

A Study on the Socio-economic Condition of the Bamboo Handicraft Artisans in Palakkad District, Kerala

Sreelekha E K

Research Scholar

Amrita School of Arts and Sciences, Kochi

Amrita Vishwa Vidyapeetham University, Coimbatore

Dr. Ambily A S

Research Guide

Amrita School of Arts and Sciences, Kochi

Amrita Vishwa Vidyapeetham University, Coimbatore

Abstract

This study tries to probe the socio-economic condition of the bamboo handicraft artisans in Palakkad district, Kerala. The study focuses on the health condition, saving and debt condition, involvement in social group activities of the artisans and also attempt to investigate the relation between monthly income and monthly expenses of them. The primary data were collected through the schedule method from 120 bamboo handicraft artisans of Palakkad district and secondary data were collected through newspaper, published works, internet, journal etc. The collected data is analysed by using Chi-square test in SPSS. The study found that health issues of the respondents are associated with nature of the employment and not associated with age of the respondents. The amount of saving is related with the number of earning members and dependents in the family. The study also says that debt position is associated with the number of dependents in the family and type of borrowing is associated to the education level. The type of saving is independent to the education level of the artisans. As per the present study, membership in social groups is independent to age and dependent to education level of the artisans. Likewise, the extent of involvement in social group activities is not associated with age while it is associated with the education level of the artisans. The study shows that education has a significant relation with the reading habit of the artisans, whereas age is not related. According to the study, monthly income from bamboo work is associated with year of experience and nature of employment of the artisans. The monthly expenses and the total monthly income are associated.

Key words: *Bamboo Handicraft artisans, socio-economic condition, health issues, saving, debt, social groups, monthly income, monthly expenses*

Introduction

Bamboo industry is one of the traditional cottage industries in the globe. Bamboo has a dominant role in the life of a man since the ancient times. From the earliest time the man has found the usefulness and importance of bamboo. Even in the present situation the bamboo has been used by the people tremendously. They use it for making house, weapons, agricultural and fishing equipment, musical instruments, domestic and decorative items etc. Handicraft making is one of the livelihoods of the people in Kerala. The traditional bamboo handicraft, especially mat weaving and basket making, based on Bamboo Corporation situated at Angamaly is very popular. The artisans are come from different cultural background and work with the same objective by ignoring caste and other differences. These groups of people involves skilled and semi-skilled. All of them help each other to become a good artisan and prosper the industry. Kerala is considered as one of the largest bamboo handicraft producing state in India.

Since years ago, people in Kerala have involved in bamboo products making for various purposes such as agricultural, domestic and storage uses. Many of the men and women are making bamboo products without considering their caste and cultural in their spare time. Traditionally scheduled caste and tribal communities practiced in bamboo crafts.

In this modern time bamboo is used to replace various applications of plastic, metal and wood to make useful products for use in day to day life. Many of the inventions are introduced in this context. Many organizations and institutions are involved in this sector for the development of bamboo plantation and value addition.

Bamboo acts as the alternative for wood and the giant and versatile grass. Bamboos are renewable resource and it is available extensively in various regions of Kerala. 28 species of bamboos are found in Kerala and main species are *Ochlandratravancorica*, *Bambusabambos*, *Dendrocalamusstocksii*, *Dendrocalamusstrictus*. These species are used for handicraft making. Bamboo is considered as the natural fibre in Kerala and which are grown plenty in forest and home garden. Wayanad is the first position in the production of bamboo.

Many of the tools are used for making bamboo handicraft items. They are knife, inch steel rule, right angle, measuring tape, calipers, compass, hand saw, cutting pliers, fret saw, wire cutter, chisels, noose pliers, hammer, screw driver, hand drill, jig saw, bamboo splitter, slivering machine etc. It includes various advanced machines for slivering and cutting purposes. Many of the artisans are not using these machines and do these works using their hands. Bamboo handicraft making process involves various stages such as harvesting, preservation treatment, cross cutting, knot removing, cleaning, polishing, radial splitting, sliver making, dying, production, varnishing and drying.

Bamboo is one of the fastest growing NFTPs and it is called as timber of poor man. Kerala has an extensive diversity of bamboo species only after Arunachal Pradesh. In Kerala, many people use different species of bamboo for different purposes. Bamboo occupies a vital role in the livelihood for millions of people. Bamboo can be labelled as multipurpose crop varieties, with many usages like raw material, for art of basketry and handicrafts. Bamboo has a potential in giving economic growth and employment opportunities for urban and rural people. In Kerala, huge numbers of artisans are depends on bamboo handicraft making for their livelihood. The manufacturing of bamboo baskets and mats are traditionally popular in Kerala. The artisans collect the

bamboo and make the products and sell the same to customers. As per the data provided by Directorate Commissioner Handicrafts, Palakkad district has the highest number of bamboo workers in Kerala who registered as artisans. The present study tries to study the socio-economic condition of the bamboo handicraft artisans in Palakkad district of Kerala.

Objectives

1. To study the health condition of the bamboo handicraft artisans
2. To study the saving and debt condition of bamboo handicraft artisans
3. To know the involvement of bamboo handicraft artisans in social group activities
4. To investigate whether there is a relation between total monthly income and monthly expenses in the family of bamboo handicraft artisans

Hypothesis

Following hypotheses are formulated in the study based on the objectives;

1. There is no significant relationship between age of the respondents and the health issues
2. There is no significant relationship between nature of employment and the health issues
3. There is no association between number of earning members in the family and amount of saving
4. There is no association between number of dependents in the family and amount of saving
5. There is no significant relationship between number of dependents in the family and debt position
6. There is no association between education level and type of borrowing
7. There is no association between education level and type of saving
8. There is no significant relationship between age of the respondents and membership in social groups
9. There is no significant relationship between education and membership in social groups
10. There is no significant relationship between age and extent of attending social group activities
11. There is no significant relationship between education and extent of attending social group activities
12. There is no significant relationship between age and extent of reading habit
13. There is no significant relationship between education and extent of reading habit
14. There is no association between year of experience and monthly income from bamboo work
15. There is no association between total monthly income and monthly expenses
16. There is no association between nature of employment and monthly income from bamboo work

Methodology

The study is based on analytical in nature. The area of study is confined to Palakkad district. Sample size is 120 numbers of bamboo handicraft artisans in Palakkad district. Sample size is selected based on simple random sampling method. Primary data were gathered through schedule method from selected respondents and secondary data through newspaper, published works, internet, journals etc. The collected data were analysed by using percentage method and chi-square method in SPSS.

Literature review

M. ShakyaBajracharya, S. Rajbhandary and A. N. Das (2007) say through the paper that bamboos had high economic and social values for the Pahari community in Badikhel Village, Latipur in their lives. This conventional business has considered as the means to improve the quality of life of the women in Pahari where the society has dominated by male.

Nwaihu E. C. , Egbuche C.T., Onouha G. N., Ibe A. E., Umeojiakor A. O., Chukwn A. O. (2015) highlight that in the socio-economic well-being of Mbaise people, the bamboo plants and its products have provided a dominant contribution. Bamboo is extensively used in the study area for fencing, architectural building, yam staking, construction of yam barns etc.

MD. KamrulHasan, NayeemaMaswoodNeela (2015) says through the paper that basic education is important to run a cane enterprise business. The cane based furniture industry has many of pleasing attributes to strengthen socio-economic conditions of the country. But on account of various hindrances, this industry is not prospering well.

Seth B. Barandon found that the bamboo offers social and economic benefits to the bamboo entrepreneurs and his family. Bamboo entrepreneurship also creates employment in the area.

AnantaGhimire (2008) reveals through his study is that land for agricultural production is very less to most of Paharis which is not enough to cater the needs of their family more than 6 months and bamboo craft making is only the source of income to them. Nowadays interest on modern crafts has increased so that they can utilise this condition and make profit mainly in urban areas.

Longshibeni N. Kithan (2014) says that socio-economic status of the Nagas is largely connected with bamboo which is extensively grown in Nagaland. Bamboo has vast economic capability to build opportunities of employment to the backward divisions of the society by considering the increasing demand for the bamboo and its products.

T. Selvam (2016) proves through his study is that less than three fourth of the population has moderate level of socio-economic status, a little more than one tenth of the population has low level socio-economic status and more than one tenth of the population has high level of socio-economic status.

Sharif Ahmed Mukul& Md. ParvezRana (2013) reveals in their study is that bamboo enables to generate gains for the entrepreneurs in local areas. It also acts as a means of generating employment for less-skilled villagers in production.

Jayasankar. B (2000) says that intermediaries control the marketing section and they offer the price which is below the market price to the weavers for the products. The weavers get extremely low income. The reason behind the continuation of exploitation by intermediaries is that non-existence of an effective institutional set-up. The analysis says that tribal peoples are the socially and economically weaker section among the communities.

Marulu Reddy Seelam (2019) mentions through his study that income, expenditure, poverty, indebtedness, health and education expenditure are the major six socio-economic variables.

Analysis and interpretation

Testing of Hypothesis 1

H0₁: There is no significant relationship between age of the respondents and the health issues

Table1-Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	20.354 ^a	24	.676

Source: Primary data

The table 1 shows that Pearson Chi-square value of 20.354 (df=24, N=120), $p > 0.05$ is not significant at 24 degree of freedom, showing that **there is no significant relationship between age of the respondent and health issues**. So the null hypothesis is failed to reject.

Testing of Hypothesis 2

H0₂: There is no significant relationship between nature of employment and the health issues

Table2-Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	22.034 ^a	6	.001

Source: Primary data

The table 2 shows that Pearson Chi-square value of 22.034 (df=6, N=120), $p < 0.05$ is significant at 6 degree of freedom, showing that **there is a significant relationship between age of the respondent and health issues**. So the null hypothesis is rejected.

Testing of Hypothesis 3

H0₃: There is no association between number of earning members in the family and amount of saving

Table 3- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	20.483 ^a	8	.009

Source: Primary data

The table 3 describes that Pearson Chi-square value of 20.483 (df=8, N=120), $p < 0.05$ is significant at 8 degree of freedom, showing that **there is a significant relationship between number of earning members in the family and type of saving**. So the null hypothesis is rejected.

Testing of Hypothesis 4

H₀₄: There is no association between number of dependents in the family and amount of saving

Table 4- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	17.445 ^a	6	.008

Source: Primary data

The table 4 shows that Pearson Chi-square value of 17.445 (df=6, N=120), $p < 0.05$ is significant at 6 degree of freedom, showing that **there is a significant relationship between number of dependents in the family and sources of borrowing**. So the null hypothesis is rejected.

Testing of Hypothesis 5

H₀₅: There is no significant relationship between number of dependents in the family and debt position

Table5- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	25.694 ^a	15	.041

Source: Primary data

The table 5 shows that Pearson Chi-square value of 25.694 (df=15, N=120), $p < 0.05$ is not significant at 15 degree of freedom, showing that **there is a significant relationship between number of dependents in the family and debt position of the artisans**. So the null hypothesis is rejected.

Testing of Hypothesis 6

H₀₆: There is no association between education level and type of borrowing

Table 6- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	64.899 ^a	25	.000

Source: Primary data

The table 6 shows that Pearson Chi-square value of 64.899 (df=25, N=120), $p < 0.05$ is significant at 25 degree of freedom, showing that **there is a significant relationship between education level of the respondent and sources of borrowing**. So the null hypothesis is rejected.

Testing of Hypothesis 7

H₀₇: There is no association between education level and type of saving

Table 7- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	17.187 ^a	10	.070

Source: Primary data

The table 7 reveals that Pearson Chi-square value of 17.187 (df=10, N=120), $p>0.05$ is not significant at 10 degree of freedom, showing that **there is no significant relationship between education level of the respondent and type of saving**. So the null hypothesis is failed to reject.

Testing of Hypothesis 8

H₀₈: There is no significant relationship between age of the respondents and membership in social groups

Table 8- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	7.966 ^a	4	.093

Source: Primary data

The table 8 reveals that Pearson Chi-square value of 7.966 (df=4, N=120), $p>0.05$ is not significant at 4 degree of freedom, showing that **there is no significant relationship between age of the respondents and membership in social groups**. So the null hypothesis is failed to reject.

Testing of Hypothesis 9

H₀₉: There is no significant relationship between education and membership in social groups

Table 9- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	27.507 ^a	5	.000

Source: Primary data

The table 9 shows that Pearson Chi-square value of 27.507 (df=5, N=120), $p<0.05$ is significant at 5 degree of freedom, showing that **there is a significant relationship between age of the respondents and membership in social groups**. So the null hypothesis is rejected.

Testing of Hypothesis 10

H₀₁₀: There is no significant relationship between age and extent of attending social group activities

Table 10- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	17.326 ^a	16	.365

Source: Primary data

The table 10 describes that Pearson Chi-square value of 17.326 (df=16, N=120), $p > 0.05$ is not significant at 16 degree of freedom, showing that **there is no significant relationship between age and extent of attending social group activities**. So the null hypothesis is failed to reject.

Testing of Hypothesis 11

H0₁₁: There is no significant relationship between education and extent of attending social group activities

Table 11- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	46.209 ^a	20	.001

Source: Primary data

The table 11 describes that Pearson Chi-square value of 46.209 (df=20, N=120), $p < 0.05$ is significant at 20 degree of freedom, showing that **there is a significant relationship between education and extent of attending social group activities**. So the null hypothesis is rejected.

Testing of Hypothesis 12

H0₁₂: There is no significant relationship between age and extent of reading habit

Table 12- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	14.038 ^a	8	.081

Source: Primary data

The table 12 shows that Pearson Chi-square value of 14.038 (df=8, N=120), $p > 0.05$ is not significant at 8 degree of freedom, showing that **there is no significant relationship between age and extent of reading habit**. So the null hypothesis is failed to reject.

Testing of Hypothesis 13

H0₁₃: There is no significant relationship between education and extent of reading habit

Table 13- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	44.815 ^a	10	.000

Source: Primary data

The table 13 reveals that Pearson Chi-square value of 44.815 (df=10, N=120), $p < 0.05$ is significant at 10 degree of freedom, showing that **there is a significant relationship between education and extent of reading habit**. So the null hypothesis is rejected.

Testing of Hypothesis 14

H₀₁₄: There is no association between year of experience and monthly income from bamboo work

Table 14- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	24.569 ^a	20	.218

Source: Primary data

The table 14 describes that Pearson Chi-square value of 24.569 (df=20, N=120), $p > 0.05$ is not significant at 20 degree of freedom, showing that **there is no significant relationship between year of experience and monthly income from bamboo work**. So the null hypothesis is failed to reject.

Testing of Hypothesis 15

H₀₁₅: There is no association between total monthly income and monthly expenses

Table 15- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	56.374 ^a	9	.000

Source: Primary data

The table 15 shows that Pearson Chi-square value of 56.374 (df=9, N=120), $p < 0.05$ is significant at 9 degree of freedom, showing that **there is a significant relationship between total monthly income and monthly expenses**. So the null hypothesis is rejected.

Testing of Hypothesis 16

H₀₁₆: There is no association between nature of employment and monthly income from bamboo work

Table 16- Chi-square Test

	Value	Degree of Freedom	Significance (two sided)
Pearson Chi-square	22.094 ^a	4	.000

Source: Primary data

The table 16 reveals that Pearson Chi-square value of 22.094 (df=4, N=120), $p < 0.05$ is significant at 4 degree of freedom, showing that **there is a significant relationship between nature of employment and monthly income from bamboo work**. So the null hypothesis is rejected.

Findings

The study shows that age of the respondent and health issues of them are not significantly related. 1% of the respondents have the age below 25, 13% are in between 26 and 35, 21% of the artisans are in between 36 and 45, 41% are included between 46 and 55 and 24% of the artisans are more than 55 years old. Out of 120 respondents 3% are suffering from Tuberculosis, 17% have Heart disease, 8% have Asthma, 8% have Blood pressure, 4% are diabetic patients, 16% of the artisans have other type of diseases and 44% have no any health issues. Majority of the respondents are in the age group of between 46 and 55. Most of the artisans have no any health issues. The health issues may be affecting to them due to their hereditary, food habits etc. So the age is not become a factor for the health issues to the artisans in Palakkad district. But the study also mentions that there is an association between nature of employment and health issues. 41% of the respondents are full time workers and 59% are part time workers. Full time workers do not go for any other works. Bamboo work can be done by sitting in an area. Full time workers often sit in the workplace and make bamboo product. The continuous sitting may lead to many health issues like back pain, joint pain, breathing issues etc. Lack of proper exercise may also lead to heart diseases, diabetic etc. Part time bamboo workers may be free from these issues.

The study reveals that the number of earning members in the family and amount of saving are significantly related. Majority of the respondents (43%) responded that less than 3 members have as earning members in their family. Most of the respondents (80%) have no any amount of saving. 18% of the respondents save only less than 2000 rupees per month. When the earning members in the family are decreased the amount of saving or saving habit is also decreased.

The study also says that there is a significant relationship between dependents in the family and amount of saving. 59% of the respondents says that they have 1 or 2 number of dependents in their family and most of the artisans have no the habit of saving. The monthly income of the respondent's family is basically less enough to make saving. Less number of earning members and sizable number of dependents affect the saving in the family.

Most of the respondents (38%) borrow money from private banks and 1% is borrowed from money lenders. When the number of dependents in the family is increased the income to the family is decreased and the borrowing also increased to meet the requirements of the family members including the dependents. So there is a significant relationship between dependents in the family and debt position.

The study also shows that education level is significantly related with the type of borrowing by the respondent. 38% of the artisans borrow money from private bank and NBFCs and 1% borrows from money lenders. 33% of the artisans have high school level of education, while 27% are illiterate. The highest education is degree which is having to 3% of the respondents only. Lack of adequate education is the main problem to borrow the money from private bank. Private Banks, especially NBFCs provide debt without much complicated procedures and with a highest rate of interest. The artisans have no enough education to enquire about these things. That is the reason why they are mostly attracted to private banks and NBFCs.

The study reveals that there is no significant association between education level and type of saving by the respondent. Out of the respondents 3% and 19% have a saving in Chitti and Life insurance respectively. Remaining artisans (78%) have no the saving habit. So the type of saving is not depending on the education qualification of the respondents.

Some of the respondents have membership in various social groups. 87% of the artisans under study have the membership whereas 13% don't have the same. 27% of the respondents are active in social media, 3% are active in political parties, 52% are members in Kudumbasree, 5% are engaged in community organisation, and 13% of the respondents are not a member in social groups. The study shows that the age of the respondent and membership in social groups is not significantly related. The artisans are engaged in social groups based on the availability and activeness of the groups in their locality. So the membership in social groups is not depends on the age of them. But the study says that the membership in social groups is significantly associated with education level of the respondent.

According to the study, age is not associated with the extent of attending social group activities. 44% of the artisans always engage in the activities while 46% of the members in social groups are not at all active in social group activities. 19% are often attending the activities and 2% of the members engaging as rarely and occasionally each. The extent of attending the activities dependson their time constraints or interest. The study is also reveals that the education is a depending factor for the extent of attending in social group activities.

The study mentions that there is no association between age of the artisans and extent of reading habit of them. Most of the respondents (41%) are belonging in the age group of between 46 and 55 and 1% are less than 25 years old. Out of the respondents 48% are not reading the newspaper, magazines etc. and 33% and 19% of the artisans are read occasionally and daily respectively. Majority of them have no the facility to read the newspaper, magazines etc. and some of them are not interested in reading. Most of the artisans have low education level and 27% of the respondents are uneducated. The study also shows that there is a significant relation between education level and the extent of reading. So that reading habit is independent to age and dependent to education level of the respondent.

The study reveals that year of experience is associated with the monthly income from bamboo work. Most of the respondents (33%) have 20 to 30years of experience in bamboo work and 1% has more than 60 years of experience. 14%, 30%, 17% and 5% of the artisans have less than 20 years, 31 to 40 years, 41 to 50 years and 51 to 60 years of experience respectively. Monthly income from bamboo work available to the respondents is less than Rs.3000 for 20% of artisans, Rs.3000 to Rs.5000 for 27%, Rs.5001 to 8000 for 37%, Rs.8001 to

Rs.11000 for 14% and more than Rs.11000for 3% of the artisans. More experience makes a work perfect. If the artisan has more year of experience, the quality of work, finishing of product, quantity of the product etc. increases. So the monthly income to the artisans also increases.

The study mentions that total monthly income and monthly expenses of the artisans are significantly related. 1% of the respondents spend less than Rs.4000 as monthly expenses. 53% spend between Rs.4000 and Rs.8000 and 38% of the artisans disburse Rs.8001 to Rs.12000 as monthly expenses. 8% spend Rs.12001 to Rs.16000 to meet their monthly expenses. The respondents use the total monthly income to satisfy the monthly expenses in the family. So, monthly expenses in the family depend on the total monthly income.

According to the study, nature of employment and monthly income from bamboo work are associated. 41% of the artisans do the bamboo work as fulltime whereas, 59% of them are part time bamboo workers. 37% of the artisans get Rs.5001 to Rs.8000 from bamboo work and 3% of them earn more than Rs.11000. Some of the artisans (20%) get only less than Rs.3000 per month from bamboo work. The study shows that full time workers earn more income than part time workers. Old generation artisans basically do bamboo work as full time basis whereas new generation artisans go to other works to earn more income. New generation peoples possess low interest in bamboo work due to low income and prestige concern.

Suggestions

- Lack of adequate education is the major problem faced by the artisans. The government should take care to educate the peoples especially, new generations in the study area to become up to date in the world.
- The government should make arrangements to get a good market for the artisans as exhibitions, melas etc. in order to earn better income from bamboo work and also to attract youngsters.
- The government need to take initiative to provide financial support to the artisans with less repayment amount.
- The training programmes and classes should be given to the artisans on behalf of the government.

Conclusion

Bamboo handicraft industry is one of the traditional cottage industries in the world. Many artisans are depending on bamboo handicraft making for livelihood. But the study shows that the artisans are not satisfied with the bamboo craft. Monthly income available from this occupation is less, so that youngsters are not interested to continue and they have switched to other jobs. According to the study, monthly income from bamboo work is associated with year of experience and nature of employment of the artisans. The monthly expenses and the total monthly income are associated.

The artisans spend their income to satisfy daily needs of the family so that they can't make enough savings. The study describes that number of dependents and amount of savings are significantly related likewise number of earning members in the family and amount of saving are associated. The education level of the artisans is not depending on the type of saving of them.

The majority of the artisans have debt with private bank and NBFCs. These financial institutions provide the debt without more complications, but with high interest rate. Lack of adequate education is one of the problems faced by the artisans. So they depend on private banks and NBFCs to meet their requirements without much enquiry. So the study reveals that there is a significant relationship between education and type of borrowing of the artisans. Debt position of them is also dependent to the number of dependents in their family.

Many of the artisans are members in different kinds of social groups. As per the present study, membership in social groups is independent to age and dependent to education level of the artisans. Likewise, the extent of involvement in social group activities is not associated with age while it is associated with the education level of the artisans.

Numerous numbers of artisans are illiterate and many of them have only basic education under study. Lack of adequate education is one of the problems faced by the artisans. So the reading habit is scare among them. The study shows that education has a significant relation with the reading habit of the artisans, whereas age is not related.

Many of the artisans are suffering from various health issues. According to the study, health issues are dependent to the nature of employment of the artisans and it is independent to age of them.

Bibliography

- [1] AnantaGhimire ,”An assessment of the dependency of farmers on bamboo resources for rural livelihood in Lalitpur District, Nepal”, *University of Natural Resources and Applied LifeSciences, 2008*
- [2] B.Jayasankar, ”Bamboo processing industry in Kerala: A study of an unorganised, household sector in Adimalypanchayat (Idukki district)”, *Kerala Research Programme on Local LevelDevelopment,2000*
- [3] E.C.Nwaihu , C.T.Egbuche , G.T.Onouha ., A.E.Ibe, A.O.Umeojiakor, A.O.Chukwn, “Socio-economic importance and livelihood utilisation of bamboo(Bambusavulgris) in Imo state Southern Nigeria, Agriculture”, *Forestry and Fisheries,4(3-1): 81-85, 2015*
- [4] Longshibeni N. Kithan, ”Socio-economic importance of bamboo among the Nagas of Nagaland”, *J Hum Ecol, 48(3): 393-397, 2014*
- [5] MD. KamrulHasan, NayeemaMaswoodNeela, ” Socio-economic status and current business situation of cane based furniture entrepreneurs in Bangladesh: An empirical study” *Journal of Business and Technology (Dhaka), Volume-10, Issue-01, January-June, 2015*
- [6] M. ShakyaBajracharya, S. Rajbhandary and A. N. Das, “Socio-economic impacts of bamboo enterprises in the Mid-hills of Nepal: A case study on Pahari community at Badikhel Village, Lalitpur”, *BankoJanakari, Vol. 22, No.2, 2007*
- [7] Seth B. Barandon: “Socio-economic benefits of bamboo craft entrepreneurship: The case of Rinconada bamboo entrepreneurs”, *Asia Pacific Journal of Multidisciplinary Research, Vol.3, No.5,172-177*
- [8] Sharif AhmedMukul& Md. ParvezRana, “The trade of bamboo (Graminae) and its secondary

- products in a regional market of Southern Bangladesh: Status and socio-economic significance”, *International Journal of Bio-diversity Science, Ecosystem Services & Management*, 9:2,146-154, 2013
- [9] T. Selvam, “Socio-economic status of bamboo handicraft workers”, *Indo- Asian Journal of Multidisciplinary Research*, Vol 2, Issue 5,770-774, 2016
- [10] V.Nagaraju, N.Nirmala Mani and S.M.Reddy, “Determinants of the Socio-Economic Status (SES) –Literature Evidence”, *Think India (Quarterly Journal)*, Vol.22, Issue.4, 2019