

# Socio-Economic Benefits of Bamboo-Craft Entrepreneurship: The Case of Rinconada Bamboo Entrepreneurs

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**Abstract** –Bamboo entrepreneurship is one of the key instruments in uplifting the socio-economic status of the poor and under privileged people in Rinconada area. This study evaluated the socio-economic benefits of bamboo craft making on the entrepreneurs of the district. Using descriptive-survey, data were obtained from 60 purposely chosen bamboo entrepreneurs from a list given by the Department of Trade of Industry. A 12-item researcher-made questionnaire was the main gathering tool supported by interview and observation. Results revealed that the social benefits derived by the bamboo entrepreneurs can able to communicate to more networks, adequate support to education of children is being provided, and television sets, while economic benefits is having their own house with sanitation. The bamboo entrepreneurs can satisfy the hierarchy of needs for shelter, security and social communication. .

**Keywords** –Descriptive-survey, indigenous material, micro-enterprise, Rinconada Area, socio-economic impact, technology.

## INTRODUCTION

Bamboo is one of the oldest materials used in the world [1] and the industry is a thriving small-scale business. Small-scale industries play a very significant role in the overall growth of an economy [2]. According to Economy Watch, this industry is characterized by the unique feature of labor intensiveness and specializes in the production of consumer commodities. It also emphasized that the importance of this industry increased in manifold due to the immense employment generating potential. Employment generation in the countryside can reduce rural-urban migration. Thus, it contributes to the economic growth of the community.

In the country, economic growth over the past six years hardly made a dent in poverty incidence as the percentage of Filipinos living below the poverty line remained practically the same between 2006 and 2012, official statistics showed [3].

Poverty reduction and empowerment of the poor and vulnerable is one of the thrusts of the current administration. The presence of small-scale industries in the countryside helps in scaling down the extent of unemployment as well as poverty [2].

Bamboo-based furniture is one of the fastest growing furniture exports of the country with a growth rate of about 15% annually. Foreign trade statistics from 2000 to 2005 showed that bamboo furniture generated US\$19.3 million or US\$3.2 million per year in export revenues [4]. As a material, bamboo is sustainable, renewable and has ecological-friendly properties.

Bamboo entrepreneurship is one of the key instruments in uplifting the socio-economic status of the poor and under privileged people [5] in a community. In Rinconada Area, bamboo based industry is one source of income for some sectors of the district. This industry employs workers who considered it to be their prime source of income.

The International Network for Bamboo and Rattan[6] reported that bamboo generated substantial export income for the Philippines by USD 241 million in 1994. Further, it stressed that the material is becoming increasingly important for developing countries because of the employment it offers to otherwise marginalize groups.

Acharya [7] assessed the socio-economic impact of forest user groups(FUGs) members affiliated with three community based forest enterprises (CBFEs) in

Dolakha district in Nepal. Parameters analyzed were socio-economic variables such as household income, gender and equity, decision-making process, benefit sharing and resource management. In conclusion, a positive impact of the CBFs on the socio-economic aspects of the rural population was revealed.

The study of Ogunjinmi[8] revealed that bamboo has significant socio-economic impact on the lives of people living in Borgu Local Government Area of Niger State. Data showed that the lives of the respondents revolve around the use of bamboo. All basic necessities of life that include medicine and shelter depend from the income derived from bamboo.

Lee [9] enumerated the socio-economic benefits from entrepreneurship. She stated that entrepreneurship creates employment, improves quality of life, contributes to a more equitable distribution of income, utilizes resources, and brings social benefits through the government.

This local industry can strengthen their economic conditions, and create employment opportunities in the community. However, the social and economic impact of the industry in the area is not covered by any study, hence, this research. Moreover, the study aims to quantify the contribution of the bamboo-craft industry on the social and economic conditions of the industry players.

The study shall benefit the industry itself out of the proposed enhancement, the local government unit for the income it can generate from taxes, the community for the employment generated, and the entrepreneurs for the additional benefits that can be derived out of the business.

The study focused on the social and economic benefits of bamboo entrepreneurship to the bamboo entrepreneurs in Rinconada. Additionally, the study also covered the profile of the entrepreneurs, the supply and demand of the product, and the income generated.

Rinconada area is the 5<sup>th</sup> District of the province of Camarines Sur. It is composed of six towns (Baao, Balatan, Bato, Buhi, Bula, and Nabua) and one city (Iriga). It is almost 295 km from Metro Manila and accessible both by air and land transportation. Rinconada is an agricultural area with rice, corn, and coconut as major produce. Additionally, the locality has three freshwater and inland lakes where wild and cultured tilapia (*Tilapia nilotica*) are sourced with the world's smallest commercially harvested fish found

only in the Philippines called sinarapan (*Mistichthys luzonensis*) is found in Lake Buhi.

### **OBJECTIVES OF THE STUDY**

The study evaluated the socio-economic benefits of bamboo craft making in the communities of Rinconada Area. Specifically, it aimed to describe the profile of bamboo craft entrepreneurs, the supply and demand of the product, the income generated by the entrepreneurs per product, and the social and economic benefits derived from bamboo entrepreneurship.

### **MATERIALS AND METHODS**

Descriptive research was adapted for the study. This method describes what it is and involves description, recording, analysis and interpretation of the present nature of the subject [10]. It was used to describe the profile of the bamboo entrepreneurs, the supply and demand of the products, the income generated and the socio-economic benefits from bamboo entrepreneurship.

The respondents of the study came from the top two (2) producing towns in the study site. The entrepreneur-respondents were identified from the list of registered bamboo entrepreneurs from the Department of Trade and Industry. However, only bamboo-craft owners from the towns of Bula and Bato were considered having an organized cooperative. The entire universe of the registered bamboo entrepreneurs comprised the respondents of the study. However, only 23 out of 60 bamboo entrepreneurs from list willingly responded to all items in the questionnaire.

The main data-gathering tool was an interview guide cum-questionnaire. It was developed according to the parameters of the problems. Key informants interview and observation were used to validate answers given during the interview. Data gathered were subjective to descriptive statistics such as frequency and percentage.

### **RESULTS AND DISCUSSION**

The bamboo entrepreneurship in Rinconada is mostly sole proprietorship (87%) and few are family-owned (13%). The sole proprietorship is the simplest business form under one can operate a business, hence, the choice of the owners. This type of business is simple to form and operate, and may enjoy greater flexibility of management, fewer legal controls, and fewer taxes [11]. However, the business owner is

personally liable for all debts incurred by the business. In the Philippines, the most common types of businesses are sole proprietorships, partnerships and corporation. Sole Proprietorship is a business structure owned by an individual who has full control/authority of its business and owns all the assets, personally owes answers to all liabilities or suffers all losses but enjoys all the profits to the exclusion of others [12].

Three-fourth (75%) of the businesses are in existence for more than ten (10) years. This reflects that this kind of business is sustainable. These businesspersons were able to survive and provided the basic needs of their family. Bamboo, as a raw material for furniture and other fixtures, is sustainable. According to Kujac [13], bamboo is rapidly renewable, restoring itself for use in just five years, and requires far less energy to harvest and produce than most ‘lumber’ products. Bamboo also has an incredible range of product- from flooring to cabinetry, drapery, and in this case, furniture. Its production and by-products yield healthy, salvageable materials that continue to be used in new ways.

Bamboo entrepreneurship creates employment in the area. A total of one hundred forty (140) workers are employed from sixty entrepreneurs. More than a quarter (28%) employ only one worker, almost one-third (32%) employ two workers, while a quarter (25%) with three workers. This lone worker is the owner of the business and leads in the creation of the product. This information is consistent with the previous findings that sole proprietorship is the most commonly adopted type of business. Other workers prepare minor parts of the assembly and assist the lead worker in assembling until the product is finished. Generally, the entrepreneurs employ three and below workers.

Almost one-third of the workers in the bamboo entrepreneurship are members of the family (33%) while 17% have various affinity with the owner. This supports the sole proprietorship of the business. The owner is the worker of the product. Half of the workers are non-family members (50%) but neighbors of the entrepreneurs. The bamboo business generated employment in the locality. Aside from family members, relatives and neighbors were able to earn a living that supported their family.

The monthly net income of more than half (52% of the bamboo entrepreneurs ranged from P1,000 to 5,000. This amount from the only source of income is not enough to support a family of five. Based on the

Family Income & Expenditure Survey (FIES) and Annual Poverty Indicators Survey, Bonquin [14] stressed that a typical Filipino family of five needs P8,778 a month to be considered non-poor and meet basic food and non-food needs such as clothing, transportation, health and education.

More than one-third (35%) earn P6,000.00-10,000.00 while almost a quarter (13%) earn more than P10,000.00 monthly. Generally, the average monthly income is ₱6,250.00.

The bamboo entrepreneurs in Rinconada produce varied bamboo products (Table 1). All entrepreneurs create sala sets in their production. Buyers prefer bamboo sala set than synthetic-made sala set since its durable, cheap, and easy to clean. Nearly two-thirds (63%) make single bed while more than half (53%) generate double deck. Very few entrepreneurs build bahaykubo (7%), cabinet (5%), and penny banks (5%). The investment in constructing bahaykubo is high while the demand is low which may be the reason why few entrepreneurs construct this product.

Bamboo is a versatile material. According to Voakes [15], bamboo is a material that can and is used for almost everything. It is popular as a building material for flooring, furniture and structures in earthquake-ridden areas. Additionally, bamboo is aesthetically pleasing. Bamboo products are popular for those that lean towards trendy design and those that favor a more classic look. Moreover, bamboo products have a smooth sleek texture that is pleasing to touch and symmetrical design pattern that people like to look at.

Table 1. Bamboo Products

Products	Frequency (n=60)	Percentage
Sala sets	60	100
Single bed	38	63
Double deck	32	53
TV Stand	14	23
Dining set	14	23
Double bed	12	20
Divider	11	18
Bench chair	10	17
Family sized bed	7	12
Bahaykubo	4	7
Cabinet	3	5
Penny banks	3	5

A comparison between the quantity produced and sold, the entrepreneurs do not produce more than the

demand. They adopt this strategy because they do not have enough space for storage of the finished product. Most of their products are sold to retailers. These retailers contract the entrepreneurs to produce the desired product and thereafter pick them up for them to sell. Sala sets are the product that has the highest demand while family size beds, cabinets and bahaykubo as the least (Table 2). In most residential houses, one will see furniture sets in their living rooms. It is the place where visitors are entertained. On the other hand, bahaykubo is least sold because of its price. It has the highest selling price as compared with other products. Additionally, bamboo cabinets are also least sold since it is prone to dust and insects.

Table 2. Supply and Demand of Products

Products	Supply (Production)			Demand (Sold)		
	Min	Max	Ave	Min	Max	Ave
Sala sets	2	25	10.7	2	25	10.6
Single bed	1	5	2.6	1	5	2.6
Double deck	1	5	2.4	1	5	2.4
Double bed	1	2	1.2	1	2	1.2
Family sized bed	1	1	1.0	1	1	1.0
Divider	1	3	1.6	1	3	1.6
TV Stand	1	2	1.3	1	2	1.3
Bench chair	1	5	2.4	1	5	2.4
Cabinet	1	1	1.0	1	1	1.0
Dining set	1	3	1.4	1	3	1.4
Penny banks	10	20	13.3	10	20	13.3
Bahaykubo	1	2	1.25	1	1	1.0

The pricing of the bamboo products is comparable to that of the other province in the country. In Pangasinan, Sotelo [16] revealed that a 3 x 3-m hut

costs P30,000 while the 6 x 12-m variety sells for P50,000 while living room furniture sets sold for a minimum of P1,200, depending on the design and number of pieces, and beds sold for a minimum of P1,000, also depending on size.

The products with net income of more than P500.00 per unit are Bahay Kubo (P2,500.00), Dining sets (P628.00), Family sized bed (P572.00), Cabinet (P567.00), and double bed (P525.00). However, these products (Bahay Kubo, Cabinet, and Family-sized bed) have a demand of only 1 unit/month while products with more than 1 unit/month demand are dining sets (1.4 units/month) and double bed (1.2 units/month).

On the other hand, even if the average net income of sala sets is P410.00/unit and less than P500.00, it earns much with an average monthly demand of 10.6 units. Sala set is the most saleable bamboo product after penny banks (13.3 units/month).

The product with the least income is penny banks (P28.00/unit). This product has the lowest investment per unit at P22.00 and sold at P50.00. For all products, their minimum income is P28.00 while the maximum is P2,500.00.

The product that has the low investment cost but with a high demand is sala set with a gross monthly income of P4,346.00. Additionally, single bed earns P1,136.20, and double deck nets P1,101.60.

Social benefits refer to the growth in the prosperity of the bamboo entrepreneurs that is derived from their entrepreneurship. The families of bamboo entrepreneurs have their own mobile phone (82.6%), send their children to school (65.2%), and own television set (56.5%).

Table 3. Unit Cost and Selling Price of Bamboo Products

Products	Unit Cost (P)			Selling Price (P)			Income/Product	%
	Min	Max	Ave <sup>a</sup>	Min	Max	Ave <sup>a</sup>		
Sala sets	600.00	1,600.00	917.00	1,000.00	2,000.00	1,327.00	410.00	0.45
Single bed	500.00	1,200.00	805.00	800.00	2,500.00	1,242.00	437.00	0.54
Double deck	800.00	1,500.00	994.00	1,200.00	1,900.00	1,453.00	459.00	0.46
Double bed	500.00	1,200.00	950.00	1,200.00	2,000.00	1,475.00	525.00	0.55
Family sized bed	700.00	2,000.00	1,228.00	1,300.00	2,200.00	1,800.00	572.00	0.46
Divider	1,000.00	1,200.00	1,118.00	1,300.00	2,000.00	1,527.00	409.00	0.36
TV Stand	400.00	900.00	732.00	1,000.00	1,200.00	1,143.00	411.00	0.56
Bench chair	400.00	750.00	585.00	600.00	1,200.00	860.00	275.00	0.47
Cabinet	500.00	500.00	500.00	1,000.00	1,200.00	1,067.00	567.00	1.13
Dining set	800.00	1,800.00	1,215.00	1,500.00	2,500.00	1,843.00	628.00	0.52
Penny banks	20.00	25.00	22.00	50.00	50.00	50.00	28.00	1.27
Bahaykubo	12,000.00	14,000.00	12,750.00	15,000.00	16,000.00	15,250.00	2,500.00	0.19

<sup>a</sup>Rounded off to the nearest whole number

Mobile phones are the most convenient and impeccable means to stay connected with everyone and offer the user with a sense of security. The bamboo entrepreneurs said it helps them during emergency, for product orders, in monitoring the location of their loved ones or other important errands, and it makes them stay connected with relatives in sending and receiving images and other documents. This result is supported by Kingston[17] when he said, “cell phones have become a necessity for many people throughout the world. The ability to keep in touch with family, business associates, and access to email are only a few of the reasons for the increasing importance of cell phones.”

Table 4. Social Benefits

Social Indicators	Frequency (n=23)	Percentage
Mobile phone	19	82.6
Education	15	65.2
Television	13	56.5
Refrigerator	7	30.4
Washing machine	6	26.1
Radio	4	17.4
Laptop/netbook	3	13.0
i-pad	1	4.3

Every family puts premium to education. In the Philippines, it is a fundamentally held belief among Filipinos that education is a ticket out of poverty and a means of empowerment [18].

Television is an indispensable appliance in everyone’s life in this information age. According to them, it is their means of communication as source of updated important information, a means of recreation after a day’s hard work for relaxation to release pressure and stress, and a means of education as they learn new ideas from educational programs.

These findings are supported by the study of Flores and Teruel [19] when they determined the social and economic development benefits received by the members of the BFI Employees’ Multi-Purpose Cooperative in Don Carlos Bukidnon. Using the descriptive method of research, 64 regular members of the cooperative were taken as respondents. Their findings revealed that the cooperative helped the members in the community meet their basic and emergency needs, provided capital for small businesses and productive projects, got college education and vocational trainings for their children, acquired houses and lots, bought essential

commodities at reasonable prices, and developed human values. The cooperative provided both social and economic benefits among its members.

Along economic benefits, housing and sanitation were gained by all of the bamboo entrepreneurs from the business. Both are the basic needs of every family. The conclusion of Ogunjinmi[8] that all basic necessities of life that includes medicine and shelter depend from the income derived from bamboo supports the result of the study.

Table 5. Economic Benefits

Economic Indicators	Frequency (n=23)	Percentage
Housing	23	100.0
Sanitation	23	100.0
Electricity	15	65.2
Water supply	14	60.9

Additionally, majority have electric connection from the electric cooperatives (65.2%) and water supply from water districts (60.9%). Those who have no electric connection use petrol gas for their lighting needs. On the other hand, those without water supply source their drinking water from public deep wells.

The factor why more than half do not have electric and water supply is that their business is not within the compound of their residence. They are just occupying a space beside the national road. They do not stay overnight as well.

## CONCLUSION AND RECOMMENDATION

All bamboo craft entrepreneurs in Rinconada are producers of sala set, mostly are in existence for more than ten years and of sole proprietorship, majority have only one worker and from the family and a monthly net income less than the poverty indicator. Buyers prioritize sala set from among the bamboo products. The net income for Bahay Kubo is P1,000.00, Cabinet and Dining sets P600.00, and TV stand P510.00. The families of bamboo entrepreneurs are socially and economically benefited from their business.

The government thru the Department of Trade and Industry may provide financial assistance to increase the capitalization of the bamboo entrepreneurs, and conduct trainings and workshops relative to bamboo entrepreneurship. Bamboo entrepreneurs must be trained on aesthetic design for bamboo products to enhance their craftsmanship and make it more competitive in the market, develop and commercialize

new product that will increase income of the entrepreneurs, develop state-of-the-art technologies to improve the quality and craftsmanship of the bamboo products.

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