Economic Contribution and Inequality Mitigation of Wicker Handicraft Entrepreneurship in Rural Kashmir, India

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ABSTRACT

Wicker handicraft entrepreneurship is a unique world-famous small-scale forest-based cottage industry of indigenous people of Kashmir Himalaya which plays a prominent role in livelihood security, socioeconomic development, traditional handcraftsmanship and rural industrialization in the region. The study investigated the economic contribution, income inequality mitigation and determinant socioeconomic factors of wicker handicraft entrepreneurship in Pulwama district of J&K UT. Multistage random sampling technique was employed to select the sample of 100 wicker handicraft entrepreneurs. Data were collected through structured interviews and focus group discussions. Both descriptive and analytical statistics were used in data analysis. Results revealed that collection of withies from *Parrotia jacquemontiana*, *Cotoneaster baciliaris*, *Indigofera pulchella* and *Salix* spp. was 61.71 t/year for manufacture of 43514 wicker handicrafts/year which generated

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an income of ₹ 5953470/year. Wicker handicraft income contributes 66.97%, whereas farm and non-farm income accounts 23.46% and 9.58% of total household income, respectively. Gini coefficient was 21.85 when wicker handicraft income was considered and 53.14 when it was ignored which indicated that the wicker handicraft income have stronger equalizing effect on local income distribution. Regression analysis showed that all explanatory variables jointly accounted 81.50% (R^2=0.815) variation on wicker handicraft income. Among socioeconomic factors, education, family composition, housing status, subsequent occupation and gross annual income were key determinants influencing significantly ($p<0.05$) the wicker handicraft income. To achieve the socioeconomic development and livelihood diversification objectives, policy must be directed towards the rural industrialization through wicker handicraft entrepreneurship.

1. INTRODUCTION

Entrepreneurship on forest-based cottage industries has become a pre-requisite for socioeconomic development and poverty alleviation particularly in developing countries due to its ability to diversify the rural livelihoods through rural industrialization [1]. Over the past few years, the recognition of the extensive dependence of rural people on forest-based cottage industries have created an emergent scientific interest in entrepreneurship development on forest industries and understanding its socioeconomic determinants [2]. Hence, the governmental policies and management interventions have supported entrepreneurship development on small scale forest-based cottage industries to promote rural industrialization and sustainable livelihoods in India [3,4]. The traditional skills and empirical knowledge, by infusion of scientific technologies, capital investment and innovative marketing build strengths in devising entrepreneurial strategies for livelihood diversification, poverty alleviation and socioeconomic improvement [5]. The multiplicity in manufacture systems, differentiation of quality by value addition and multi-layer demand structures guarantees existence of long-lasting and flourishing markets for the forest-based cottage industrial products [6]. The micro-level forest based cottage industries should be a forefront livelihood alternative for the entrepreneurs due to less capital investment, small-sized semi-processing unit and high employability nature [7]. Basically, the forest based cottage industries ensures preservation of indigenous traditional knowledge (ITK) and maintenance of local material cultural heritage besides entrepreneurship development through value addition and commercialization of ITK related forest products [8].

Wicker handicraft manufacture is a well-known small-scale forest-based cottage industry which plays a prominent role in socio-economy, material-culture, self-employment, petty trade, livelihoods, rural development and poverty alleviation of entrepreneurs in Kashmir [9]. The wicker handicrafts weaved from withies of *Parrotia jacquemontiana*, *Cotoneaster baciliaris*, *Indigofera pulchella*, *Salix triandra, S. viminalis, S. daphnoides etc.* have acclaimed globally for their superb designs, artifact, quality and usefulness [10]. The weaving of high quality multi-shaped and multi-purpose wicker handicrafts e.g. *kangri*, *dakri*, *karngul*, *champa*, baskets, cradle for children, lamp shade, trays, *sarpoosh*, dustbins boxes, curtain rings, chairs, tables, *etc.* has unique talent of complex craftsmanship transferred from generations [11]. The wicker handicraft entrepreneurship is an eco-friendly, regionally compatible, labour intensive and gender-neutral livelihood source which generates considerable employment and income for the un-employed people. The wicker handicraft entrepreneurship requires small capital investment and low infrastructure like buildings, machineries, labour inputs, electricity, water etc. [12]. However, due to lack of un-organized marketing set-up and competition with low-cost alternative products the wicker handicrafts are not fetching adequate remunerations to the entrepreneurs and hence, the entrepreneurs are embracing some other livelihood alternatives [13]. By and large, the wicker handicrafts are weaved to suit the local demands for domestic use only while, there is a huge global export market through tourism to boost this trade and earn foreign exchange [14]. Despite, the multiple obstacles like remoteness and poor connectivity, hilly and inhospitable terrain, sparse population density, poor infrastructure, shallow markets etc. the wicker handicraft entrepreneurship occupy an important position in the state's industrial sector playing a vital role in the economic well-being of the people. Although, the wicker handicraft entrepreneurship has been recognized as an

important option in state's industrial and economic planning but still some instant and sensible policy implications is required to uplift this industry [15,16]. While existing studies by earlier workers [5,9-16] have widened our knowledge on various aspects of wicker handicraft, the empirical researches on the economic dependence on wicker handicraft entrepreneurship, impacts on income inequality mitigation and determinant factors of entrepreneurship are still essential areas of research to be addressed. Since, the wicker handicraft entrepreneurship remained an integral component of livelihood strategies among the forest fringe communities of Pulwama, J&K, such aforesaid research is urgent. In light of this, the present research has been conducted to unveil the economic contribution, income inequality mitigation and determinant factors of wicker handicraft entrepreneurship in the region.

2. MATERIALS AND METHODS

2.1 Study Area

The study was conducted in district Pulwama situated between geographical coordinates of 33°8'0" N and 74°92'0" E at an average altitude of 1630 meters above mean sea level in J&K state (Fig. 1). The total geographic area of the district is 1398 km^2 and has an area of 810 km^2 (57.94%) under Himalayan Dry Temperate Forest (13/C) [17]. The common topography of the area is both hilly and plain. By altitude the district is divided into two regions, zone-I up to 1700 meters which covers the cultivated area and zone-II between 1700 and 2000 meters which includes green meadows. The river Jhelum passes through the district from Anantnag to Srinagar. The dominant land uses in the district include cropped land, forests, pastures, non-agricultural uses, wasteland, fallows, tree cover and groves. The district has a population of 570069 (52.32% male and 47.68% female) having literacy rate of 65.00% and the population density of 514/km^2 [18]. Muslims constitute the largest (97.53%) religious population and the proportions of the Sikhs and Hindus are 1.80% and 0.63%, respectively. A considerable population of *Gujjar* and *Bakkerwal* tribes occupied the upper reaches of the district. Agriculture, livestock production, horticulture, forestry and minor trade are the main livelihood activities in the district. The district is characterized by temperate climate with mean temperatures ranging from –1.92°C to 29.8°C and mean annual rainfall of 1163.2 mm [19]. The higher regions get heavier snowfalls, experience severe cold and remain unreachable for some time in winter.
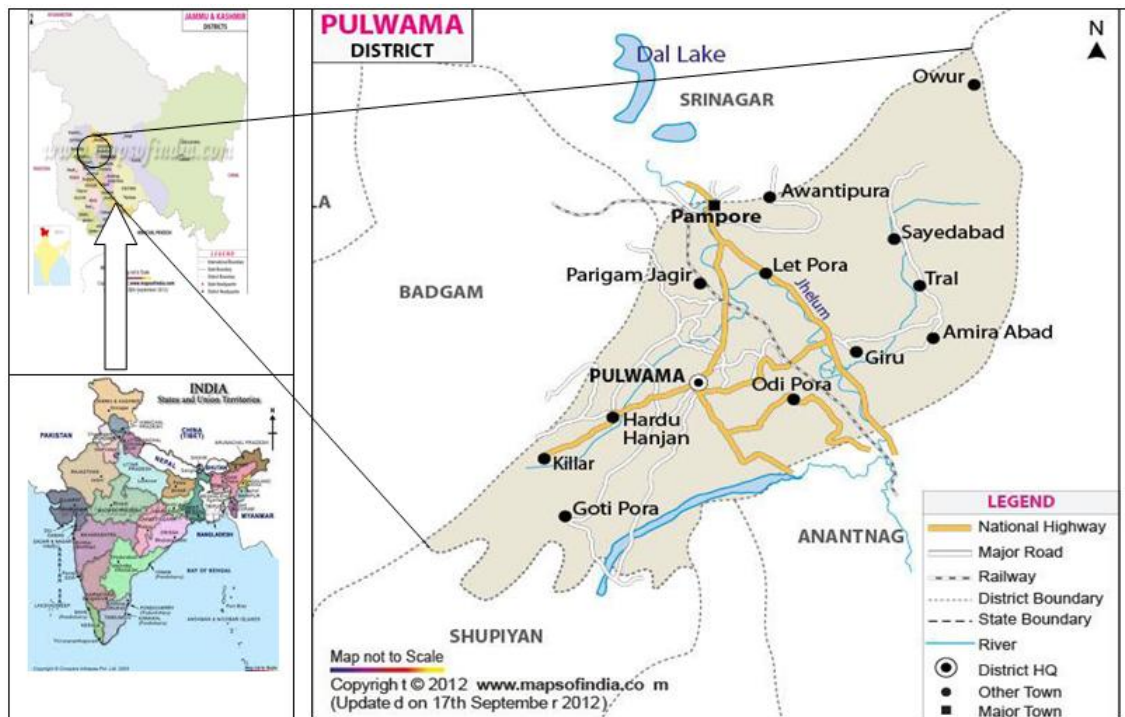

Fig. 1. Location map of the study area

2.2 Sampling Procedure

Multistage sampling technique [20] was used to select the blocks, villages and entrepreneurs. At first stage, all the five blocks (Tral, Pampora, Kakpora, Keller and Pulwama) were purposively selected because of the existence of wicker handicraft cottage industries. At the second stage, twenty sample villages having four villages each from Tral (Darsera, Batenoor, Panzoa and Satoora), Pampora (Khrew, Shaar, Woyen and Chandhoor), Kakpora (Lalihard, Narbal, Pohwoo and Lerve), Keller (Rajpora, Abhama, Yechgoza and Cralcheck) and Pulwama (Reshipora, Renzipora, Beighgund and Chraligund) were randomly selected. At third stage, a total of hundred households owning small scale wicker handicraft cottage industries having five entrepreneurs from each village were selected randomly. Household heads or eldest members were treated as the respondents for interview.

2.3 Data Collection

Data were collected from the sample wicker handicraft entrepreneurs through interviews using a structured interview schedule and focus group discussions (FGDs) guided by a checklist of questions [21]. The questions asked through interview schedule included data on socioeconomic characteristics of entrepreneurs, collection of withies, manufacture of wicker handicrafts, sale rate, quantity marketed, income generation, various sources of households' income and economic contribution of wicker handicrafts. The socioeconomic variables of the entrepreneurs included age, education, social participation, family composition, land holding, livestock possession, housing status, subsequent occupation, wealth status and annual income and the variables were measured using "Socio-economic status scale" of Venkataramaiah [22] after some modification. The FGDs were carried out with 8-12 participants including knowledgeable old people, withies producers, wicker handicraft entrepreneurs, women stakeholders, traders, community leaders, forest officials and departmental representatives of the cottage industries and handicrafts. The observations extracted from FGDs were used to triangulate and validate the data gathered through household survey, interpret the results and draw inferences.

2.4 Data Analysis

Descriptive statistics including the frequency, percentage, average, standard deviation and range [23] were applied to summarize the socioeconomic characteristics, withies collection, manufacture of wicker handicrafts, income generation and contribution of wicker handicraft entrepreneurship to households' income. Lorenz curve [24] and Gini co-efficient (G) [25] were applied to evaluate the distribution of household wicker handicraft incomes and their impacts on income inequalities mitigation in the entrepreneurs. The data collected were analyzed on MS Excel and Statistical Package for Social Sciences (SPSS) software and the results were displayed through tables and graphs.

2.5 Analytical Framework

Multiple regression analysis [26] was used to determine the socioeconomic variables that influence the household wicker handicraft incomes. It was hypothesized that household wicker handicraft income is inextricably influenced by the household's socioeconomic characteristics. Here, the household wicker handicraft income was the regress and socioeconomic characteristics (Table 1) were the repressors. The b-values in the analysis are the impact multipliers, which explain the magnitude of the effect of a unit change in the quantity of household wicker handicraft income. The conceptual model based on multivariate function is given as follows:

$$Y = a + b_1 x_1 + b_2 x_{2 + \ldots\ldots\ldots\ldots} + b_{10} x_{10} + e$$

Where,

Y=Household wicker handicraft income (₹/year)
X_1-X_{10}=Socioeconomic characteristics
a=constant or intercept
b_1-b_{10}=regression co-efficient
e=error term

3. RESULTS AND DISCUSSION

3.1 Socioeconomic Characteristics of Wicker Handicraft Entrepreneurs

Results (Fig. 2) indicated that majority of the entrepreneurs (54.00%) were middle aged followed by old (29.00%) and young (17.00%) age groups with mean age of 43.35 years. Among the entrepreneurs, 29.00% had education up to middle, 24.00% had secondary education, 13.00% had primary, 11.00% had intermediate, 10.00% had graduate & above, 9.00% had below primary and 4.00% were illiterate. As regards social participation, most of the entrepreneurs

(52.00%) did not have membership of any organization; however, 27.00% were member of at least one organization, 13.00% were having membership of more than one organizations and remainder (8.00%) were office bearer. About 69.00% of the entrepreneurs had nuclear families whereas; rest (31.00%) belonged to joint families. Further, large sized families (70.00%) prevailed among the entrepreneurs, while rests (30.00%) were having small sized families.

With regards to land holding, the larger proportions of entrepreneurs (79.00%) were marginal land holders followed by small

(14.00%), landless (4.00%) and medium (3.00%) (Fig. 3). Among the entrepreneurs, 41.00% possessed 6 to10 livestock, 27.00% possessed up to 5 livestock, 25.00% owned more than 10 livestock, and remainder (7.00%) were having no livestock at all. Regarding housing status, majority (57.00%) of the entrepreneurs owned *pucca* type houses followed by mixed (38.00%) and *katcha* (5.00%) type houses. The subsequent occupation to compensate the household income from wicker handicraft were cultivation (34.00%), business (24.00%), wage labour (14.00%), any other (12.00), service (9.00%) and caste occupation (7.00%). The

Table 1. Description of the socioeconomic variables

Code	Variable	Measurement
X_1	Age_1	Chronological age in year
X_2	Education	0=illiterate, 1<primary, 2=primary, 3=middle, 4=high school, 5=intermediate, 6>graduate
X_3	Social participation	0=no participation, 1=membership of 1 organization, 2=membership of >1 organization, 3=office bearer, 4=public leader
X_4	Family composition	a. Family type: nuclear (1)/ joint (2) b. Family size: small (≤5 members) (1)/ large (>5 members) (2)
X_5	Land holding	0=landless, 1=marginal (≤1.0 ha), 2=small (1.1 to 2.0 ha), 3=medium (2.1 to 4.0 ha), 4= large (>4.0 ha)
X_6	Livestock possession	0=no livestock, 1≤5 livestock, 2=6 to 10 livestock, 3>10 livestock
X_7	Housing status	0=no house, 1=hut, 2=*katcha*, 3=mixed, 4=*pucca*
X_8	Subsequent occupation	1=wage labour, 2=caste occupation, 3=cultivation, 4=business, 5=service, 6=any other
X_9	Wealth status	0=poor, 1=medium, 2=rich
X_{10}	Annual income	₹/year (very low≤₹ 30000), (low=₹ 30001 to ₹ 60000), (medium=₹ 60001 to ₹ 90000), (high>₹ 90000)

Source: Venkataramaiah [22]
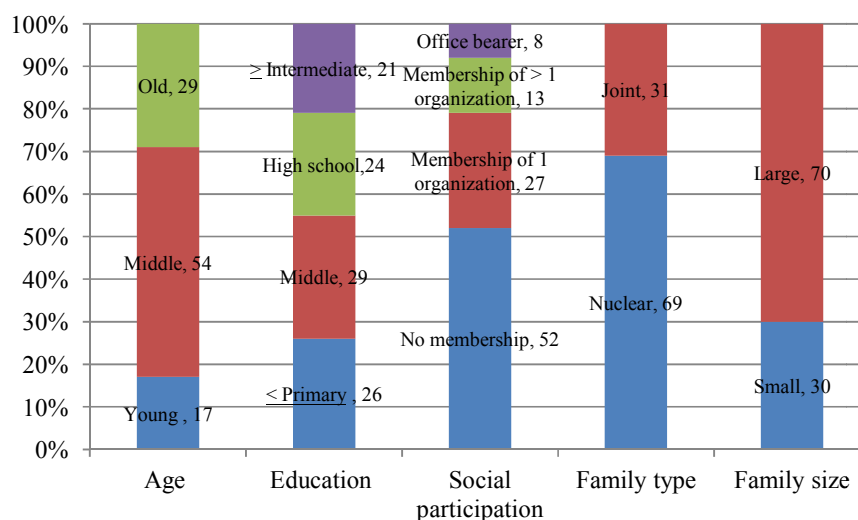
Fig. 2. Social characteristics of wicker handicraft entrepreneurs (N=100)
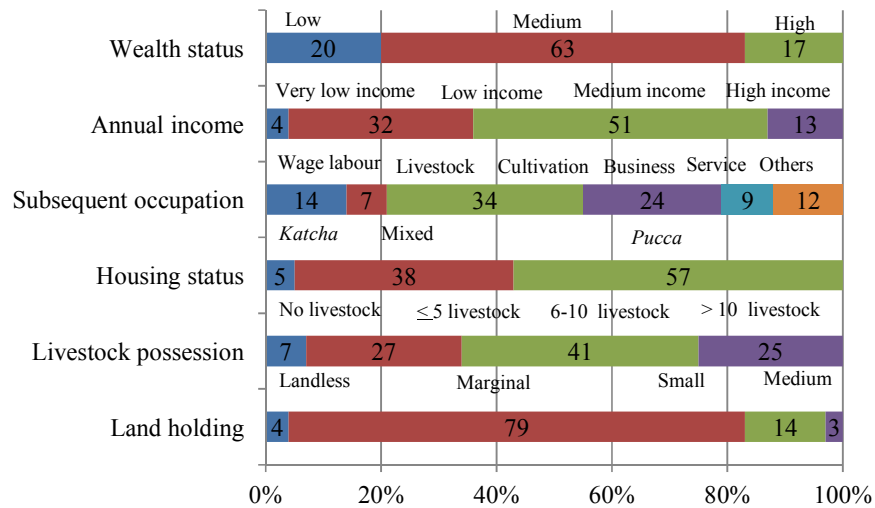
Fig. 3. Economic characteristics of wicker handicraft entrepreneurs (N=100)

gross annual income of more than half (51.00%) of the entrepreneurs was medium (₹ 60001 to 90000/year), while 32.00% had low income (₹ 30001 to 60000/year), 13.00% had high income (> ₹ 90000/year) and remainder (4.00%) had very low income (≤ ₹ 30000/year). Majority (63.00%) of the entrepreneurs had medium wealth status whereas, 20.00% had low and rest (17.00%) had high wealth status.

The findings imply that the wicker handicraft entrepreneurs are in underprivileged position in all respects as revealed by their low socioeconomic conditions. The wicker handicraft weaving communities mostly inhabit in remote areas where they have limited access to resources, services and provisions. Basically, the wicker entrepreneurs are one of the vulnerable sections of the society comparative to other communal counterparts and often they are the last receivers of the opportunities offered by Government's developmental schemes. The entrepreneurs are still lagging far behind in different walks of life like education, employment, health, communication, economic wellbeing etc. The current picture led to the grappling with myriad of problems including acute poverty, undernourishment, severe disparity, out-migration, substandard life quality, debt, unrest, seclusion from national mainstream, customary severity, lack of awareness and exposure, infrastructural scarcity etc. Nonetheless, the socioeconomic conditions of the wicker handicraft entrepreneurs is far away from the desired level, there is still much scope to improve their quality of life through intervention of specific

livelihood diversification strategies. The earlier studies [27-33] across the world have shown the low socioeconomic conditions in the communities heavily reliant on the forest-based industries for their livelihood security.

3.2 Withies Collection, Manufacture of Wicker Handicrafts and Income Generation

Total collection of withies was 61.71 t/year@ 0.62 t/household/year; of which *Parrotia jacquemontiana* contributed maximum share (58.01%) followed by *Indigofera pulchella* (30.38%), *Salix triandra* (6.87%), *Cotoneaster baciliaris* (3.24%) and *Salix viminalis* (1.50%) (Table 2). The entrepreneurs manufactured a total of 43514 wicker handicrafts/year @ 435.14 handicrafts/household/year which generated a total income of ₹ 5953470/year @ ₹ 59534.70/household/year. Of the total wicker handicraft income, *kangri* contributed the largest share (66.16%) followed by *dakri* (21.84%), basket (5.52%), *karngul* (4.28%), *champa* (0.84%), chairs table set (0.50%), dustbins (0.28%), cradle for children (0.27%), tray (0.25%), lamp shade (0.05%) and *sarpoosh* (0.01%).

The *Parrotia jacquemontiana* is the chief withy species collected in highest quantity by the wicker handicraft entrepreneurs because this species is available in huge quantity in the forests and the quality handicrafts manufactured from this species have specific local demand fetching handsome prices. Other species like

Indigofera pulchella and *Cotoneaster baciliaris* are collected in less quantity due to less availability in the forests and low market demand of the handicrafts manufactured. The extraction of withies from *Salix triandra* and *Salix viminalis* is small because only a few entrepreneurs had adopted plantations of these species in their farms and homesteads. Among the wicker handicrafts, *kangri* is the most saleable and highest profitable handicraft because the *kangri* is the chief earthen-pot weaved handicraft utilized by more or less all the people across the Kashmir to counter severe cold. Other important wicker handicrafts weaved in good number are *dakri*, *karngul* and baskets like apple basket, oval-arm basket, laundry basket, bakers basket, multi-purpose basket, pet baskets, round basket, lunch basket, picnic basket, kitchen basket, flower basket, fancy basket, duck basket, food basket etc. because these wicker handicrafts get prominent position as daily-use household consumable items among Kashmiri people. However, *champa*, chairs and table, children's cradle, dustbins, lamp shade, tray and *sarpoosh* are weaved in low quantity since these wicker handicrafts have limited household utilization among the Kashmiri people either as esteemed articles or in extreme needs.

3.3 Economic Contribution and Inequality Mitigation of Wicker Handicraft Entrepreneurship

The average household annual income consisted of all off-farm and on-farm sources was ₹ 88900.00; of which wicker handicraft fetched the maximum share (66.97%) followed by agriculture (20.12%), business (6.38%), service (2.52%), livestock (1.76%), labour (1.58%) and others (0.68%) (Table 3). The Lorenz curve (Fig. 4) of the household income excluding the wicker handicraft income deviated more from the line of equality than the Lorenz curve of the total household income. The Gini co-efficient for the household income with wicker handicraft income was 21.85 while it increased to 53.14 when the wicker handicraft income was excluded. The values of Gini-coefficients or the departure of Lorenz curves from the line of equality clearly indicated that the wicker handicraft income mitigated the income inequalities overwhelmingly among the entrepreneurs. The income diversification through wicker handicraft entrepreneurship clearly indicated that industrial income has an equalizing effect on total income distribution. The wicker handicrafts are often crucial as an economic buffer and safety net for poor entrepreneurs, hence, the promotion of wicker handicraft entrepreneurship will improve their socioeconomic status while the denial will make them poorer.

The wicker handicraft entrepreneurship is a well-known forest-based cottage industry (Fig. 5) and the potential contributor to the economic development, rural development and rural enterprises. The entrepreneurship is considered as a viable livelihood source for subsistence, cash income and safety net because the alternative options are either scant or even lacking in rural Kashmir. Among few entrepreneurs, the wicker handicraft is not their primary livelihood source but is subsequent either on a part-time or full-time basis. The wicker handicrafts are traditionally utilized in every domestic activity whether it is agriculture, livestock production, horticulture, food preparation, serving food or feed, baking, plating, furnishings, carriage, sieving, *etc*. The wicker handicrafts are consumed by all classes of people in the society whether rich or poor, illiterate or literate, urban or rural etc. Nonetheless, the cash income from wicker handicraft is rather small; involvement in this profession is an indispensable source of pride, self-esteem and sovereignty. The income generation from the wicker handicraft manufacture varies across the entrepreneurs and is directly influenced by the extent of labour input spent. The incomes derived from wicker entrepreneurship are used to secure household livelihoods and to perform the other domestic transactions like children's education, marriages, ceremonies, purchase of agricultural tools, assets for petty trade, safety net to cope up hardship, savings to counter severe winter colds etc. The studies [2,3,6,7,34-37] on forest-based cottage industries confirm that the entrepreneurship have significant contribution to the rural livelihoods in local people.

3.4 Socioeconomic Determinants of Economic Contribution of Wicker Handicraft

Multiple linear regression analysis (Table 4) worked out the coefficients values of socioeconomic variables as, age (-62.23), education (995.87), social participation (270.78), family composition (2434.09), size of land holding (599.74), livestock possession (269.96), housing status (1708.33), subsequent occupation (1197.64), gross annual income (0.040) and wealth status (-8.57). The 't' values of regression

co-efficient indicated that of the ten socioeconomic variables, education (3.198), family composition (4.086), housing status (3.434), subsequent occupation (3.450) and gross annual income (3.953) had significant contribution in influencing the wicker handicraft income levels. The coefficient of determination (R^2) of 0.815 signifies that all the explanatory variables altogether had contributed to 81.50% variation on household wicker entrepreneurship income. The magnitude of F value (39.097) indicated that the R^2 is statistically significant (p<0.05) which apparently confirmed that the model is very strong, reliable and highly predictive. The multiple regression equation fitted for the household wicker entrepreneurship income should be written as:

$$Y = 34681.706 - 62.218X_1 + 995.870 X_2 - 270.776X_3 + 2434.086X_4 + 599.744 X_5 + 269.959X_6 + 1708.332 X_7 + 1197.637X_8 + 0.040X_9 - 8.567X_{10.}$$

Where,

Y=Household wicker handicraft income (₹/year)
$X_1 – X_{10}$=Socioeconomic variables

The regression co-efficient indicated that the education, family composition, housing status, subsequent occupation and gross annual income of the wicker handicraft entrepreneurship had the significant contribution to the economic dependence on wicker handicraft. This led to conclude that education, family composition,

Table 2. Collection of withies, manufacture of wicker handicrafts and income generation (N=100)

Withies type	Quantity collected (t/year)	Wicker handicraft	Quantity manufactured/ year (no.)	Sale price (₹)	Income (₹/year)
Parrotia jacquemontiana	35.80 (58.01)*	*Kangri*	32500	50-500	3938500 (66.16)*
Indigofera pulchella	18.75 (30.38)	*Dakri*	6000	150-250	1300000 (21.84)
Cotoneaster baciliaris	2.00 (3.24)	*Karngul*	3150	80-1100	255000 (4.28)
Salix triandra	4.24 (6.87)	*Champa*	500	100	50000 (0.84)
Salix viminalis	0.92 (1.50)	Basket	1261	50-2000	328370 (5.52)
-	-	Chairs table set	12	2500	30000 (0.50)
-	-	Cradle for children	8	2000	16000 (0.27)
-	-	Lamp shade	12	250	3000 (0.05)
-	-	Tray	25	600	15000 (0.25)
-	-	*Sarpoosh*	4	200	800 (0.01)
-	-	Dustbins	42	50-500	16800 (0.28)
Total	61.71	-	43514	-	5953470
Average	0.62	-	435.14	-	59534.70

Figures in parentheses show percentage

Table 3. Household income by different income sources (N=100)

| Livelihood sources	Total income (₹/year)	Mean income (₹/year)	Standard error	Income share (%)
Wicker handicraft	5953470.00	59534.70	4608.026	66.97
Agriculture	1788600.00	17886.00	2255.562	20.12
Livestock	567000.00	1564.00	79.57402	1.76
Business	224000.00	5670.00	310.1047	6.38
Service	156400.00	2240.00	786.6881	2.52
Wage labour	140400.00	1404.00	7.641445	1.58
Others	60130.00	601.30	177.2583	0.68
Total	8890000.00	88900.00	8203.861	100.00

Table 4. Regression of household wicker handicraft income against socioeconomic variables (N=100)

Socioeconomic variables (code)	Regression co-efficient (b)	Standard error of 'b'	B	't' value
Age (X_1)	-62.23	25.25	-0.123	-2.464
Education (X_2)	995.87	311.41	0.217	3.198*
Social participation (X_3)	270.78	421.90	0.040	0.642
Family composition (X_4)	2434.09	595.76	0.272	4.086*
Size of land holding (X_5)	599.74	868.17	0.045	0.691
Livestock possession (X_6)	269.96	516.37	0.034	0.523
Housing status (X_7)	1708.33	497.48	0.207	3.434*
Subsequent occupation (X_8)	1197.64	347.10	0.243	3.450*
Gross annual income (X_9)	0.040	0.01	0.243	3.953*
Wealth status (X_{10})	-8.57	50.22	-0.011	-0.171

a=34681.706, F=39.097*, R^2=0.815, Multiple R=0.903, Adjusted R^2=0.794
*=Significant at 5% level of probability
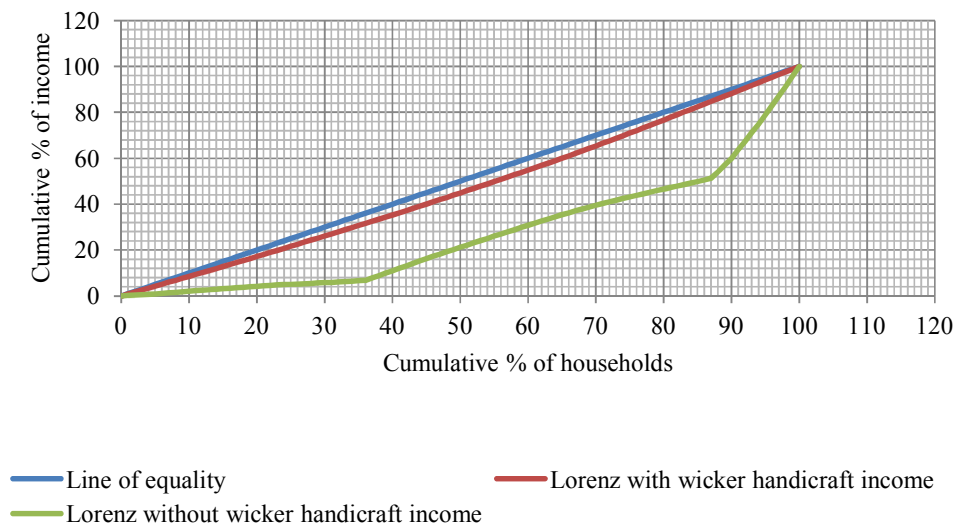
Fig. 4. Lorenz curve of household income including and excluding wicker handicraft income (N=100)

housing status, subsequent occupation and gross annual income were the potential predictors in explaining the variation in the economic dependence on wicker handicraft. The education is the core social asset which plays a vital role in socioeconomic development and economic security of the people and hence, the wicker handicraft entrepreneurs with higher education were having more secured income from the industry than their counterparts with lower education. Likewise, the family composition and housing status are the key variables determining the present and future household economic dependence on wicker handicraft; thus, the smaller family with lower housing status has lower economic dependence on wicker handicraft while the larger family with higher housing status possesses higher economic dependence on wicker handicraft. Nonetheless, the subsequent occupation and gross annual income of the wicker handicraft entrepreneurs have direct influences on economic development through wicker handicraft, the households with higher subsequent occupation and gross annual income can organize large scale manufacture of wicker handicrafts while the families having lower subsequent occupation and gross annual income can hardly support small scale manufacture of wicker handicrafts only. The results were in consistent with other studies [27-33] from elsewhere which established that the socioeconomic factors statistically and significantly influenced the household forest-based industrial income dependence.

a. Collection of withies

b. Processing of withies

c. Manufacture of handicrafts

d. Marketing of wicker handicrafts

Fig. 5. Wicker handicraft cottage industry

4. CONCLUSIONS

The findings illustrate that the wicker handicraft manufacture play a crucial role in economic security of the entrepreneurs and contribute considerably to the gross annual income besides acting as safety net in cases of exigency. Further, the wicker handicraft entrepreneurship has a strong equalizing effect on local income distribution and reducing the socioeconomic disparity among the entrepreneurs. Such prominent role of wicker handicraft entrepreneurship should be given due attention in rural development and industrial policies to harmonize socioeconomic improvement, poverty reduction and livelihood security of the entrepreneurs. The wicker handicraft entrepreneurship has no advertisement or promotional activities to expand the markets of the handicrafts. Hence, branding and certification of wicker handicrafts and marketing through co-operatives and e-commerce must be given due consideration to attract traders and reduce competition with large scale industries. Further, the prospective opportunities for income diversification through value addition of wicker handicrafts, fortunate marketing and better commercialization should be explored and accordingly, skill development and capacity building programs on these aspects should be organized among entrepreneurs. Likewise, results of the regression analysis indicated that the household socioeconomic factors like education, family composition, housing status, subsequent occupation and gross annual income were the major determinants of wicker handicraft entrepreneurship. Hence, the policy and decision makers should give due recognition during planning and implementation of explicit strategies for improvement and strengthening of wicker handicraft entrepreneurship for rural industrialization and livelihood improvement.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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