HANDMADE HAVEN: A MARKETPLACE FOR UNIQUE ARTISAN CREATIONS - A REVIEW

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ABSTRACT

With over 1.2 billion people, India's rural regions are rich in cultural and heritage traditions, but these are rapidly diminishing due to urban migration. As skilled young artisans seek better economic opportunities in cities, the traditional crafts passed down through generations are at risk of disappearing. Handmade Haven is a technological and humanistic initiative designed to preserve and promote rural artisanship. By providing a digital marketplace for artisans, it empowers them to reach global consumers directly, ensuring the preservation of India's cultural heritage and stimulating local economies. The platform integrates e-commerce, sustainable production, and creative collaborations between artisans and designers, ensuring long-term viability and global reach.

Keywords- craft networking, C2C business model, cooperative craftsmanship chains, rural India, sustainable design, co-production

1. INTRODUCTION

The digital age has transformed the way rural artisans engage with global markets, providing unprecedented opportunities to showcase their work and generate income. Yet, despite these advancements, many rural artisans in India struggle to access these global platforms, often due to geographic isolation, lack of digital literacy, and the presence of middlemen who control the supply chain. As a result, these artisans face diminishing returns for their work, contributing to the migration of younger generations away from traditional crafts. Handmade Haven, an innovative e-commerce platform, is designed to bridge this gap, offering artisans a direct-to-consumer marketplace while preserving traditional craftsmanship and cultural heritage. This paper explores how Handmade Haven integrates technology, sustainability, and creative collaboration to revitalize India's artisanal communities [1].

The concept of Handmade Haven is inspired by the growing consumer preference for authentic, handmade goods, as demonstrated by the success of platforms like Etsy and similar niche ventures [1]. These platforms allow artisans not only to sell products directly to consumers but also to collaborate, innovate, and engage with designers and students. The Handmade Haven platform is unique in its approach, providing an inclusive environment where technology enhances traditional craftsmanship, while ensuring that artisans maintain control over their products and processes [2].

India's rich cultural heritage is deeply embedded in its rural communities, where artisans specialize in various crafts such as textiles, pottery, and jewelry. However, due to urban migration and the pressure of middlemen, many skilled artisans are abandoning their craft in search of better economic opportunities [3]. Handmade Haven seeks to address these challenges by offering artisans direct access to the market, empowering them through technology, and providing a sustainable platform for the preservation of their craft [4].

2. INDIA'S RURAL BACKGROUND

We illustrate some of the main issues of interest in whatfollows, to derive a proposed networked platform for digital connection of marketers in a C2C style.

a) Hard vs Soft Heritage

Migration from the countryside to the cities is a worldwide phenomenon, but the potential of villages has been increasingly recognized, and international institutionshave been endeavoring to fight for their preservation. In this context, India presents one of the most interesting casestudies given its incredible diversity of villages, each with aunique tradition worth rediscovering and developing. Villages have both a hard and soft heritage, 'hard' denotingbuildings and urban structures, and 'soft' relating to the crafts. Most of the 'soft' traditions are directly or indirectlylinked to design: for instance, some villages specialize in textiles, others in rugs, shoes, pottery, furniture, traditionalmusic, jewellery, and the like [8][9][10][11][12][13][14]. Softand hard heritage are tightly linked because if the first flourish the other indirectly benefits from it. Protecting, andkeeping the diversity of Indian skilled tradition alive, in itsoriginal locations, is the

mission of the HANDMADE HAVEN platform.

b) State of the Art

Several platforms, such as Dastkar and the One District One Product (ODOP) initiative, have attempted to address the challenges faced by rural artisans in India. While these platforms focus on connecting artisans with consumers, they fall short in providing holistic solutions that empower artisans through technology and foster collaboration between craftsmen and designers. Platforms like Etsy have gained international traction but primarily cater to more urbanized and technologically-savvy artisans. In contrast, Handmade Haven seeks to fill this gap by offering rural artisans a comprehensive platform where they can not only sell their goods directly but also engage in design collaborations, gain access to e-learning, and connect with global markets. This approach ensures the preservation of traditional crafts while fostering innovation and adaptability [1][2][3].

A farmers' cooperative called Araku has launched its brand of organic coffee sold without intermediaries, from producer to consumer. In doing so, the cooperative managed to leave India, its country, and enter the world market (https://www.arakucoffee.com/en). In 2000, the owner of the Naandi Foundation relaunched the cultivation of coffee in the Araku valley, in Andra Pradesh (eastern India), where 25 thousand farmers live in 500 villages where the earth is rich in iron and favorable for its plateau climate, but the ecosystem is fragile. Thus, to allow farmers to sell their Arabian coffee at a decent price, Kumar trains them in biodynamic cultivation.

Examples of platforms around the world that try to connect and enhance craftsmen work exist; a successful example is ISHKAR (https://www.ishkar.com/) in Afghanistan. It succeeded in bringing together various numbers of individual small-scale craftsmen and the urban/international market, activating a collaboration between NGOs, designers, artisans and travel guides. In Mexico, Canuto (https://www.canuto.com.mx/) has also achieved to create a very successful line of crafted products for pets, through the collaboration between young designers and local craft people from Mexican villages.

There is increasing interest in the topic, given the rise of ventures such as Handmade Amazon or i-craft platform, that allow selling directly products crafted by hand, which makes us confident of the potential of HANDMADE HAVEN initiative.

c) Networking

Villages are many, but unfortunately, they are often left isolated, and in their isolation, they lose strength [15;16]. Other institutions are working on Indian crafts in a very scattered manner, on just one type of village specialized in just one skill, see for example the work done by "Jaipur Rugs" (https://www.jaipurrugs.com/) on just skilled rug villages. The truth is that the Indian crafts to be preserved are many more, and so are the skills. The Indian Trust for Rural Heritage and Development (ITRHD) has been working on building a network at a national level to protect the Indian rural heritage in its entirety, which is not an easy task, and would be a great partner to tie up relationships with the villagers [17].

Following this idea, HANDMADE HAVEN is being designed to strongly support the creation of a network of Indian villages, including all the variety of its crafts.

d) Middle-men vs e-commerce

Villagers are losing their young population, which is moving into cities to find a better job opportunity. Unfortunately, they end up being "uber drivers", workers in building sites, guards, jobs that are not more exciting and rewarding than highly skilled artisanal work they could do back in the villages. The artisanal work is not sufficiently valued by the youngsters as a real possibility for their future career. It is not just because of the city's myth and charm, but also because of the presence of the middleman, who gains all the profit from selling the villager's products. Moreover, the pressure to produce "more for less" have forced the artisans to convert the handlooms into powered looms, losing the high quality of the production in the process. HANDMADE HAVEN, by providing an e-commerce platform, can ensure artisans get most of the proceeds from sales.

e) Diffusion of Mobile devices

Even if it sounds incredible, most villagers, also those living in the more remote settlements, have phones and internet connection. That is also partly why young people develop the dream of moving into urban areas in the first place. HANDMADE HAVEN will be an inclusive platform that can engage with the villagers just by using a mobile app to upload, interact, and share all the products and artisanal processes. The platform is imagined by web designers, customized for artisans and used by ordinary users. It implies a very strong community involvement through crowdsourcing tools and to develop an incredibly simple/intuitive app, which could be used even by no-tech trained people.

f) Designers/Artisans Interaction

One problem with contemporary Indian art and craft is that most skilled artisans propose old fashion designs. HANDMADE HAVEN is planning not just to be an e-commerce platform but an active creative and innovative design tool. In fact, through the platform, professional designers will be encouraged to participate and interact directly with the

artisans, customizing their designs. This opportunity will actively promote a fusion between past, present and future, a design form of cooperation, which starts 'bottom-up' rather 'top-down'. This project has incredible value for its capability of connecting traditional heritage with contemporary cultural legacy. Young craftsmen in touch with students and designers can enrich their knowledge, keep their passion and revitalize villages.

HANDMADE HAVEN PLATFORM'S VISION AND BUSINESS MODEL

The Handmade Haven leverages a user-friendly digital platform, available via website, to connect rural artisans directly with global consumers. The website is designed with low-tech users in mind, ensuring that even artisans with limited digital skills can easily upload products, manage sales, and collaborate with designers. By bypassing traditional middlemen, the platform ensures that artisans retain control over their production and profit margins. The platform also includes an e-learning component that enables artisans to learn new skills, such as digital marketing or sustainable production techniques, thus enhancing their competitiveness in the global market. Moreover, the platform facilitates interaction between artisans and urban designers, fostering collaboration on product development that blends traditional and contemporary styles [4].

A. Vision

The elements to be taken into account when defining a strategy and the consequent support tools are listed in what follows.

1. Support to Living Tradition

HANDMADE HAVEN will create value through the community and give value back to the community itself. The revenue earned through the sale of products online can provide direct benefit to the survival of soft heritage and also, indirectly, to the maintenance of rural hard heritage. The platform will make the villages and their culture more visible by putting the villages and their arts and crafts on a map, and by allowing users to explore them. The platform may move tourism to the rural areas and create better conditions in rural settlements, which often hide unique heritage treasures, thus reviving a great part of Indian tradition and sites. HANDMADE HAVEN can transform traditional heritage into a "living tradition", which is actually the only way to keep any tradition alive.

2. Self-sustainability

Protecting the villages is not just about preserving a rich, ancient and valuable heritage, but it represents the starting point of a virtuous circle to make the villages self- sustainable. Indeed, well-maintained villages with rich local art and craft traditions usher in tourism - in loco and online

- tourism and clients produce money, money provides an opportunity to improve the village facilities and job opportunities, giving an incentive to the young people to remain. Given the international clients, and the absence of the middleman, the revenues from the platform will be enough to make it worth for the youngster to stay in the villages and, at the same time, have enough to maintain the platform alive. The platform will be able to support itself entirely from an economic point of view.

3. Sustainable Smart

HANDMADE HAVEN, by creating a valuable interaction between digital and humanities, envisions a "smart rural concept". It implements a valuable way to give back to the community, preserves cultural heritage, uses advanced technology, creates a sustainable perspective to the term "smart". The use of a digital platform that enhances cultural heritage shows the great potential of the active interaction between modern technology and tradition. Indian rural communities greatly need innovation, but an innovation that does not erase their valuable legacies, on the contrary, it can enhance them fully.

4. E-learning

The HANDMADE HAVEN platform is designed to allow the artisans to directly interact with the younger generation of designers who are still in school. Universities, scholars, and students can work together with the local inhabitants of the various minor settlements to develop new sustainable designs based on traditional ones, commercialized and sold on a greater scale.

The interaction with younger designers will allow the artisans to update designs, let the young "learn by doing", transforming HANDMADE HAVEN into an e-learning platform. The encounter between universities, craftspeople, and industry provides an opportunity for a new beginning, which goes far beyond both pure artisanal work and standardization of design, and opens up vast opportunities of breathing new life into ancient. Design students will benefit from greater exposure and appreciation of India's diversity, history and challenges and local projects will benefit from the energy, organizational skills and tech- savviness of design students. HANDMADE HAVEN is a platform where artisans/skilled art and craft and young/new designers can learn from each other, generating sustainable cultural progress.

5. Support to Co-Production

Recent developments in ICT have increased the interest of different Countries in the area of service provisioning from public organizations and among citizens, because this aspect has since long been considered an important strategy of transformation of the relationship among citizens and companies on a given territory. On the other side, co-production is growing as a paradigm with various definitions, each capturing a dimension of its meaning. Co-production primarily concerns the involvement of the citizens or the users in the provisioning of services, which includes the direct involvement of users in the private and public sectors [18]. Co-production of services can be described as any active behavior by anyone (outside of the government agencies) that creates private/public value voluntary - at least partly -in collaboration with, or independently of, the government agency [19]. Co-production can also refer to the involvement of users in knowledge generation in knowledge-intensive services.

In this paper, we consider co-production in HANDMADE HAVEN as the paradigm representing the involvement and collaboration of the artisans in using, feeding, and improving the services in districts and villages. It turns out that artisans, organizations, and individuals or communities can be highly involved not only in service use but also in service provision and decision-making regarding production and distribution.

B. Basic Elements of the Business Model

The basic elements of the HANDMADE HAVEN Business Model(BM) are now illustrated. We consider the services and processes defined for BM in general ([20], [21]) for what concerns the connection between BMs to technological and market innovation. In particular, we refer to [22] for what regards ways of enhancing value creation in social-purpose organizations. BM in general is defined as the "design or architecture of the value creation, delivery, and capture mechanisms" of the firm. In the field of social entrepreneurship, the literature relates to value creation processes where the "social entrepreneurs" (namely, our artisans) are the central actors responsible for value creation through their actions and efforts [23]. However, current perspectives recognize BMs as a means of collaborative interaction. Considering technological platforms, in [24] cloud, IoT and edge-based platforms are regarded as novel products and services that meet a social need, "diffused through organizations whose primary purposes are social", and that respond to modifications in social relations with new cultural orientations. In this view, HANDMADE HAVEN is an engagement platform based on a collaborative interaction type of BM, where the analysis dimensions consider the classification schema in Table I, where our values appear in italic.

TABLE 1 – VALUE SCHEMA IN CLASSIFICATION DIMENSIONS ([20].

Parties	Objects	Time Scopes
B2B	Physical Goods	Static
B2C	Digital Goods	Semi-dynamic
C2C	Services	Dynamic
G2B	Physical Goods	Ultra-dynamic
G2C	Objects	

In HANDMADE HAVEN we have C2C (Citizen-to-Citizen) cooperation among parties. Objects treated in the cooperation are Physical Goods, and Services. The Time Scope (namely, the stability of the relationship among parties) is typically Semi-dynamic (the relationship among parties is stable but can change e.g., when changing a usual payment partner still treating the same groups of transactions together, rather than singular changes for payments). The Time Scope can also be Dynamic, in that the relationship (e.g., producing an artisanship in cooperation) is limited to the single order to a customer, while for different orders various different artisans cooperate. For Services, we consider that HANDMADE HAVEN should, by leveraging existing technological services, provide enhanced networking, and knowledge sharing services, based on virtual cooperation spaces for provisioning/distribution/selling of end products. We also consider multimedia resources services, market formation processes, engagement services with various actors and stakeholders' groups. A group of services regards videography (defined in the literature as a form of visual anthropology encompassing the collection, analysis, and presentation of visual data used when capturing the emotions, gestures and facial expressions in addition to the spoken words of interviewees, which can then provide deeper insight) Services supporting self-sustainability will include integrated services for financial support from buyers, sponsors, funders, donors, etc. in a crowdfunding perspective. To make the platform sustainable Smart, services of self- production of multimedia material, links to resources such as maps and drawings tools, video-graphic content analysis, live observation during interviews can be suitable. Finally, HANDMADE HAVEN will support Co-Production via services of resource enhancement, such as internal collaboration and group formation, and inter-village partnerships, to overcome resource constraints and uncertainty.

3. ACTORS AND FUNCTIONS OF HANDMADE HAVEN

HANDMADE HAVEN supports various forms of active participation by end-users and represents a dynamic networked system that allows collaborative exchanges at anational and international level. The platform envisions three main typologies of users.

1. Artisans, who might be not very familiar withadvanced technology but are for sure endowed witha smartphone to access the platform using a mobileapp. This category requires user-friendliness/simplicity in the interaction, with the possibility to:

*   insert information about their products in a simple way, e.g., via keywords, names, videos,pictures; It should be possible to add keywords/tags directly on the platform to connect different people creatively, populatingthe network of artisans,

*   sell to customers,

*   get requests of personalization of their productsby customers,

*   manage payments,

*   connect with other artisans via chats, instant messages, etc. to exchange knowledge about artefacts, manufacture techniques,

*   cooperate with other artisans, e.g., in case of anorder to be completed collectively.

Artisans constitute a community - the basic benefit ofour proposal -, which gives visibility to the artisanship showing manufacture locations, such as houses, which are often the laboratory, where the artisan products takeform, also through on-line connections to others' labs. The platform acts as a community enabler that creates actual craft districts. It complies with the situation of various villages, specialized in a product (e.g., carpets)that is produced within a village.

2. Generic users and customers are interested inbuying artefacts. These users access the platform to

*   Search and buy products of interest, supportingsearch by type of products (e.g., all the artisansor villages producing carpets) or other characteristics (e.g., by specifying the materials used in the manufacturing, like a specific precious stone).

*   Issue orders that may be produced by a singleartisan or by a district,

*   Virtually visit villages and artisans and their "laboratories" on a geographical map enrichedwith information about the villages, where users can explore and compare products, and discover the different cultural identities of the villages,

3. International Designers and Students. They mayaccess the platform to:

*   Access e-learning tools and materials embedded in the platform, to enrich their skillsabout artisan products.

   Exchange and forward drawing, pictures, videos and in general multimedia material withartisans.

In Scenario 1, artisans A and B living in the same villagecooperate in the production of the same artefact; Scenario 1represents a village.

-   In Scenario 2, artisans B and D produce different artefacts interacting with designers for exchange of knowledge, orders, e-learning, etc.;

-   In Scenario 3, artisans C and D produce different artefacts (e.g., table crafts and pottery) and cooperatee.g., for the promotion of product visibility, or crowdfunding;

-   Scenario 4 represents a district where A, B and C, D interact for a mixed provisioning of artifacts, forexchange of products, and of knowledge.
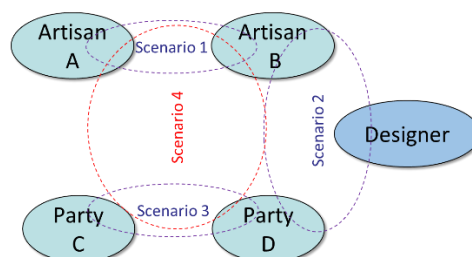

Fig. 1 Main scenarios in the HANDMADE HAVEN business model.

In Figure1, the dynamic time scope is the possibility tojoin and leave the platform on a need-to-share basis. Some cooperation in Figure 1 (e.g., in Scenario 2) are ultra- dynamic, in that some artisans can join artisan groups on thefly, e.g., to complete an order for a designer.

4. HANDMADE HAVEN ARCHITECTURE

The main architectural characteristics of the platform are:

- Front-end applications to allow users to interact with the system: Artisans interact using an App that includes processing capabilities for local data management (user credentials, authentication method, basic calendars functions, etc.) with a simple and usable interface; designers and customers can interact both via mobile and web interfaces.

- A Back End (BE) in Cloud from a standard provider at low cost. This stores all the data supporting the various functionality, manages Privacy, security, ethics and trademarks and provides the services implementing the business logic of the platform.

   The main modules of the BE include:

- An Interface for each typology of user, to access the area supporting the corresponding functionalities described in the previous section, organized into the following four modules;

- An e-commerce module supporting the selling of artefacts to customers (from the publication of new artefacts to payment);

- A Virtual Visit module, providing an enriched visual map to explore and virtually visit villages,

   thus, helping villagers to promote their products and culture.

- An E-Commerce module that supports buying and selling.

- A Cooperation and Coproduction module, to let cluster/districts of artisans cooperate, for example, to carry out large-scale orders (e.g., the order of hundreds of carpets for a chain of hotels).

- An E-Learning module to support direct interaction with clients and exchange materials and ideas with young designers; to allow design schools to train their students directly on site through simple video-calls with the artisans explaining their artisanal skills and art.

ENHANCING AND PROTECTIG COOPERATION AMONG ARTISANS

An important issue to be handled regards privacy and security to protect the authorship of the products (material related to crafts such as design features, videos of the artisans, pics, photos, etc.), information about product components and the way of combining materials to form a handicraft product, and so on. For system access, authentication based on credentials with user-id/password seems to be sufficient on the app. For products, a "soft copyright" - easy to be handled, but strong enough to defend the cultural value inherent in products fabrication - is needed. Various copyright alternatives can be considered, such as alternative compensation systems (ways to allow the reproduction of digital copyrighted works) while preserving the owners of those works. Some form of government intervention can also be foreseen. Other models, such as collective licenses, could be employed as "alternative compensation systems" although very different and less effective. HANDMADE HAVEN will consider the widespread use of peer-to-peer file sharing networks but could go further, considering that file sharing is beneficial, and that tax or levy funded systems are desirable tools for protecting artisans work in forms analogous to Digital Right Management technologies.

A further protection requirement comes from elements that will be necessarily stored in the Back End databases of HANDMADE HAVEN. Images, pictures, and other multimedia issues regarding the artefacts/craftsmen products are likely to be stored in the databases and hence an access control system is needed.

In the databases, instead, information about the process of production will not need to be stored and hence protected, since it remains a property of artisans.

An element that will surely persist in the database will be the set of interactions among parties and the lists of customers, and of interacting subjects. Such information about: customers, contacts, events of interaction, transactions of buy/sell and of cooperative artisanship needs to be secured via access control and partly via cryptography. Another aspect to consider is that of ethics. To protect the value of such cultural heritage, some forms of consensus have to be provided on the app in a tick form, to enable enforcing the protection of what is delivered and of people at work. Analogously to what exists for "Made in Italy" protection https://codiceetico.org/, the platform has to provide an informed consensus to the objects and people involved in trading. Since it is unthinkable to apply an ethical code neither voluntary nor collective to this field, due to the very nature of the cooperation, we are considering some simplified form of ethical code, able to represent the role of the artisan as a source of relationships with various subjects, which also determine his competitive profile on the market. It means moving from the concept of individual social responsibility of the entrepreneur and the single company) to that of (collective) territorial social responsibility through the creation of the "responsible economic district", starting to think about parameters and indicators that combine economic development and fairness of producers. Ethics involves also agreements on the upload of images regarding possible minors present in the pictures.

5. FUTURE DIRECTIONS

As Handmade Haven continues to grow, the initiative seeks to achieve several long-term objectives to further support rural artisans and preserve India's rich cultural heritage. The primary future goals include:

- Expansion of Artisan Network: Handmade Haven aims to expand its network to include a greater number of rural villages across India, connecting more artisans from diverse regions and craft traditions [1]. This expansion will help sustain lesser-known crafts and promote regional diversity on a national and global scale [2].

- Technology Integration and Training: To better support artisans, Handmade Haven will enhance the technological aspects of its platform [3]. Future plans include developing user-friendly mobile applications and tools that provide seamless access for artisans, regardless of their technological literacy [4]. Training programs will be implemented to educate artisans on digital marketing, product showcasing, and e-commerce best practices [5].

- International Collaborations and Market Expansion: Handmade Haven intends to establish partnerships with international designers, craft organizations, and universities [6]. These collaborations will not only increase the visibility of Indian crafts on a global stage but will also introduce new design innovations, creating a blend of traditional craftsmanship and modern design trends [7]. Expanding into international markets will further increase revenue streams for artisans [8].

- Sustainable and Eco-Friendly Craft Practices: As part of its commitment to sustainability, Handmade Haven will focus on promoting eco-friendly materials and sustainable production techniques [9]. By encouraging artisans to adopt environmentally conscious practices, the platform can position itself as a leader in ethical craftsmanship while appealing to a growing market of eco-conscious consumers [10].

- E-Learning and Knowledge Sharing Platforms: The platform will introduce comprehensive e-learning tools that enable artisans to upskill, collaborate, and learn from industry experts and young designers [11]. This goal aims to create a vibrant exchange of knowledge, ensuring that artisans stay competitive in a rapidly changing market [12].

- Preservation of Cultural Heritage: Handmade Haven's long-term mission is to document, protect, and celebrate India's cultural heritage [13]. By creating digital archives of artisanal techniques and village traditions, the platform will ensure that future generations can access and learn from this invaluable knowledge [14].

6. CONCLUDING REMARKS

India's vast cultural and artisanal heritage is at a critical juncture, threatened by urbanization and the migration of younger generations away from traditional crafts. Handmade Haven presents a viable solution to this crisis, offering rural artisans not only a platform to sell their goods but a pathway to sustainable economic independence. By fostering creative collaborations between artisans and designers, the platform ensures that traditional crafts are not only preserved but adapted for modern markets. The platform's emphasis on sustainability and eco-friendly production also positions it as a forward-thinking leader in the global e-commerce space. As Handmade Haven grows, it has the potential to expand its network of artisans, reach new international markets, and serve as a model for other countries seeking to preserve their cultural heritage [6].

Our current difficult times should not be the final hammer to marginalized realities but must become an opportunity to find a sustainable solution that should have as a primary priority to benefit artisans and craftsmen fromall over India.

The common wrong idea is that the artisans are "out ofdate" and they should become "smart", villages should become "high tech". The truth is more the opposite, technology should be customized to address the needs of thepeople.

Starting from people's needs, sustainability principles, respect for tradition and heritage, circular economy are all basic principles that inspired the concept of the HANDMADE HAVENplatform.

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