Unspoken Craft: e-commerce site for handlooms and handicrafts

Unspoken Craft: site de comércio eletrônico para teares manuais e artesanato

Unspoken Craft: sitio de comercio electrónico de telares y artesanía

DOI:10.34117/bjdv10n3-034

Originals received: 02/16/2024
Acceptance for publication: 03/01/2024

Amshitha Sajikumar Nair
Bachelors of Engineering in Information Technology
Institution: Datta Meghe College of Engineering
Address: Sri Sadguru Vanamrao, Plot No. 98, Ganesh Purushottam Pai Rd, opp. Khandoba Temple Road, Sector 3, Airoli, Navi Mumbai, Maharashtra 400708, India
E-mail: amshithanair0@gmail.com

Atharvi Ashok Nair
Bachelors of Engineering in Information Technology
Institution: Datta Meghe College of Engineering
Address: Sri Sadguru Vanamrao, Plot No. 98, Ganesh Purushottam Pai Rd, opp. Khandoba Temple Road, Sector 3, Airoli, Navi Mumbai, Maharashtra 400708, India
E-mail: atharvinair3690@gmail.com

Disha Manjunatha Shenoy
Bachelors of Engineering in Information Technology
Institution: Datta Meghe College of Engineering
Address: Sri Sadguru Vanamrao, Plot No. 98, Ganesh Purushottam Pai Rd, opp. Khandoba Temple Road, Sector 3, Airoli, Navi Mumbai, Maharashtra 400708, India
E-mail: disha9820shenoy@gmail.com

Ishika Shailesh More
Bachelors of Engineering in Information Technology
Institution: Datta Meghe College of Engineering
Address: Sri Sadguru Vanamrao, Plot No. 98, Ganesh Purushottam Pai Rd, opp. Khandoba Temple Road, Sector 3, Airoli, Navi Mumbai, Maharashtra 400708, India
E-mail: morechiku2001@gmail.com

Roshani Vinod Bhaskarwar
PhD in Electronics Engineering
Institution: Datta Meghe College of Engineering
Address: Sri Sadguru Vanamrao, Plot No. 98, Ganesh Purushottam Pai Rd, opp. Khandoba Temple Road, Sector 3, Airoli, Navi Mumbai, Maharashtra 400708, India
E-mail: roshani.bhaskarwar@dmce.ac.in
ABSTRACT
India has a rich cultural heritage, and its many different ethnic groups produce a vast variety of unique arts and crafts. In order to accurately represent the culture and traditions of our country, handicrafts and handlooms are crucial. Compared to other e-commerce sectors in the modern world, the handicrafts and looms industry is less developed. With the help of this e-commerce website, people can simplify and optimize their shopping experience. The project aims to strengthen positive relationships between businesses and consumers so that businesses can charge customers a fair price for their goods. The handicraft sector creates a variety of products utilizing traditional technology. Even while the handicraft business employs millions of artisans, it is still small compared to the whole industry. This paper aims to demonstrate how essential e-commerce is for the growth of Indian rural craftsmen.

Keywords: e-commerce, GI tag, handloom & handicraft, traditional textiles, UI.

RESUMO
A Índia tem um rico patrimônio cultural, e seus muitos grupos étnicos diferentes produzem uma grande variedade de artes e artesanatos exclusivos. Para representar com precisão a cultura e as tradições de nosso país, o artesanato e os teares manuais são fundamentais. Em comparação com outros setores de comércio eletrônico no mundo moderno, o setor de artesanato e teares é menos desenvolvido. Com a ajuda desse site de comércio eletrônico, as pessoas podem simplificar e otimizar sua experiência de compra. O projeto visa a fortalecer as relações positivas entre empresas e consumidores para que as empresas possam cobrar dos clientes um preço justo por seus produtos. O setor de artesanato cria uma variedade de produtos utilizando tecnologia tradicional. Embora o setor de artesanato empregue milhões de artesãos, ele ainda é pequeno em comparação com todo o setor. Este documento tem como objetivo demonstrar como o comércio eletrônico é essencial para o crescimento dos artesãos rurais indianos.

Palavras-chave: comércio eletrônico, etiqueta GI, tear manual e artesanato, têxteis tradicionais, interface do usuário.

RESUMEN
La India posee un rico patrimonio cultural y sus numerosos grupos étnicos producen una gran variedad de artesanías únicas. Para representar fielmente la cultura y las tradiciones de nuestro país, la artesanía y los telares son cruciales. En comparación con otros sectores del comercio electrónico del mundo moderno, la industria de la artesanía y los telares está menos desarrollada. Con la ayuda de este sitio web de comercio electrónico, la gente puede simplificar y optimizar su experiencia de compra. El proyecto pretende reforzar las relaciones positivas entre empresas y consumidores para que las empresas puedan cobrar a los clientes un precio justo por sus productos. El sector de la artesanía crea una gran variedad de productos utilizando tecnología tradicional. Aunque el negocio de la artesanía emplea a millones de artesanos, sigue siendo pequeño en comparación con el conjunto de la industria. Este artículo pretende demostrar lo esencial que es el comercio electrónico para el crecimiento de los artesanos rurales indios.

Palabras clave: comercio electrónico, etiqueta IG, telares manuales y artesanía, textiles tradicionales, IU.
1 INTRODUCTION

India is a nation with a rich and diverse culture of handicraft and handloom making. This culture must be protected and its originality must be upheld. [1-2] An effort to create a distinctive website for handcrafted goods crafted by indigenous people has been made. In this way, rural communities get the chance to sell their goods on a user-friendly platform where they can manage the transactions themselves by adding goods and handling client interactions. For a very long time, crafts have been making history, and they continue to advance. [3] These handmade items are more visually appealing. The International Labour Organization has provided a description of crafts. [4] The creative beauty that results from the creation of handicrafts is an expression of artistic talent. Some crafts, such as needlework and sewing, ribbon embroidery, string art, glass etching, and origami, among others, are becoming extinct as decades pass. This platform, which allows users to purchase goods from vendors of trusted brands, was created to meet Business to Customer (B2C) company demands. The language aspect, i.e., website translation in their regional tongue, is missing from other similar websites for handicrafts and handloom products. By making it possible for users to switch the entire website's language to Marathi (for now), the site is able to resolve that problem. Due to the fact that purchase is now incredibly simple and anyone can access it without any difficulty, this will undoubtedly enhance client engagement with the website. Another issues that occasionally the items we buy are not genuine or distinctive. By adding GI tags (Geographical Indication Tags) to the products so that it can be verified that they are from a specific region, this website addresses that issue.

A. Geographical Indication Tags (GI Tags):

The marking known as a "GI Tag" is placed on goods that are manufactured in that region. By giving their product, a touch of their culture and a distinctive flavor, it highlights the distinctiveness of that place. Therefore, it confirms that the product with a GI label is original and authentic and that it hasn't been reproduced.

This paper covers the methodology to provide clients with the special Geographical Indication Tags (GI tags) function, which provides details about the goods that are well-known in specific regions. This enables consumers to browse a variety of products from the comfort of their homes with just a tap. The website is accessible in the state's regional language, which benefits visitors from various cultural backgrounds. By granting the seller complete control over the transaction, our website assists in decreasing the job of middlemen. By providing the seller their due credit for the product,
this lowers the middleman's commission. Additionally, this expands the number of jobs available in rural areas. [5]

2 LITERATURE REVIEW

![Figure 1. Graph of Personal Survey](image)

Source: This image is of the graph from a survey that was conducted through google forms.

This review's primary purpose is to assemble information on the products, handicrafts' cultures, histories, and traditions. Finding the people and small businesses that make these one-of-a-kind items is one of the biggest hurdles. It is challenging to establish a thorough database of these artists and their goods because many of these producers are not registered and run their businesses from their homes.

Many consumers find it challenging to locate authentic products online, according to studies. Finding the craftspeople who look after the antiques also becomes challenging. Finding a certain item from a state in India might be physically challenging from another state as each state's handloom and handicraft industry has its own unique special things. In the world’s handicraft, the market share of India is 1.2%. Each industry needs handicraft such as fashion industry, real estate, home décor etc.[6-9]

In order to perform the research, similar websites like gaatha.com, authindia, indiancraft, and etsy were visited. The websites' inability to translate into a specific regional language was observed. Additionally, there is no assurance that the item is real and was made by the vendor they claim to be. [12-14]

A. **Handloom and Handicraft sector in India**

From this literature survey it was seen that there are few problems that the handloom and handicraft sector is facing in this country. The very first and most common issue was with the authenticity of the products. Sometimes what we order online is not
the one that we actually receive which creates trust issues and a decline in the reputation of the site as a whole.

B. Innovation in Indian Handloom Weaving

On going through this research, we came to know that the majority of people selling items there are common people like us, sitting at home and creating craft works and selling them in the name of handicrafts. But that’s not what handicraft actually is. This negatively impacts the real handicraft and handloom industry of India. Also, there is no confirmation that the product is unique and is genuine.

C. Research and Survey

The graph that we have shown below (Figure 1.) is from the one survey that we took by creating and circulating a google form among our friends and family asking a few questions. From which we got to know that only 37% of them buy handicrafts online because either they are unaware of them or else have been a victim of duplicate items.

Questions asked in the survey
1. Name and age
2. How many handcrafted items are in your day-to-day life? (Things like earthen pot for cooking, handmade shawls, sarees, bags, masks, decoration etc.)
3. During the pandemic how did you manage to buy handmade items? (In the form of decoration during Ganesh Chaturthi or Diwali or other festivals or any other day to day use item)
4. Where do you buy these Handmade items?
5. Are you an enthusiast of handmade and hand loomed and antique items?
6. Have you heard of or used any of the sites?
7. Have you visited a different state and tried making their handcraft? (Could be as a part of tour or just for fun: Like making pots or learnt about weaving)
8. Do you believe in using locally made handmade items or western items in day-to-day life?
Can you name some of the handmade and hand loomed items you have used at your place.

3 PROPOSED SOLUTION

This project is based on finding a solution to help consumers find traditional handloom and handicraft goods, as well as connecting sellers and clients.
It can also be used in finding original items as they are authenticated beforehand using a GI tag that guarantees genuine products. [5]

- Providing Information about various Verified Indian artists using GI tags.
- Customers can sign up to get a wide range of products from various sellers or retailers.
- Providing visibility of artisans selling handmade items.
- Customers can see products that are authentic and available nationwide.
- Users can learn about Indian culture and tradition using our website.
- All users can use the website in English and Marathi language (for now).

A. Planning
- First problem that we identified was the lack of authenticity or genuineness. So, to solve that issue we came up with the idea of labeling the products that have acquired the GI tag with them.
- Next was the language barrier. People from rural India, may not be literate enough to use the site in English so considering such people we have come up with the solution of making our site available in regional languages also (Right now the language we have included is Marathi, but it can be increased in the future).
- The third one is a feature that we came up with ourselves. There are not many sites that provide the seller the facility to add their products to the site by themselves. So here we have provided a page through which the seller can themselves add their products along with its name, image and price which will be displayed in the products page.

B. Methodology

Our platform aims to increase visibility for artisans who sell handmade products by connecting them with a wide range of customers from across India. We offer products from verified Indian artists who use Geographical Indication (GI) tags, which help customers identify the geographical origin of the products and increase trust in their authenticity. Our website allows customers to sign up and browse a wide variety of products, and also provides a platform for artisans to promote their work. To ensure
accessibility for all users, we have included options for both English and Hindi language on our website, allowing customers to switch between languages as needed.

C. Design

Design plays a crucial role in the development of an e-commerce site for handlooms and handicrafts. A well-designed site can create a positive user experience and make it easy for customers to browse and purchase products.

One important aspect of design is ensuring that the site is visually appealing and easy to navigate. This can be achieved by using high-quality images of products, clear and concise product descriptions, and an intuitive layout that makes it easy for users to find what they are looking for. Another important aspect of design is to ensure that the site is mobile-friendly, as many users access e-commerce sites on their mobile devices. This can be done by using responsive design, which adjusts the layout of the site to fit the screen size of the device being used.

The site should be designed with the user in mind. This could include displaying the product’s history, tradition, culture, and the artisans behind it. This could also include providing a detailed product description, as well as information about the artisans who created them. The below given figure (Figure 2.) refers to the framework overview of the project.

![Figure 2. Framework Overview](image)

Source: This chart was made as a blueprint of the site.

Additionally, it is also important to ensure that the site is accessible to users with disabilities. This can be achieved by using a consistent, high-contrast color scheme, and providing alternative text for images. Overall, the design of an e-commerce site for handlooms and handicrafts should be visually appealing, easy to navigate, mobile-friendly, user-centered and accessible to all users.
C. Block Diagram

The figure given below (Figure 3.) refers to the block diagram of the project. The UI (User Interface) of the project includes a Homepage that routes to all the other pages. Home Page has features like SignUp, SignIn, Our Story, Products tab and About.

![Block Diagram](image)

Source: Block Diagram was created as flow chart of the site.

The Products Tab has Categories in which all the products are divided in different sections based on the category as Women, Men, Gifts, GI products. SignIn/SignUp page is required by all the users, whether registered or not. The registration process asks for the essential information required to authenticate to the user. Footer section includes the About part of the project that has all the information about it and also includes the contact details. The Cart section collects all the products that have been shortlisted by the user.

[10-11]
4 IMPLEMENTATION AND RESULTS

Figure 4 Home Page

Source: Screenshot of Home Page of the website UI that was created.

Figure 5 User Profile Page

Source: Screenshot of User Profile page of the website UI that was created, for Users to register.
Source: Screenshot of Cart page of the website UI that was created, where all the selected products are stored.

Source: Screenshot of Login page of the website UI that was created.
5 CONCLUSION

The e-commerce site for handlooms and handicrafts can be a valuable resource for artisans, small businesses and customers alike. It can provide a platform for traditional artisans to showcase and sell their unique and culturally rich products to a wider audience, thereby increasing their sales and income. Additionally, it can also help in preserving and promoting traditional art forms by making them accessible to a global audience. Overall, the e-commerce site for handlooms and handicrafts can be a powerful tool in promoting sustainable and equitable economic growth in traditional arts and crafts communities. It is important to ensure that the site is designed and operated ethically, with a focus on fair trade practices, and to involve the artisans and communities in its development and operation.

An e-commerce platform for handlooms and handicrafts can offer a range of benefits, including providing customers with reasonably priced and unique products, creating employment opportunities for artisans, and elevating the handloom industry as a whole. However, successfully operating such a platform requires not only business acumen, but also an understanding of customers' needs and preferences, as well as the specific requirements of the products and artisans. A well-designed e-commerce platform, such as UNSPOKEN, can offer a dynamic user interface and a user-friendly back-end management system, making it easy for customers to browse and purchase a wide variety of handmade, traditional products, such as those embellished with gems or other decorative elements.
REFERENCES


[12] https://theindiacrafthouse.com/ (FEB 2023)
