CORRELATION AND PATH COEFFICIENTS OF FOUR FACTORS ASSOCIATED WITH SUCCESSFUL FARMING.

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Introduction

People make personal choices all the time and their lives are shaped by the consequences of making those choices. By making logical and correct choices, people can reduce chances of failure in their enterprises.

Agricultural development demands adoption of improved technology to increase agricultural production. Technology transfer in agriculture for Sri Lankan farmers is done mainly through the training and visits system of extension. This system emphasises regular transmission of messages to farmers. These messages are formulated at the fortnightly training sessions.

It is both relevant and timely to ask whether these messages are compatible with the current expectations or needs of the farmers ? How are the expectations assessed ? How are the needs identified ? Is this approach sufficient to ensure, stimulate and help to achieve agricultural development?

The Problem

While some individuals insist rapid technological diffusion, some others express their doubts. Dissanayake and Somawathie (1979) have stated "hardly any technological changes have occured in our village. After, studing agrarian situation in Mahaweli area Nanayakkara (1987) observed "very clearly it is seen that after fulfilling the basic needs of the family, financial inadequcies hinder farming activities".

Regardless of the nature of the innovation, an individual remains as the adopter or rejecter of the innovation (Rogers, 1971). While learning precedes adoption of an innovation, according to Cashdan (1963) much learning failure is undoubtedly

due to faulty attitudes. Availability of resources also determine degree of adoption of recommendations leading to success in farming

Obectives of the Study

This study aims to explore the relationship between four selected factors with success in farming. The relationship between the extension messages and success in farming was not included as most of the rural farmers in Sri Lanka are not "mono-croppers" but engage in several agricultural enterprises, growing several crop species in their small holdings, for which they may or may not receive the extension messages that flow via the fortnightly training sessions.

Methods used

Twelve successful farmers were selected for this study. Data was gathered from the respondents with regard to -

(a) commitment for progress,
(b) devotion to the family,
(c) Frequency of income,
(d) Investment efficency .

In addition to the instrumnent devised for the purpose, discussions and observations were used to collect the required information. The delicate nature of the factors studied demanded interpretation of both verbal and no verbal reactions of the respondents.

Data Analysis

The mean values of characteristics were subjected to statistical analysis. The correlation coefficient between success in farming and the components selected were computed using the method suggested by Snedecor and Cochran (1967). The correlation coefficient were partitioned into direct effect (undirectional path ways) and indirect effect(alternate path ways). The path coefficient were worked out by the simultaneous solution of the equation for four variables.

Results and Discussion

Estimation of correlation coefficient indicated that devotion to the family had highly significant negative correlation with commitment for progress, and investment efficiency had a significant negative correlation with regular and frequent income and a significant positive correlation with investment efficiency.. Success in farming was positively correlated with regular and frequent income, and commitment to development had positive and negligible correlation with success in farming.

Table 1. Correlation coefficient of four components associated with success in farming.

Component	Commitment for Progress	Devotion to the family	Frequency of income.	Investment efficiency
Commitment for progress	-0.5298**	-0.4256*	+0.4314	+0.2383
Devotion to the family		+0.3246	-0.6461**	+0.434
Frequency of income			-0.2668	+0.2375
Investment coeffiency				-0.2168

* Significant at 5% level

** Significant at 1% level

Estimates of direct and indirect path coefficient are presented in Table 2. Success in farming and commitment for progress were positively correlated. It resulted from a significant positive direct effect of the commitment for progress on success in farming. But this influence was diluted to some extent by the low and negative indirect values, via devotion to the family, frequency of income and investment

efficiency. (Investment efficiency was influenced by normal problems of family life such as illnesses or deaths of close friends or relatives). However, success in farming can be increased by increasing commitment for progress as it had direct highly significant positive correlation with success in farming.

Table 2. Direct (Diagonal) and indirect effects of components associated with success in farming

Component	Effect Via				
	Commitment to development.	Devotion to family.	Income Frequency	Investment efficiency	Success in families
Commitment to development.	+.4889	-0.0967	-0.0983	-0.0714	+0.2381
Devotion to family.	-0.2974	+0.1682	+0.0780	+0.1310	+0.0416
Income Frequency	-0.1650	+0.0363	+0.3178	+0.0397	+0.2367
Investment efficiency	+0.1652	-0.0987	-0.0657	-0.2265	-0.2117

The correlation between devotion to the family and success in farming was very low and positive. (The respondents tended to spend more for meeting expenses of spouse or children, who ever he was fond of). However, devotion to the family had positive direct effect on success in farming and the respondents making long lasting improvements to the land or purchasing more land or improving the dwelling suggested this. But this effect was masked via commitment to development which was moderate and negative. The indirect effect via frequency of income was also positive but negligible.

Frequency of income was moderate and positively correlated with success in farming (This suggests that complementary or supplementary agricultural enterprises should be introduced to the farmers, so that more frequent cash flow to the farmers induce them to become more successful farmers) The direct effect of frequency of income on success in farming was high and positive, but this influence was counter balanced to some extent by the moderately low and negative indirect effect via commitment to development. The indirect effect via devotion to the family and investment efficiency were positive and almost negligible.

The total correlation of investment efficiency with success in farming was negative and its direct effect was also found to be negative. The effect of investment efficiency via commitment to development was positive but this effect was diluted by the indirect effect via devotion to family and income frequency.

The overall situation points out that "commitment to development" and "income frequency" produced the maximum effect directly on success in farming. So these are two areas for improvement for further advancing success in farming.

Implications of the study.

The findings of this study suggest that motivation of farmers to create or strengthen interest in self development and agricultural improvement is a very important step. This finding agrees with Moshers (1966) concept of the role of an extension worker as a encouraging companion of the farmers. As suggested earlier increasing the frequency of cash flow to the farmer tends to improve success in farming. Therefore, the farmers must be guided to increase Supplementary or Complementary economic enterprises and also ensure marketing facilities, to enable increased frequency of cash flow to the farmers. These steps are vital to ensure success in farming as indicated by the findings of this study.

Limitation of the study.

The sample used was small and purposively selected for researchers convenience and was limited to places convenient for several visits. Hence this study should be repeated on a bigger random sample to verify the findings.