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"COMPARATIVE ANALYSIS OF NAVIGATING GOVERNMENT GRANTS AND SUBSIDIES FOR INDUSTRIAL GROWTH"

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Abstract: This study provides an in-depth analysis of government subsidies and grants aimed at fostering industrial growth, focusing on key challenges and the relationship between financial support and quantified benefits. Through descriptive statistics, the analysis reveals significant variability in budget allocations and beneficiary numbers across various schemes. This disparity highlights differences in the scale and reach of these programs, prompting a need to understand the underlying policy drivers that influence resource distribution. Moreover, the study demonstrates a strong positive correlation between subsidy amounts received and observed benefits, suggesting that increased financial support directly contributes to industrial advancements. However, the challenges in subsidy distribution, such as application process delays, infrastructure gaps, and reimbursement delays, significantly impact the effectiveness of these programs. The study proposes actionable recommendations for improving subsidy allocation, addressing the identified challenges, and enhancing the overall impact of government support. These recommendations include the investigation of budget allocation policies, the analysis of beneficiary targeting, and the collection of missing data on the validity periods of schemes. The paper also suggests conducting a detailed disaggregation of subsidy types and exploring their respective impacts on the quantified benefits achieved. Additionally, the analysis calls for a comprehensive evaluation of challenges in subsidy distribution, with an emphasis on multi-instance data collection and root cause analysis to develop targeted solutions. Through these steps, the study aims to optimize the efficiency and effectiveness of government grants and subsidies, fostering sustainable industrial growth and equitable access to financial support.

Keywords: Targeting beneficiaries, quantified benefits, application process, infrastructure gaps, policy drivers, financial assistance, data analysis, equity of subsidies, efficiency analysis.

I. INTRODUCTION

In recent years, government subsidies and grants have become vital tools for fostering industrial growth and economic development. These financial incentives play a significant role in supporting businesses, particularly in sectors that face high investment costs or are critical to national interests. Despite the importance of subsidies, the distribution process is often characterized by disparities in budget allocations, beneficiary reach, and operational challenges. While some schemes receive considerable funding, others operate on a smaller scale, raising questions about the strategic priorities that drive these allocations. Additionally, the complexities in the subsidy distribution process—ranging from application delays to infrastructure gaps—pose significant obstacles for businesses seeking to capitalize on these funds. This article seeks to explore the effectiveness of government subsidies and grants in promoting industrial growth by analysing key factors such as funding variability, beneficiary distribution, and the alignment of these schemes with their intended policy goals. A critical aspect of the analysis is the correlation between the amount of subsidies received and the tangible benefits observed, as well as the challenges businesses encounter during the distribution process. By addressing these concerns, the paper aims to provide actionable insights that can help optimize the use of subsidies, ensuring that they contribute effectively to economic growth while minimizing inefficiencies in their implementation. The findings presented in this study provide valuable recommendations for policymakers and businesses seeking to navigate the complex landscape of subsidies and grants.



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Statement of the Problem:

The distribution and use of government subsidies and grants have vast differences in terms of funding levels, beneficiary coverage, and operating issues. These differences call into question the efficiency, equity, and viability of subsidy programs, calling for an extensive examination to enhance their form and implementation. The rese arch seeks to resolve these challenges by examining the relationship between

subsidy levels and benefits realized, determining the most

important distribution issues, and making suggestions onhow to maximize subsidy distribution and delivery.

Objective of The Research:

1.To Identify the Factors That Affect Government Subsidies and Grants.

- 2. To Research the Policies and Regimes Controlling Subsidies and Grants.
- 3. To Understand the Types of Subsides and Grants utilized in Shreyas Global
- 4. In order to Assess the Challenges in the Subsidies Distribution.

Research Question

• What are the policy drivers and criteria underlying the differing budget allocations across different subsidy and grant schemes, and how do they drive the observed differences in funding?

• What is the range and central tendency of validity periods across schemes, and how do these periods compare with the policy objectives and aims of the grants and subsidies?

• How do the eligibility criteria and outreach strategy impact the number of beneficiaries under various subsidy and grant schemes, and to what extent do these policies ensure equitable access to financial support?

• How are differences in budget size, validity of the periods, and the number of recipients related to

the articulated goals and objectives of the grant and subsidy programs, and are they consistent with the intended outcomes?

Significance of Study:

This research has high relevance for policymakers and program administrators in subsidy distribution and grant administration. In discovering the drivers of budgeting andbeneficiarytargeting, it will serve to advance the equity and comprehensiveness of financial assistance programs.

Second,the evidence from the model relating subsidy values and quantifiable benefits provides keen insight into resource allocation efficiency and effectiveness improvement. Overcoming the operational problems in subsidy disbursement can rationalize the process, minimize delays, and enhance the overall effectiveness of these schemes. In the end, the conclusions of this study can be used to inform policy-making in the future and offer practical advice on how subsidies and grants can be designed and implemented better, leading to fairer and more effective government assistance schemes.

II. LITERATURE REVIEW

• **Reuters (2024)** – PLI Scheme Performance India's Production-Linked Incentive (PLI) scheme aimed to boost domestic manufacturing but saw slow fund disbursement. By 2024, only a fraction of the ₹1.97 lakh crore budget had been released. Several sectors, including textiles, underperformed against targets. The report calls for re-evaluation before the scheme lapses in 2025.

• **Press Information Bureau (2023)** – FAME II Progress FAME II facilitated ₹5,294 crore in subsidies for 11.7 lakh electric vehicles by 2023. The scheme also supported 7,432 EV charging stations across India. It reflects positive uptake in the clean mobility sector. The program demonstrates a strong link between fiscal support and adoption.

• Centre for Social and Economic Progress (2022) – Transparency Issues This study critiques India's lack of clear definitions around subsidies. It finds fragmented data reporting across departments and states. Such inconsistencies hinder public accountability and assessment. It recommends unified reporting standards for subsidy classification.

• **Muthu & Rajalakshmi (2023)** – MSME Support Schemes This paper evaluates government schemes like the CLCSS for MSMEs. It finds that credit access and capital subsidies significantly aid small business growth. However, bureaucratic delays and limited awareness reduce effectiveness. The study calls for process simplification and better outreach.

• Singh & Verma (2023) – Agricultural Subsidies Impact The paper reviews input subsidies on fertilizers, water, and electricity in agriculture. While these improve yields and farm income, they harm soil and water systems. It suggests a shift toward sustainable subsidy models. The authors advocate environmental assessments in policy planning.

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III. RESEARCH METHODOLOGY

Research Design:

This study employs a descriptive research design.

Data Analysis Tools:

- Descriptive Statistics
- Correlation
- ANOVA
- Contingency

Tool Used:

Software: JASP

Result And Discussion: Descriptive Statistics

Descriptive Statistics

	Valid	Mean	Std. Deviation	Minimum	Maximum
budget allocation	7	3477.857	2500.820	945.000	8100.000
Validity Period	8				
No. of Beneficiaries	8	218.375	260.638	1.000	700.000

The descriptive statistics reveal significant differences in key characteristics between the schemes being compared. The budget allocation shows a high level of variability, with a large standard deviation that suggests some schemes receive significantly more money than others. This difference necessitates a closer look at the policy drivers and the criteria employed for resource allocation. Equally, the scale of beneficiaries also differs significantly, as indicated by a standard deviation greater than the mean and ranging from 1 to 700. This implies that the schemes are working on very different scales and covering different numbers of persons or entities and questions their presumed reach and scope. Lastly, the lack of data during the validity period does not allow for a comprehensive comprehension of the schemes' time aspects, an essential requirement to determine their sustainability and compatibility with policy timelines.

Correlation:

Pearson's Correlations	•		
Variable		Amount received	quantified benefit
1. Amount received	Pearson's r	_	
2. quantified benefit	Pearson's r	0.999	_
	p-value	0.001	_

The Pearson's correlation coefficient of 0.999, with its corresponding p-value of 0.001, reflects a strongly positive and statistically significant linear correlation between the cumulative "Amount received" in the form of subsidies by Shreyas Global for a year and the "quantified benefit" seen in that year. The almost perfect positive correlation implies that as the overall subsidy amount is higher, the quantified benefit increases almost proportionally. The extremely low p-value gives powerful statistical evidence that this seen connection is not attributable to random probability and is instead probably a true connection between the two variables. Essentially, the data strongly implies that the subsidies to Shreyas Global are directly and strongly contributing to the seen positive impacts.

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ANOVA:

ANOVA - COST REDUCTION							
Cases	Sum of Squares	df	Mean Square	F	р		
SOURCE	8.000	1	8.000	0.074	0.794		
Residuals	645.500	6	107.583				

ANOVA Results:

Analysis of Variance (ANOVA) carried out to determine whether the effect of a particular factor (presumably concerning various conditions or categories of grants and subsidies at Shreyas Global) on cost minimization is significant reported a p-value of 0.794. This p-value is significantly greater than the standard level of significance of 0.05. Therefore, we are unable to reject the null hypothesis that there is no significant difference between the mean cost reduction between the groups being tested. This in practical terms is to say that on the basis of the data we have analysed, there is no statistically significant evidence to indicate that the various categories or conditions of the factor you investigated have a demonstrably different impact on the extent of the cost reduction accomplished. The variations in the reduction of costs observed across groups are most likely a result of random chance instead of a systematic effect of the factor being researched.

Contingency:

Contingency Tables

	ROOT CAUSES CATEGORY							
CHALLENGE TYPE	Documentation Guidelines	Financial Disbursement	Institutional Delay	Inter-departmental Gaps	Lack of Evaluation Criteria	Policy Instability	System Transparency	Tax Refund Procedures
Administrative Lag	0.000 %	100.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %
Application Process	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	100.000 %	0.000 %	0.000 %
Documentation	100.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %
Eligibility Scrutiny	0.000 %	0.000 %	0.000 %	0.000 %	100.000 %	0.000 %	0.000 %	0.000 %
Infrastructure Gap	0.000 %	0.000 %	100.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %
Procedural	0.000 %	0.000 %	0.000 %	100.000 %	0.000 %	0.000 %	0.000 %	0.000 %
Reimbursement Delay	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	100.000 %
Transparency Issues	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	0.000 %	100.000 %	0.000 %

 Chi-Squared Tests
 ▼

 Value
 df
 p

 X^a
 56.00
 49
 0.229

 N
 0
 229
 Note

 Note: Continuity correction is available only for 2x2
 0.240
 0.229

(Contingency Table and Chi-Squared Test):

The contingency table shows a seemingly deterministic correlation between each individual challenge type in subsidy distribution and one single root cause category identified. For instance, all cases of "Administrative Lag" were linked to "Financial Disbursement" as the root cause, and so on for other challenge-root cause combinations. Nonetheless, the outcomes of the Chi-Squared test, whose p-value stands at 0.229, confirm that these noted associations are not statistically significant under the traditional 0.05 threshold. This means that we cannot conclusively state based on the data available that there exists a strong association between these noted challenge types and their determined root causes within the larger framework. The pattern seen may be a result of chance variation in the small sample.

Limitations of The Study:

• The Study is Covered on Secondary Data Only.

• The study emphasizes recent years (2020–2024) only for four years so long-term impact and sustainability of subsidy programs are not fully captured.

• It is difficult to measure the direct impact of subsidies on industrial growth due to other influencing economic and policy variables.

SUGGESTIONS:

• Examine Budget Allocation Policies: Review the policy guidelines and documents for each scheme to know why they are allocating their budgets in a certain way. Determine the criteria, formulas, or strategic priorities guiding funding decisions and describe the noted variations

• Efficiency Analysis by Subsidy Category: Examine the "benefit efficiency" of various categories of subsidies. For example, determine the rate of the achieved benefit to received amount for every type of subsidy (e.g., total R&D benefit vs. total R&D subsidies taken during the time period). This can be useful in determining the types

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of financing that provide the greatest return as a "quantified benefit."

• Elucidate the Groups: Clearly state what the various levels or categories within your "SOURCE" variable are.

Ensure that these categories map to clear-cut types of subsidies or

grants your "SOURCE" variable draws and you suspect may have varying effects on cost savings

• Enlargen Sample Size for Data: The single most important thing to do is

to collect and analyse data for a much greater number of examples of challenges of subsidy distribution and their root causes. The bigger sample will have more statistical power for the Chi-Squared test and a more accurate measure of the interplay between types of challenges and root causes

IV. CONCLUSION

This research points out a number of key factors affecting the success of grant and subsidy programs. The disparities in budgetary allocations and beneficiaries observed between schemes indicate that more uniform and just policy guidelines are required. The close link between benefits and subsidies indicates the need for strategic funding in order to maximize positive results, while operational setbacks like delays and infrastructure deficiencies should be overcome in order to enhance distribution efficiency. Through examination of these topics and suggesting practical solutions, the study hopes to be able to add to the construction of more successful subsidy programs that are more suited to policy aims and provide a higher level of equity and sustainability in the dispensation of funding. Subsequent studies ought to develop these results further through the collection of more in-depth data over a number of instances and sectors, further examining the underlying reasons behind operational challenges, and assessing the long-term effects of various subsidy types.

REFERENCES

- [1]. **Reuters.** (2024, April 4). India gives over \$1 bln incentives to private firms under its manufacturing scheme. Reuters. https://www.reuters.com/world/india/india-gives-over-1-bln-incentives-private-firms-under-its-manufacturing-scheme-2024-04-04/
- [2]. Press Information Bureau. (2023, December 19). ₹5,294 crore subsidy disbursed to EV manufacturers under FAME II: Centre. Ministry of Heavy Industries, Government of India. https://pib.gov.in/PressReleasePage.aspx?PRID=2089308
- [3]. Centre for Social and Economic Progress. (2022). Budgeting for transparency: The hidden figures of Indian subsidies. CSEP Working Paper Series.
- [4]. Muthu, G., & Rajalakshmi, R. (2023). An empirical study on the role of government support schemes in the growth of MSMEs in India. International Journal of Management Research, 11(2), 33–42. https://doi.org/10.2139/ssrn.4455720
- [5]. Singh, N., & Verma, R. (2023). Agricultural subsidies in India and their impact on the environment. Indian Journal of Agricultural Economics, 78(1), 15–28. https://doi.org/10.5958/0974-0279.2023.00003.1