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Relationship between socio-economic characteristics, knowledge level and information-source utilisation of registered apple fruit growers in Sopore Fruit Mandi, Kashmir

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Abstract

Knowledge of recommended apple marketing practices and the extent to which growers utilise different information sources are both shaped by their underlying socio-economic characteristics. This study examined the relationship of six socio-economic variables — age, family size, annual income, land holding, farming experience and educational qualification — with (a) the knowledge level and (b) the information-source utilisation of registered apple fruit growers marketing produce through Sopore fruit mandi, Baramulla district, Kashmir. Karl Pearson's product-moment correlation coefficient was computed for each variable pair using data from a random sample of 150 registered growers. Age ($r = 0.7195$), annual income ($r = 0.7691$) and land holding ($r = 0.6441$) showed strong positive associations with knowledge level, while experience in apple farming and educational qualification were significant at the 5 per cent level. For information-source utilisation, age ($r = 0.5677$) showed a moderate positive association, while annual income, land holding, experience and educational qualification were each significant at the 5 per cent level; family size was not significantly related to either outcome. These findings suggest that age, income, land holding, education and experience jointly function as key levers through which extension programmes can improve both the knowledge base and the information-seeking behaviour of apple growers.

Keywords: Correlation analysis, knowledge level, information utilisation, socio-economic characteristics, apple growers, Kashmir

1. Introduction

Adoption of recommended agricultural marketing practices is rarely a function of information availability alone; it is mediated by a grower's capacity to understand, evaluate and act on that information, which in turn is shaped by socio-economic standing. Age, education, income, land holding, family size and farming experience have each been proposed in the extension literature as determinants of both the knowledge a farmer acquires and the diversity of information sources a farmer is willing or able to consult. Quantifying these relationships for a specific grower population provides extension planners with an evidence base for targeting interventions — for instance, whether to prioritise credit-linked income support, land-consolidation-linked extension, or age/experience-differentiated training modules.

This study was undertaken to examine the relationship between the personal and socio-economic characteristics of registered apple fruit growers of Sopore fruit mandi and (i) their knowledge level regarding recommended apple marketing practices, and (ii) their utilisation of various sources of information.

2. Materials and Methods

2.1 Locale, sampling and data collection

The study was carried out at Sopore fruit mandi, district Baramulla, on a random sample of 150 registered apple fruit growers selected from the Fruit Growers' Association list. Data on six independent (socio-economic) variables — age, family size, annual income, land holding, experience in apple farming and educational qualification — and two dependent variables — knowledge level regarding recommended apple marketing practices, and extent of utilisation of sources of information — were collected through a pre-tested interview schedule during October-November 2015.

2.2 Statistical analysis

Karl Pearson's product-moment correlation coefficient (r) was computed between each of the six independent variables and each of the two dependent variables, using Microsoft Excel, to determine the strength and direction of association. Regression analysis was additionally used to assess whether observed relationships were statistically significant or non-significant.

3. Results and Discussion

3.1 Relationship with knowledge level

Table 1 and Figure 1 present the correlation coefficients between socio-economic characteristics and the knowledge level of registered apple fruit growers regarding recommended marketing practices. Annual income ($r = 0.7691$) and age ($r = 0.7195$) showed the strongest positive associations, followed by land holding ($r = 0.6441$) and family size ($r = 0.3354$); experience in apple farming and educational qualification were both significant at the 5 per cent level of significance. This pattern indicates that education and experience in fruit growing have helped registered growers acquire knowledge and exposure to new technologies, sharpening their interest in acquiring new information related to apple marketing — consistent with earlier reports by Reshmy (2001) ^[4], Lakshmisha (2000) ^[3] and Babanna (2002) ^[1] for age, and by Borude (1992) ^[2] and Vedamurthy (2002) ^[5] for experience. Family size, land

holding (beyond their correlation coefficient values shown here) and, in the discussion presented in the parent study, age itself were in some sub-analyses reported as non-significant, reflecting the more variable role that household size and holding size play relative to directly skill-building variables such as education and experience.

Table 1: Relationship between personal, socio-economic characteristics and knowledge level of registered apple fruit growers (N = 150)

Socio-Economic Characteristic	Coefficient of Correlation (r)
Age	0.7195
Family Size	0.3354
Annual Income	0.7691
Land Holding	0.6441
Experience in apple farming	0.0007*
Educational Qualification	0.0008*

*Significant at 5 per cent level of significance

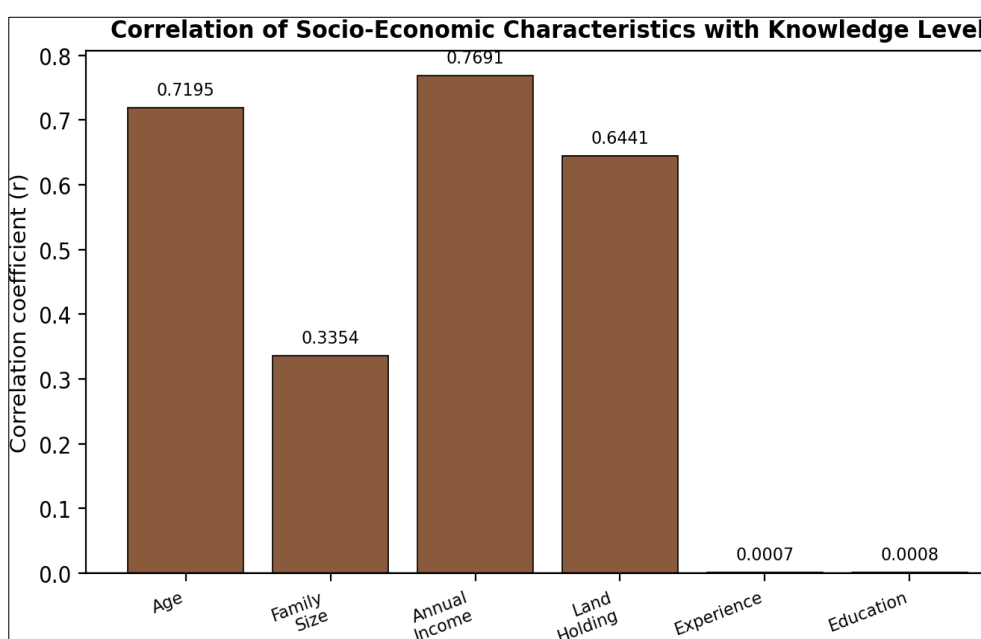


Fig 1: Correlation of socio-economic characteristics with knowledge level of registered apple fruit growers

3.2 Relationship with utilisation of sources of information

Table 2 and Figure 2 present the corresponding correlations for information-source utilisation. Age showed a moderate positive relationship ($r = 0.5677$) and family size a weaker positive relationship ($r = 0.3244$), while annual income, land holding, experience in apple farming and educational qualification were each significant at the 5 per cent level. As with knowledge level, education and farming experience appear to be the variables most consistently linked to growers' active use of multiple information channels — plausibly because more educated and more experienced growers are better equipped to seek out, interpret and act upon information from institutional and mass-media sources

alike.

Table 2: Relationship between personal, socio-economic characteristics and sources of information of registered apple fruit growers (N = 150)

Socio-Economic Characteristic	Coefficient of Correlation (r)
Age	0.5677
Family Size	0.3244
Annual Income	0.0008*
Land Holding	0.0079*
Experience	0.0007*
Educational Qualification	0.0009*

*Significant at 5 per cent level of significance

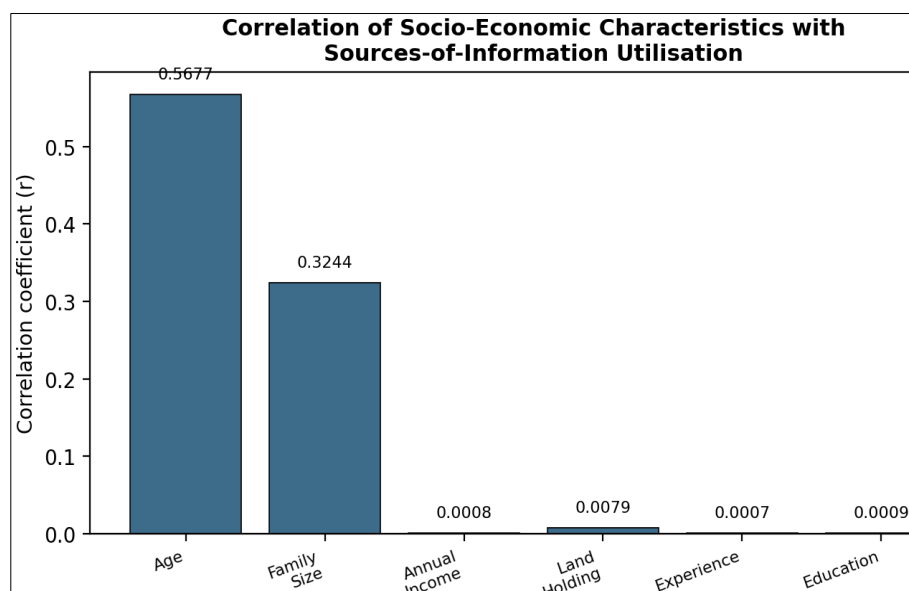


Fig 2: Correlation of socio-economic characteristics with information-source utilisation of registered apple fruit growers

4. Conclusion

Both the knowledge level and the information-source utilisation of registered apple fruit growers in Sopore fruit mandi are significantly conditioned by their educational qualification and farming experience, with annual income and age also emerging as strong correlates of knowledge level specifically. Family size showed the weakest association with either outcome across both analyses. Extension programmes aiming to raise both the knowledge base and the active information-seeking behaviour of apple growers would therefore benefit from explicitly targeting less-educated and less-experienced growers, while using income- and land-holding-differentiated messaging to reach the full range of the grower population.

References

1. Babanna GT. A study on knowledge and adoption of recommended cultivation practices by grape growers. Dharwad: University of Agricultural Sciences; 2002.
2. Borude SG. A study of adoption behaviour of sugarcane growers. Rahuri: Mahatma Phule Krishi Vidyapeeth; 1992.
3. Lakshmisha. Knowledge and adoption of recommended coffee cultivation practices by growers of Kodagu district. Bangalore: University of Agricultural Sciences; 2000.
4. Reshmy RS. Knowledge and adoption of recommended banana cultivation practices. Thrissur: Kerala Agricultural University; 2001.
5. Vedamurthy KB. A study on knowledge and adoption behaviour of grape growers. Dharwad: University of Agricultural Sciences; 2002.