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Pranita J Pada
Ph.D. Scholar, Department of
Extension Education,
Dr. PDKV, Akola, Maharashtra,
India

Dr. PK Wakle
Professor and Head, Department
of Extension Education,
Dr. PDKV, Akola, Maharashtra,
India

Dr. SP Lambe
Professor (CAS) Department of
Extension Education,
Dr. PDKV, Akola, Maharashtra,
India

A study of relationship between the selected characteristics of independent and dependent variables of socio-biography of farm labourer in Vidarbha region

Pranita J Pada, Dr. PK Wakle and Dr. SP Lambe

Abstract
The present study was conducted in Vidarbha region of Maharashtra state. The research was carried out in the Akola and Amravati districts. An exploratory research design of social research was used for the present investigation. Twenty-four villages were chosen randomly. A total of 240 respondents were chosen from each community. The information was gathered through personal interview. The study concluded that the relationship between selected independent and dependent variables. Age, education, family size, land holding, annual income, gender, marital status, caste, mean man days, wages received, and indebtedness were calculated by Karl Pearson correlation coefficient while family type, social participation, farm practices operated by labourer, skilled and unskilled labourer, working condition and work satisfaction were calculated by Spearman's rank correlation coefficient.

Keywords: Socio-biography, relationship, farm labourer, Vidarbha region

Introduction
Agricultural labour means any person employed in agricultural crop production as a wage earner, whether in cash or kind, for his livelihood and includes a person engaged through a contractor or engaged as a self- employed person (Mohan Singh 2007) [2]. The agriculture sector is the backbone of an economy which provides the basic ingredients to mankind and now raw material for industrialization. Agriculture is the basic source of food supply of all the countries of the world whether under developed, developing or even developed. Agriculture makes its contribution to economic development in different ways by providing food and raw material to non agricultural sectors of the economy, by creating demand for goods produced in non agricultural sectors, by the rural people on the strength of the purchasing power, earned by them on selling the marketable surplus, by providing investable surplus in the form of savings and taxes to be invested in non agricultural sector, earning valuable foreign exchange through the export of agricultural products, and by providing employment to a vast army of uneducated, backward and unskilled labourer. As a matter of fact, if the process of economic development is to be initiated and made self sustaining, it must begin with agricultural sector. Initially, agriculture absorbs a large quantity of labourer force. (Prabhuraj 2018).
The assumption that the socio-biography is influenced by various personal, socio-economic and situational characteristics of the respondents a coefficient of correlation was computed.

Materials and Methods
The present study was conducted in the Akola and Amravati districts of Vidarbha region in Maharashtra state. In Amravati district there were total 14 talukas, out of these two talukas were selected purposively namely Amravati and Achalpur. Similarly from Akola district there were total 7 talukas, out of these two talukas were selected purposively namely Akola and Balapur. From each selected village 10 respondents were selected from each village making a total sample of 240 respondents. For the present study was an exploratory research design of social research was used.

Results and Discussion
The results in the form of coefficients of correlation of various independent variables and socio-biography of farm labourer has been presented in Table 1.

Corresponding Author
Pranita J Pada
Ph.D. Scholar, Department of
Extension Education,
Dr. PDKV, Akola, Maharashtra,
India

Table 1: Correlation coefficient of selected characteristics of the respondents with their socio-biography of farm labourer

Sl. No	Name of variables	'r' value
1	Age	0.060NS
2	Education	0.046 NS
3	Family size	0.078NS
4	Family type	0.023NS
5	Land holding	0.155**
6	Annual income	0.332**
7	Gender	0.059NS
8	Marital status	0.078NS
9	Caste	0.022NS
10	Social participation	0.102NS
11	Mean man days	0.254**
12	Farm practices operated by labourer	0.419**
13	Skilled and unskilled labourer	0.151**
14	Wages received	0.408**
15	Working condition	0.579**
16	Work satisfaction	0.506**
17	Indebtedness	-0.225 **

**significant at 0.01 level * significant at 0.05 level NS –Non significant

(1, 2, 3, 5, 6, 7, 8, 9, 11, 14, 17 Karl Pearson Coefficient of Correlation and Spearman's Rank Correlation Coefficient 4, 10, 12, 13, 15, 16)

Age and socio-biography of farm labourer
It is pointed that age and socio-biography of respondents was non-significant relation (r = 0.060^{NS}). There was statistically not significant relationship between age and socio-biography of farm labourers that means age variable was not considerable effect on socio-biography of farm labourer. Hence null hypothesis was accepted.

Education and socio-biography of farm labourer
The table shows that the calculated value of correlation coefficient of education (r = 0.046^{NS}) was found non-significant. There was no association between education and socio-biography of farm labourers. Hence null hypothesis was accepted.
The probable reason could be that literacy rate was considerably less. Respondents may have not get chance for higher education. In other words respondents doing the work as traditional profession for their earning as a way of their life which is helped them to livelihood survival even without having expected level of education.

Family size and socio-biography of farm labourer
It is hypothesized that family size (r = 0.078^{NS}) correlation coefficient of the respondents with socio-biography of farm labourers was non-significant. There was no statistical significant relationship between family size and socio-biography of farm labourer.
In other words it means that the family size do not have considerable effect on socio-biography of farm labourers.

Family type and socio-biography of farm labourer
It is reported that the calculated value of correlation coefficient of family type (r = 0.023^{NS}) was found non-significant. It indicated that there was no association between family type and socio- biography of farm labourers. Hence, null hypothesis was accepted.

Land holding and socio-biography of farm labourer
It is argue that the correlation coefficient of land holding of the respondents with socio-biography of farm labourers (r = 0.155) was significant at 0.01 per cent level of probability.
It can be inferred from the findings that land holding had statistically significant influenced as their socio-biography of farm labourer.

Annual Income and socio-biography of farm labourer
It was reported that the calculated value of correlation coefficient (r = 0.332) was positive and significant at 0.01 per cent level of probability. It has significant association between annual income and socio-biography of farm labourer. Hence null hypothesis was rejected.
The probable reason might be that the annual income was significant role in social status. The labourer had low income generating and they have not sufficient work for increase their livelihood status.

Gender and socio-biography of farm labourer
It was seen that the calculated value of correlation coefficient of gender (r = 0.059^{NS}) was found non-significant. It indicated that there was no association between gender and socio-biography of farm labourers. Hence, null hypothesis was accepted.

Marital status and socio-biography of farm labourer
It was indicated that the marital status of the respondents with socio-biography of farm labourer (r = 0.078^{NS}) was non-significant correlation.

Caste and socio-biography of farm labourer
It was reported that the calculated value of correlation coefficient of caste (r = 0.022^{NS}) was found non- significant. It indicated that there was no association between caste and socio-biography of farm labourer. Hence, null hypothesis was accepted.
This might be due to the reason that majority of the respondents were take lower strata, from lower caste and the doing work for their earning as way for their life which is helped them to livelihood survival only.

Social participation and socio-biography of farm labourer
It was analyzed that the correlation coefficient of social participation with socio-biography of farm labourer (r = 0.102^{NS}) was non- significant. It indicated that there was no association between social participation and socio-biography of farm labourer. Hence, null hypothesis was accepted.

Mean man days and socio-biography of farm labourer
It was observed that the calculated value of correlation coefficient (r = 0.254) was found positive and significant at 0.01 per cent level of probability. It indicates that there was significant association between mean man days and socio-biography of farm labourer. Hence null hypothesis was rejected.
The probable reason might be that the days of employment increases, wages as well as income should be increased which has ultimately change their economic condition of the labourers.

Farm practices operated by labourer and socio-biography of farm labourer
It was observed that correlation coefficient of farm practices

operated by labourer with socio-biography of farm labourer (r = 0.419) was positive and significant at 0.01 per cent level of probability.

Skilled and unskilled labourer with socio-biography of farm labourer
It was pointed that the correlation coefficient of skilled and unskilled labourer (r = 0.151) was found positive significant association between skilled and unskilled labourer and socio-biography of farm labourer. Hence, null hypothesis was rejected.

Wages received with socio-biography of farm labourer
It was shows that the calculated value of correlation coefficient for wages received (r = 0.408) was found positively significant at 0.01 per cent level of probability. There was positive association between wages received and socio-biography of farm labourer. Hence null hypothesis was rejected.
The probable reason could be that most of the respondents depend on work to other farm increasing wages as well as increased socio-biography.

Working condition with socio-biography of farm labourer
It was showed that the calculated value of correlation coefficient of working condition (r = 0.579) was found positively significant at 0.01 per cent level of probability. It means that there was association between working condition and socio-biography of farm labourer. Hence null hypothesis was rejected.
The possible reason might be that work is physically more demanding and respondents have the attention must be given to their condition of work and problems that have to face

particularly at the spot where they have work.

Work satisfaction with socio-biography of farm labourer
It was showed that the calculated value of correlation coefficient of work satisfaction (r = 0.506) was found positively significant at 0.05 per cent level of probability. There was association between work satisfaction and socio-biography of farm labourer. Hence null hypothesis was rejected.
It might be due to their awareness about the lack of opportunity and they might have known the problem of price rise which made them to derive satisfaction in the field.

Indebtedness with socio-biography of farm labourer
It was argue that the correlation coefficient of indebtedness of the respondents with socio-biography of farm labourer (r = -0.225) was negatively significant at 0.05 per cent level of probability. It means that there was association between indebtedness and socio-biography of farm labourer. Hence null hypothesis was rejected.
The might be due to that the indebtedness was continue to grow in case of farm and agricultural labourer, to fulfill their requirement such as domestic needs, education, health care, marriages and other socio-religious ceremonies, repair the housing condition.

Multiple regression analysis
Regression coefficient of selected characteristics between the respondents and socio-biography of farm labourer. In a quest of studying the relative contribution of predictor variables to the variation of dependent variable i.e. socio-biography of farm labourer.

Table 2: Multiple regression analysis of selected characteristics of respondents with their socio-biography

Sl. No	Variable	Coefficients of regression	Standard error	t value
1	Age	0.0525	0.0328	1.6024
2	Education	-0.0507	0.1525	-0.3328
3	Family size	0.3265	0.2027	1.6108
4	Family type	-0.3068	0.5054	-0.6070
5	Land holding	-0.1261	0.5064	-0.2490
6	Annual Income	-0.0009	0.0002	-0.4454
7	Gender	0.0578	0.5480	0.1055
8	Marital status	0.0284	0.0339	0.8531
9	Caste	0.1379	0.1126	1.2243
10	Social participation	0.4034	0.3529	1.1432
11	Mean man days	0.0162	0.0447	0.3644
12	Farm practices operated by labourer	0.5638	0.1820	3.0973**
13	Skilled and unskilled labourer	0.8048	0.2167	3.7132**
14	Wages received	0.0372	0.0362	1.0278
15	Working condition	1.5212	0.5317	2.8606**
16	Work satisfaction	0.1290	0.0635	2.0303*
17	Indebtedness	-0.0001	0.00006	-2.0097*

R^2 = 0.5220
**significant at 0.01 level *significant at 0.05 level NS –Non significant

The above Table found that the significant contribution of independent variables in influencing socio-biography of farm labourer in vidarbha region. All the selected independent variables were fitted into simple linear regression model. The data indicated that the researcher selected the seventeen independent variables for study out of five variables namely farm practices operated by farm labourer, skilled and unskilled labourer, working condition, work satisfaction and indebtedness contributed significantly. The result show the

significant contributory factors with their regression coefficient (β- value), standard error and t value. It is pointed that the regression coefficient of farm practices operated by labourer (3.0973), skilled and unskilled labourer (3.7132) were significant at 0.01 per cent level of probability, while working condition (2.8606), work satisfaction (2.0303) were significant and indebtedness (-2.0097) were negatively significant at 0.05 per cent level of probability.
Multiple regression equation were fitted the coefficient of

multiple determination (R^2) comes to 0.5220 and contribution of independent variables was 52.20 per cent.

Conclusion
From the findings in relational analysis land holding, annual income, mean man days, farm practices operated by labourer, skilled and unskilled labourer, wages received, working condition, work satisfaction and indebtedness, these variables was significant. It means that these variables was effect on socio-biography of farm labourer. In multiple regression, the independent variables was contributed 52.20 per cent.

Acknowledgement

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