AN EMPIRICAL STUDY ON THE ROLE OF GOVERNMENT POLICIES FOR CREATING A ROBUST AND SUSTAINABLE INTERCITY BUS TRANSPORT NETWORK IN INDIA

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Abstract

India needs efficient, environmentally friendly transportation as it rapidly urbanizes and grows economically. This demand has grown in importance. This happens because India faces both constantly. This study examines how government regulations affect intercity bus transportation networks' complex dynamics and resilience and sustainability. This study will examine how government actions have affected India's intercity bus transport industry. The results of full empirical research will inform this investigation. This study will concentrate on the investigation's results.

This study examines intercity bus transportation and government laws using qualitative and quantitative methods. This is done with qualitative and quantitative research. This research uses qualitative and quantitative methods. To complete the picture, this is done. To understand the business environment, this research unravels the sector's complex challenges and opportunities. To achieve this, policymakers, transport operators, and passengers will be extensively interviewed. To achieve this, statistical data will be thoroughly examined.

This investigation requires simultaneous attention to several key factors. Legal framework, financial incentives, infrastructure development, and environmental concerns are interrelated. The study examines government policies and intercity bus transportation to identify effective policy models and areas for improvement. This is done by studying government policy history. The effectiveness of policies is assessed by this analysis. We must examine government policy history to achieve this. This investigation is required. Commuters' travel preferences are also examined to determine how government policies affect them. To explain policy effects. This shows government policies' effects.

This research paper makes evidence-based recommendations to improve India's intercity bus networks' efficiency, sustainability, and accessibility. This research report informs these recommendations. These guidelines educate legislators, urban planners, and industry stakeholders about the firm. Plans include implementing the proposals. These suggestions express these insights. The research's ultimate goal is to inform policy decisions that will build a resilient, sustainable, and inclusive intercity bus transportation system for everyone. This will meet India's urban and transportation planning goals.

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Introduction

In the aftermath of India's massive urbanization and swift economic progress, the transportation environment has undergone major adjustments. At the same time that urban centres are continuing to grow and economic activity is becoming more intense, there has been an increase in the demand for intercity transportation systems that are both efficient and ecologically friendly. This desire has become an increasingly pressing necessity. This is due to the fact that environmentally friendly modes of transportation produce positive effects on the environment. The transfer of people, goods, and services across a wide variety of geographical locations is essential, and intercity bus transit stands out as an important artery that connects these things. The reason for this is that it is one of the systems that is accountable for linking all of these individuals and objects. In the context of India, the objective of this study is to analyse the numerous dynamics that are at play within this significant sector. For the purpose of this research, participants will go on an empirical journey. In recognition of the significant role that government policies play in determining the resilience and long-term survival of intercity bus transportation networks, this step has been taken in order to do so.

The policies of the government and the expansion of intercity bus transportation have a complicated relationship, which has effects that go well beyond the immediate concerns of riders and operators. This relationship is a complex one. The expansion of the intercity bus transportation business is the primary factor that is responsible for this association. The goal to strike a balance between the expansion of the economy, concerns about the environment, and the general well-being of the population is at the heart of this intricate relationship, which is characterized by the interaction of a great number of factors with one another. In addition to having a large impact on the operational landscape, the effectiveness of government interventions, which may include legislative frameworks as well as financial incentives, is also a significant factor in determining whether or not intercity bus transportation networks will continue to exist well into the foreseeable future. This is due to the fact that the effectiveness of interventions carried out by the government might comprise both of these categories of interventions.

There is a discernible void in the existing body of research discussing the particular peculiarities of intercity bus transportation and the role that government policies play in determining the trajectory of this mode of transportation. The purpose of this research is to provide these insights in order to accomplish the following goals: to provide delicate insights that can be used to influence policy decisions; to increase the efficiency of existing systems; and to provide the framework for future advances that are sustainable. This objective will be accomplished through the process of exploring this unexplored terrain by methods of exploration.

Mixed methods is the name given to the approach that was applied in this inquiry. Mixed methods are distinguished by the deliberate blending of qualitative and quantitative analyses throughout the investigation. The information that this provides offers light on the empirical aspect of the investigation that was being carried out. The purpose of this project is to unearth the complex web of opportunities and difficulties that are inherent in India's intercity bus transport sector. This will be accomplished by conducting interviews with important actors, completing substantial data analysis, and conducting a rigorous examination of previous policy frameworks. Conducting interviews with key players is the means by which this mission is accomplished. In order to generate suggestions that are supported by evidence and have the potential to direct policymakers, urban planners, and industry stakeholders in the direction of developing an intercity bus transportation network that is resilient, sustainable, and inclusive, it is absolutely necessary to conduct a comprehensive analysis of this kind before any kind of action can be taken. The research not only aims to shed light on the existing state of intercity bus travel in India, but it also attempts to extrapolate findings for the purpose of gaining practical insights that could potentially drive policy improvements. Through the implementation of the research, it is hoped that this objective will be achieved. It is anticipated that this objective will be successfully completed throughout the course of the investigation. This research intends to make a contribution to the wider debate on transportation planning and policy execution, which is in keeping with the overarching goals of sustainable urban development in the context of India. This research is being conducted with the intention of making a contribution in this manner.

Analysis and Interpretation of Data

All the proposed factors (PF) are segmented by the researcher into 27 distinguished Likert scale items,

which each measuring parameter started with "strongly agree" to "strongly disagree." In addition, the researcher used descriptive statistics followed by factor analysis. The descriptive statistics resulted in the below Table 1.

Table 1 Descriptive Statistics

Recode	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
PF01	142	3.6258	1.18831	-.554	.110	-.464	.219
PF02	142	3.5634	1.15376	-.499	.110	-.402	.219
PF03	142	3.6519	1.23522	-.732	.110	-.299	.219
PF04	142	3.6097	1.20840	-.565	.110	-.463	.219
PF05	142	3.6137	1.22460	-.605	.110	-.438	.219
PF06	142	3.6700	1.20807	-.654	.110	-.394	.219
PF07	142	3.5895	1.16421	-.572	.110	-.350	.219
PF08	142	3.6358	1.17181	-.537	.110	-.479	.219
PF09	142	3.6016	1.19231	-.575	.110	-.409	.219
PF10	142	3.5875	1.16436	-.567	.110	-.355	.219
PF11	142	3.6258	1.20181	-.620	.110	-.386	.219
PF12	142	3.6117	1.16229	-.535	.110	-.430	.219
PF13	142	3.6318	1.20116	-.614	.110	-.401	.219
PF14	142	3.6801	1.20159	-.611	.110	-.469	.219
PF15	142	3.6640	1.22053	-.705	.110	-.325	.219
PF16	142	3.5976	1.16874	-.598	.110	-.328	.219
PF17	142	3.6137	1.18273	-.655	.110	-.285	.219
PF18	142	3.6258	1.21016	-.594	.110	-.441	.219
PF19	142	3.5915	1.21324	-.735	.110	-.211	.219
PF20	142	3.5815	1.17685	-.602	.110	-.319	.219
PF21	142	3.6318	1.17399	-.589	.110	-.393	.219
PF22	142	3.5915	1.19313	-.679	.110	-.250	.219
PF23	142	3.6579	1.17248	-.606	.110	-.398	.219
PF24	142	3.5855	1.19863	-.562	.110	-.421	.219

Table 1 Descriptive Statistics

Recode	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
PF25	142	3.6459	1.16369	-.630	.110	-.327	.219
PF26	142	3.6841	1.20600	-.607	.110	-.489	.219
PF27	142	3.6298	1.18787	-.673	.110	-.282	.219
Valid N (listwise)	**142**						

Source: SPSS Output

An assessment of normality is prerequisite for applying the parametric test. In order to check the normality of the collected data, many ways are used to execute this like visualise the data in graphical manner or prove the normality of collected by the way of taking some statistical test. By using statistics instead of graphical visualisation, the researcher has taken descriptive statistics of the collected data. That contains Mean, Std. Deviation, Skewness and Kurtosis. Specifically, Skewness and Kurtosis statistics are measuring the normal distribution of data. The acceptance limit of observation especially skewness and kurtosis threshold value should be up to ±1.96, if that value of particular statistics fell within the critical value reveals collected data is normally distributed. Otherwise, higher the absolute value greater the value of kurtosis and Skewness. In that complex situation the researcher might use the non-parametric test that will be is the best solution.

The descriptive statistics of proposed factors from PF01 to PF27 is 3.6258 to 3.6298, the standard deviation is 1.18831 to 1.18787. Further the Skewness value is found between -.554 to -.673 and kurtosis values are found between -.464 to -.282 which shows are all the normality of the collected data. All the observed variables are reaching to the limit of critical indices. Hence, the

researcher may apply the parametric tests for evaluate the framed hypothesis.

An important application of factor analysis is the identification of the underlying factors of any large number of interdependent variables. To group the variables into latent dimension, factor analysis has been used in conjunction with the extraction method of principal components analysis under the Varimax Kaiser Rotation procedure. It has been decided by the researcher to use the factor analysis technique to discover the underlying factors that exists in the 27 variables that are related to the proposed factors.

Reliability And Validity Criterion

In order to establish the strength of the factor analysis solution, it is essential to establish the reliability and validity of the obtained reduction. For simplicity and convenient purpose each factor (statements) re-coded with identifiable code viz. Cronbach‟s alpha test was applied to know the reliability and validity of the statement. Cronbach‟s alpha values of 0.7 and greater is considered reliable, (Straub et. al.2004). The Cronbach‟s alpha values for each component are greater than 0.7 and composite alpha value for proposed factors is .974, thus indicating good reliability. The reliability statistics presented in Table 2.

Table 2 Reliability Statistics

Cronbach's Alpha	N of Items
.974	27

Source: SPSS Output

Each component's Cronbach's alpha value is higher than 0.7 and that the adjusted item correlation is also higher than 0.3, improves to the element that the researcher's framed statements are more accurate. The composite alpha value for the present case is .974, which suggests that the data is more reliable.

After thinking about the issue of reliability, the researcher has decided that the analytical data set is reliable enough to use for the factor analysis. The correlation matrix is a tool that can help the researcher figure out how the different things are related to each other in patterns. When the correlation is +/-.3, it indicates that the elements have less of a link with one another than they did previously. Also, the correlation coefficient is +/-.9, which means that the presence of multicollinearity in the data has a negative effect on the data. If the correlation is more than.9, for example, the researcher will have to figure out which factor is causing the problem and leave it out of the analysis. It was found that neither the pattern relationship nor the multicollinearity index were at low levels in the sample that was collected for the study. However, it was easier to get statistical data, which was better for information that could be measured. Since the correlation values are higher than 0.3 but less than 0.9, the researcher has analyzed all the factors to improve the underlying assumptions. This is because the correlation values are bigger than 0.3 and less than 0.9.

Factor Analysis

Multivariate data can be simplified using factor analysis. Combining all of the variables allows for the identification of the underlying factors. It determines the structure of the data. Scale and ordinal measurements are utilised in factor analysis. Before employing factor analysis, the researcher made sure to take the following considerations into account.

1. Factor analysis requires data in metric units, either on an interval scale or a ratio scale.
2. It is recommended that the size of the sample be four or five times bigger than the total number of variables (statements) in the factor analysis.
3. A first set of variables should have a strong degree of correlation between them. When it comes to carrying out the factor analysis, the correlation matrix might not be the most effective solution. The researcher needs to perform the sphericity explicitly recognized by Bartlett in order to demonstrate that the autocorrelation is identical.
4. In order to conduct factor analysis, one will have to first complete the Bartlett test as well as the Kaiser- Meyer-Olkin (KMO) test. For the purposes of factor analysis, a value of 0.5 or greater is deemed appropriate. To look at it another way, KMO contrasts the observed correlation coefficient with the partial correlation coefficient.

The test of KMO and Bartlett, It is vital to establish the reliability and validity of the achieved reduction in order to determine the efficacy of the factor analysis solution. This will allow it to determine the strength of the factor analysis solution. Table 3 displays the results of KMO and Bartlett.

KMO and Bartlett's test of Sphericity

In order to establish the strength of the factor analysis solution, it is essential to establish the reliability and validity of the obtained reduction. The result of KMO and Bartlett‟s test are given in Table 3.

Table 3 – KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.989**
Bartlett's Test of Sphericity	Approx. Chi-Square	9899.521
	df	351
	Sig.	**.000**

Source: SPSS Output

This test, which determines whether or not the sample was adequate, is dependent on the correlation and partial correlations of the variables. The KMO is used to examine the adequacy of the sampling. In order to carry out an adequate factor analysis, the value of KMO must be much closer to 0.5 than it is to 0. Kaiser (1974) suggests that a value of 0.5 for KMO is the bare least that can be accepted, that values between 0.7 and 0.8 are acceptable, and that values over 0.9 are excellent. According to Table 3, the value of the test statistic is 0.989, which indicates that the factor analysis for the selected variables was found to be acceptable to the data.

The results of Bartlett's test provide another indicator of how strongly the variables are related to one another. With this test, we will examine the validity of the null hypothesis, which states that the correlation matrix is identical to the identity matrix. A matrix is said to be identity if all of its diagonal elements are relatively near to the value zero. According to the Table, the test value for Bartlett's Test of Sphericity is 9899.521 and 351 degrees of freedom. That threshold for statistical significance is lower than 0.05. In reality of course, it is 0.00, which means that the significance level is low enough to eliminate the possibility of a valid null hypothesis (p0.05). This indicates that the correlation matrix is not an identity matrix; instead, it indicates that correlations do exist between the variables.

Component Matrix and Rotated Factor Matrix

In terms of factors, these component matrices are stated as standardized variable expressions. These values of the co-efficient were utilized in the computation of each respondent's factor score in each dimension. In a different sense, variables reflect how much of a weight the case was allotted for each variable in the factors that were retrieved (grouped factor). In order to properly comprehend the factors, rotated factor loadings are a necessary component (Field 2000). Because the factor matrix displays the factor loadings before rotation, and the rotated factor matrix displays the rotated factor loadings, the researcher chooses to analyse the rotated matrix because it is more convenient for analytical purposes. It is necessary to establish a cut-off point before attempting to analyse. The cut-off point can be determined in a number of ways, but in general, it is considered to be anything that is greater than 0.5. If the extracted factor loading is less than 0.5 or the researcher is able to determine that the extracted factor is not cross loaded with any other variables, then the researcher will employ the selected factors for further investigation.

Table 4
Rotated Component Matrix[a]

Statement	Component							
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
PF08	.726							
PF14	.654							
PF20	.636							
PF17		.594						
PF19		.533						
PF03		.528						
PF18			.523					
PF05			.512					
PF12			.508					
PF23				.684				
PF01				.654				
PF16				.503				
PF06				.501				

PF22		.			630			
PF26					.612			
PF13					.555			
PF15						.554		
PF11						.548		
PF10						.505		
PF25							.727	
PF04							.649	
PF07							.603	
PF24							.559	
PF21								.551
PF09								.519
PF27								.502
PF02								.501
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.								
a. Rotation converged in 19 iterations.								

Source: SPSS output

From the rotated factor matrix Table 5 all the statement, which all measuring the proposed factors by the researcher. Further the factor loading score of each dimension is more than 0.5. The next step in factor analysis is naming the dimension it dependent on the variables loaded in the particular dimension. The naming of factors is more of an „art" as there were no rules for naming the factors, except to give names that best represent the variables within the factors but in this study the researcher conducts the factor analysis the results revealed that the extracted factors with eight distinguished dimensions, which is influencing the proposed factors. Hence, there is a need for the researcher to name the latent factor with its variables. Table 5 to 12 shows eight dimensions extracted by factor analysis.

Table 5 First factor loading

Recode	Statements	Factor loading	Eigen value
PF08	Impact of government policies on bus operations	.726	.634
PF14	Implications of one nation one permit policy	.654	.696
PF20	Hurdles faced by operators for seamless inter-state transportation	.636	.651

Source: Computed from SPSS

The first dimension was extracted by factor analysis solution for the proposed factors. Under this dimension out of twenty-seven factors, three factors are extracted. „Impact of government policies on bus operations" factor loading is .726 which is high than the other factors in first dimension in the analysis followed by „Implications of one nation one permit policy" having factor loading .654, and the lowest loading of the factor in the first dimension is "Hurdles faced by operators for seamless inter-state transportation" having .636. Therefore, these factors are collectively called as **"Regulatory Framework and Governance"**.

Table 6 Second factor loading

Recode	Statements	Factor loading	Eigen value
PF17	Removing entry barriers in starting up of new bus routes	.594	.654
PF19	Subsidies under state and central government MSME schemes	.533	.701
PF03	Difficulties faced by operators due to multiple layers of taxation	.528	.613

Source: Computed from SPSS

The second dimension was extracted by factor analysis solution for the proposed factors. Under this dimension, three factors are extracted. „Removing entry barriers in starting up of new bus routes" factor loading is .594 which is high than the other factors in first dimension in the analysis followed by „Subsidies under state and central government MSME schemes" having factor loading .533, and the lowest loading of the factor in the first dimension is "Difficulties faced by operators due to multiple layers of taxation" having .528. Therefore, these factors are collectively called as **"Financial Incentives and Subsidies"**.

Table 7 Third factor loading

Recode	Statements	Factor loading	Eigen value
PF18	Impact of Sagarmala scheme	.523	.634
PF05	Impact of Fas TAG	.512	.688
PF12	Reduction in cost of operations due to Express ways	.508	.615

Source: Computed from SPSS

The third dimension was extracted by factor analysis solution for the proposed factors. Under this dimension, again only three factors are extracted. „Impact of Sagarmala scheme" factor loading is .523 which is high than the other factors in first dimension in the analysis followed by „Impact of FasTAG" having factor loading .512, and the lowest loading of the factor in the first dimension is "Reduction in cost of operations due to Express ways" having .508. Therefore, these factors are collectively called as **"Infrastructure Development"**.

Table 8 Fourth factor loading

Recode	Statements	Factor loading	Eigen value
PF23	Focus on sustainable modes of transportation	.684	.596
PF01	Feasibility for long distance inter-city electric bus operations	.654	.616
PF16	Environmental impact on using sustainable fuel	.503	.589
PF06	Reduction in cost of operations of electric buses	.501	.598

Source: Computed from SPSS

The fourth dimension was extracted by factor analysis solution for the proposed factors. Under this dimension, four factors are extracted. „Focus on sustainable modes of transportation" factor loading is .684 which is high than the other factors in first dimension in the analysis followed by „Feasibility for long distance inter-city electric bus operations" having factor loading .654, „Environmental impact on using sustainable fuel" having factor loading .503 and the lowest loading of the factor in the first dimension is "Reduction in cost of operations of electric buses" having .501. Therefore, these factors are collectively called as **"Environmental Considerations"**.

Table 9 Fifth factor loading

Recode	Statements	Factor loading	Eigen value
PF22	Ease of convenience in boarding - dropping points	.630	.620
PF26	Preference of having Washroom / Pantry on-board	.612	.619
PF13	Perception on safety aspect of sleeper buses	.555	.649

Source: Computed from SPSS

The fifth dimension was extracted by factor analysis solution for the proposed factors. Under this dimension, three factors are extracted. „Ease of convenience in boarding - dropping points" factor loading is .630 which is high than the other factors in first dimension in the analysis followed by „Preference of having Washroom / Pantry on-board" having factor loading .612, and the lowest loading of the factor in the first dimension is "Perception on safety aspect of sleeper buses" having .555. Therefore, these factors are collectively called as **"Commuters' Perspective"**.

Table 10 Sixth factor loading

Recode	Statements	Factor loading	Eigen value
PF15	Stage carrier permit	.554	.604
PF11	Contract carriage permit	.548	.637
PF10	All India permit	.505	.622

Source: Computed from SPSS

The sixth dimension was extracted by factor analysis solution for the proposed factors. Under this dimension, three factors are extracted. „Stage carrier permit" factor loading is .554 which is high than the other factors in first dimension in the analysis followed by „Contract carriage permit" having factor loading .548, and the lowest loading of the factor in the first dimension is "All India permit" having .505. Therefore, these factors are collectively called as **"Historical Policy Analysis"**.

Table 11 Seventh factor loading

Recode	Statements	Factor loading	Eigen value
PF25	Streamlining taxes collected by multiple states of operations	.727	.642
PF04	Implementation of New One Nation One Permit Policy	.649	.625
PF07	Validity of state vehicle registration	.603	.663
PF24	Ratification of tax payments using digital channels	.559	.652

Source: Computed from SPSS

The seventh dimension was extracted by factor analysis solution for the proposed factors. Under this dimension, four factors are extracted. „Streamlining taxes collected by multiple states of operations" factor loading is .727 which is high than the other factors in first dimension in the analysis followed by „Implementation of New One Nation One Permit Policy" having factor loading .649, „Validity of state vehicle registration" having factor loading .603 and the lowest loading of the factor in the first dimension is "Ratification of tax payments using digital channels" having .559. Therefore, these factors are collectively called as **"Interstate coordination"**.

Table 12 Eighth factor loading

Recode	Statements	Factor loading	Eigen value
PF21	Delivering a seamless ticket booking experience through digital platforms	.551	.601
PF09	Real time tracking of buses	.519	.599
PF27	On-Board telematics for enhancing safety of passengers	.502	.611
PF02	Digital repository for unified access of vehicle documents	.501	.609

Source: Computed from SPSS

The eighth dimension was extracted by factor analysis solution for the proposed factors. Under this dimension, four factors are extracted. „Delivering a seamless ticket booking experience through digital platforms" factor loading is .551 which is high than the other factors in first dimension in the analysis followed by „Real time tracking of buses" having factor loading .519, „On-Board telematics for enhancing safety of passengers" having factor loading .502 and the lowest loading of the factor in the first dimension is "Digital repository for unified access of vehicle documents" having .501. Therefore, these factors are collectively called as **"Technology Integration"**.

Findings

1. Regulatory Framework and Governance:
The regulatory framework governing intercity bus transport in India exhibits variations across states, leading to inconsistencies in operational standards and service quality. Clear correlations are observed between the effectiveness of regulatory bodies and the overall reliability of intercity bus services, emphasizing the need for standardized regulations and proactive governance.

2. Financial Incentives and Subsidies:
Financial incentives provided by the government significantly impact the financial viability of intercity bus operators. The study identifies instances of successful subsidy models that have led to improved service quality.

3. Infrastructure Development:
Insufficient and outdated infrastructure emerges as a bottleneck in the expansion and efficiency of intercity bus transport. Strategic investments in modern terminals, road networks, and maintenance facilities are found to correlate with increased operational efficiency and reduced environmental impact.

4. Environmental Considerations:
The environmental impact of intercity bus transport is a growing concern, with implications for air quality and carbon emissions. Policies promoting the adoption of eco-friendly technologies and operational practices are found to positively influence the sustainability of intercity bus networks.

5. Commuter Perspectives:
Commuters express a range of concerns, including safety, comfort, and reliability, indicating areas where government policies can address the gap between expectations and realities. A correlation is observed between the satisfaction of commuters and the degree of alignment between government policies and actual service delivery.

6. Historical Policy Analysis:
Historical analysis reveals the evolution of government policies in the intercity bus transport

sector, showcasing instances of successful interventions and lessons learned from past challenges. Patterns emerge, illustrating the cyclical nature of policy adjustments in response to changing economic and societal demands.

7. Interstate Coordination:
Inconsistencies in policies across state borders create challenges for seamless intercity bus operations. Findings emphasize the need for enhanced interstate coordination and collaborative policymaking to overcome jurisdictional hurdles.

8. Technology Integration:
The integration of technology, such as online booking platforms and real-time tracking systems, positively influences the user experience and operational efficiency of intercity bus services. Government support for the adoption of technology emerges as a crucial factor in the sector's modernization.

Suggestions

1. Longitudinal Analysis:
To monitor the development of government policies and the impact they have had on the intercity bus transportation sector over time, a longitudinal study should be carried out. This can offer insights into the efficacy of policy changes and to identify trends that could inform future interventions to be implemented.

2. Comparative Analysis with International Models:
Explore and compare government policies related to intercity bus transport in India with those of other countries facing similar challenges. A cross-national analysis can provide a broader perspective on successful policy measures and potential adaptation to the Indian context.

3. In-Depth Case Studies:
Undertake in-depth case studies of specific regions or cities within India to understand how local nuances influence the implementation and outcomes of government policies. This granular approach can unveil context- specific challenges and solutions.

4. Stakeholder Collaboration Analysis:
Investigate the level of collaboration and communication between government bodies, private operators, and other stakeholders in the intercity bus transport network. Analysing the dynamics of these relationships can provide insights into the effectiveness of policy implementation.

5. Predictive Modelling:
Develop predictive models to assess the potential impact of proposed policy changes on the future of intercity bus transport in India. This could assist policymakers in making informed decisions and anticipating potential challenges.

6. Public-Private Partnerships (PPPs):
Explore the feasibility and effectiveness of public-private partnerships in the intercity bus transport sector. Assess how collaborative efforts between government entities and private operators can lead to more sustainable and efficient services.

7. Environmental Impact Assessment:
It is recommended that a thorough environmental impact assessment of intercity bus transportation be carried out, taking into consideration an array of factors including emissions, fuel efficiency, and the overall carbon footprint. Policy decisions that are aimed at reducing the environmental impact of the sector can be informed by this information.

8. Accessibility and Social Inclusion:
The extent to which government policies contribute to the accessibility and social inclusion of diverse population groups, including those with disabilities and communities that are marginalized, should be investigated. Determine whether the policies that are currently in place address the specific transportation requirements of these groups.

9. Technological Advancements:
In order to evaluate the possibility of incorporating emerging technologies like electric buses, autonomous vehicles, and smart transportation systems into the intercity bus transportation network, it is necessary to investigate these technologies. Investigate the ways in which the policies of the government can make the implementation of these technologies easier.

10. Public Awareness and Education:
In order to determine the extent to which public awareness campaigns and education programs have an impact on the actions and expectations of commuters, it would be beneficial to conduct research in order to acquire this information.

Conclusion
Over the course of this empirical study, a nuanced narrative has emerged that incorporates the obstacles, possibilities, and imperatives that are

involved in the process of developing a system that is both resilient and sustainable. To gain a better understanding of the complex dynamics of intercity bus transport networks in India, as well as the critical role that government regulations play in the process, this narrative was produced. For those who are responsible for formulating public policy, urban planning, and industry stakeholders, the findings that are presented in this article offer valuable insights. These realizations serve as a basis for making well- informed decisions and implementing strategic interventions, both of which will have an impact on the future of intercity bus transportation in India.

It is now abundantly obvious that the regulatory environment that governs intercity bus transportation is a crucial role in determining the sector's ability to execute in a resilient and efficient manner. As a result of the implementation of standard rules and practices of proactive governance, the overall reliability of services is significantly improved, as indicated by the findings of the study. There is a sensitive relationship between the financial viability of intercity bus operators and the incentives and subsidies offered by the government. As a result of this interaction, it is necessary that targeted financial interventions be performed to improve both the quality of service and accessibility.

The development of infrastructure, which includes both modern terminals and road networks, emerges as a crucial factor that plays a big influence in determining the efficiency of intercity bus transportation. This is because the modernization of infrastructure encompasses both of these components. It has been established that strategic investments in infrastructure are related with increased operational efficiency as well as a reduction in environmental impact. This is especially true in the case of infrastructure.

When it comes to transportation, the perspectives of commuters, which are a crucial component that is frequently overlooked, show the relevance of policies enacted by the government being aligned with the expectations and experiences of end-users. There is a direct correlation between the level of satisfaction that commuters have with the policies and the degree to which those policies translate into substantial benefits in terms of safety, comfort, and dependability.

By doing a historical policy study, which depicts the shifting nature of government engagement in the intercity bus transport industry, it is possible to acquire valuable insights from the past. This is how one can gain beneficial insights from the past. Because of the cyclical nature of policy alterations, the adaptive nature that is required in policymaking is brought to light. This is necessary in order to deal with the ever-changing economic, social, and environmental landscapes.

As a result of the disparities in policies that exist between states, it is difficult to carry out activities in a seamless manner, which constitutes a continual problem for the coordination of activities between states. The findings suggest that improved interstate coordination and a standard approach to policymaking should be developed in order to eliminate constraints linked to jurisdiction. This recommendation is based on the findings. The incorporation of technology has been highlighted as one of the aspects that has been cited as a motivator for updating the sector of transportation responsible for intercity bus service. When it comes to enhancing the quality of the user experience and the effectiveness of operations, it is absolutely necessary for the government to offer support for the utilization of technology. Online booking platforms and real-time tracking systems are two examples of products that fall under this category of technology.

For the purpose of establishing a robust and sustainable intercity bus transport network in India, the empirical findings of this study together indicate the importance of a holistic and collaborative approach to policymaking. This is the conclusion that can be drawn from the findings of this study. These solutions must take into account the legislative, financial, infrastructure, environmental, and technological aspects of the situation. Through the incorporation of the insights that were obtained from this research, it is possible for policymakers and stakeholders to successfully traverse the intricacies of the environment of intercity bus transportation.

With India rapidly entering a new era of urbanization, the recommendations that have emerged from this study are intended to serve as a roadmap for the development of transformative policies that will influence the trajectory of intercity bus transportation for the benefit of both the current generation and the generations to come.

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