenced by community conditions, local definitions of acceptable living standards, and individuals' aspirations for social and economic advancement. Such perspectives provide deeper insight into the lived experiences of deprivation and highlight dimensions of poverty that may not be adequately captured through purely monetary or objective indicators.

3.8 Consumption and Expenditure-Based Measures

Poverty in developing countries, Zambia included, is usually defined in terms of consumption (expenditure) rather than income. Consumption is often used as a proxy for welfare in developing countries because incomes tend to be erratic, seasonal or non-monetary (informal). Measuring poverty by consumption/ expenditure means directly capturing what people live on: their spending on food, housing, education, etc. (Aprea & Raitano, 2023). Poverty Lines in rural Zambia are expressed per adult equivalent as Zambia relies heavily on subsistence farming.

3.9 Asset-Based Measures of Poverty

Asset-based approaches look at things like ownership of land or livestock, housing quality, or durable goods owned by the household. Wealth is sometimes valued over income in rural based economies such as Zambia. This is because wealth isn't always held in monetary terms. Indices can offer household knowledge on transitory factors that may help explain vulnerability to economic events such as drought or recession (Brandolini, 2010).

3.10 Vulnerability to Poverty

Vulnerability based measures include measures that try to capture the extent to which households are likely to become poor in the future. Vulnerability based measurements differ from typical static analyses by accounting for risk and uncertainty. Shocks such as economic shocks, climate risks, health risks and employment shocks are taken into account (Dutta, 2011). In Zambia many households depend on rain-fed agriculture making them susceptible to shocks so vulnerability can also be an important dimension of poverty to examine as households that are not poor now could easily become poor with an external shock.

3.11 Capability Approach

Capability approach suggests poverty as capability deprivation rather than lack of income suggested by Amartya Sen. People are poor when they lack basic capabilities to function in ways they value, like being educated, healthy and socially included (Hick, 2012). The framework resonates with Zambia situation where most people are constrained by low education levels, health care access and minimal infrastructure which reduce capability to better their lives. Capability approach provides theoretical basis for multidimensional measurement of poverty (Robeyns, 2006).

3.12 Social Exclusion Measures

Social exclusion-based measurements consider processes that disallow individuals or groups from participating in social economic, and political life. This can include discrimination or lack of resources that marginalize people from society (Chakravarty & D'Ambrosio, 2006). Measures of social exclusion in Zambia would include those who live in rural areas, those who work informal jobs, and vulnerable groups.

3.13 Participatory Poverty Assessment (PPA)

Participatory Poverty Assessment is essentially consulting groups or asking groups to define what poverty is based on their individual views. Qualitative measurements like this allow analysts to view poverty through the eyes of those who experience it on a day to day basis and can provide information on what poverty means to them, their priorities, and coping strategies (Kende-Robb, 2002). In the Zambian context, PPA methods are particularly useful in capturing rural perspectives and understanding context-specific challenges that may not be reflected in quantitative data.

3.14 Multidimensional Vulnerability and Resilience Measures

Recently proposed measures evaluate households' resilience and adaptive capacities when faced with shocks and stresses. Resilience-based measures evaluate how households cope with stressful events (Gallardo, 2020). Zambia's poverty measurement framework should include resilience-based measures because climate change and economic shocks drastically impact Zambians' livelihoods. Including metrics that capture resilience to these shocks allows for a better understanding of the long-term nature of poverty in Zambia. Poverty should be measured through both quantitative and qualitative indicators to create a more comprehensive picture of poverty. Using only one metric, such as income, to capture who is impoverished will lead to an underestimate of those who are in need. Policies should include a combination of headcount measures, inequality measures, composite measures, and multidimensional measures.

4. Theoretical Framework of Poverty in Zambia

Poverty has been and continues to be studied exhaustively resulting in the development of numerous theories surrounding poverty causes. The various theories surrounding poverty have played a critical role in understanding poverty hence informing poverty alleviation approaches and interventions. Poverty theories are important because they help inform policy development as well as interventions around poverty. Additionally, the theories one chooses to employ when understanding poverty play a vital role in how poverty is defined. Zambia's poverty can best be explained by integrating various theories. Theorists have highlighted that poverty is driven by characteristics of individuals, structural aspects, geographical aspects as well as factors associated with social networks (Harles). This section examines key poverty theories and analyses their relevance to the Zambian context.

4.1 The Culture of Poverty

Culture of poverty theory developed by Oscar Lewis (1960s), who studied poor people in Latin America. Lewis was an American anthropologist who believed that poverty persists because there is continuity of values, attitudes, and behaviours from one generation to the next including fatalism, weak aspirations, or involvement with formal institutions such as schools (Brady, 2019). In Zambia, this concept can partly explain life in communities where poverty has been entrenched over a long period. This might be more visible in rural communities than in urban communities. The danger with this viewpoint is that culture becomes the reason for poverty rather than factors such as limited access to education,or lack of job opportunities.

4.2 Individual Deficiency Theory

Person deficiency theory of poverty fits within the classical and neoclassical economists approach as well as Herbert Gans and Charles Murray. It suggests that poverty can be attributed to a flaw within individuals who do not try hard enough, make poor decisions, or lack skill (Bradshaw, 2007). While this perspective may offer some explanatory value, it does not adequately reflect the realities of poverty in the Zambian context. Access to education, employment, and capital remains highly unequal. There are far too many structural barriers that make it difficult for people to lift themselves out of poverty. Poverty cannot be explained solely through individual deficiencies.

4.3 Structural (Progressive Social) Theory

Structural or progressive social theory comes from Karl Marx and later social theorists who focused on how the economic system and our social structure create inequality (Irwin, 2018). Contributions from more recent theorists include sociologists such as Herbert J. Gans and William Julius Wilson who examine how institutions and larger systems create and maintain poverty (Wilson, 2015). Structural theory can be used to understand poverty in Zambia as poverty there stems from structural problems like lack of adequate infrastructure, unequal access to resources, and poor policy. Changes to the economic system such as structural adjustment have also played a role in allocating opportunity that some groups have been unable to escape from.

4.4 Geographical Disparities Theory

The geographical disparities theory can be associated with the theory of regional development and scholars such as John Friedmann. Also tied to economic geography/agglomeration theory (see Paul Krugman). The geographical disparities theory focuses on differences in location as being prone to poverty due to lack of opportunity and lack of access to resources (Friedmann, 1967). In Zambia, this theory can be seen in the gap between rural and urban communities. Rural communities lack infrastructure such as roads, electricity, hospitals, and schools. Poverty is perpetuated in these regions due to lack of economic activity.

4.5 Cyclical Interdependence Theory

Gunnar Myrdal (1957) developed the Cyclical Interdependence Theory. He believed in a circular causation which was later named cumulative causation (Bresser-Pereira & Marconi, 2014). The theory purports that one type of poverty causes another resulting in cyclical traps that feed on themselves. In Zambia circular causation is evident; low incomes lead to poor education and health standards, which leads to low productivity levels and inability to earn more income. This cycle repeats itself from generation to generation where without any outside assistance, it is hard to break (Hulme, 2001).

4.6 Poverty Individualisation

The concept of poverty individualisation was developed by Ulrich Beck (1992) in his analysis of modern risk societies. The theory suggests that poverty is increasingly experienced at the individual level rather than strictly along traditional class lines. In Zambia, poverty manifests differently across individuals depending on factors such as age, gender, health status, and employment opportunities. For example, youth unemployment and health-related shocks can push individuals into poverty, highlighting the need for targeted and flexible policy interventions.

4.7 Social Exclusion and Cumulative Disadvantage

The concept of social exclusion was further refined by René Lenoir (1974), and later expanded through the works of Ruth Levitas (1998) and Anthony B. Atkinson (1998) in the context of European social policy. It describes processes leading to certain groups being denied full access to social, economic, and political opportunities that are normally available to members of a society. Social exclusion exists in Zambia, where certain groups like the rural poor, women, and those employed in the informal sector face limited access to services like education and health. Low levels of political participation can also cause exclusion from the policy-making process (Stolle & Hooghe, 2011).These disadvantages can build up over time and become chronic poverty.

5. Conclusion

This paper focused on exploring the concepts and dimensions of poverty from a theoretical standpoint. It was argued that poverty in Zambia is a multifaceted phenomenon that extends beyond income deprivation to include social exclusion, limited access to basic services, and vulnerability to shocks and risks. Furthermore, the review reveals that poverty in Zambia is persistent, especially in rural areas, challenging the notion that economic growth alone can lead to improved living standards for all citizens. The discussion on poverty

measurement techniques emphasized the need for a multidimensional approach that captures the various aspects of poverty beyond income levels. While measures such as the headcount ratio, poverty gap, and inequality indices provide valuable insights, they fail to capture the full extent of deprivation experienced by households. Multidimensional approaches, including the Multidimensional Poverty Index (MPI), offer a more holistic understanding by incorporating indicators related to education, health, and living conditions, which are particularly relevant in the Zambian context.

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Traditional Indian Medicine and IP : Issues and Challenges

Raju Narayana Swamy

Traditional Indian Medicine serves the health needs of a vast majority of people in developing countries. It is the only affordable treatment available to the poor people as well as remote communities. Traditional medical knowledge is often associated with generic resources. Ayurveda, India's ancient system of medicine has seen a significant rise in global popularity as a wellness tread. India's IP laws - in particular the Trademarks Act 1999 - provide strong support for protecting Ayurvedic products, but there is a long way to go. Future directions for IP in Ayurveda could include - but in no way be limited to - expanding GI registrations and leveraging technology for IP enforcement. As Ayurveda continues to expand, effective use of IPR will be crucial in building its brand value, nay safeguarding its legacy. The need of the hour is to come up with such a law to actively promote traditional medical knowledge in general and Ayurveda in particular.

Keywords : Traditional medicine, genetic resources, patient cooperation treaty, the Doha declaration, atharvaveda.

Traditional Medical Knowledge : The Concept

World Health Organisation (WHO) defines traditional medicine as "the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses." It serves the health needs of a vast majority of people in developing countries and is the only affordable treatment available to poor people as well as remote communities. Traditional medical knowledge is often associated with genetic resources. As an example, calanolides, compounds derived from the latex of Calophyllum trees found in the Malaysian rain forest are a potential treatment for HIV and certain types of cancer. Because genetic resources exist in nature and are not creations of the human mind, they cannot be protected directly as intellectual property. However they are subject to access and benefit sharing regulations. But these regulations need not always be the order of the day. For instance, in the case of captropril, a drug used to treat hypertension and heart failure, no benefits have flowed back to the indigenous Brazilian tribe that first used pit viper venom as an arrowhead poison.

International forums and Traditional Medical Knowledge

WHO promotes the use of traditional medical knowledge for healthcare.[1] WIPO on the other hand is concerned with its protection in the IP sense. Specific reference needs to be made in this context of patents based on traditional Indian medicine that have included the use of turmeric for healing wounds, the anti fungal properties of need and a diabetes medicine made from extract of jamun - all of which were subsequently revoked. Measures undertaken by WIPO also include changes to the PCT's (Patient Cooperation Treaty) Minimum Documentation and the International Patent Classification so as to improve searches for "prior art" and prevent patents from being granted in error. It is worth mentioning in this context that WTO's work on access to medicines is guided by the Doha Declaration on the TRIPS Agreement and Public Health.[2]

Ayurveda - the science of life

Ayurveda is a deep - rooted Indian recuperating framework which points essentially to advance well being as opposed to battle against illnesses. It is neither legends nor folklore, but is rooted in the tridosha principle that each person is born with a primary inherent characteristic that mainly determines his / her susceptibility to diseases and response to the prevailing external environment, diet and medication. Thus Ayurveda is a traditional medication framework that began in India 5000 years ago and is referenced as a sub-part of Atharvaveda.

Patents and Ayurveda

Patents are the most important type of IP protection for medicines. But to obtain a patent, an invention must be novel, inventive and industrially applicable. Holders of traditional medical knowledge can face significant obstacles in satisfying these conditions - especially the requirements of novelty. Needless to say, it can be difficult to claim that a remedy involves an inventive step, in the light of the fact that herbal medicines typically comprise natural products in their raw form. Moreover, identifying how the claimed invention differs from prior art can also be problematic. However, there can be exceptions too. Instances include patents based on maca, a traditional Peruvian food and medicine first cultivated by the Incas as well as a patent based on kava, a medicinal plant first domesticated in Vanuatu. In China, patent law protects new traditional medicine based products and new uses of traditional medicine including herbal preparations. In the Indian context it needs to be confessed that current provisions of the patent law are obstructive in nature for getting patent on Ayurvedic medicines. The need of the hour is not to be satisfied with the notion “we check the patent” due to TKDL (Traditional Knowledge Digital Library) but to think in the direction of having a patent on the basis of Ayurvedic traditional knowledge in a modified form which must ensure placing patentable medicine in international commerce with evidence based claims of quality, safety and efficiency. It deserves to be highlighted that the process of extraction of active ingredients and product developments by using medicinal plants of Ayurveda as well as usages of these with new purposes are very much patentable subject matter in the national law.

Trademarks and Ayurveda

Trademarks protect distinctive signs such as words, phrases, symbols and designs that identify the source of a product. By registering trademarks companies can protect their brand identity, prevent counterfeit products and foster consumer trust. In the context of traditional medical knowledge, trademarks have been used to market products such as Truong Son Balsam, a balm of medical plants from Viet Nam. In the context of Ayurveda, established brands like Patanjali, Dabur and Kottakkal Arya Vaidya Sala have successfully leveraged trademark protection to build their reputation. However, trademarks do not prohibit third parties from using traditional knowledge without the mark or under a different mark.

Geographical Indications and Ayurveda

Geographical Indications can provide a legal mechanism to protect products that have specific qualities, reputation or characteristics attributed to a particular region. As with trademarks, GIs can be used only to protect products based on traditional medical knowledge and not the knowledge itself. Moreover they cannot protect against the same use of the knowledge that is not associated with a place. Some examples of medicinal plants with GI tags are Green Cardamom from Alleppey and Nilgiri Tea from Tamil Nadu. Similarly saffron from Jammu & Kashmir is highly regarded for its medicinal properties including its use in treating migraine. GIs can also help promote sustainable agriculture practices and protect the regions that are essential to Ayurvedic medicinal plant supply chains. However, in the Indian context, it needs to be emphasized that the

main hurdle stopping Ayurvedic treatments and massages to be bestowed with the GI tag is that they are services and GI tags are only provided for goods. There are numerous countries such as Azerbaijan, Bahrain, Croatia and Singapore that have legislations for the provisions of the GI tag for services as well as goods. India can also adopt a GI protection regime on similar lines.

Trade Secrets and Ayurveda

A trade secret is information not generally known or reasonably discoverable through which an IP holder can obtain some economic advantage. India does not have a separate legislation for trade secret protection. Trade secrets are protected in our country primarily through contract law. Section 27 of the Contract Act provides a remedy and prohibits a person from releasing any information obtained during employment or through a contract. It is worth mentioning in this context that the National Innovation Bill, 2008 was an effort to create a legislation with respect to protection of confidential information, however it was not tabled in the Parliament. In the context of Ayurveda, studies from the field suggest that the industry is actively indulging in trade secrecy despite the fact that the contribution of the current legal mechanism in this regard is minimal. In fact, there are two broad areas where trade secrets exist in Ayurveda - one with respect to the raw materials used and another vis-a-vis the processes involved in the manufacture of proprietary medicines.

Sui Generis Systems and Ayurveda

Some countries have adopted special sui generis laws and measures to protect traditional medical knowledge. For example, Thailand's Act on Protection and Promotion of Traditional Thai Medicinal Intelligence protects formulae of traditional Thai drugs and texts on traditional Thai medicine. China also has a specific legislation to protect traditional medicine which includes massages and treatments viz. The Law of the People's Republic of China on Traditional Chinese Medicine, 2016. India however does not have any such legislation. Perhaps the need of the hour is to come up with such a law to actively promote traditional medical knowledge in general and Ayurveda in particular.

Conclusion

Ayurveda, India's ancient system of medicine has seen a significant rise in global popularity as a wellness tread. India's IP laws - in particular the Trademarks Act 1999 - provide strong support for protecting Ayurvedic products, but there is a long way to go. Future directions for IP in Ayurveda could include - but in no way be limited to - expanding GI registrations and leveraging technology for IP enforcement. The latter will no doubt comprise of digital tools such as block chain technology which can help trace the supply chain of ayurvedic products ensuring transparency and authenticity at every stage of production. As Ayurveda continues to expand, effective use of IPR will be crucial in building its brand value , nay safeguarding its legacy.

Notes

1. WHO fact sheet No.134 "Traditional Medicine"
2. www.wto.org/english/tratop_e/trips_e/who_wipo_wto_e.htm

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Financial Burden of Healthcare Among the Elderly in Kerala: A Critical Analysis Based on the NSS 75th Round

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A major global demographic issue that affects both industrialised and developing nations is population ageing. While the population of developed countries has been ageing for a number of decades, the proportion of old people in developing nations like India is currently rapidly rising. Kerala is unique among Indian states in that it has the greatest percentage of elderly people due to its early demographic transition and achievement of below-replacement fertility rate far earlier than the rest of the nation. This demographic accomplishment shows gains in longevity and health, but it has also increased the burden of chronic and non-communicable diseases associated with ageing. Elderly people therefore need healthcare services more frequently and for longer periods of time, which raises medical costs. The present study explores the wider implications for equality and financial protection in healthcare while critically examining the degree to which the presence of senior relatives adds to household health expenditure and out-of-pocket costs in Kerala.

Keywords: Population ageing, monthly per-capita consumption expenditure, out of pocket expenditure, catastrophic health care expenditure.

I.1 Introduction

The ageing of the population is generally acknowledged as a major worldwide concern with numerous ramifications for social policies, including health care. Human population age structure is changing due to lower fertility rates and increasing lifespans. Increased life expectancy among the elderly raises the risk of non-communicable chronic illnesses, which leads to increased morbidity and disability (Lopez et al., 2006). To lessen the effects of these disorders, early detection and treatment are crucial (United Nations DESA, 2024). Out-of-pocket medical costs rise as a result of the growing burden of chronic illnesses among the elderly, high private healthcare expenses and inadequate health insurance coverage (Roy & Vincent, 2024).

The health and functional state of the elderly is the most important factor in influencing the relationship between population ageing and health costs. Older people have larger health and long-term care needs than younger people, resulting in higher costs. They are also less likely to work if they are unwell, which could put a financial strain on families and society. Approximately 1.4 billion individuals have experienced catastrophic health expenditures (CHE), and half of the population has fallen into extreme poverty as a result of paying for medical care, according to World Health Statistics (2022). Households with elderly individuals are more prone to experience Catastrophic Health Expenditure (CHE), which has different financial effects than those with younger members (Okamoto et al., 2024). Elderly people's rising out-of-pocket medical costs exacerbate the unequal access to basic healthcare in low- and middle-income nations (Brinda et al., 2012).

In terms of social, economic, educational, and health status, elderly individuals are incredibly diverse. India's rapid demographic change is accompanied with a rise in the prevalence of disease and, consequently, an increase in the need for medical treatment. Households with a high level of old-age reliance were more

likely to experience catastrophic health expenditure in India. However, the public health infrastructure is insufficient to handle the growing health burden of a rapidly ageing population (Sahoo et al., 2021). In India, paying for healthcare out of pocket is still difficult. The ongoing rise in healthcare costs causes households to become financially burdened, which leads to CHE (Catastrophic Health Expenditure) (Berki, 1986).

Hence it is understood that one of India's biggest demographic issues is the country's ageing population, which raises healthcare costs. The problem is made worse for women, particularly widows, and members of lower socioeconomic groups, who frequently have less access to healthcare and financial security. Kerala has the greatest percentage of senior adults of any Indian state and has achieved the most advanced stage of the country's demographic shift. The prevalence of chronic non-communicable diseases (NCD) has increased in tandem with the fast development of the older population. These illnesses increase the need for healthcare services and put a significant financial strain on senior families since they necessitate ongoing medical care, frequent diagnostic testing, and long-term medication.

I.2. Health Care Expenditure among the Elderly in Kerala: Patterns and Determinants

Over the past few decades, Kerala's population has been gradually getting older. The percentage of the state's population aged 60 and above increased from 5.1% in 1961 to roughly 16-17% by 2021, indicating a significant shift in the population. Reduced birth rates, longer life expectancy, better healthcare, and higher socioeconomic development metrics in the state are the primary causes of this change. According to population forecasts, the ageing process will quicken in the upcoming decades. According to studies, Kerala's elderly population is predicted to rise to about 20-21% by 2031 and 22.8% by 2036, which means that one in five residents will be elderly. According to some estimates, the percentage of the elder population may perhaps approach 30% by 2051 (Government of Kerala, 2025).

Kerala's ageing process is causing significant changes in families and communities as well as an increase in the proportion of the population that is elderly (Rajan, Shajan & Sunitha, 2020). The population of Kerala is rapidly ageing, as seen by the change in the demographic structure. This has significant socioeconomic ramifications, such as providing social security and pensions, as well as supporting the health and nutritional needs of the elderly (Singh, 2013).

Although the effects of population ageing on growth in health expenditures have been extensively studied, research in this area is somewhat dispersed. As a result, the entire scope of these impacts is unknown. Kerala has a greater rate of catastrophic health expenditure (CHE), which is linked to a higher percentage of households with elderly members, who have a higher incidence of chronic illness (Loutfi, Lévesque & Mukherjee, 2018).

In this regard, the current study aims to comprehend the healthcare costs related to Kerala's ageing population. The demand for healthcare services and associated costs has increased dramatically along with the percentage of the population that is aged.

I.3. Methodology

The analysis was based on data from the 75th round of the National Sample Survey, conducted by the Ministry of Statistics and Programme Implementation's National Statistical Organization (NSO) between July 1, 2017 and June 30, 2018. The 75th round of the National Sample Survey (NSS) featured questions about household consumer expenditure, household social consumption: health, and household social consumption: education. The study used 'Household Social Consumption: Health' (Schedule 25.0) from the 75th wave of the National Social Survey. The survey included 19801 participants from Kerala, with 10,682 coming from rural areas and 9,119 from urban areas. The survey included more than 4,467 households, with 2,392 coming from rural areas and 2,075 from cities. The survey included 260 urban units and 299 villages. 3086 senior folks from Kerala were involved in the study. This included 1596 elderly women and 1490 elderly men, with 1688 samples collected in rural areas and the remaining 1398 in urban areas.

The survey included a random sample of 13,823 households from all districts around the country, both rural and urban. The 75th round study aimed to produce fundamental quantitative data on the health sector. The 75th Round on Household Social Consumption: Health (Schedule 25.0) has fifteen blocks (Key Indicators of Social Consumption in India: Health, NSS 75th Round, July 2017-June 2018).

I.2.1. Medical Expenditure by Socio-Economic Characteristics

Elderly people's health expenditures are heavily influenced by their socioeconomic circumstances. Socioeconomic disparities in health and healthcare resource utilisation have been observed even in nations with universal healthcare coverage. Nonetheless, there are notable and enduring differences in health across the globe according to socioeconomic status (Hosseinpoor et al. 2012).

Table 1.1: Average Total Medical Expenditure (medical + non-medical) by socio-economic characteristics among the Aged in Kerala 2018

Background characteristics	Male		Female		Total	
	Mean	*N*	*Mean*	*N*	*Mean*	*N*
Age class						
60-69	40,210	367	25393	303	33133	670
70-79	27188	182	15983	195	21358	377
80+	22313	99	22687	112	22493	211
Sector						
Rural	31315	332	19981	343	25166	675
Urban	35057	316	25380	267	31007	583
Education						
Illiterate	16419	72	10992	134	12886	206
literate up to primary	22557	384	21408	372	21981	756
Secondary	50136	115	29550	70	42014	185
Hr.sec >	80067	77	64654	34	75979	111
Marital status						
Unmarried	33917	590	29220	224	32442	814
Married	27997	58	16841	386	19035	444
Social group						
ST/SC	16116	42	10543	36	14087	78
OBC	24466	373	18126	337	21455	710
Others	50214	233	27757	237	38227	470
Work Status						
Working\	31445	169	17914	20	29604	189
Not working	33624	479	22056	590	27249	1,069
Quintile class						
1	29800	83	21061	69	26001	152
2	29132	67	18445	63	23797	130
3	28423	104	17121	105	23,392	209
4	37714	136	17856	111	29118	247
5	34979	258	25888	262	29965	520

Type of Ailments						
CDs	20769	135	9181	162	14277	297
NCDs	33341	385	21463	333	27854	718
Injuries	40383	33	56531	54	50004	87
Others	46060	95	29909	61	38,801	156
Healthcare facility						
Public	9558	197	4288	207	6868	404
Private	44746	451	31708	403	38476	854
Ward						
Free	6857	183	4126	189	5503	372
Pay general	30616	199	20505	167	26187	366
Pay special	58,003	266	36520	254	46740	520
Duration of hospital stay						
One week	19348	453	14694	439	17004	892
Two weeks	49663	121	32598	119	40368	240
Three weeks+	71569	74	55146	52	66352	126
Health insurance						
Insured	25279	280	19249	235	22642	515
Not insured	40374	368	23570	375	31422	743
Total Health Expenditure	33089	648	21890	610	27590	1,258

Source: Estimated by author from NSS data of 75th rounds on Household Social Consumption: Health, July 2017-June 2018.

The overall medical cost of Kerala's senior population varies significantly depending on socioeconomic, healthcare-related, and demographic factors. Elderly households face a significant financial burden, as evidenced by the average health expenditure. However, there are notable differences in healthcare utilisation, access, and financial capacity, which are reflected in the extremely uneven distribution of spending. The significant gender gap in healthcare spending is among the most noteworthy findings. Medical costs for senior males are significantly greater than those for old women. Almost every category exhibits this tendency. This may initially imply that men require more medical attention. A more critical view, however, suggests that there may be gender disparities in healthcare utilisation and access. Elderly women may rely on family decisions about healthcare spending, be less likely to seek treatment, or postpone hospitalisation. Therefore, rather than improved health conditions, reduced spending among women may be a reflection of unmet healthcare requirements.

The comparison between rural and urban areas reveals significant disparities in healthcare spending and access. Due to increased access to specialised healthcare facilities, increased use of private hospitals, and higher treatment expenses in urban regions, elderly adults in urban areas spend more on medical care than those in rural areas. Lower spending among senior citizens living in rural areas, however, shouldn't always be seen as a good thing. It could be a sign of inadequate access to healthcare services, transportation challenges, and financial obstacles that deter people from using healthcare services. As a result, the disparity between rural and urban areas reflects both variations in healthcare spending and access. One of the most powerful predictors of health spending is educational attainment. Spending rises dramatically with educational attainment, with those with higher secondary education and above spending close to Rs. 76,000 p.a.? This pattern implies that older people with higher levels of education are more likely to seek medical attention, make use of cutting-edge medical facilities, and obtain expensive treatments. On the other hand, the extremely low spending among senior people who lack literacy may indicate limited access, a lack of health awareness, or an inability to pay

for medical care. The educational gradient thus draws attention to enduring disparities in healthcare utilisation and access to high-quality medical treatment. Significant differences are found when social groups are analysed. The Others category records the highest medical spending, while Scheduled Castes and Scheduled Tribes report the lowest. These discrepancies show persistent societal disparities in access to healthcare resources, even if they may also partially reflect differences in income and healthcare utilisation. Significant unmet healthcare requirements and financial obstacles may be concealed by lower spending among socially disadvantaged groups. The results regarding employment status are a little surprising. Elderly people who work report spending a little more than those who don't. This could suggest that older people who work have more money and can thus afford to get therapy. Simultaneously, healthier people are more likely to stay employed, indicating that complicated relationships between health, income, and healthcare access affect both employment status and healthcare spending.

One of the most significant factors influencing spending is the kind of healthcare facility utilised. The cost of medical care in private facilities is over five times more than that of care in public facilities. This result emphasises how important Kerala's public healthcare system is for offering financial security. However, the ongoing reliance on private healthcare in spite of its high cost raises questions about the accessibility, quality, and availability of public healthcare services. The significant disparity in spending highlights the financial dangers of using private healthcare.

1.2.2. Financial Burden of Health Care among the Elderly: An Analysis of Out-of-Pocket Expenditure

When a household's out-of-pocket expenses (OOPEs) surpass a certain portion of its ability to pay for medical treatment, catastrophic health spending happens. Catastrophic health expenditures (CHE) are often caused by high OOPEs, which either drive individuals and households into poverty or keep them from accessing healthcare. This could indicate that the household is no longer able to pay for other necessities (such as food, housing, water, electricity, and fuel for cooking and heating) or that it is unable to pay for necessities without depleting savings, selling assets, or borrowing money (WHO, 2019). The ageing population is associated with frailty, co-morbidity, disability, and poor health, leading to higher health-care utilisation and high OOPE (Chatterjee et al., 2019). Over 68% of India's current health expenditures are estimated to be out-of-pocket (OOPE) (WHO, 2017). About 12% of rural households and 8% of urban households in Kerala fell below the poverty line due to the highest out-of-pocket expenditures (State Planning Board, 2014). Out-of-pocket medical expenses caused 35 million Indians to live in poverty in 1993-1994 and 47 million in 2004-2005 (Ghosh, 2011). It is therefore a serious concern in a nation like India, where a large number of people are already impoverished and struggle to pay for medical care. The State Planning Board (2014) reported that the private sector spent Rs. 30,800 on IP care, while the government spent an average of Rs. 6,267.

Table 1.2: Mean OOPE (INR Rs. - mean) between men and women by medical expenditure, reimbursement and OOPE (socio-economic and demographic variables)

Variables	Medical Expenditure		Reimbursement		OOPE		Reimbursed as % of Medical Expenditure	
	M	F	M	F	M	F	M	F
Age class								
60-69	37255	23277	5895	3113	31360	20164	15.8	13.4
70-79	24771	14116	1138	1137	23633	12979	4.6	8.1
80+	19994	20033	2035	901	17960	19132	10.2	4.5
Sector								
Rural	28427	17740	1517	1390	26910	16349	5.3	7.8
Urban	32606	23440	6343	3330	26263	20110	19.5	14.2

Education								
Illiterate	14514	9156	117	218	14397	8938	0.8	2.4
literate up to primary	20349	19390	2171	1647	18179	17744	10.7	8.5
Secondary	46308	27197	5610	1721	40698	25476	12.1	6.3
Hr.sec >	76005	59657	13999	21096	62007	38562	18.4	35.4
Marital status								
Unmarried	31265	26888	4183	4234	27082	22653	13.4	15.7
Married	25140	14841	1480	589	23660	14252	5.9	4.0
Social group								
ST/SC	13988	8681	444	2	13545	8678	3.2	0
OBC	21942	16179	2109	921	19833	15257	9.6	5.7
Others	47168	25361	7179	3721	39989	21640	15.2	14.7
Work Status								
Working\	28560	16121	1971	955	26589	15166	6.9	5.9
Not working	31009	19906	4402	2123	26607	17784	14.2	10.7
Quintile class								
1	27914	19209	11041	107	16873	19102	39.6	0.6
2	25901	16918	2920	6888	22981	10030	11.3	40.7
3	25824	15117	2865	288	22960	14828	11.1	1.9
4	34777	16046	4162	2272	30615	13775	12	14.2
5	32267	23403	1785	2065	30482	21338	5.5	8.8

Source: Estimated by author from NSS data of 75th rounds on Household Social Consumption: Health, July 2017-June 2018. Note: M-Male; F-Female

Significant disparities in the financial burden of hospitalisation among Kerala's senior population are revealed by the gender-disaggregated analysis of medical expenditure, reimbursement, and out-of-pocket expenditure (OOPE). Elderly males had more medical costs and out-of-pocket expenses than older women in the majority of socioeconomic and demographic categories. At first glance, this pattern might indicate that males are more financially burdened, but it could alternatively be the result of unequal healthcare use rather than disparities in health requirements. Due to delayed care-seeking, less autonomy in healthcare decision-making, and gender-based discrepancies in access to specialised medical services, women frequently receive less intensive and less expensive treatment despite generally reporting worse health and higher morbidity at older ages. Therefore, reduced spending among women should be seen as a potential sign of unequal healthcare use rather than as proof of lower healthcare requirements.

Despite receiving comparatively higher reimbursement, hospitalisation costs for older adults in urban areas are typically higher than those in rural areas. Kerala's concentration of private multispecialty hospitals and cutting-edge medical technology in urban areas is reflected in this pattern. Urban dwellers are more likely to have access to expensive procedures, advanced diagnostics, and specialised care, which raises overall spending. Even if reimbursement is higher in metropolitan regions, it only partially compensates the financial burden, demonstrating the shortcomings of the current health finance systems. On the other hand, despite Kerala's vast public health network, lower rural spending may indicate limited access to specialised healthcare rather than a decrease in illness burden, indicating that regional disparities still affect healthcare utilisation.

Healthcare spending and reimbursement are clearly positively correlated with education. Elderly people with higher levels of education are more likely to use cutting-edge treatment facilities, seek prompt medical attention, and identify disease symptoms early. Additionally, they are more capable of comprehending insurance policies and filing reimbursement claims. Higher reimbursement, however, does not completely remove significant OOPE, suggesting that insurance coverage is inadequate for costly hospital-based care. On the other hand, lower spending among those with less education should be viewed with caution. Rather than better health, it can be a sign of poor healthcare utilisation, delayed treatment, or financial obstacles. Thus, having more knowledge improves one's ability to pay for medical treatment as well as one's access to it.

Due to the availability of family support, marital status has a major impact on hospitalisation costs. Because spouses help with symptom detection, hospital visits, and medication adherence, married elderly people typically benefit from obtaining medical attention earlier. On the other hand, elderly people who are single, widowed, or separated could put off receiving care since they don't have immediate carers, which could lead to a more serious sickness that necessitates costly hospitalisation. Spouse financial assistance also lessens reliance on outside borrowing in times of medical emergency. These results underscore the significance of family networks in influencing healthcare outcomes among older persons and show that healthcare spending is driven by social support networks in addition to financial resources.

Socially disadvantaged people' relatively lower medical costs should not be seen as proof of better financial security. Instead, it can be a reflection of ongoing disparities in healthcare utilisation, affordability, and accessibility. Families in underprivileged areas may put off hospital stays, rely on less expensive treatment options, or encounter difficulties getting access to specialised medical services. Socially advanced populations, on the other hand, are more inclined to use private hospitals and technologically advanced medical services, which raises costs and reimbursement. Therefore, rather than reflecting differences in disease occurrence, expenditure differences mostly reflect differences in healthcare access, suggesting that societal gaps in healthcare utilisation have not yet been eliminated by universal health coverage. The connection between economic dependence, health, and ageing is highlighted by employment status. Hospitalisation costs are typically cheaper for older people who continue to work, maybe as a result of their improved physical and functional abilities. On the other hand, people who are unemployed are more likely to have age-related impairments and chronic illnesses that necessitate regular or intense medical care. Reimbursement is comparatively larger for older people who do not work, yet it is still not enough to significantly lower OOPE. This implies that retirement raises financial vulnerability by concurrently lowering income and raising healthcare requirements, highlighting the significance of bolstering financial safety systems for senior citizens who are economically dependent.

There is significant variation in healthcare finance, as evidenced by the nonlinear link between economic position and healthcare spending. Reimbursement varies significantly across income categories, despite the fact that wealthy households typically pay more because they use private healthcare and advanced treatment alternatives. While some economically challenged households seem to receive significant recompense, others seem to receive very little. These discrepancies could result from variations in hospital empanelment, insurance enrolment, eligibility under government programmes, and knowledge of reimbursement processes. As a result, deficiencies in the execution of publicly funded health insurance programmes are highlighted by the fact that financial protection depends not only on household income but also on institutional variables determining access to reimbursement mechanisms. The reimbursement pattern shows that hospitalisation costs are only partially covered by current health insurance methods. A significant amount of medical expenses are still paid for directly by households, even in groups that receive comparatively better reimbursement. This implies that insurance plans can have restricted benefit packages, spending caps, exclusions for medications or diagnostics, and insufficient hospitalisation cost coverage. Further evidence that older women may be at a disadvantage due to lesser insurance ownership, fewer employment-linked benefits, or a lack of knowledge about claim procedures comes from gender variations in reimbursement. As a result, different segments of the senior population continue to receive unequal financial support.

Overall, a complex interplay of demographic traits, socioeconomic status, healthcare accessibility, and reimbursement systems shapes hospitalisation costs among Kerala's senior population. It's important to remember that lesser spending does not always equate to better financial protection because it could indicate unmet healthcare needs, delayed treatment, or restricted access to costly medical services. Similarly, larger spending might be a sign of increased use of high-quality healthcare rather than just a higher burden of illness. The fact that significant OOPE persists in almost every demographic category indicates that current health finance practices are still insufficient. To lessen the cost of healthcare for Kerala's ageing population, it is crucial to improve public healthcare facilities, increase comprehensive insurance coverage, and address social and gender disparities.

1.2.3: Relationship between Out-of-Pocket Health Expenditure and Selected Demographic, Socio-economic and Health Characteristics of the Elderly

The high and growing cost of health care is one of the main public health issues in developing nations. Out-of-pocket (OOP) payments are the most popular way to pay for healthcare in underdeveloped countries (O'Donnell O, et al. 2008). Out-of-pocket expenses demand the ability to pay. The burden will shift from high-income to low-income workers, whose healthcare needs are more substantial, to those who use services frequently if health-care financing becomes more dependent on out-of-pocket expenditures. The out-of-pocket medical costs of older persons are influenced by socioeconomic and demographic characteristics. In addition to this, the so-called payment is heavily influenced by health-related factors.

1.2.3.1: Method of Estimation

Variables like total reimbursements and direct medical costs are used to calculate out-of-pocket expenditure (OOPE). Since not all senior citizens have these costs when calculating OOPE, both those who report OOPE and those who do not are included in the sample. As a result, in the first stage of the model, the dependent variable is handled as binary, with a value of 0 denoting those who do not experience OOPE and a value of 1 denoting those who do. The likelihood of experiencing any OOPE is calculated at this step using a logit model. The dependent variable is handled as a continuous variable in the second stage of the model, which only considers those with positive OOPE levels. In this step, the factors influencing the amount of OOPE are estimated using a Generalised Linear Model (GLM). The logit estimation for the likelihood of experiencing OOPE and the GLM estimation for the degree of OOPE among individuals who report positive spending are therefore combined in the two-part model.

Table 1.3 Two-part model, with probit first part and Glm second part on the factors on OOPE among the Aged in Kerala

VARIABLES	First part (Logit)		Second part (Glm)		Marginal effects	[95% conf. interval]	
	CE	SE	CE	SE			
Age class (r=60-69)							
70-79	-0.061	(0.285)	-0.016	(0.108)	-424.341	-5650.29	4796.92
80+	0.123	(0.396)	**-0.249***	(0.140)	**-5,407.903***	-11156.30	302.30
Gender (r=male)							
Female	0.185	(0.317)	-0.152	(0.116)	-3,467.583	-8793.77	1813.42
Sector (r=urban)							
Rural	0.119	(0.294)	**0.193***	(0.115)	**4,656.280***	-797.83	10058.39

Education (r=secondary)							
Not-literate	**-1.350****	(0.642)	-0.281	(0.189)	-7,151.669	-15801.75	1529.40
Primary	**-0.959***	(0.582)	**-0.266***	(0.140)	**-6,640.699***	-13631.69	429.14
Hr.sec>	**-1.614****	(0.691)	0.240	(0.192)	6,321.977	-5456.80	18405.40
Marital status (r=Married)							
Unmarried/ widows	0.024	(0.331)	-0.042	(0.127)	-975.993	-6774.84	4890.05
Social group (r=OBC)							
ST/SC	**-0.856****	(0.363)	0.251	(0.213)	5,819.717	-5927.64	17494.94
Others	**-0.683****	(0.300)	0.120	(0.105)	2,492.769	-2449.86	7377.91
Work status (r=working)							
2.Work_Status	0.308	(0.330)	0.114	(0.141)	2,772.621	-3311.79	8834.79
Quintile class (r=middle)							
Poorest	0.008	(0.447)	-0.209	(0.174)	-4,027.185	-10537.99	2476.77
Poor	0.051	(0.487)	0.019	(0.182)	428.201	-7340.26	8183.26
Rich	-0.110	(0.390)	0.147	(0.155)	3,332.941	-3748.78	10316.09
Richest	0.047	(0.383)	0.210	(0.145)	5,031.356	-1605.44	11591.74
Disease type (r=other)							
CDs	**-0.912***	(0.531)	**-0.935*****	(0.165)	**-20,282.433*****	-29259.40	-11380.74
NCDs	-0.656	(0.504)	**-0.289****	(0.144)	**-8,607.324***	-17579.71	360.60
Injuries	0.945	(1.130)	-0.018	(0.216)	-266.670	-14258.57	13571.55
Healthcare facility(r=Public)							
Private	0.563	(0.509)	**1.064*****	(0.174)	**17,334.831*****	13048.42	21608.30
Type of ward (r=free)							
Paying general	**1.816*****	(0.566)	**0.989*****	(0.187)	**14,868.728*****	10177.67	19721.65
Paying special	**1.398****	(0.559)	**1.190*****	(0.190)	**19,703.658*****	14777.24	24864.49
Duration of stay(r=a week)							
Two weeks	**0.854****	(0.372)	**0.637*****	(0.115)	**14,861.205*****	8400.42	21321.40
Three weeks	**1.001***	(0.548)	**1.334*****	(0.152)	**46,140.390*****	28720.23	63672.30
Health insura-nce (r=Insured)							
Not Insured	1.115***	(0.268)	**0.312*****	(0.100)	**7,653.597*****	3564.16	12047.63
Constant	2.402***	(0.870)	7.882***	(0.261)			
Observations	1,258		1,258		1,258		

Source: Estimated by author from NSS data of 75th rounds on Household Social Consumption: Health, July 2017-June 2018.
Note: CE-Coefficient; SE-Standard errors in parentheses
**** p<0.01, ** p<0.05, * p<0.1*

ST-Scheduled Tribes; SC-Scheduled Castes; OBC- Other Backward Castes; CD-Communicable Diseases; NCDs-Non-Communicable Diseases;

Because it distinguishes between the factors influencing the chance of incurring healthcare expenditure and the factors influencing the amount spent once spending happens, the two-part model is suitable for assessing out-of-pocket expenditure (OOPE). This distinction is especially important when it comes to hospitalisation data, since many people may not spend any money because of free care or insurance, while others may have quite different expenses. The results illustrate the complexity of healthcare funding among Kerala's senior population by showing that the factors influencing healthcare spending and utilisation are not always the same.

First, it seems that age has little bearing on whether an elderly person spends money on hospital stays; but, among those who do, the oldest-old often spend less than the younger elderly. Given that growing older is typically linked to a number of chronic conditions and increased healthcare requirements, this discovery may seem paradoxical. However, this pattern could be explained by a number of causes. The elderly may preferentially seek care in public hospitals or take use of government welfare programmes, and they are more inclined to rely on family members for healthcare decisions. Additionally, doctors may choose to treat very elderly patients more conservatively, avoiding costly diagnostic tests or invasive procedures. Additionally, survival selection may be at work, whereby older people constitute a comparatively healthier population that requires less intense interventions than anticipated.

There is an intriguing dual impact in education. Hospitalisation costs are less common for people with less education, and when they do occur, they typically pay less than people with secondary education. Rather than higher health among the less educated, this pattern reflects disparities in healthcare availability. Poor health awareness, delayed disease symptom recognition, financial constraints, and decreased health-seeking behaviour are frequently linked to lower educational attainment. As a result, some people might choose less expensive treatment options or wait to be admitted to the hospital until absolutely necessary. Higher educational attainment, on the other hand, may promote increased use of cutting-edge medical services and diagnostic techniques, which can significantly raise treatment costs.

After adjusting for other variables, social and demographic traits like gender, marital status, employment status, and household economic status do not show up as significant predictors of OOPE. This implies that healthcare-related factors have a greater influence on the burden of hospitalisation spending among Kerala's senior population than demographic parameters. Kerala may have lessened historic socioeconomic differences in healthcare utilisation due to its vast public health infrastructure, broad literacy, and relatively fair access to healthcare. However, the lack of notable wealth gradients may suggest that hospitalisation frequently becomes inevitable regardless of household income, forcing even impoverished households to mobilise resources through savings, borrowing, or family support.

The disease profile has a significant impact on healthcare costs. Hospitalised patients with non-communicable and chronic infectious disorders have lower OOPE than patients with other medical problems. Many chronic disorders, like diabetes and hypertension, are controlled by standardised treatment protocols that are becoming more widely available in Kerala's public health system, despite the fact that non-communicable diseases are typically regarded as costly because they necessitate long-term therapy. Additionally, the direct financial burden on households is lessened by a number of disease-specific government programmes that offer subsidised medications and diagnostic services. On the other hand, the reference group can contain complicated emergencies, illnesses needing expensive procedures, or acute surgical situations, all of which would result in higher OOPE.

One of the biggest factors influencing spending is the choice of healthcare provider. Compared to treatment in public institutions, hospitalisation in private healthcare facilities is linked to much greater OOPE. The structural distinctions between the two sectors are reflected in this finding. While public hospitals get government subsidies that significantly lower direct patient costs, private hospitals often charge market-based

charges for consultation, diagnostics, medications, treatments, room rent, and professional services. Additionally, private providers can suggest more specialised interventions and a greater variety of investigations, which would raise the total cost of treatment. Due to shorter wait times, perceived higher-quality care, and more access to specialised services, many older individuals still favour private hospitals despite these higher expenses.

The continued significance of financial security measures among Kerala's elderly is demonstrated by the positive correlation between increased OOPE and absence of health insurance. People without insurance have a far higher financial burden since they have to pay for their care out of their own household funds. However, the fact that significant OOPE persists even among those who are insured indicates that current insurance plans do not offer complete financial protection. Co-payments, care received outside of accredited facilities, limited coverage packages, spending caps, exclusions for medications and diagnostics, and other factors may all lead to ongoing out-of-pocket expenses. This result emphasises the need for comprehensive benefit packages and efficient execution in addition to insurance coverage.

Overall, the findings show that treatment-related and institutional factors have a far greater impact on OOPE than do individual socioeconomic or demographic traits. While most personal characteristics lose significance after adjustment, variables directly related to the healthcare delivery process-such as the type of healthcare facility, ward category, length of hospitalisation, insurance coverage, and disease characteristics-consistently explain variations in expenditure. This implies that the type and intensity of medical care received, rather than the patients' demographics, are the main factors influencing healthcare expenses among Kerala's senior population.

1.4: Conclusion

The study comes to the conclusion that, notwithstanding Kerala's noteworthy advancements in healthcare infrastructure and health outcomes, out-of-pocket medical expenses (OOPE) continue to be a major problem for senior households. The results show that a significant amount of healthcare costs are still covered by direct household payments, savings, borrowing, and asset liquidation, which reflects the poor level of financial security that many older people have access to. Given Kerala's reputation for progressive social development, this situation is especially troubling because it implies that increases in health status have not been accompanied by sufficient protection from the financial effects of disease. The analysis emphasises the aged population's increased susceptibility to significant financial risks due to their higher frequency of chronic diseases, multiple morbidities, and frequent healthcare utilisation. Elderly households are more prone to experience catastrophic health costs, particularly when long-term care or hospitalisation is necessary. But it's crucial to understand that spending levels might not accurately represent healthcare requirements. Delays in treatment, unmet medical needs, or restricted access to healthcare services because of financial limitations may be the cause of lower healthcare spending among underprivileged populations rather than improved health conditions.

The study also shows that socioeconomic and institutional factors, including income, area of residence, kind of healthcare facility used, insurance coverage, and disease profile, have a significant impact on healthcare spending. Although lower-income households seem to spend less on healthcare, this could be due to access issues rather than a decrease in the need for healthcare. In a similar vein, the increased cost of using private healthcare is a reflection of both the insufficiency of financial safeguards and the persistence of reliance on private providers as a result of perceived deficiencies in public healthcare services. Therefore, the burden of OOPE must be considered in light of the constraints of the healthcare system rather than being exclusively attributable to an individual's financial situation.

The results indicate that despite the introduction of numerous government programmes and health insurance plans to lessen the financial burden of illness, their efficacy is still questionable. Elderly households are not sufficiently protected from financial hardship by current insurance coverage and reimbursement procedures, as seen by the continued reliance on private healthcare and the maintenance of high OOPE. However, the report offers little information about the precise shortcomings of these programmes, making it

challenging to identify whether coverage gaps, service quality, awareness levels, or implementation difficulties are the main causes of the issue.

The results highlight the necessity of more robust risk-pooling agreements, more insurance coverage, and better access to reasonably priced, high-quality public healthcare services. To improve older people's access to and awareness of healthcare, more focus should be put on health literacy, preventive care, and the efficient use of ICTs. However, policy initiatives must address the structural disparities that continue to influence healthcare spending and utilisation patterns among the aged, going beyond general recommendations. The study effectively brings attention to significant socioeconomic gaps and the ongoing cost burden of healthcare among Kerala's ageing population.

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Plugged In or Holding Back? A Study of Consumer Buying Behaviour Towards Electric Vehicles in Kerala

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The rapid transition towards sustainable mobility has made electric vehicles (EVs) a focal point of both policy discourse and consumer research. This study examines consumer buying behaviour towards electric vehicles in Kollam Corporation, Kerala, with a specific focus on identifying the factors that influence purchase decisions and assessing consumer satisfaction. A descriptive research design was employed, and primary data were collected from 70 respondents using a structured questionnaire. The study finds that environmental concern and rising petrol prices are the primary motivators behind consumer willingness to switch to EVs, while high purchase price, long recharging time, and inadequate charging infrastructure remain the chief deterrents. The findings carry important implications for policymakers and automotive manufacturers seeking to accelerate EV adoption in semi-urban Indian markets.

Keywords: Electric vehicles, consumer buying behaviour, purchase intention, consumer satisfaction, kollam corporation, ev adoption.

1. Introduction

The global transportation sector is undergoing a fundamental transformation driven by growing environmental concerns, volatile fossil fuel prices, and the urgent need to reduce greenhouse gas emissions. Electric vehicles (EVs) have emerged as one of the most promising technological responses to these challenges, offering zero tailpipe emissions, lower operating costs, and reduced dependence on imported petroleum. In India, where urban air quality has deteriorated significantly over the past two decades, EV adoption carries both environmental and public health dimensions of considerable importance.

India recorded EV sales surpassing 1.5 million units in 2023, representing a 50 per cent increase over the previous year. The overall EV share of automotive sales climbed to approximately six per cent by 2023, up from around two per cent in 2021. Government initiatives such as the Faster Adoption and Manufacturing of Electric Vehicles (FAME) scheme have provided crucial demand-side incentives, making EVs more affordable for a broader segment of consumers. Despite this momentum, uptake remains constrained by factors including limited charging infrastructure, range anxiety, high upfront costs, and consumer uncertainty about battery longevity and performance.

Kerala, as one of India's more urbanised and literacy-rich states, presents a particularly interesting context for EV adoption research. Kollam Corporation, a significant urban local body in southern Kerala, typifies the semi-urban consumer landscape where EV adoption is poised to grow yet faces unique infrastructure and affordability constraints. Understanding what motivates or discourages consumers in such settings is essential if policymakers and manufacturers are to design targeted interventions.

This study investigates consumer buying behaviour towards electric vehicles in Kollam Corporation. Specifically, it aims (i) to evaluate the factors affecting consumer EV purchasing decisions, and (ii) to analyse the level of consumer satisfaction with electric vehicles across key attributes. In addition to standard descriptive analysis, the study applies Pearson correlation and multiple regression to quantify the relationships among

satisfaction dimensions and their influence on EV preference. The findings are intended to provide actionable insights for government agencies, EV manufacturers, and future researchers.

2. Literature Review

A substantial body of research has examined consumer attitudes and purchase intentions regarding electric vehicles across various national contexts. Lissy and Mahalakshmi (2022) conducted a descriptive study among 212 respondents in India and found that while consumers were broadly aware of the environmental advantages of EVs, cost sensitivity, limited charging stations, and long battery recharge times were the primary inhibitors of adoption. This finding aligns with the broader consensus that infrastructure gaps constitute a structural barrier to EV penetration in emerging markets.

Chandra Sekhar et al. (2022) examined EV buying behaviour in Tirupati City and identified operating cost, driving range, charging duration, vehicle performance, and brand diversity as the dominant determinants of purchase decisions. Similarly, Bhalla, Ali, and Nazneen (2018) demonstrated through an internet-based survey that environmental concern, comfort, trust in technology, societal acceptance, and infrastructure availability all exert significant influence on vehicle choice, reinforcing the multidimensional nature of EV adoption decisions.

Matias and Yalcin (2017) explored consumer perceptions in the United States and identified range anxiety, inadequate charging networks, and high sticker prices as the three primary barriers to adoption. Gomez and Nasution (2021) found that environmental concerns and product attributes - particularly range and performance specifications - had the greatest impact on purchase intention, while social norms exercised a moderate influence. Perl and Wei (2016) further established that income level, social influence from family and peers, and perceptions of charging infrastructure availability were strong predictors of EV adoption likelihood.

Reddi Swaroop et al. (2022) studied four major South Indian cities and found that price differentials between EVs and conventional vehicles, charging infrastructure adequacy, environmental concern, and speed were the most significant purchase-influencing factors. This South Indian context is particularly relevant to the present study in Kollam Corporation, Kerala. Manoj and Jayaprakash (2023) studied customer satisfaction with electric two-wheelers in Kasaragod District, Kerala, and found generally high satisfaction with quality, price, and performance. Chauhan et al. (2022) noted that attitudes toward EVs had the greatest impact on purchase intentions among Generation Y respondents in India, while environmental concern had a disproportionately larger effect on female consumers.

On the policy side, Layzell and Hastings Simon (2016) established that financial incentives such as tax credits and rebates are important motivators for EV purchase in Canada. Dhar, Pathak, and Shukla (2017) used long-term modelling to show that direct financial support to buyers, combined with investment in charging infrastructure, could substantially raise EV market share in India by 2030, particularly in the two-wheeler segment. Pandita et al. (2023) synthesised the enabling factors for EV adoption in India and identified government policies, financial incentives, fast charging infrastructure, affordability, and battery capacity improvement as the critical levers requiring policy attention. The reviewed literature consistently highlights price sensitivity, charging infrastructure, environmental awareness, and product performance as the dominant dimensions shaping consumer behaviour towards EVs - an observation that directly informs the analytical framework of this study.

3. Methodology

This study adopts a descriptive research design. Both primary and secondary data were used. Primary data were collected from 70 consumers in Kollam Corporation, Kerala, through a structured questionnaire administered via personal interview. The questionnaire was designed in accordance with the study objectives and covered demographic characteristics, factors affecting EV purchasing decisions, and consumer satisfaction across five attributes: price, environmental friendliness, vehicle performance, charging infrastructure, and

durability. Secondary data were drawn from government publications, academic journals, magazines, and online databases.

The sample of 70 respondents was selected using convenience sampling from different residential localities within Kollam Corporation. Collected data were tabulated and analysed using descriptive statistics including frequency distributions and percentage analyses. In addition, Pearson correlation analysis was conducted to examine the linear associations among consumer satisfaction dimensions. Multiple linear regression was employed to assess the collective influence of satisfaction dimensions on consumer preference for EVs over conventional fuel vehicles. The dependent variable was the respondent's stated preference (prefer EV = 2, not sure = 1, do not prefer = 0). Statistical significance was evaluated at the five per cent level (á = 0.05).

4. Results and Analysis

4.1 Demographic Profile of Respondents

The survey comprised an equal number of male and female respondents, with 35 respondents each, representing 50 per cent of the sample. This balanced gender distribution ensures that varying perspectives are equitably captured.

Table 1: Gender-wise Classification of Respondents

Gender	Number of Respondents	% to Total
Male	35	50
Female	35	50
Total	**70**	**100**

Source: Primary Data

With regard to age, 48 per cent of respondents belong to the 31–50 age group, followed by 28 per cent in the above-50 bracket and 24 per cent in the 18–30 age group. This profile reflects the dominance of economically active, middle-aged consumers in the EV ownership space. In terms of occupation, 30 per cent are government employees, while private employees, housewives, and others (including students) each account for approximately 18 per cent, and business persons constitute the remaining 16 per cent.

Table 2: Monthly Income-wise Classification of Respondents

Monthly Income (Rs.)	Number of Respondents	% to Total
Up to 20,000	18	26
20,001 – 40,000	21	30
40,001 – 60,000	6	8
60,001 – 80,000	13	18
Above 80,000	12	18
Total	**70**	**100**

Source: Primary Data

As shown in Table 2, the largest income group consists of respondents earning between Rs. 20,001 and Rs. 40,000 per month (30%, n = 21), followed by those earning up to Rs. 20,000 (26%, n = 18). Respondents earning Rs. 60,001 - Rs. 80,000 and above Rs. 80,000 each account for 18 per cent of the sample (n = 13 and n = 12 respectively), while those earning Rs. 40,001 - Rs. 60,000 represent eight per cent (n = 6).

4.2 Factors Affecting EV Purchasing Decisions

All 70 respondents (100%) reported awareness of electric vehicles, indicating a high baseline familiarity with the product category across the study area. Regarding preferred vehicle type, 62 per cent indicated a preference for electric two-wheelers, 36 per cent for four-wheelers, and two per cent for three-wheelers, reflecting the centrality of two-wheelers in Indian personal mobility.

In terms of consumer expectations, 30 per cent of respondents cited travel efficiency as their foremost expectation from EVs, followed by maintenance advantages (28%), other factors (28%), and durability (14%). Regarding perceived advantages over conventional fuel vehicles, 52 per cent highlighted environmental friendliness as the primary benefit, 28 per cent cited lower maintenance costs, and 20 per cent valued the convenience of home charging.

When evaluating purchase-influencing factors, 30 per cent of respondents prioritised environmental impact, followed by price (28%), other considerations (22%), and charging infrastructure availability (20%). The primary motivation for switching to electric vehicles was rising petrol prices, cited by 62 per cent of respondents (n = 43), followed by reduced pollution and noise (18%, n = 13), environmental protection (16%, n = 11), and the high cost of fuel vehicles (4%, n = 3).

On the deterrent side, price and long recharging time were jointly the most discouraging factors (each 26%, n = 18), followed by high battery replacement cost (24%, n = 17) and inadequate charging infrastructure (24%, n = 17). When asked about the role of government subsidies, 46 per cent stated they would purchase an EV if a subsidy were provided (n = 32), 26 per cent were unsure (n = 18), and 28 per cent would not purchase even with subsidy support (n = 20). Regarding overall current preference, 26 per cent preferred EVs over fuel vehicles (n = 18), 30 per cent did not (n = 21), and 44 per cent remained undecided (n = 31).

4.3 Level of Consumer Satisfaction with Electric Vehicles

Table 3 presents a consolidated summary of consumer satisfaction across five EV attributes. Satisfaction is uniformly high for environmental friendliness and price, moderately high for performance and durability, and comparatively lower for charging infrastructure.

Table 3: Summary of Consumer Satisfaction Across EV Attributes (n = 70)

Satisfaction Dimension	Satisfied (n)	Satisfied (%)	Not Satisfied (%)
Price	65	93	7
Environment Friendly	70	100	0
Vehicle Performance	61	87	13
Charging Infrastructure	43	61	39
Durability	58	83	17

Source: Primary Data

All 70 respondents (100%) expressed satisfaction with the environmental friendliness of EVs, confirming universal recognition of the ecological benefit. Price satisfaction stood at 93 per cent (n = 65), suggesting broad acceptability of current EV pricing in the study area. Vehicle performance satisfaction was reported by 87 per cent (n = 61), while durability satisfaction was expressed by 83 per cent (n = 58). Charging infrastructure satisfaction, at 61 per cent (n = 43), was the lowest among all dimensions, reflecting persistent concerns about the adequacy of public charging facilities.

4.4 Correlation Analysis

Pearson correlation analysis was conducted to examine the strength and direction of linear relationships among four satisfaction dimensions: price, performance, charging infrastructure, and durability. The

environmental friendliness variable was excluded from the correlation analysis due to absence of variance, as all 70 respondents were uniformly satisfied with this attribute.

Table 4: Pearson Correlation Matrix - Consumer Satisfaction Dimensions (n = 70)

Variable	Price	Performance	Charging	Durability
Price	1.000	0.225	0.350**	0.610**
Performance	0.225	1.000	0.397**	0.618**
Charging	0.350**	0.397**	1.000	0.496**
Durability	0.610**	0.618**	0.496**	1.000

*Note: ** p < 0.01; * p < 0.05. Source: Primary Data (computed)*

The correlation matrix in Table 4 reveals several noteworthy patterns. Price satisfaction is not significantly correlated with performance satisfaction ($r = 0.225$, $p = 0.061$), suggesting that pricing perceptions and performance assessments operate relatively independently. However, price satisfaction is significantly and positively correlated with both charging satisfaction ($r = 0.350$, $p = 0.003$) and durability satisfaction ($r = 0.610$, $p < 0.001$), indicating that consumers who are satisfied with pricing tend also to be more satisfied with charging access and product longevity.

Performance satisfaction and durability satisfaction share a strong significant positive correlation ($r = 0.618$, $p < 0.001$), which is intuitively consistent - consumers satisfied with vehicle performance are also likely to perceive the vehicle as durable. Performance and charging satisfaction are also significantly associated ($r = 0.397$, $p < 0.001$). Charging infrastructure satisfaction and durability satisfaction share a moderate significant positive correlation ($r = 0.496$, $p < 0.001$). Overall, with the exception of the price–performance pair, all inter-dimension correlations are statistically significant, confirming that consumer satisfaction across EV attributes tends to move together in a broadly positive and coherent direction.

4.5 Multiple Regression Analysis

Multiple linear regression was employed to assess the extent to which the four satisfaction dimensions jointly and individually predict consumer preference for EVs over conventional fuel vehicles. The dependent variable was coded as a three-point ordinal scale (2 = prefer EV, 1 = not sure, 0 = do not prefer EV) and treated as a continuous proxy for EV adoption readiness. The four satisfaction dimensions served as independent variables.

The overall regression model is statistically significant: $R^2 = 0.361$, Adjusted $R^2 = 0.322$, $F(4,65) = 9.172$, $p < 0.001$. This indicates that the four satisfaction dimensions together explain approximately 36.1 per cent of the variance in consumer EV preference, with the multiple correlation coefficient $R = 0.601$ reflecting a moderate-to-strong collective relationship.

Table 5: Multiple Regression - Satisfaction Dimensions Predicting EV Preference (n = 70)

Variable	β	Std. Error	t	p-value
Constant	“0.145	0.328	“0.444	0.659
Price Satisfaction	0.051	0.375	0.136	0.893
Performance Satisfaction	0.242	0.293	0.827	0.411
Charging Satisfaction	0.177	0.177	0.997	0.322
Durability Satisfaction	0.888	0.324	2.737	0.008**

*Note: DV = EV Preference (2=Prefer, 1=Not Sure, 0=No); ** p < 0.01. R = 0.601, $R^2 = 0.361$, Adj. $R^2 = 0.322$, $F(4,65) = 9.172$, p < 0.001. Source: Primary Data (computed).*

Examining the individual predictors, durability satisfaction is the only statistically significant predictor of EV preference ($\beta = 0.888$, SE = 0.324, t = 2.737, p = 0.008). This finding indicates that consumer confidence in the long-term durability of EVs is the most critical driver of the decision to prefer EVs over conventional vehicles. With the larger sample of 70 respondents, this result is stronger than in smaller surveys, with durability satisfaction significant at the one per cent level. Charging infrastructure satisfaction contributes positively ($\beta = 0.177$, p = 0.322) and performance satisfaction also shows a positive direction ($\beta = 0.242$, p = 0.411), but neither achieves statistical significance in isolation, likely because their effects are partially channelled through or co-explained by durability perceptions given the significant inter-correlations observed in Table 4. Price satisfaction has a negligible independent contribution (â = 0.051, p = 0.893).

These results collectively suggest that enhancing consumer confidence in EV battery and component durability is the most direct lever for improving EV preference in the Kollam Corporation market. The finding that price satisfaction alone does not significantly predict EV preference implies that price acceptability may be a necessary but not sufficient condition - durable and reliable product quality must accompany competitive pricing for consumers to shift their preference decisively toward EVs.

5. Conclusion

This study investigated consumer buying behaviour towards electric vehicles in Kollam Corporation, Kerala, drawing on survey data from 70 respondents. Rising petrol prices (62%) and environmental concern were identified as the primary pull factors towards EVs, while high purchase price, long recharging time, and inadequate charging infrastructure emerged as the principal deterrents. Consumer satisfaction was found to be high across most EV attributes - particularly environmental friendliness (100%) and price (93%) - though satisfaction with charging infrastructure remained comparatively lower at 61 per cent.

The Pearson correlation analysis confirmed significant positive interrelationships among most satisfaction dimensions, with the strongest associations observed between performance and durability ($r = 0.618$) and between price and durability ($r = 0.610$). The multiple regression analysis revealed that the combined satisfaction dimensions significantly predict EV preference ($R^2 = 0.361$, $F(4,65) = 9.172$, $p < 0.001$), with durability satisfaction as the single most influential predictor (â = 0.888, p = 0.008). This underscores the paramount importance of building consumer trust in EV battery life and component reliability.

From a policy standpoint, the findings suggest that subsidies and financial incentives - while appreciated by nearly half the respondents - must be complemented by investments in public charging infrastructure and manufacturer commitments that assure consumers of product durability. Automotive manufacturers should prioritise after-sales service quality and battery warranty programmes, while the government should accelerate the rollout of EV charging stations across Kollam Corporation and comparable semi-urban regions of Kerala.

The study is subject to limitations including its geographical restriction to Kollam Corporation and potential response bias inherent in structured questionnaire surveys. Future research should employ larger probability samples, explore structural equation modelling to test causal pathways among EV adoption constructs, and examine how evolving charging infrastructure in Kerala's emerging port economy - particularly around the Vizhinjam International Seaport region - shapes consumer confidence over time.

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