Analysis of PMGSY Impact in Churu and Jhunjhunu Districts

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ABSTRACT

The road construction in rural areas of Rajasthan under PMGSY is increasing connectivity and works as decreasing rural-urban gap in other way. It giving boost to the rural life and impact can be visualized on each sector.

Introduction

The present study is based on a survey of two districts of Rajasthan, namely- Jhunjhunu and Churu. In this survey, responses of rural people have been collected for the impact of Pradhan Mantri Gramin Sadak Yojana (PMGSY) on agriculture, income, health, education, employment, social and other aspects. For this purpose, 250-250 completed responses have been collected from each district and analysed as follows.

Analysis of Impact Factors for Jhunjhunu District

The study has been focused on six variables: (i) impact on agriculture, (ii) impact on income, (iii) impact on health, (iv) impact on education, (v) impact on employment, and (vi) impact on social and other aspects.

Table 1

Descriptive Statistics (Jhunjhunu)

Particulars	Mean	Std. Deviation
Impact on Agriculture	4.07	1.86
Impact on Income	4.14	0.86
Impact on Health	4.46	0.98
Impact on Education	4.16	1.81
Impact on Employment	3.98	1.98
Impact on Social and other Aspects	4.40	1.34

All variables were measured on a 5-point Likert scale.
Source: Author's compilation.

For PMGSY impact on agriculture, mean of responses was 4.07 on Likert scale whereas standard deviation was 1.86. These statistics indicate that, although there was some variation in responses but, most of the respondents were agreed about significant impact of road construction under PMGSY in rural areas of Jhunjhunu on agriculture.

For PMGSY impact on income, mean of responses was 4.14 and standard deviation was 0.86. These statistics indicate that, there was no significant variation in responses and most of the respondents

were agreed about positive impact of road construction under PMGSY on income.

For PMGSY impact on health, mean of responses was 4.46 and standard deviation was 0.98. It can be concluded from these statistics that, there was minor variations in responses but, most of the respondents were agreed and a large number of them were strongly agreed about significant impact of road construction under PMGSY in rural areas of Jhunjhunu on residents' health.

For PMGSY impact on education, mean of responses was 4.16 and standard deviation was 1.81. It can be concluded from these statistics that, there was some variations in responses but, majority of the respondents were agreed and some of them were strongly agreed about positive impact of road construction under PMGSY on residents' education.

For PMGSY impact on employment, mean of responses was 3.98 and standard deviation was 1.98. It can be observed from these statistics that, there was a significant variation in responses and although many residents were disagreed also but, majority of the respondents were agreed about positive impact of road construction under PMGSY in rural areas of Jhunjhunu on employment.

For PMGSY impact on social and other aspects, mean of responses was 4.40 and standard deviation was 1.34. It can be concluded from these statistics that, there was minor variations in responses but, most of the respondents were agreed and a large number of them were strongly agreed about significant impact of road construction under PMGSY in rural areas of Jhunjhunu on social and other aspects.

Analysis of Impact Factors for Churu District

The descriptive statistics of all six variables were measured on a 5-point Likert scale. Mean and standard deviation values have been calculated and presented in following Table 2.

Table 2

Descriptive Statistics (Churu)

Particulars	Mean	Std. Deviation
Impact on Agriculture	4.03	1.56
Impact on Income	3.98	0.96
Impact on Health	4.46	1.08
Impact on Education	4.03	1.71
Impact on Employment	3.93	1.89
Impact on Social and other Aspects	4.34	1.43

Source: Author's compilation.

For PMGSY impact on agriculture, mean of responses was 4.03 on Likert scale whereas standard deviation was 1.56. These statistics indicate that, although there was some variation in responses but, most of the respondents were agreed about significant impact of road construction under PMGSY in rural areas of Churu on agriculture.

For PMGSY impact on income, mean of responses was 3.98 and standard deviation was 0.96. These statistics indicate that, there was no significant variation in responses and most of the respondents were agreed about positive impact of road construction under PMGSY on income.

For PMGSY impact on health, mean of responses was 4.46 and standard deviation was 1.08. It can be concluded from these statistics that, there was minor variations in responses but, most of the respondents were agreed and a large number of them were strongly agreed about significant impact of road construction under PMGSY in rural areas of Churu on residents' health.

For PMGSY impact on education, mean of responses was 4.03 and standard deviation was 1.71. It can be concluded from these statistics that, there was some variations in responses but, majority of the respondents were agreed and some of them were strongly agreed about positive impact of road construction under PMGSY on residents' education.

For PMGSY impact on employment, mean of responses was 3.93 and standard deviation was 1.89. It can be observed from these statistics that, there was a significant variation in responses and although many residents were disagreed also but, majority of the respondents were agreed about positive impact of road construction under PMGSY in rural areas of Churu on employment.

For PMGSY impact on social and other aspects, mean of responses was 4.34 and standard deviation was 1.43. It can be concluded from these statistics that, there was minor variations in responses but, most of the respondents were agreed and a large number of them were strongly agreed about significant impact of road construction under PMGSY in rural areas of Churu on social and other aspects.

Hypothesis Testing

To analyse the comparison between impact of PMGSY on different aspects in Jhunjhunu and Churu district's rural areas, following null hypothesis has been tested:

Ho: There is no significant difference between impact of PMGSY on agriculture, income, health, education, employment, social and other aspects in rural areas of Jhunjhunu and Churu districts.
For this purpose, Table 3 showing mean values of responses received on different aspects from nearby residents of road constructed under PMGSY in the districts under study.

Table 3
Descriptive Statistics of Variables

Particulars		Mean	
		Jhunjhunu (1)	Churu (2)
I	Impact on Agriculture	4.07	4.03
II	Impact on Income	4.14	3.98
III	Impact on Health	4.46	4.46
IV	Impact on Education	4.16	4.03
V	Impact on Employment	3.98	3.93
VI	Impact on Social and other Aspects	4.40	4.34

Source: Author's compilation.

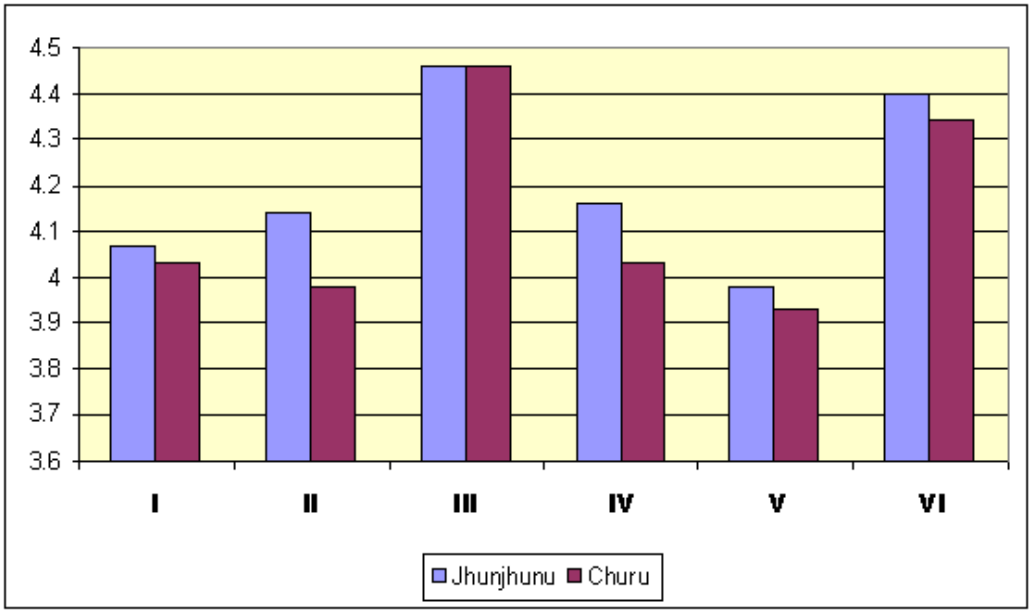

Fig. 1: Difference in impact of PMGSY

From Table 3, it is clear that in both districts responses, there was minor difference in agriculture, income, education, employment, social and other aspects whereas no difference in case of health issues.

Taking data of different variables, one way ANOVA test has been performed which is shown in Table 4.

Table 4
One Way ANOVA Test

Particulars	Treatments		
	(1)	(2)	Total
N (number of variables)	6	6	12
Σ X	25.21	24.77	49.98
Mean	4.2017	4.1283	4.165
ΣX^2	106.1021	102.4943	208.5964
Std. Dev.	0.1887	0.217	0.1976

Table 5
Result Details

Source	SS	df	MS	p-value	F
Between variables	0.0161	1	0.0161	.546231	F = 0.3901
Within variables	0.4136	10	0.0414		
Total	0.4297	11			

The f-ratio value is 0.3901. The calculated p-value is .546231 which is higher than significance value .05. Hence, null hypothesis is accepted as the result is not significant at p<.05, and it can be concluded that there is no significant difference between impact of PMGSY on agriculture, income, health, education, employment, social and other aspects in rural areas of Jhunjhunu and Churu districts.

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