



RELATIONSHIP BETWEEN THE PROFILE CHARACTERISTICS AND FARMING PERFORMANCE OF WHEAT FARMERS

NOORHABIB*, S.V. PRASAD, P.V. SATYA GOPAL and
A. PRATAP KUMAR REDDY

Department of Agricultural Extension, S.V. Agricultural College, ANGRAU,
Tirupati -517502, Chittoor Dt., A.P.

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ABSTRACT

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The present investigation was conducted to study the relationship between profile characteristics of wheat farmers in Khas Kunar district of Kunar province in Afghanistan. This province was purposively selected for conducting the study as the investigator hails from the same area. *Ex-post-facto* research design was followed for the study and a sample of 120 respondents was drawn. The results of the study revealed that the selected independent variables viz., farm size, farming experience, mass media exposure, extension contact, social participation, economic motivation, innovativeness, achievement motivation and deferred gratification had positive and significant relationship with farming performance. Age had negative and significant relation with the farming performance of wheat farmers. The variables education and scientific orientation had non-significant relationship with the farming performance of wheat farmers.

KEYWORDS: Profile characteristics, farming performance

INTRODUCTION

Wheat (*Triticum aestivum*) is the most extensively grown cereal crop in many parts of the world, covered about 220.4 M ha, accounting for a total production of 420 MT with an average yield of 3289 kg ha⁻¹. It was also known as “The King of Cereals”. Wheat originates from south East Asia countries and Turkey from where it was spread to European countries (Muntean *et al.*, 2014). Agriculture is the mainstay of Afghanistan’s economy; it was the main source of national output and engagement. Main crops being wheat, rice, maize, and barley in Afghanistan. Among them, wheat was chief crop. The annual yield of wheat crop was approximately 3.8 MT but the country was not self-sustained due to many constraints. Every year Afghanistan imports nearly 2.5 MT of wheat from the neighbour countries majorly from Pakistan, Kazakhstan, currently Afghanistan has started trade with India through Chabahar port. Therefore, wheat was predominantly cultivated crop in Kunar province grown both in rainfed and irrigated areas with the total productivity being 79000 MT.

*Corresponding author, E-mail: noorhabib649 @
gmail.com

MATERIALS AND METHODS

The study was conducted in Khas Kunar district of Kunar province. Khas Kunar district was purposively selected as it stands first in area and production of wheat in the province. From the district four villages were selected purposively based on highest area of wheat cultivation. From each village, 30 respondents were selected by following simple random sampling procedure thus, making a total of 120 respondents who were cultivating wheat crop. The data were collected by personal interview method through structured interview schedule and analyzed by suitable statistical tools like Descriptive Statistics, coefficient of correlation and Multiple Linear Regression were used.

RESULTS AND DISCUSSION

In order to study the nature of relationship between the selected profile characteristics of wheat farmers and their farming performance, correlation coefficient were computed and the values are presented in Table 1. This relationship between the farming performance and the selected variables were tested by relevant null and

Age Vs farming performance

From the Table 1, it is evident that computed coefficient of correlation value ($r = -0.324^{**}$) was found negatively and significantly related with farming performance of the respondents. Hence, null hypothesis was rejected and empirical hypothesis was accepted. It could be, inferred that there was negative and significant relationship between age and farming performance. The probable reason for this might be that advancement in age might have negatively influenced the other characteristics of farmers like confidence, skills, motivation etc., and leading to poor farming performance.

Education Vs farming performance

From the Table 1, it is noticed that the computed co-efficient of correlation value ($r=0.018NS$) was found non-significantly related with the farming performance of farmers. Hence, null hypothesis was accepted and empirical hypothesis was rejected. It could be inferred that, there was a non-significant relationship between education and farming performance of wheat growers.

The reasons for this may be that, in Afghanistan most of the farmers were illiterate or less educated hence; this led to the non-significant relationship with farming performance.

Farm size Vs farming performance

The result presented in the table 1 indicated that the computed coefficient of correlation value ($r'=0.236^{**}$) was found to be positively and significantly related with the farming performance of wheat farmers. Hence null hypothesis was rejected and empirical hypothesis was accepted. It could be, therefore, inferred that there was a positive and significant relationship between farm size and farming performance of wheat cultivators. A farmer with large farm size might have the opportunities for the use of innovations and improved technologies in his farm which might have increased different indicators of his farming performance. This finding is line with the findings of Sivasubramanian (2003) and Nagabhushana (2007).

Farming experience Vs farming performance

It could be observed from Table 1, that the computed coefficient of correlation value ($r'=0.366^{**}$) was positively and significantly related with the farming performance of respondents.

Hence null hypothesis was rejected and empirical hypothesis was accepted therefore, it could be indicated that there was a positive and significant relationship between farming experience and farming performance of wheat growers. The possible trend might be that whenever the farmers were having more experience in their farming they might know better farming to manage their farming, and they would use available resources. Due to their farming experience the farmers were able to forecast some of the problems related to pests and diseases and avoid them by changing the dates of sowing and taking preventive measures. Hence this trend was noticed.

Mass media exposure Vs farming performance

It could be observed from the table 1 that the computed coefficient of correlation value ($r'=0.0382^{**}$) was found positively and significantly related with the farming performance of respondents. As such, the null hypothesis was rejected and empirical hypothesis was accepted. Therefore, mass media exposure had positive and significant relationship with farming performance of wheat cultivators. Mass media is powerful source reaching large number of people in short period of time making them know about innovative practices and motivates the farmers and hence such a trend is noticed. This conclusion is supported by the finding of Kohistani (2018).

Extension contact Vs farming performance

It could be concluded from Table 1 that computed coefficient of correlation value ($r'=0.345^{**}$) was found positively and significantly related with the farming performance of respondents. Hence, the null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it could be confirmed that there was a positive and significant relationship between extension contact and farming performance of wheat farmers. This clearly implied that the farming performance was more with increased extension contact. Extension personnel and agencies were considered as best and reliable sources of information for the farmers and they were making the farmers to know about advanced methods of cultivation and extension personnel were sharing their knowledge and experience with farmers with regard to wheat cultivation. This conclusion is supported by the finding of Kohistani (2018).

Social participation Vs farming performance

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coefficient of correlation value ($r=0.225^*$) was positively and significantly related with the farming performance of respondents. Hence, the null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it could be certified that there was a positive and significant relationship between social participation and farming performance of wheat growers. Most of the farmers were interested to participate in various meetings for the purpose of getting more information regarding their farming. The present finding is in conformity with the finding of Naidu (2012).

Scientific orientation Vs farming performance

From the 1table noticed that the computed coefficient of correlation value ($r=0.078NS$) was found to be non-significantly related with farming performance of the respondents. Hence, null hypothesis was accepted and empirical hypothesis was rejected, therefore it could be inferred that there was non-significant relationship between scientific orientation and farming performance of wheat growers The possible reason is that Afghanistan is a country where there were still farmers more illiterate and they were following traditional methods of cultivation, usage of local varieties and also they were not getting training on specific technologies and advanced cultivation methods which were related to wheat crops.

Economic motivation Vs farming performance

It is clear from the Table1, that the computed coefficient of correlation value ($r'=0.627^{**}$) was found positively and significantly related with the farming performance. Hence, the null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it could be mentioned that there was a positive and significant relationship between economic motivation and farming performance of wheat cultivators. It is indeed that the farmers with high economic motivation would try their best to get more produce which is directly related to farming performance. Most of the farmers were with subsistence economy and were trying to improve the ways to gain more income through different means including other allied activities. Consequently, the above relationship was revealed.

Innovativeness Vs farming performance

It is indicated that, the computed coefficient of

correlation value ($r' = 0.313^{**}$) was positively and significantly related with the farming performance of the respondents. Thus, null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it could be concluded that there was a positive and significant relationship between innovativeness and farming performance of wheat farmers. Innovativeness is personally related with individuals who are adopting and accepting new ideas earlier than any others. Most of the respondents were trying their best to achieve more knowledge and information from the available sources (Table 1).

Achievement motivation Vs farming performance

It is noticed from the table 1 that, the computed co-efficient of correlation value ($r =0.439^{**}$) was a positively and significantly related with farming performance of respondents. Hence, null hypothesis was rejected and empirical hypothesis was accepted. Therefore, it is mentioned that there was a positive and significant relationship between achievement motivation and farming performance of wheat farmers. Individual with high achievement motivation would be determined to reach his destination and he knew the importance of recommended practices and this effort lead him for high farming performance.

Deferred gratification Vs farming performance

It could be observed from the Table 1 that the calculated co-efficient of correlation value ($r =0.214^*$) was positively and significantly related with farming performance of respondents. Hence, null hypothesis was rejected and empirical hypothesis was accepted. It is inferred that there was positive and significant relationship between deferred gratification and farming performance of wheat cultivators. Currently every farmer is struggling to get better yield. Producers were selling their produce immediately in order to purchase the inputs for next season and meet the immediate family expenses and needs.

Conclusion

Correlation analysis revealed that the selected independent variables viz., farm size, farming experience, mass media exposure, extension contact, social participation, economic motivation, innovativeness, achievement motivation and deferred gratification had positive and significant relationship with farming performance. Age had negative and significant relation with the farming performance of wheat farmers. The variables education and scientific

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Table 1. Correlation coefficient between selected profile characteristics of respondents and farming performance n=120

S. No.	Variables. No.	Independent variables	Correlation co-efficient ('r') values
1	X ₁	Age	-0.324**
2	X ₂	Education	0.018 NS
3	X ₃	Farm size	0.236**
4	X ₄	Farming experience	0.366**
5	X ₅	Mass media exposure	0.382**
6	X ₆	Extension contact	0.345**
7	X ₇	Social participation	0.225*
8	X ₈	Scientific orientation	0.078 NS
9	X ₉	Economic motivation	0.627**
10	X ₁₀	Innovativeness	0.313**
11	X ₁₁	Achievement motivation	0.439**
12	X ₁₂	Deferred gratification	0.214*

*: Significant at 0.05 level of probability

** : Significant at 0.01 level of probability

NS: Non-significant