

Value Addition and Advertising of Non-Timber Forest Products for Promoting Livelihood of Forest-Fringe Tribes: A Case Study of Sonajhuri Haat under Bolpur-Sriniketan Block in Birbhum District, West Bengal, India

Subhra Bandopadhyay^{1*} and Debnath Palit²

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ABSTRACT

This research article focuses on the holistic approach of e-commerce potentiality of products prepared from non-timber forest products through interventions of value addition and other methods of innovation. The study has been carried on in Sonajhuri Haat near Santiniketan-Bolpur in Birbhum District, West Bengal, India by analyzing 10 (ten) products intervened through value addition to a minimal extent. The approach and impact of high intervention with proper and befitting value addition to these products can have much better pricing for earning much more profits if marketed through an online platform dominated by good numbers of globally reputed e-commerce Companies. The present study is trying to come out with incidental strategic solutions by which the traditional handlers of non-timber forest products will be able to have a comfortable livelihood through a larger financial gain. This will remove the bottleneck of viable marketing scope and opportunity and the venture will be flourished in a meaningful manner.

Keywords: Forest-fringe dwellers, Non-timber forest products, Folk-Taxonomists, Value-addition, online marketing platform.

Highlights

- Non-Timber Forest Products (NTFPs) play significant role in the lives of forest-fringe dwellers residing at proximity of Sonajhuri Forest under Bolpur-Sriniketan Block in Birbhum district, West Bengal, India.
- Ten sample products (NTFPs) being types of handicrafts, have been identified based on buying craze of consumers visited the Sonajhuri Haat.
- These products are being sold at much lower price compared to the corresponding prices available on e-commerce platforms.
- The interventions of value-addition to these products available online provide higher profit.
- The traditional handlers of NTFPs can have larger financial gain if value-added products out of NTFPs are marketed strategically through online platform.

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INTRODUCTION

Non-timber forest products (NTFPs) are components primarily of the naturally grown forest system and include plants or plant parts having a convincing economic or consumption value sufficient to encourage their collection from the forest ecosystem but it excludes timber. According to Chamberlain *et al.*, 2000; Non-timber forest products are plants, parts of plants, fungi, and other biological materials which are harvested from within and on the edges of natural, manipulated or disturbed forests. NTFPs may include fungi, moss, lichen, herbs, vines, shrubs, or trees. Forest is an important renewable natural resource, that greatly influences the socio-economic development in any rural community (Ghosal, 2011), especially for those who are living as forest-fringe dwellers.

Procurement of raw materials as NTFPs and subsequently value-adding with the prepared products is the best possible viability-potential in trade and commerce to aim at targeted eradication of unemployment of large numbers of general youngsters in the extant scenario of the country and as such the commercialization is defined as a process of increasing the value of these products in trade to generate and improve income/employment opportunities. Measuring the risks involved in the

¹Department of Conservation Biology, Durgapur Government College, Durgapur, West Bengal, India.

²Durgapur Government College, Durgapur, West Bengal, India.

***Corresponding author:** Subhra Bandopadhyay, Department of Conservation Biology, Durgapur Government College, Durgapur, West Bengal, India., Email: banerjeesubhra7@gmail.com

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commercialization of NTFPs, Belcher and Schreckenber, 2007 found that NTFPs are often the last source of cash income for people in remote areas. Value-added NTFPs when sold using an online platform enable:

- to link the forest-fringe tribal populace with global markets,
- to earn monetary incentives out of the value-added NTFPs, and
- to grow professionally for achieving the targeted goal of profitability.



Fig.1: A glimpse of Sonajhuri Haat



Fig. 2: Khoai at Shantiniketan

Study Area

The Sonajhuri haat takes place adjacent to Sonajhuri forest which is situated in the Khoai region near Santiniketan-Bolpur in the Birbhum district of West Bengal, India. Sonajhuri means 'droplets of gold'. In winter, Sonajhuri trees shed tiny yellow flowers and the whole forest seems to have in downpour of gold. The very amazing event thus might name the place as Sonajhuri. Here is held a Haat in proximity of Sonajhuri forest and is popularly known as what we call Sonajhuri Haat, where local artisans who are mainly forest-fringe dwellers sell their creations prepared from raw materials within the scope and meaning of NTFPs. In this case study, a traditional periodic market named Sonajhuri Haat, where these indigenous people (forest-fringe dwellers) bring the forest products (NTFPs) for sale after value-addition within the limit of their home-made effort with an understanding about the raw knowledge of value-addition subject to availability of scope and opportunity.

Two major attributes of Sonajhuri Haat are:



Fig. 3: An overview of Kopai River

- The location Sonajhuri Haat (Fig. 1) is adjacent to Sonajhuri forest which is characterized by a patch of dry forest of Sonajhuri trees (*Acacia auriculiformis*) on an eroded landscape of red laterite soil, and
- Its proximity to Khoai. Khoai (Fig. 2) is a geological formation of small canyons due to constant erosion of land caused by wind and water. Khoai is a word derived from the Bengali word "khoy" which means erosion.

The Sonajhuri forest in Khoai is surrounded by the Kopai River (Fig. 3) and Ballavpur forest and Bonerpukur Adivasi village on the other sides

Sonajhuri Haat is selected as being a study area because of its certain unique features like:

- The location of Haat (Fig. 4) is by the side of Sonajhuri forest on the dry riverbed of the Kopai River.
- The forest experiences habitation of forest fringe dwellers belonging to the tribal communities.
- These tribal people are having great skills of preparing marketing-worthy items with value addition of NTFPs collected from the Sonajhuri forest itself as well as from natural resources of khoai area. The value-added items include musical instruments, ethnic jewelry, and various other artifacts.
- This is a typical village haat under the open sky.
- Artisans put up their kiosks to sell artifacts what they excel at through value-addition of NTFPs.
- Location of the Haat is in close proximity of world famous place called Santiniketan, the place of Rabindra Nath Tagore.
- Santiniketan is a place of attraction for good many visitors from foreign countries.
- Convenient communication facility of the place adds advantage for the commuters for viable commercialization of the products marketed in the Sonajhuri Haat.

Geographical Co-ordinates of Sonajhuri Haat:

| | |
|-----------|------------|
| Latitude | 23.6920° N |
| Longitude | 87.6698° E |

Objective

The major objectives of the present paper involve the following aspects:

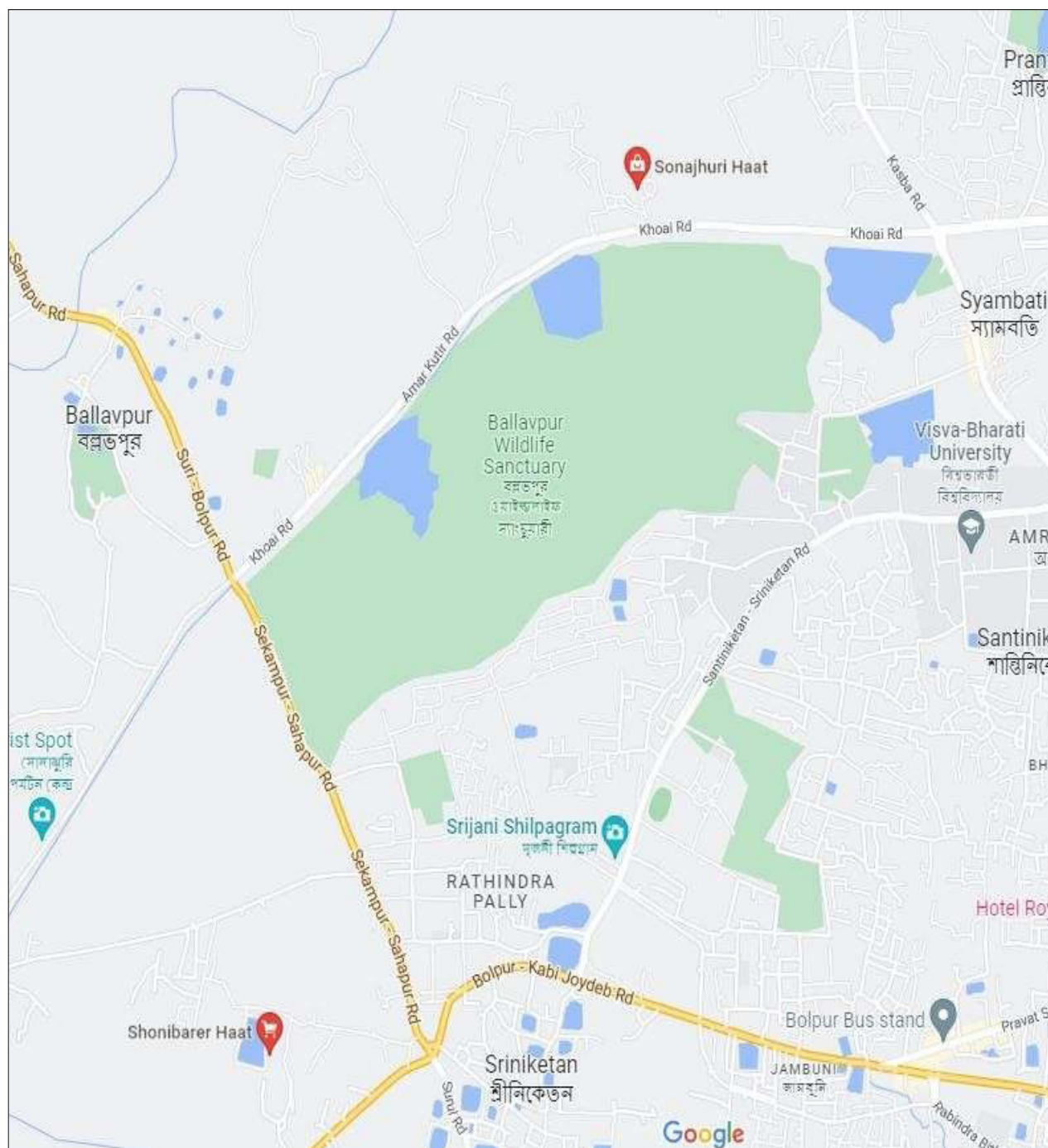


Fig. 4: Google Map of Sonajhuri Haat

- To find out the types and volumes of major NTFPs marketed in the study area.
- To find out the prices of NTFPs at different levels and assess the extent of profitability.
- To assess scope for value-addition of NTFPs and its impact on selling prices.
- To assess the present-day marketing problems of NTFPs in the study area.
- To prescribe reality solutions for marketing and other incidental bottlenecks.

MATERIALS AND METHODS

The common market survey method was employed to get the data on prices of NTFPs once these were collected and the profit-making when value-added NTFPs were sold in the nearby marketplace, Haat. During the fieldwork, information was collected from the collectors of NTFPs called primary collectors being the direct sellers and the consumers being the direct buyers. Use of the simple concept of profit & loss while selling any item of NTFPs in Sonajhuri Haat and prices thus procured were then critically analyzed with reference

to the selling of these items derived from NTFPs through online marketing platform to which the general consumers are practically habituated presently in the wake of COVID-19 oriented compulsion.



Fig. 5: Manufacturing of Talai

This analysis will lead to reach a conclusive concept as to how the online marketing platform comes to help in profit generation of the items prepared from the NTFPs if value-addition is done properly with an idea of making the saleable items attractive before the consumers present throughout the globe for reason that online platform can provide access world-wide. Questionnaires were used to gather detailed information on the local names of plants, part(s) used, mode and time of collecting raw materials, processing and methodology adopted for creating artifacts and incidental economic and marketing aspects of the items thus prepared from the NTFPs.

10 (ten) sample products as shown in Table 1, were procured to understand their extent of technical know-how concerning the concept of value-addition. The involved plants/plant-parts used out of NTFPs were identified with the help of the Herbarium Section of the Botany Department, Durgapur Government College, Durgapur, West Bengal. The help of Folk-Taxonomists available there, were also taken for knowing the vernacular names by which these plants are familiar locally.

RESULT AND DISCUSSION

A study was carried on into the trade and commerce scenario at Sonajhuri Haat during January to June 2022 to see the marketing potentiality as regards profitability of the products derived from NTFPs with the aid of value-addition process and to assess the commercial viability if marketing of these products are made

Table 1: Generic synopsis of 10 (ten) artifacts manufactured from NTFPs being sold in plenty in Sonajhuri Haat

| Sl. No. | Name of product | Raw material (plant-parts) | Vernacular name(s) of the plant(s) | Botanical name(s) of the plant(s) | Family | Remark |
|---------|-----------------|--|------------------------------------|--|--------------------------|---|
| 1. | Talai | Leaves | Khejur | Phoenix dactylifera | Arecaceae | Handicraft, processed from Phoenix leaves |
| 2. | Hand-Fan | Petioled leaf | Taal | Borassus flabellifer | Areaceae | Handicraft, made from Borassus leaves |
| 3. | Ear-Ring | Leaf & stem | Bena Ghas @Khas-khas and Harulata | Bena - <i>Chrysopogon zizanioides</i> Harulata - <i>Cuscuta reflexa</i> | Poaceae Cuscutaceae | Handicrafts, used as fanciful jewellery |
| 4. | Necklace | Leaf and stem | Bena Ghas @Khas-khas and Harulata | Bena - <i>Chrysopogon zizanioides</i> Harulata - <i>Cuscuta reflexa</i> | Poaceae Cuscutaceae | Handicrafts, used as fanciful jewellery |
| 5. | Bangle | Leaf and stem | Bena Ghas @Khas-khas and Harulata | Bena - <i>Chrysopogon zizanioides</i> Harulata - <i>Cuscuta reflexa</i> | Poaceae Cuscutaceae | Handicrafts, used as fanciful jewellery |
| 6. | Toys | Fibrous seed | Amra seed | Spondias mombin | Anacardiaceae | Handicrafts and Show-pieces |
| 7. | Bow and Arrow | Bamboo stem | Bans | Bambusa arundinacea | Poaceae | Handicraft, used as hunting weapon |
| 8. | Ektara | Epicarp of Bottle-gourd and Bamboo stick | Lau and Konchi (Bans) | Lau - <i>Lagenaria siceraria</i> Konchi - <i>Bambusa arundinacea</i> | Cucurbitaceae Poaceae | Handicraft, used as Musical Instrument |
| 9. | Ash-tray | Stem | Bans | Bambusa arundinacea | Poaceae | Handicraft |
| 10. | Flower vase | Bamboo stem | Bans | Bambusa arundinacea | Poaceae | Handicraft and Home decoration |



Fig. 6: Ear-ring



Fig. 9: Broomstick making



Fig. 7: Display of toys made of Hog-Palm



Fig. 10: Ashtray and other artifacts



Fig. 8: sale of Arrow and bow in Haat

through online marketing platforms. Nearby tribal villages of Sonajhuri forest like Majhi Para, Santal Para and Kabi Mohanpur were visited to see the extent of value addition to NTFPs being followed for marketing purposes as shown in Figs 5-10.

As mentioned in the preceding paragraphs, 10 (ten) sample products were taken based on the buying craze of the consumers frequenting the Sonajhuri Haat. These items were

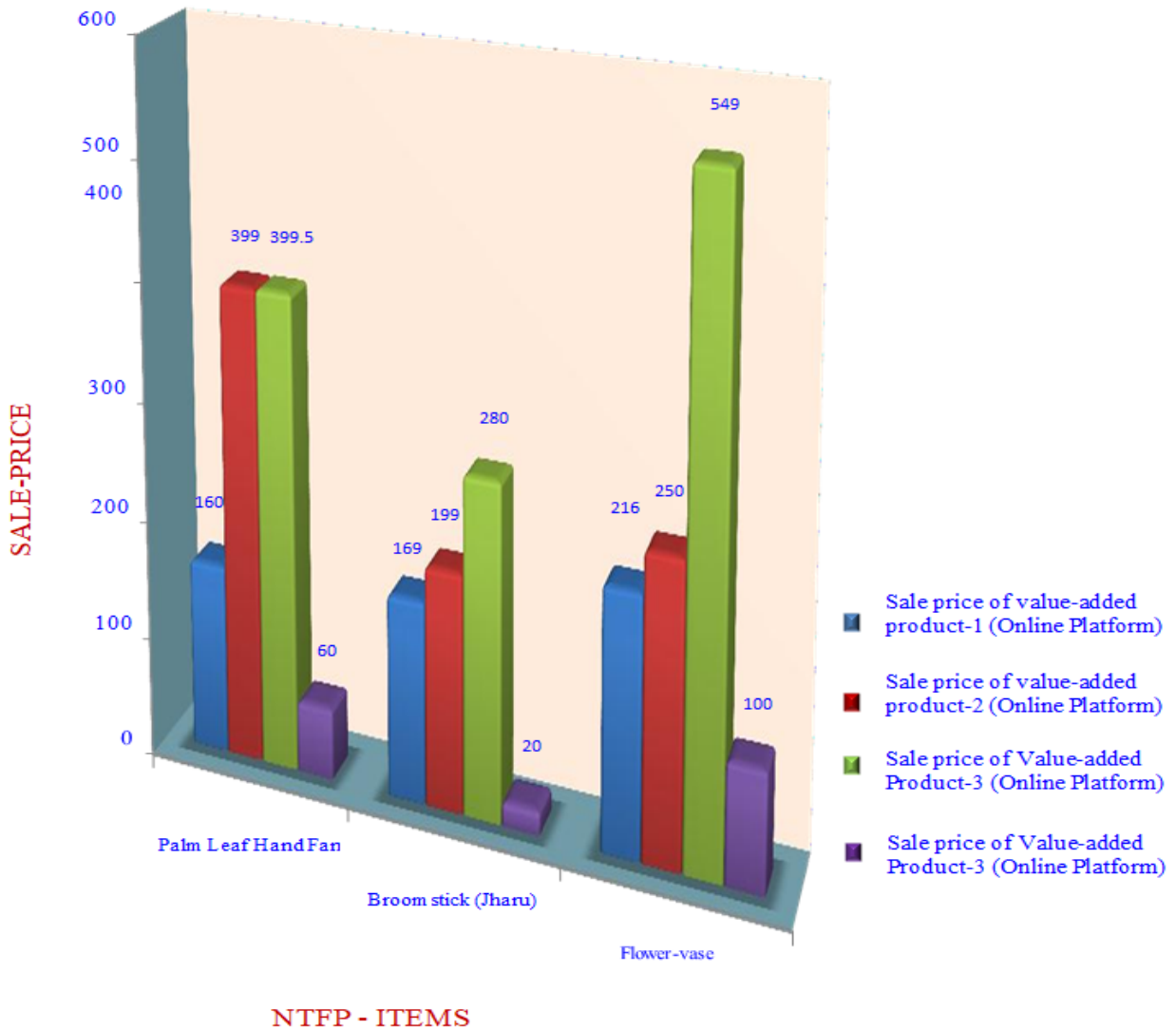


Fig. 11: Bar-chart showing comparative account of sale price in online platform and in Sonajhuri Haat

seen to have been prepared with value-addition incurring minimum cost. Raw materials used for the products, their vernacular and botanical names, plant family assigned, brief nature of the process accomplished for preparing the products *in question* have been compiled in Table 1, which represents a generic synopsis of the products sold in plenty in Sonajhuri Haat.

An insight of Table 1 reveals that the products so prepared or made are basically of handicrafts types and value adding done half-heartedly with least or little skillful technicality and expertise. Preparation of the artifacts as shown in Table 1 was not done with due professionalism as these forest-fringe peoples are not made aware about the benefit of value-addition. The laggard factors affecting the generation of this type of awareness are arisen out of absence of proper marketing knowledge, guidance and availability of facilities for access to modern techniques and equipment and of course lack of financial back-up either from Financial Institutions or Government Grants.

Table 2 shows 10 (ten) finished products derived from NTFPs, the cost of the raw materials, selling prices in Sonajhuri

Haat and the profit per item sold. Skill involved in the making of these products is mentioned in 'Remark' column of the said table. Value-added pricing of three items (marked ** in Table 2) is shown separately in Table 3, where pricing of the products on Online Platform is analyzed in comparison to sale prices in Sonajhuri Haat to focus on how professionalism work for efficient marketing towards better profit-making.

Table 3 reveals that profit jumps if value-addition is done in professional efficacy as revealed here through the retrieved data from the online marketing platform.

A comparative account is tabulated in Table 4 to show the variations in selling prices at the Sonajhuri Haat and the online marketing platform for understanding the margin of profit in these 3 (three) items along with likely intervening factors.

If Table 4 is represented diagrammatically on Bar-chart (Fig. 11), variations in sale prices of 3 (three) products can be visualized vividly.

It is evident from Fig. 11 that basic difference between the sale patterns on Online Platform and that in Sonajhuri Haat lies

Table 2: Profit-loss detailing of 10 (ten) finished products from NTFPs without value-addition

| S. No. | Name of item (Non-Value-added) | Procurement cost of raw material | Selling cost (Market Price) | Profit/ item | Remark |
|--------|--------------------------------|----------------------------------|-----------------------------|--------------|---|
| 1. | Talai (Fig.5) | 10 | 250-300 | 240-290 | Large size. Weaving is intervening factor |
| 2. | Palm-leaf hand fan** | Nil | 50-70 | 50-70 | Only raw material required |
| 3. | Ear-ring (Fig.6) | 5-10 | 60-150 | 55-140 | Wire and weaving of thread to give shape of ear-ring |
| 4. | Necklace | 15-25 | 110-400 | 95-375 | |
| 5. | Bangle | 10-15 | 60-200 | 50-185 | |
| 6. | Toys (Fig.7) | 2-4 | 10-50 | 8-46 | Made from fruit of Hog- palm |
| 7. | Bow and arrow (Fig.8) | 10-15 | 150-300 | 140-285 | Made of Bamboo sticks, used as children toys and home decor |
| 8. | Broomstick** (Fig.9) | 3 | 20 | 17 | 1 kg thread yields 65 nos. Broomsticks |
| 9. | Ash-tray (Fig.10) | 3-5 | 35-60 | 32-55 | |
| 10. | Flower vase** | 10-20 | 100 | 80-90 | |

Table 3: Variation in selling prices on online platform after value-addition of 3 (three) items marked** in Table-2




| Sl. No. | Name of item (value-added) | Market price of item as retrieved from online shopping platform | Remark |
|---------|----------------------------|--|---|
| 1. | Palm-leaf hand fan |  <p>Amar Charulata Handmade Crafting Traditional Palm Leaf Hand Fan (Vishari) Handheld for Natural Cooling Air Home Decor and Travel... ₹399</p> <p>Amar Charulata Handmade Crafting Traditional Palm Leaf Hand Fan (Vishari) Handheld for Natural Cooling Air Home Decor and Travel... ₹799</p> <p>Handmade Lightweight Palm Leaf Hand Fan (Vishari), Multicolour, Pack of 2 ₹320 ₹499 (36% off)</p> | <p>Value addition requires raw materials (palm leaf) and other accessories like lace, ribbon, cloth, colouring agent, knife, wire, scissor, thread and adhesive</p> <p>Making cost Rs.25/-, so profit margin varies from Rs.270/- to Rs.374/-</p> |
| 2. | Broomstick (Jharu) |  <p>Best seller Scotch-Brite No-Dust Broom, Long handle, Easy floor cleaning (Multi-use) ★★★★☆ ~ 25,076 ₹280</p> <p>Ivan Steel Handle Broomstick phool jhadu for Home Cleaning ★★★★☆ ~ 3 ₹199 ₹450 (56% off)</p> <p>Sponsored CHAND SURAJ® Superb Grass Broom Stick for Home Cleaning with 50 cm Long Plastic Handle Ghar Ki Safai Ke Liye Phool Jhadu Cleans All Type o... ★★★★☆ ~ 13 ₹169 ₹499 (15% off)</p> | <p>Beside <i>Saccharum</i> grass (raw materials), value adding requires plastic, steel handle and wire</p> <p>Costing is Rs.15/- leading to a profit margin of around Rs.154/- to Rs.265/-</p> |
| 3. | Flower vase |  <p>Handcrafted Set of Three Desi Flower Vase/Flower Stand/Hanging Stand (Medium Size) Suitable to Decor at Home, Cafe/Hotel and Restaurant... ★★★★☆ ~ 163 ₹648 ₹799 (19% off)</p> <p>CRAFTWAFI Bamboo Vase (Full, Natural Brown) ★★★★☆ ~ 163 ₹549 ₹699 (21% off)</p> <p>GoBamboos Eco-Friendly Handmade Bamboo Crafted Flower Vase, Home Decor, Standard Size, Beige ★★★★☆ ~ 4 ₹250 ₹599 (58% off)</p> | <p>Beside Bamboo stem (raw material), Value-addition requires colouring agent, wire, Adhesive and burnish polish</p> <p>Costing comes to around Rs.15/- that leads to a profit margin of Rs.201/- to Rs.534/-</p> |

Table 4: Comparative account on variation in sale price in Sonajhuri Haat with that on online marketing platform

| Sl. No. | Name of item | Sale price per item in Sonajhuri Haat | Sale price per item as retrieved from online shopping platform | Remark |
|---------|--------------------|---------------------------------------|--|---|
| 1. | Palm-leaf hand fan | Rs. 50/- to Rs.70/- (Negotiable) | Three non-negotiable sale prices available: Rs. 399/- per item Rs. 799/- for 2 (Rs. 399.50/item) Rs. 320/- for 2 (Rs. 160.00/ item) | Marked variation on higher side as regards profit margin if sold online platform compared to sale in Sonajhuri Haat |
| 2. | Broomstick (Jharu) | Rs. 20/- (Negotiable) | Three non-negotiable sale prices available: Rs. 280/- for a single piece Rs. 199/- for a single piece Rs. 169/- for a single piece | Sale prices become higher by Rs. 149/- to Rs.260/- on online platform compared to selling prices in Sonajhuri Haat |
| 3. | Flower vase | Rs. 100/- (Negotiable) | Three non-negotiable sale prices available: Rs. 216/- per item (Rs.648/- for 3) Rs. 549/- per item Rs. 250/- per item | Sale prices is higher by Rs. 116/- to Rs.449/- on online platform compared to that in Sonajhuri Haat |

in the intervention of advertising standards. One must admit that advertising is a vital part of the economy and the success of business especially in case of e-commerce dealing basically with online transactions because advertising has incredible power on effecting to people and to bring a change in taste in their mind-set. Advertising is endowed with the enormous strength to spread awareness of brands.

The advertising strategy along-with efficient value-addition of the products (as shown in Table 3) has pushed the online price of the product up to the varying non-negotiable range of Rs. 260.00 to Rs.339.50 from a negotiable value of Rs. 50/- to Rs. 70/- only in case of Palm-leaf hand fan.

In case of Broomstick (Jharu), the cost of Broomstick in Sonajhuri Haat was a negotiable sale price being as low as Rs.20/- per piece, whereas online sale price of the same has been much on the higher side and it varies from Rs. 169/- to Rs.280/-with no negotiation; because, one has no scope for bargaining on the selling price on online marketing platform.

Lastly, when considered for sale of Flower-vase which is manufactured as ancillary to NTFPs; impact of advertising dovetailed with value-addition has increased the online sale price of it to as high as Rs.216.00 to Rs.549.00 and that too, non-negotiable compared to Rs.100.00 as negotiable selling price in Sonajhuri Haat. Resorting to high-scale advertising tools supported by value-addition endeavour associated with items of NTFPs can hardly be affordable to the general commons especially those who are forest-fringe dwellers belonging to tribal communities producing these artifacts from NTFPs. Obviously, they are urgently and optimally in need of financial assistance either from the Banking Sectors or to be aided directly by the Government itself. If so requires, related befitting policy awaits hastily to conceive and appropriate legislation if required to be formulated without further delay. If this be done, the prospect and viability of the virgin domain of huge employment will definitely add vitality to these people especially to the aspiring youngsters who will be then able to sense a promising and vibrant employment destination.

CONCLUSION

A comparison between sale price on online marketing platform and that of in Sonajhuri Haat clearly indicates that if the NTFP-

item(s) is/are dealt with professionalized approach of value-addition coupled with expertise and related technical know-how can prove to be encouraging on profit-making out of sale of the products, sufficient to attract NTFP-collectors and artisans to sweat on it.

The forest-fringe people especially the tribal ones loves to live in the lap of the forest and there exists surely a relation of symbiosis in between as is evident in the context of Sonajhuri Haat being held in close proximity of Sonajhuri forest. With the advancement in civilization and sophistication the traditional forest dwellers move to the age of modernization. The familiarization with the concept of modernization being assimilated in them, they are now advancing to remake their old traditional ideas of making products from NTFPs into value-added items to cope with standing challenges of struggle for existence in a befitting manner. This effort in them needs a further fine-tuning through sincere government and non-government interventions. There is an incredible diversity of NTFPs if harboured in its right spirit, keeping the taste of the potential consumers of the nation and abroad to whom, the online marketing platform has emerged as an effective tool of trade and commerce. Proper and secure management for the collection of NTFPs is a key factor for efficient commercialization of NTFPs in the global market through online marketing platform. The endeavour must include processing and marketing skills, domestication of NTFPs, provision of credit linkage to NTFPs collectors, prevention of deforestation, effective promotion of value-addition to NTFPs, up-scaling research on NTFPs and development of NTFPs policy to guide the production, harvesting, innovative initiative and marketing of the products. Improving the management of NTFPs collection through value added production of items from NTFPs in the country will definitely help to boost employment scenario before the young aspirants and improve the livelihood status of NTFP-collectors, young member/s of the families aspiring for employment opportunity, and communities as a whole.

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AUTHORS' CONTRIBUTION

Mrs. Subhra Bandopadhyay: Field visits, material collection, validation, writing of original draft and editing of manuscript. Dr. Debnath Palit: Conceptualization, supervision, review of manuscript.

CONFLICT OF INTEREST

It is hereby declared that there is no conflict of interest among the people involved.

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