



Value Chain Analysis of Wicker Willow in Kashmir

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Authors' contributions

This work was carried out in collaboration among all authors. Author MR conducted the survey work, compiled the data and wrote the first draft of the manuscript. Author SAS designed the study, performed the statistical analysis, wrote the protocol and authors SHB and PAS helped in managing the analyses of the study, searching the literature and interpreted the results. All authors read and approved the final manuscript.

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ABSTRACT

The present study was carried out in four blocks, viz., Ganderbal, Sherpathri, Lar and Kangan of Ganderbal district of Kashmir valley, owing to the presence of majority of wicker willow cultivators and handicraft makers in the district. A total number of 120 respondents were selected for the study. A well-structured interview schedule was constructed for the collection of primary data from the respondents. Data derived from the respondents were analyzed by using both descriptive and inferential statistics. Three main varieties of wicker willow species were determined in the study area, i.e., *Salix triandra*, *Salix dickymat* and *Salix viminalis*, with *Salix triandra* being the most prominent among the three as almost 53.33% of the respondents were cultivating this particular specie of wicker willow. From the study, it was concluded that the main wicker willow handicrafts made in district Ganderbal were *tokris*, dry-fruit bowls, round cups, decorative ducks, buckets, *chapatis*, *kangris*, etc. Mainly two marketing channels were being followed in the marketing of wicker handicrafts. In the first channel, the wicker handicraft moved from producer to consumer through wholesaler and retailer. In the second channel, the wicker handicraft moved from producer

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to consumer through retailer only. Out of the two marketing channels, channel 2nd was found out to be more suitable and profitable than channel 1st as far the marketing efficiency, price spread and producer's share in consumer's rupee were concerned. One of the main constraints faced in marketing of these handicrafts was the limited marketing facilities followed by the influence of wholesalers and retailers and others.

Keywords: *Wicker willow; value addition; marketing channels; wicker handicrafts; marketing efficiency.*

1. INTRODUCTION

Wicker is the name commonly given to the one-year-old sticks that result from the willow prune. Generally, it is grown in the cool, fertile, irrigated lands as it requires a large quantity of water, though it can withstand cold winter frost. The branches of wicker willow are cut after one year growth and processed in boiling water; and their bark is peeled off to make the rod waterproof and more durable. The wickers are provided as raw material to small-scale industries of Kashmir for the manufacturing of chairs, tables, sofa sets, baskets of various shapes and designs, flower vases and a variety of other fancy items [1]. Some are used in their original form while others are cut and made smooth. All products are set and mounted over a base, which determines the size and shape of product. The crafts, made by artisans, change many hands during the process of production. The most commonly grown specie of wicker willow in Kashmir valley is *Salix triandra* commonly known as Almond willow [2].

Wicker handicraft- traditionally known as "Shaakhsaazi" is a prominent small-scale forest based cottage industry playing a vital role in livelihoods, socio-economic, employment, rural development, poverty alleviation of stakeholders involved in this trade. The wicker handicrafts, e.g., kangris, baskets, boxes, lamp-shades, curtain rings, trays, chairs, tables, cycle baskets, etc., manufactured from withies, have won worldwide acclaim for their exquisite designs, crafts- manship and functional utility [3]. In fact, the wicker handicraft possessing a unique talent for intricate workmanship transferred from generations is one of most important resources of Kashmir [4]. As an export-oriented cottage industry, it has contributed considerably towards foreign exchange earnings worth crores of rupees annually. The cottage industry does not require heavy capital investment in infrastructure such as machinery, buildings and power. Generally, the wicker products are made to satisfy the local demands as the majority of

wicker handicrafts are used for domestic use in Kashmir while, with high tourist attraction, there is a specialist market for traditional products to boost this trade. Producers in this cottage industry often face numerous problems while competing with the factory-based businesspersons [5].

So far, no comprehensive research on wicker willow economy in Kashmir was attempted. In this backdrop, the present study entitled, "Value Chain Analysis of Wicker Willow in Kashmir", was conducted, with the following objectives.

1. To examine economic feasibilities of value addition of wicker willow.
2. To evaluate the existing marketing system of wicker willow.

2. MATERIALS AND METHODS

The present study is an attempt to describe and quantify the various facets of wicker willow economics. Using multi-stage sampling technique, district Ganderbal of Kashmir valley was purposively selected because of having vast average land holding (0.40 ha/family) under wicker willow cultivation with the production of (12.69 t/ha). Moreover, the district experiences tremendous inclination of the farming community towards diversification of wicker willow cultivation. In the first stage, four blocks, namely, Ganderbal, Lar, Shearpathri and Kangan, were selected. During this stage, a list of wicker willow cultivators and handicraft makers in the selected blocks was compiled. In the second stage, a five-village cluster was randomly selected, from each block. In the final stage, six households were randomly selected from each village; thus making the ultimate sample of 120 respondents. Three different categories of respondents were selected, viz., the farmers who were only wicker willow cultivators, farmers who were only wicker handicraft makers, and the farmers who were both wicker willow cultivators as well as handicraft makers.

The data collection and analysis of the study pertained to the year 2018.

2.1 Identification of Different Marketing Channels

Collection of information regarding marketing system of the wicker willow was done by visiting various markets and contacting the different intermediaries involved in marketing of the wicker-based products in the given area.

2.2 Measuring Marketing Efficiency

Marketing efficiency is broadly defined as the effectiveness or competence with which a market structure performs its designated functions. Marketing efficiency is the maximization of input-output ratio. Following measure was employed to measure the marketing efficiency.

$$\text{Marketing efficiency} = (\text{Net price received by farmer (NPF)} / (\text{Total marketing cost (MC)} + \text{Total marketing margin (MM)}))$$

2.3 Price Spread (Producer's Share in Consumer's Rupee)

The marketing margins and costs are influenced by the performance and efficiency of different marketing functions, which in turn, influence the returns to the farmers on the one hand and price to the consumers on the other hand. The price spread was analyzed following formula:-

$$P_s = (P_p / P_r) 100$$

Where;

P_s is the producer's share in consumer's rupee

P_p is the Producer's price and

P_r is the retail price.

The data regarding wicker willow marketing included sources of wicker collection, wicker species collected and quantity of wickers collected. Likewise, the data on manufacture of wicker handicrafts comprised types of wicker handicrafts manufactured, wicker species used for various handicrafts, quantity of wicker utilized and number of various wicker handicrafts produced/ annum. The data with respect to marketing of wicker handicrafts collected were marketing channel of wicker handicrafts, marketing margin, marketing efficiency and price spread.

3. RESULTS AND DISCUSSION

3.1 Determination of Value Addition of Major Wicker Handicrafts

The value addition of wicker willow determines the sum total of processes like boiling, debarking, drying, sorting, transportation and labour, which are involved in making the wicker handicraft [6]. At least 30-40 wicker handicrafts were produced in the study area, out of which eight major wicker handicrafts were produced throughout the year, namely, rounds cups, bucket with lids, decorative ducks, dry fruit bowls, round *tokri* small, round *tokri* large, *chapatis* and *kangris*. Different types of costs were involved in value addition of these wicker handicrafts. The costs were boiling costs, debarking costs, drying costs, sorting costs, transportation costs and labour costs in making these handicrafts. Table 1 also determines the total amount of wicker used in making these handicrafts. Maximum amount of wicker is used in making round *tokri* large (about 315 kg/100 pieces), followed by round *tokri* small (225 kg/100 pieces). The least amount of wicker used was used in making round cups (25 kg/100 pieces). It could also be observed from Table 1 that the maximum value addition costs were involved in making round *tokri* large, whereas, minimum value addition costs were involved in making round cups.

3.2 Marketing System of Wicker Willow

The marketing mechanism of almost all the wicker handicrafts is primarily individual oriented and the majority of the wicker handicrafts move from producers to the consumers through retailers, while some of the wicker handicrafts move from producers to the wholesalers, from wholesalers the wicker handicrafts reach to the consumers through retailers. The individual selling mechanism of wicker handicrafts restricts the manufacturers to access the remunerative markets, which require tradable quantity. The poor marketing infrastructure compels them to sell off their handicrafts to the first market contact that is generally the local market or the wholesalers. The wicker handicrafts generally, hits the market during the peak season where getting a better price becomes difficult due to competitive market situation. Studies [7,8,9] around the world have dealt with the forest-based cottage industries in order to evaluate the manufacture of handicrafts and their marketing.

Table 1. Value addition of major wicker handicrafts (Rs./100 pieces)

S. No.	Products	Quantity for making product (kg)	Boiling cost	Debar-king	Drying	Sorting	Transportation	Labour cost
1	Round Cups	25	72	75	21	24	17.5	750
2	Bucket with Lids	150	342	450	126	144	99	2500
3	Decorative duck	100	280	300	84	96	66	1500
4	Dry fruit bowl	135	308	405	113	130	89	1750
5	Round tokri small	225	513	675	189	216	152	3750
6	Round tokri large	315	713	945	265	303	208	4750
7	Chapati	112	256	336	95	108	74	1750
8	Kangri	190	434	570	160	183	126	3150

*Field survey, 2018***Table 2. Marketing channels**

S. No.	Channels	No of farmers	Percentage
1	Producer - Wholesaler – Retailer – Consumer	77	64.17
2	Producer –Retailer- Consumer	43	35.83
	Total	120	100.00

Field survey, 2018

Table 3. Marketing Channel-I: producer → wholesaler → retailer → consumer

Wicker Handicraft	Round Cups	Bucket with Lids	Decorative duck	Dry fruit bowl	Round tokri small	Round tokri large	Chapati	Kangri
Producers' sale price	1482	11459	10299	4270	12831	22573	8309	10968
Expenses	1235	10848	9782	3909	12139	21285	7822	10437
Producers' margin	247	611	517	361	692	1288	487	531
Wholesalers' purchase price	1482	11459	10299	4270	12831	22573	8309	10968
Expenses	171	249	229	187	262	303	232	243
Wholesalers' Margin	110	192	172	143	207	324	159	189
Retailers' purchase price	1763	11900	10700	4600	13300	23200	8700	11400
Expenses	187	272	217	189	318	519	202	211
Consumers' purchase price	2118	12529	11155	5006	14110	24506	9123	11874
Retailers' margin	168	357	238	217	492	787	221	263

*Field survey, 2018***Table 4. Marketing channel-II: producer → retailer → consumer**

Wicker Handicraft	Round cups	Bucket with lids	Decorati-ve duck	Dry fruit bowl	Round tokri small	Round tokri large	Chapati	Kangri
Producers' sale price	1800	12700	12290	4805	14648	24454	9787	12261
Expenses	1490	11920	11714	4413	13816	23094	9269	11663
Producers margin	310	780	576	392	832	1360	518	598
Retailers' purchasing price	1800	12700	12290	4805	14648	24454	9787	12261
Expenses	192	300	230	195	352	546	213	239
Consumers' purchase price	2172	13400	12800	5225	15520	25838	10242	12788
Retailers' margin	180	400	280	225	520	838	242	288

Field survey, 2018

Table 5. Price spread, marketing efficiency, producers' share in consumers' rupee in channel-I

S. No.	Wicker handicraft	Price spread (consumer's price – Producer's price) (Rs/100 pieces)	Marketing efficiency (Shepherd's formula= $V/I-1$)	Producer's share consumer's rupee= $(P_s = P_f/P_r \times 100)$
1	Round Cups	636	2.33	69.97
2	Bucket with Lids	1070	10.70	91.45
3	Decorative duck	856	12.03	92.32
4	Dry fruit bowl	736	5.80	85.29
5	Round tokri small	1279	10.03	90.93
6	Round tokri large	1933	11.67	92.11
7	Chapati	814	10.20	91.07
8	Kangri	906	12.10	92.36

*Field survey, 2018***Table 6. Price spread, marketing efficiency and producers' share in consumers' rupee in channel-II**

S. No.	Wicker handicraft	Price spread (consumers price – Producers price) (Rs/100pieces)	Marketing efficiency (Shepherds formula= $V/I-1$)	Producers share consumers rupee= $(P_s = P_f/P_r \times 100)$
1	Round Cups	372	4.83	82.87
2	Bucket with Lids	700	18.49	94.77
3	Decorative duck	510	24.09	96.01
4	Dry fruit bowl	420	11.44	91.96
5	Round tokri small	872	16.79	94.38
6	Round tokri large	1384	18.16	94.64
7	Chapati	455	21.50	95.55
8	Kangri	527	23.26	95.87

Field survey, 2018

Two marketing channels were prevalent in marketing system of the wicker handicrafts (Table 2). In the first channel, the wicker handicraft moved from producer to consumer through wholesaler and retailer. In the second channel, the wicker handicraft moved from producer to consumer through retailer. Out of the two marketing channels, channel 2nd was found to be more suitable and profitable than channel 1st as far the marketing efficiency, price spread and producer's share in consumer's rupee is concerned. The producer's, wholesaler's and retailer's margins were highest in making round *tokri* large, and lowest in making round cups in both the channels. The price spread was maximum in case of round *tokri* large (Rs 1933) in channel 1st and (Rs 1384) in channel 2nd, whereas, the price spread was minimum in round cups at Rs. 636/- in channel 1st and Rs. 372/- in channel 2nd. Marketing efficiency was maximum in case of *kangri* (12.10) in channel 1st and maximum in case of decorative duck (24.09) in channel 2nd, whereas, it was least in case of round cup (2.33) in channel 1st and 4.83 in channel 2nd. Producers' share in consumers' rupee was maximum in case of *kangri* (92.36%) in channel 1st, and in decorative duck (96.01%) in channel 2nd, whereas the producers' share in consumers' rupee was minimum in round cup at 69.97% in channel 1st and 82.87% in channel 2nd (Tables 3, 4 & 5).

4. CONCLUSIONS

The main wicker willow handicrafts made were *tokris*, dry-fruit bowls, round cups, decorative ducks, buckets, *chapatis*, *kangris*, etc. Almost 44 per cent of respondents were involved in making wicker handicrafts, which revealed that they were having it as their main source of income. Two main channels were identified in the marketing the wicker handicrafts, whereby the wicker handicraft moved from producer to consumer through wholesaler and retailer in the first channel, and from producer to consumer through retailer in the second channel. The price spread was highest in case of round *tokri* large in channel-1 and lowest in case of round cups in channel-1. Marketing efficiency was maximum in case of *kangri* in channel-1 and in case of decorative duck in channel-2, and minimum in case of round cup in channel-1. Producer's share in consumer's rupee was maximum in case of *kangri* in channel-1, whereas, it was minimum in case of round cup in channel-1. Out of the two marketing channels, channel-2 was found to be more efficient and profitable than channel-1, as far the marketing efficiency, price spread and

producer's share in consumer's rupee were concerned.

5. RECOMMENDATIONS

Despite small-scale and traditional village industries command an important place in J&K's economic planning, yet some immediate and well thought-out measures need to be taken by the policy makers, scientists and extension personnel to uplift this industry as an economically viable option for the weaving communities and for sustained business of wicker handicraft in the region. On the basis of the findings derived from the study, the following recommendations have been made for strengthening the wicker willow production in the area.

- The quality and varieties of the wicker products can be improved tremendously through value addition to fetch good return to the stakeholders.
- The marketing infrastructure of the wicker products needs to be strengthened for both domestic as well as foreign markets. The co-operative societies and FPOs need to be encouraged to make the wicker handicraft more remunerative.
- The socio-economic characteristics of people having significant impact on wicker handicraft should be given due consideration during planning, implementation and execution of strategies for promotion and strengthening of wicker handicraft. The study indicated that the people engaged in wicker handicraft are in disadvantageous position with regard to socio-economic status; hence, the qualities of the life of the people need to be improved by the intervention of innovative options exploiting existing resources.
- Efforts need to be taken to develop skills and capacity through effective extension and training networks by involving governmental, non-governmental and community-based organizations.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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