



Research Article

CORRELATES OF LIVELIHOOD SECURITY OF WOMEN HEADED HOUSEHOLDS PRACTICING FAMILY FARMING IN TUMAKURU DISTRICT

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Abstract: The present study was conducted during the year 2017-18 in purposively selected Tumakuru district. Total sample of 160 Respondents were selected through 'snow ball technique'. Data was analyzed by using appropriate statistical tools. The results of the study revealed that the characteristics such as annual income, land holding, livestock possession, and achievement motivation, risk orientation, farming commitment, family size, material possession, mass media use, deferred gratification and extension orientation had positive and significant relationship with livelihood Security. The R² value in multiple linear regression analysis indicated that all the 16 independent variables had contributed to the tune of 81.50 per cent of variation. With respect to direct effects of independent variables, highest direct effect was recorded by the variable material possession, annual income and farming commitment. Hence the concerned organizations should give more emphasis towards amplification of these characteristics to enhance livelihood security of women headed households practicing family farming.

Keywords: Livelihood Security, Women Headed Households, Family Farming and Snow Ball Technique

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Introduction

Improvement in India almost 58.00 percent of its population is engaged in agriculture for their livelihood and it is predominantly an agriculture dependent nation [1]. The concept of livelihood is rapidly gaining acceptance as a valuable means of understanding the factors that influence people's lives and well-being. It is more than just a matter of finding or making shelter, transacting money and preparing food to put on the table or exchange in the market place. Livelihoods are the sum of ways in which people make a living. Such options can include various types of production and income generating activities. Family farming is a means of organizing all agricultural and allied activities which is managed and operated by a family and is predominantly reliant on family labour, including women, men and children [2]. Women are major producer of food in India because, agriculture is largely house hold enterprise. Further, women end up heading household were often found to be absence of a resident male head due to widowhood, divorce, separation, desertion, lack of mature sons to take over the households, migration of male member for long periods or loss of economic function by resident males due to disability and illness. Family headed women in rural areas often lack financial & physical assets and resources to generate their livelihoods. As a result, livelihood insecurity is one of the major problems because households do not produce enough food to last until the next harvest. They also lack adequate cash income to buy food to enhance nutritional security. Further, they lack appropriate storage facilities and skills to preserve food. Because of difficulties associated with farming, households often pursue more than one different non-agricultural activities to earn cash income. There are also fewer opportunities for women headed households to diversify income sources in rural areas. Consequently, they depend very much on the natural resource base for food, health remedies and income-generation. Therefore, the livelihood approach was used to provide an explicit focus on what matters to women headed holds in rural areas. The portion of women headed households in India has been raising. According to the census 2011, a total of 23 million, 19.65 lakh and 8412 women

headed households exist in rural India, Karnataka and Tumakuru district respectively [1]. Hence, there is a need to elevate the women headed households by understanding the relationship of livelihood security with personal, psychological and socio-economic characteristics of family headed women to improve their livelihood security. With this background, the present study has been taken up to ascertain the relationship between livelihood security and personal, psychological and socio-economic characteristics of family headed women practicing family farming.

Methodology

The study was conducted in the purposively selected Tumakuru district of Karnataka state comprising of three agro- climatic zones. From each zone, two taluks were selected namely Sira and Madhugiri from Central Dry Zone, Tumakuru and Gubbi from Eastern Dry Zone and Turuvekere and Kunigal from Southern Dry Zone. From each taluk, two hoblis were selected based on the potential crop farming systems. Further, from each hoblis, list of villages having maximum number of women headed households practicing family farming was prepared in consultation with staff of Raitha Samparka Kendras (RSKs), Grama Panchayath, Anganavadi workers and local leaders. Further, arranged the villages in descending order and top four to eight villages in the list were selected. From each village, list of women headed households practicing family farming was prepared by using snow ball technique. From the list, two to four respondents were purposively selected thus making total sample of 160. Data were gathered through personal interview method with the help of structured interview schedule. The collected data were quantified and analyzed. Further, correlation test was used to calculate r-value to know the relationship between livelihood security and independent variables. Multiple Regression was done to determine the extent of contribution of selected independent variables on livelihood security. In Addition to this Path analysis was applied to find out the quantitative interpretation of direct and indirect effects of independent factors on livelihood security.

It is a procedure for giving a quantitative interpretation of an assumed causal system as it operates within a given population. Path co-efficient reflect the amount of direct contribution of a given variable on other dependent variables when effects of other related variables are taken into account.

Results and Discussion

Relationship between personal, psychological and socio-economic characteristics of family headed women with their livelihood security

The findings in the [Table-1] imply that 11 out of 16 characteristics were found to have significant relationship with livelihood security. The characteristics such as annual income, land holding, livestock possession, achievement motivation, risk orientation and farming commitment had positive and significant relationship with livelihood security at one percent level. Similarly, family size, material possession, mass media use, deferred gratification and extension orientation had positive and significant relationship with livelihood security at five percent level. The remaining variables viz., age, education, scientific orientation, adjustability and credit orientation had non-significant relationship with livelihood security. The possible reasons for the independent variables having significant relationship with family farming efficiency are, as annual income of family headed women increases, the capacity to secure the basic necessities like food, water, shelter and clothing also increases. Annual income found to significant influence on the standard of living. The positive and significant relationship between land holding and livelihood security might be due to land holding is the major asset which gives regular income to the women headed household thereby it provides secured livelihood. Family headed women engaged in rearing of livestock as subsidiary occupation gets additional income by selling eggs, milk and meat apart from crop production. The driving force behind the actions of family headed women motivates her to work for the success or the attainment of excellence. Needs and desires have a strong impact on the direction of efforts by family headed women in order to achieve secured livelihood. The results of the study are corroborated with the findings [3-8].

Table-1 Relationship between personal, psychological and socio-economic characteristics of family headed women with their livelihood security (n = 160)

SN	Independent Variables	Correlation co-efficient (<i>r</i>)
X ₁	Age	0.013 ^{NS}
X ₂	Education	0.032 ^{NS}
X ₃	Annual Income	0.460**
X ₄	Land Holding	0.313**
X ₅	Family Size	0.235*
X ₆	Livestock Possession	0.260**
X ₇	Material Possession	0.237*
X ₈	Achievement Motivation	0.431**
X ₉	Credit Orientation	0.105 ^{NS}
X ₁₀	Adjustability	0.044 ^{NS}
X ₁₁	Mass Media Use	0.225*
X ₁₂	Deferred Gratification	0.213*
X ₁₃	Scientific Orientation	0.118 ^{NS}
X ₁₄	Risk Orientation	0.300**
X ₁₅	Farming Commitment	0.325**
X ₁₆	Extension Orientation	0.250*

* Significant at 0.05 percent level of probability, ** Significant at 0.01 percent level of probability, NS= Non-Significant

The livelihood security will be more if the ability of family headed women is more to deal with the risks associated in attaining better livelihood. Farming commitment is the feeling of responsibility that a family headed women towards achieving the secured livelihood. When family headed women have farming commitment she is more likely to perform farming activities in order to obtain household livelihood. As family size increases number of earning members in the family increases in turn it enhanced livelihood security, material possession reduces the cost of production by reducing hiring charges and thus contributes positively to achieve livelihood. Mass media use provide enough scope to develop the habit of obtaining more information about new livelihood opportunities and influences the family headed women to take up new income generating activities. When she has taken the responsibility of household the personal ability such as patience, self-control and

willpower are involved in self-regulation in the process of postponement of immediate satisfaction to attain secured livelihood. Regular contact with extension personnel and participation in extension activities like Krishimela, exposure visits, training programs method and result demonstrations paves the gainful way to get sustainable livelihood ideas.

Table-2 Multiple Regression Analysis of Independent Variables with Livelihood Security of Women Headed Households, (n = 160)

SN	Selected Factors	Regression co-efficient	SE	't' Value
X ₁	Age	1.5575	1.7394	0.90 ^{NS}
X ₂	Education	0.0392	0.2593	0.15 ^{NS}
X ₃	Annual Income	0.6360	0.1339	4.75**
X ₄	Land Holding	1.8294	0.6273	2.32*
X ₅	Family Size	0.3261	0.1728	2.69**
X ₆	Livestock Possession	0.4905	0.0995	4.93**
X ₇	Material Possession	0.9166	0.6043	4.75**
X ₈	Achievement Motivation	0.2268	0.0941	2.41*
X ₉	Credit Orientation	0.8530	0.5498	1.55 ^{NS}
X ₁₀	Adjustability	0.0769	0.4169	0.18 ^{NS}
X ₁₁	Mass Media Use	0.0795	0.0403	1.97*
X ₁₂	Deferred Gratification	0.1123	0.1433	2.34*
X ₁₃	Scientific Orientation	0.3770	0.1611	0.78 ^{NS}
X ₁₄	Risk Orientation	0.3499	0.1643	2.13*
X ₁₅	Farming Commitment	0.2449	0.0778	3.14**
X ₁₆	Extension Orientation	0.3186	0.1455	2.19*

R2= 0.8150, F=10.59**, * Significant at 0.05 percent level of probability,

**Significant at 0.01 percent level of probability, NS = Non-Significant

Table-3 Direct, indirect and largest indirect effects of personal, psychological and socio-economic characteristics of family headed women on livelihood security (n = 160)

Factor No.	Independent variable	Direct effect	Rank	Total Indirect effect	Rank	Three Largest Indirect effects channelled through
X1	Annual Income	0.132	II	0.328	II	0.026X ₃ 0.077X ₄ 0.041X ₈
X2	Family Size	0.026	VIII	0.227	V	0.131X ₇ 0.031X ₄ 0.045X ₃
X3	Land Holding	0.035	VII	0.278	IV	0.022X ₁₀ 0.034X ₅ 0.045X ₂
X4	Livestock Possession	0.095	IV	0.165	IX	0.024X ₁₀ 0.061X ₃ 0.032X ₅
X5	Material Possession	0.186	I	0.081	XI	0.054X ₃ 0.0046X ₈ 0.199X ₆
X6	Mass Media Use	0.058	VI	0.167	VIII	0.021X ₁ 0.041X ₂ 0.146X ₁₀
X7	Deferred Gratification	0.016	X	0.102	X	0.187X ₈ 0.036X ₉ 0.013X ₂
X8	Achievement Motivation	0.022	IX	0.409	I	0.014X ₁₀ 0.040X ₉ 0.183X ₁₁
X9	Risk Orientation	0.014	XI	0.287	III	0.034X ₅ 0.018X ₄ 0.271X ₈
X10	Farming Commitment	0.108	III	0.217	VI	0.016X ₂ 0.020X ₄ 0.021X ₈
X11	Extension Orientation	0.079	V	0.171	VII	0.044X ₃ 0.012X ₅ 0.154X ₄

Residual effect = 0.184

Extent of contribution of personal, psychological and socio-economic characteristics to livelihood security

It is apparent from [Table-2] that, 11 out of 16 independent variables such as annual income, land holding, family size, livestock possession, material

possession, achievement motivation, mass media use, deferred gratification, risk orientation, farming commitment and extension orientation had contributed significantly towards livelihood security of women headed households. The remaining variables had not contributed significantly towards variability in livelihood security. The R^2 value indicated that all the 16 independent variables had contributed to the tune of 81.50 percent of variation in livelihood security women headed households. The supporting reason for the obtained outcome with regard to extent of contribution of independent variables to lively hood security of women headed households that personal, psychological and socio-economic characteristics of family headed women were the deciding factor of their livelihood security. These independent variables have synergic effects to one another, helping each other to have a major extent of contribution to the livelihood security. The findings agree with the findings of [7].

Direct, indirect and largest effects of selected personal, psychological and socio-economic characteristics to Livelihood Security

It is evident from the [Table-3] and [Fig-1] that, 11 variables having significant relationship with the livelihood security of women headed households were considered to compute the path analysis. A clear observation of the results confirmed that 11 variables selected had positive direct effect on livelihood security ranking variables based on their direct effect revealed that material possession (X_5), annual income (X_1), farming commitment (X_{10}), livestock possession (X_4) and extension orientation (X_{11}) obtained five ranks in the same order. As regards to total indirect effects channelled through other variables for each of the selected independent variables, it was found substantial. Ranking of indirect effect revealed that achievement motivation (X_8), Annual income (X_1) risk orientation (X_9), land holding (X_3) and family size (X_2) were the first five ranks in the same order. The first largest indirect effect was channelled through extension orientation (X_{11}), risk orientation (X_9) and farming commitment (X_{10}). The residual effect was found to be 0.184; it indicated the quantum of unexplained variance or disturbance terms. However, there are no studies available either to support or contradict the obtained result.

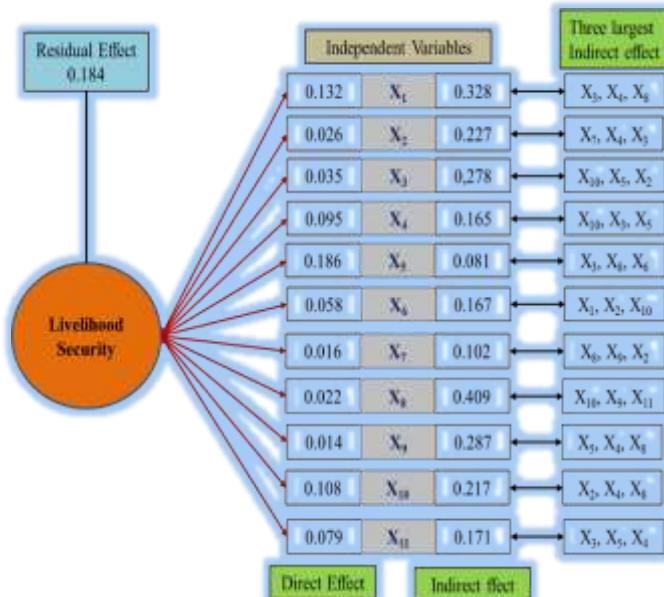


Fig-1 Direct, indirect and largest indirect effects of independent variables on Family Farming Efficiency

X1	Family Size	X2	Land Holding
X3	Livestock Possession	X4	Material Possession
X5	Credit Orientation	X6	Mass Media Use
X7	Deferred Gratification	X8	Achievement Motivation
X9	Risk Orientation	X10	Adjustability
X11	Farming Commitment	X12	Extension Orientation

Conclusion

It can be concluded from the study results that, the characteristics such as annual

income, land holding, livestock possession and achievement motivation, risk orientation, farming commitment, family size, material possession, mass media use, deferred gratification and extension orientation were significantly related and contributing to the tune of 81.50 percent of variation in livelihood security women headed households. With respect to direct and indirect effects of independent variables, highest direct effect was recorded by the variable material possession, annual income, farming commitment and livestock possession. Further, the data showed that high total indirect effect on livelihood security was recorded by the variable achievement motivation, annual income and land holding. Hence, concerned departments and organizations should give more emphasis towards amplification of these characteristics to enhance livelihood security of women headed households practicing family farming.

Application of research: The characteristics such as annual income, land holding, livestock possession, and achievement motivation, risk orientation, farming commitment, family size, material possession, mass media use, deferred gratification and extension orientation were significantly related and contributing to livelihood security of women headed households Hence, concerned departments and organizations can focus on these characteristics to enhance livelihood security of women headed households.

Research Category: Social Study, Livelihood Security

Abbreviation: SE: Standard Error

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References

- [1] Anonymous (2011) Government of India, official website. <http://secc.gov.in>
- [2] Jose Graziano Da Silva (2014) Internatl. J. Rural Dev., 48(2), 6-7.
- [3] Basavaraj Birajdar (20080 M. Sc. (Agri.) Thesis, Univ. Agric. Sci., Dharwad.
- [4] Ereneus Marbaniang (2010) M. Sc. (Agri.) Thesis, Univ. Agric. Sci., Dharwad.
- [5] Lakshmi Narayani S., Anand T.N., Shivalingaiah Y.N. and Narayana Gowda K. (2010) Mysore J. Agric. Sci., 44 (3): 597-603.
- [6] Saha B. and Bahal R. (2010) Indian Res. J. Extn. Edn., 10 (2), 1-9.
- [7] Mamathalakshmi N. (2013) Ph.D. Thesis, Univ. Agric. Sci., Bangalore.
- [8] Kowsalya K. S. (2017) Ph.D. Thesis, Univ. Agric. Sci., Bangalore.