E-Commerce Adoption Strategy for Rural Artisans

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Abstract

After agriculture, India’s handicraft and handloom sectors generate the second-highest number of jobs. Most of its workforce is economically disadvantaged, including lower caste marginalized groups and minority communities (Ministry of Textiles, 2019). The benefits received by artisans are often insignificant, even though their work is highly sought after on a global scale. They also find it difficult to compete due to the open market rules. The list of challenges for artisans in the open market system is exceptionally long, ranging from a lack of organized assistance to a lack of working capital and market access (Sethi, 2019). Younger generations of artisans are discouraged from engaging in craft activities due to these problems. Several Indian businesses have implemented innovative organizational models to catalyze social change and support artisans’ well-being by more directly involving them in the organization. Furthermore, any sector upgrading strategy aimed at bringing about social change through artisan participation must be founded on a thorough understanding of the local context, the needs of artisans, and market dynamics. This research will contribute knowledge of the critical role of the change maker in successfully transforming an e-commerce intervention into a sustainable enterprise. We propose an original strategy framework for artisan e-commerce adoption based on artisans’ effective participation and empowerment in producing goods for sale. The core objective of this chapter is to provide an overview of the study.

Statement of the problem

The COVID-19 pandemic lockdown process, which began with the closure of non-essential economic activities, has been detrimental to the Indian economy (Mand et al., 2021). The announcement of a nationwide lockdown in 2020 had a significant impact on Handicraft sector
and employers. The situation was even worse for handicraft sectors, which were already facing numerous challenges such as industrial and global development. Handicraft workers were already unable to compete with industrial units that were highly organized and able to sell their products at lower prices. However, with the current pandemic and lower disposable income in the hands of consumers, this sector is on the decline. Post-Covid trade shows and exhibitions are declining. Because of a lack of demand and product reach, artisans cannot sustain this art. Inconsistencies in the supply of work are another major issue that has emerged since covid. A lack of technical exposure and knowledge of digital tools is another barrier to market access for artisans.

As a result, it's crucial to identify and investigate strategies for developing resilience in Handicraft sector. There is an urgent need to investigate government reforms and reliefs, digital innovation (Iskandar, 2022), bridging the existing skill gap (Panjaitan, 2022), and developing strategies to reduce unemployment.

**Purpose of communication**

Through this research, the researcher wants to dive deep and analyze the socio-economic condition of Rural Artisans from Odisha, India, through statistical data captured from quantitative and qualitative tools. Understanding the limitations and on-ground challenges our rural artisans face, wants to strategically formulate a business commercialization model and enable artisans’ growth with sustainable living. Determine a marketing strategy for the craft that will provide better access to the key markets. To identify the digital marketing requirements for promoting the art and comprehend the supply chain evolution post covid for better placement. Understanding production challenges and enabling technological support and tools for improved
craft quality and production. Understanding and developing an e-commerce channel, also addressing the right customer through better visualization of the craft.

Summary of results, conclusions, and recommendations

Through this research, the researcher identifies there is huge scope in increasing the support and policies for rural artisans for ecommerce adoption. The awareness of ecommerce and its benefits need to be educated to the artisans and strategy needs to be built to facilitate the adoption. Ecommerce strategy for regular merchandise doesn’t apply for handicraft segment. Special attention and facilitation of services is required to promote ecommerce adoption for rural artisans. Some of the results may not acceptable due to few respondent participations and there may be a bias among the response collected from similar consumer interviews. This data needs to be further validated by conducting in person surveys and interviews of bigger sample size involving various stakeholders.

Keywords – Socioeconomic Conditions, business commercialization model, support and policies, awareness of ecommerce, facilitation of services
Introduction

Rural artisans often encounter challenges generating new clients and marketing their products due to limited market access, inadequate digital infrastructure. Ecommerce provides a platform for these artisans to reach a wider audience and expand their customer base. The level of awareness and understanding about ecommerce among rural artisans can impact their willingness to adopt it.

Overview of the research problem:

The specific objectives of this research involve studying the handicraft sector scope in Odisha by mapping, quantifying, and qualifying the number, types, activities, and relationships of the different actors of the value chain. Understanding where value is, the type of relationships between market players and stakeholders, how they can engage in the value chain, and identifying stakeholders with the skills, knowledge, and attitude for changes. Importantly the research will take a market-led and demand-driven approach to identify policies and propose interventions that will:

a) Promote sector development activities.
b) Identify the missing links between the handicraft sectors for e-commerce adoption.
c) E-commerce strategy for Handicraft segments.
d) Understand perceptions of other markets and market actors looking at Odisha Handicraft.

Description and background of the qualitative research problem:

The purpose of the study will be to understand the factors influencing the ecommerce adoption for rural artisans from the handicrafts sector of Odisha. At this stage of the research, the study
will be defined as building a handicraft sector upgrading strategy with E-commerce adoption for rural artisans in Odisha, India.

It is important to consider factors such as digital literacy, access to technology, and cultural attitudes towards technology and commerce. Building trust in ecommerce platforms and online transactions is a crucial factor in encouraging rural artisans to adopt ecommerce. This can be achieved through clear and transparent policies, secure payment systems, and user-friendly interfaces.

Ecommerce has the potential to provide rural artisans with increased income and reduced costs, as they are able to reach a wider audience and sell their products directly to customers. Technical support and training can play a crucial role in overcoming any obstacles faced by rural artisans in adopting ecommerce. This support can include training on how to use ecommerce platforms, managing online transactions, and improving digital literacy.

**Research questions:**

The research is trying to establish answers to the following research question (RQs):

RQ1: How can we promote handicraft sector development activities?

RQ2: What strategies are required to maximize e-commerce usage in the Handicraft segments?

RQ3: What are the existing challenges faced by the artisans on the ground for e-commerce adoption?

Based on the formulated research question and literature review in the previous chapter, we prepare the below hypothesis:

H1: E-commerce adoption positively or negatively influences rural artisan sustainable livelihood.
H2: Formulating a handicraft-specific e-commerce strategy will positively or negatively promote rural artisan crafts.

H3: Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.

H4: Other markets and actors positively or negatively impact the handicraft sector.

Aims and objectives of the research, including the target audience, and the rationale for the design selected for the investigation.

The rural artisan’s value chain analysis (VCA) of the handicrafts sector will provide us with the responses to the specific research questions and hypothesis. The stakeholder’s interview in the Value Chain of handicrafts and survey questions will help us collect qualitative and quantitative responses. The further analyzing and evaluating the data, we can run the hypotheses testing and justify each belief.

The research will start with a short mapping of current capabilities along the value chain. We shall continue by looking into the competitiveness of the handicraft sector in the state of Odisha as compared to other handicraft manufacturing states. We shall first conduct a segment analysis as follows: identifying the main obstacles and facilitating factors currently affecting the ability of handicraft manufacturers to act on opportunities. Then we conduct a macro trend analysis of the domestic and export markets, which the manufacturers can leverage. In addition, through macro trend analysis, an attempt was made to leverage e-commerce adoption for rural artisans. We will use all this information to recommend potential value-added business models, including product groups and market segments.

The value chain analysis of the handicraft sector in Odisha will be carried out in the following
sequence and using the following research tools. The value chain analysis (VCA), data collection tools, and instruments will focus on understanding the underlying causes of the policy constraints faced by the private sector. The research design will include a secondary data review, followed by primary data collection (SME survey, Key Informant Interviews (KII), and Focus Group Discussions (FGD).

The findings from the VCA will help to design an upgrading strategy for the handicraft sector in the selected Ganjam district of Odisha. The results of the VCA analysis and upgrading system will be shared for peer review, providing feedback to incorporate into the VCA and upgrading strategy. The author will present the findings of the VCA and the proposed upgrading strategy for input and validation with key stakeholders, including the Government of Odisha, industry bodies, and development partners.
Literature Review and Propositions

Studies of rural livelihoods in India’s non-agricultural product sectors are essential for gaining knowledge about the population’s economic and social development. It requires the creation of capabilities and the explanation of earning opportunities (Sen, 1993). Handicrafts and handlooms are also important sources of income in the non-farm economy. It produces cash for artisans and also helps artisans and entrepreneurs improve their design skills. This type of rural entrepreneurship has long contributed to the formation of the village economy in India. Government initiatives have improved the facilities available to the artisans (Minimol & Mahesh, 2012).

A change maker’s job is to establish a shared purpose for the organization, solicit the participation of many stakeholders, and form partnerships—all of which may benefit significantly from design thinking methodologies and tools (Kingsley & Thomas-Trout, 2021).

A change maker can be an entrepreneur inspired by the desire to produce positive social change from within or outside the community and possesses the transversal abilities required to interact with communities and form productive relationships with and for them (Banerjee & Mazzarella, 2022).

Artisanal and non-farm activities have been considered significant components of livelihood choices in developing economies. Artisanal enterprises are typically related to geography, area, and cultural and economic endeavors (Brown & Guiffrida, 2014). However, the economic activities of artisans are well-acknowledged as an engine for economic development (Igwe et al., 2019). Beyond technical and financial competence, innovative social entrepreneurship necessitates cross-skilling if actors are to satisfy the needs of vulnerable populations through social innovation processes (García-González & Ramírez-Montoya, 2021).
A few other researchers have observed that ‘most people still do not understand the total economic value of the sector and do not think of artisan businesses as entire industries or as drivers of economic development and job creation (Lounsbury & Glynn, 2001). In India, self-help groups have helped to provide income, generate skills and provide social well-being. As a result, investigating the roles of various social actors in this sector who contribute to the changing economy is critical (Lee et al., 2015).

Researchers from several fields have concentrated on the framework based on assets, processes, and activities to understand livelihood strategies, poverty reduction, and sustainability. Ian Scooners (2009) refers to this as a sustainable livelihood framework. People engage in various actions to acquire assets and become used to social variables, including social relationships, institutions, and organizations, as well as external trends like economic and political developments, to support their way of life and surprises like pests, illnesses, floods, and droughts. An SL framework offers a foundation for analyzing a specific scenario, identifying, eliminating obstacles, and bolstering the foundations for livelihood success (Solesbury, 2003).

As a result, a livelihood is the activities, resources, and access that collectively determine how much a person or household makes (Chambers & Conway, 1992). Carney et al. (1999) examined the following SLA frameworks created by the Cooperative for Assistance and Relief Everywhere (CARE), the United Kingdom’s Department for International Development (DFID), the Oxford Committee for Famine Relief (OXFAM), and the United Nations Development Programme (UNDP) are involved.

Following an extensive review of the framework-related literature, the following five components—which describe the general dimensions of livelihood assets by all frameworks—
have been explored. Human capital, physical capital, social capital, financial capital and its substitute, and natural capital.

**Identification of key issues, debates, and theoretical frameworks used in the research:**

“Over 56% of all craftsmen in India’s handcraft sector are women, making up the majority of artisans. There are almost 35,000 goods available in the nation’s 744 handicraft clusters, which employ roughly 212,000 craftspeople. The principal clusters are Surat, Bareilly, Varanasi, Agra, Hyderabad, Lucknow, Chennai, and Mumbai. Although there is enormous market potential in all Indian cities and abroad, most industrial facilities are in rural and small towns.” (EPCH, 2022).

![Product-wise percentage increase in exports (2021-22 over 2020-21)](image)

*Figure 1 Shows product wise increase in exports of handicrafts in a year.*

*Source: Export Promotion Council for Handicrafts (EPCH)*

We can establish from the graph that the global demand trend for Indian Handicrafts shows a very high scope for the Handicrafts developed by our rural artisans. Another important observation we have to study from the research is the percentage of global exports of artisan-made Handicraft. Although artisanal crafts and quality are in high demand worldwide, the
advantages to craftsmen are often insignificant (Banerjee & Mazzarella, 2022). How many of our rural artisans have the knowledge and know-how on the export business potential? With the increased global demand, it is very much essential to maintain the quality and production lead times of our artisan-made handicraft products. It requires proper standardization of the process for manufacturing and branding the products.

![Country-wise share of India's handicraft exports (2020-21)](image)

*Figure 2 Shows the country-wise share of India’s Handicraft exports.*

*Source: Export Promotion Council for Handicrafts (EPCH)*

The government has also initiated various efforts to provide market opportunities to the artisans doing business in the unorganized sector. To make these items by hand, many artisans labor full-time and many more part-time. The low initial investment, export potential, and foreign earnings are some elements promoting this industry’s expansion (Shah & Patel, 2016). The most sophisticated topic of interest among researchers is e-commerce, and the current literature study focuses on digital transformation (Lafkihi et al., 2019; Li, 2020). With the emergence of several websites supporting the E-commerce of the Indian handicraft business, this situation is changing. E-commerce sustainability includes environmental, social, and economic factors (Dutta et al., 2020; Nikolaou et al., 2013; Oláh et al., 2019). The primary objective is to find a happy medium between these dimensions (Dutta et al., 2020; Oláh et al., 2019). Digital transformation is vital
to a company’s commitment to sustainability initiatives (El Hilali et al., 2020). Furthermore, Ignat & Chankov (2020) state that online customers respect sustainability, giving it a competitive advantage for online shops. Currently, many e-commerce brands adopt the strategy of providing complimentary product samples. Many e-commerce sites now provide actual product selection through online channels (Liu, 2022).

**Clarification on any hurdles, knowledge gaps, and practical requirements related to the study:**

India has an abundance of distinctive native raw materials, such as natural fibers, bamboo, cane, horn, jute, and leather, that are innovative and productive. Indian communities have a diverse and rich culture that produces a wide selection of unique and one-of-a-kind handicrafts—the solid current pool of skilled artisans (Shah & Patel, 2016). We can also find research from the Sri-Lankan handicraft industry, which states the significance of how the local environment, social networks, and location-based industrial identity influence the sector through time (Rathnayake & Grodach, 2022).

Lack of suitable infrastructure and equipment, a lack of knowledge about new designs, the latest trends and fashions, innovation, and technology advancements, as well as producer groups’ limited e-commerce proficiency, high industry fragmentation, individualized, unstructured production processes, absence of robust sector-wide umbrella organizations, groupings, or clusters. Little investment capability for artisans and limited cash. Entrepreneurial subjectivity prevents individuals from incorporating climate change into their lifeworld and developing shared measures to offset its harmful effects (Arvidsson et al., 2022).
Inadequate market data on export potential, trends, and pricing. Limited resources for manufacturing, distribution, and marketing, as well as restricted access to credit. Due to e-commerce, a wider client base and a global identity for artists, artisans, and businesses. Increasing customer appreciation and demand in domestic and international markets. Help for Internet and offline marketing, as well as support from the Government and NGOs interested in maintaining the craft. Direct client interaction and self-identification. Collaboration with online intermediaries under fair terms and conditions. Lessening the amount of intermediaries’ interference increases the market price of the items.

Collectively, SHGs can work together to create shared web marketing clusters (Shah & Patel, 2016). The pandemic outbreak has compelled businesses to refocus their attention on their resilience to withstand this interruption. It has also clearly revealed the lack of stability in global business operations, as seen by the high level of failure in their supply networks. This surge in loss underscores the importance of assessing existing networks and using robust analytics, which is lacking in previous supply chain literature (Golan et al., 2020).

Ivanov & Dolgui (2020) research investigated the survival and viability of interconnected supply chain networks to improve resilience at individual supply chain echelons. A paper by Sarkis (2020) underlined the need for environmental sustainability strategies in enterprises to combat COVID-19 issues. The literature has also shed light on resilience-building skills, including visibility, flexibility, redundancy, teamwork, and catastrophe preparedness. Many State Governments do not prioritize the handicrafts sector in their development. Handicraft industries lack recognition, practical procedures, and systems for identifying, documenting, and mapping craft industries and clusters.
Public policy is a course of action by a government entity or its representatives to attain a specific goal (Wazza & Bedeke, 2022). One of the main bottlenecks that negatively impact planning and policymaking for this sector is the lack of comprehensive and genuine data on artisans. Their socioeconomic position, living circumstances, and family details—implementing government programs, which don’t perform as intended and don’t provide the anticipated results.

Increasing competition from items produced in factories and from international competitors. Declining availability of high-quality raw materials. Furthermore, Dal Mas et al. (2022) brought attention to the relevance of CSR programs in increasing employee and consumer involvement, favorably assisting firms in building positive impact and resilience.

**Elaboration of the propositions made in the research:**

Proposition in the ecommerce adoption research for rural artisans shows relationship between two or more variables as established in the below table.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Survey Questions</th>
<th>Codes</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the existing challenges faced by the artisans on the ground for e-commerce adoption</td>
<td>Rural Artisans have sufficient financial resources to apply E-commerce</td>
<td>Readiness Awareness</td>
<td>Rural Artisan Readiness for Ecommerce Integration</td>
</tr>
<tr>
<td></td>
<td>Rural Artisans have sufficient information technology resources to conduct E-commerce</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural Artisans have human resources with information technology qualifications meeting the implementation of E-commerce</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Rural Artisans have infrastructure sources meeting the application of E-commerce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formulating a handicraft-specific e-commerce strategy will positively or negatively promote rural artisan crafts</td>
<td>E-commerce helps Rural Artisans save costs and time</td>
<td>Willingness</td>
<td>Awareness of E-commerce benefits of Rural Artisans</td>
</tr>
<tr>
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<td>---</td>
</tr>
<tr>
<td></td>
<td>E-commerce helps Rural Artisans approach more customers</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>E-commerce helps Rural Artisans access more information</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E-commerce helps Rural Artisans expand business opportunities, increase sales and profits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other markets and actors positively or negatively impact the handicraft sector</td>
<td>Traditional purchase and sale practices hinder the application of E-commerce</td>
<td>Barriers Influence</td>
<td>E-commerce adoption barriers for Rural Artisans</td>
</tr>
<tr>
<td></td>
<td>Human resources have not met the demand of applying E-commerce</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Investment costs for E-commerce are limited</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Awareness of benefits of E-commerce is not clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E-commerce is not consistent with the way enterprises do business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
<td>The government provides tax incentive</td>
<td>Motivation Support</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
</tr>
<tr>
<td></td>
<td>The government provides infrastructures at a reasonable cost</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>The legal environment for E-commerce has been complete</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>The market has consultancy, design and development of electronic information</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
E-commerce adoption positively or negatively influences rural artisan sustainable livelihood.

<table>
<thead>
<tr>
<th>Rural Artisans have sufficient human and material resources to apply E-commerce</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-commerce really benefits Rural Artisans</td>
</tr>
<tr>
<td>Rural Artisans get the support they need to apply for E-commerce</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Networking Knowledge</th>
<th>Factors affecting E-commerce adoption</th>
</tr>
</thead>
</table>

**Table 1- Propositions for qualitative research**

*Source: Developed by the author*
Research Methods

Overview of the research design

The author will develop the survey using Qualtrics platform online. Disseminating the semi-structured survey instrument by chat applications to the list of Artisan Enterprise identified during the stakeholder’s identification phase. Artisan enterprise that does not have access to the Internet via a mobile phone or computer will be called by the author and asked to respond to questions. Data entered into Qualtrics survey will be cleaned, tabulated and quality assured before analysis. Qualtrics is an effective way to collect data quickly, accurately, and effectively, minimizing the time for data collection. Qualtrics allows stakeholders to respond to the survey at the most convenient time, minimizes data entry errors, and saves time during the analysis by using the automated visualization/ graphs/figure function. The data will be confidential and securely stored on this platform.

Background of researchers and data sources

The primary researcher of the survey is the author. The researched has in depth experience in working in the Garment, Textile and Handicraft segment. The researcher has worked closely alongside the rural artisans for last 5 years to understand the on ground challenges faced by the artisans and the need of development of ecommerce adoption strategy. The researcher has done secondary data research by reviewing various research as provided in the Literature review. And for primary research the researcher has reviewed the consumer for handicraft segment to understand the prospective of ecommerce from market segment.
Participants’ background

The researcher has interviewed primary three participants for this study. There details are outlined below:

• Mr. Shubham Singhal – Global Lead Hospitality, Trident Group, India
  [https://www.linkedin.com/in/shubham-singhal-813a09ab]

• Mrs. Rashmita Mohanty – Deputy Manager, Anand Rathi Insurance Brokers Limited, India
  [https://www.linkedin.com/in/rmohanty1992]

• Mrs. Shriya Teckchandani- Consultant, Deloitte USI, India
  [https://www.linkedin.com/in/shriya-teckchandani-147824117]

Process of recruiting the participants

A survey of 3 stakeholders of the Handicraft sector in Odisha, with a particular focus on millers, ginners, dyers, handlooms, raw material manufacturers for handicrafts, handicraft cluster, flexible brass fish artisans, agents/traders, buyers/brands, government agencies/departments, policymakers, training organizations, labor intermediation agents and financial service providers in the Ganjam district in Odisha. The survey’s main objective will identify the underlying reasons and barriers to growth and opportunities. Respondents will determine based on the stakeholder identification, listing, and refinement of the sample stratification and size.

Process of data collection

Author will also conduct Semi-structured Key Informant (KI) interviews and interviews with industry associations and Govt Officials as part of the research. The author will create survey instruments for Key Informant Interviews (KII) and Focus Group Discussions (FGD), which
will be used to collect data from both on-site and remote methods. The author will collect data during Key Informant Interviews (KII) and computerized Focus Group Discussions (FGD) using standard data entry templates to facilitate the author’s systematic analysis of qualitative data. The author’s system will safely store the data. The author shall analyze the data to prioritize constraints and opportunities and define possible short-term, mid-term, and long-term interventions. The outcome of secondary research shall also play an essential role in developing interventions.

**Process of data analysis**

The analysis of qualitative data collected by the participants were analysed by matrix method which is a type of data visualization that arranges data in a grid format, with rows and columns representing different variables or categories. The cells of the matrix can contain symbols, colors, or other visual cues to represent the data. This method is useful for comparing and contrasting different data sets and for identifying patterns or relationships within the data. Some examples of matrix visualizations include heat maps, cross-tabulation tables, and multi-dimensional scaling plots. The matrix method of displaying qualitative data is often used in fields such as market research, social science, and business intelligence to analyze and communicate complex data sets. It is a versatile and powerful tool that can be used to identify patterns, trends, and relationships within the data.

Researcher has also used network diagram to show the relationships between different data elements. This method is often used to analyze and communicate data that involves connections or relationships between different entities, such as social networks, communication networks, or information networks. In a network diagram, the nodes represent the entities in the data set and the edges represent the connections or relationships between them. The nodes can be sized and
colored to represent different attributes or characteristics of the entities, and the edges can be thickened or labeled to represent the strength or importance of the connections. Network diagrams can be used to display a wide range of qualitative data, including data from social science research, market research, business intelligence, and more. They can be a powerful tool for identifying patterns and relationships within the data and can be used to create interactive visualizations that allow users to explore the data in greater depth.
Results and Findings

In this qualitative research the researcher has done in person and telephonic interviews from 3 participants who are relevant stakeholders for the usage of rural artisan’s product. The interview helped in gathering relevant information for the research and understand different qualitative feedbacks from the participants by making thematic analysis of the same. The researcher has used thematic analysis to identify the code and a common relating to a common theme. Initially the data aided in the development of initial codes and different codes combined to provide the central theme. Data collected also showed many relevant information clubbed together to provide the answer for the central theme and the themes answered the important research questions relevant to the research and helped in determining the pattern among them. The matrix was used to assign various codes to the interviewees' responses that related to the research question, such as "barriers to ecommerce adoption," "supporting factors," and "knowledge sharing," and these codes were later combined into a single overarching theme, such as "factors affecting ecommerce adoption." The themes caught a more thorough and active interpretation of the codes and the data, while the codes highlighted pertinent information in the data. The network diagram made it easier to understand how the various codes and themes related to one another. The themes accurately depict the compelling themes that emerged in the conducted interviews, the narratives that each theme tells, and the connections between those narratives and the overarching study topic. This helped in grouping different codes to create a single theme and further relate the theme to the research question. Supporting documents are also shared in the appendix to review the interrelation.
Table 2: Summary of Key tables, themes and findings in Matrix form

<table>
<thead>
<tr>
<th>Interview Question</th>
<th>The Answers received</th>
<th>Code Number</th>
<th>Themes</th>
<th>Researchers Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1: Rural Artisans have sufficient financial resources to apply E-commerce</td>
<td>They don’t have sufficient financial resources</td>
<td>1</td>
<td>Barriers</td>
<td>What are the existing challenges faced by the artisans on the ground for e-commerce adoption</td>
</tr>
<tr>
<td>Question 2: Rural Artisans have sufficient information technology resources to conduct E-commerce</td>
<td>For Information technology requirements laptops/mobile, electricity, Internet availability is issue. Can be integrated by a third party who can provide them the information technology services</td>
<td>2</td>
<td>Support</td>
<td>What are the existing challenges faced by the artisans on the ground for e-commerce adoption</td>
</tr>
</tbody>
</table>
### E-Commerce Adoption Strategy for Rural Artisans

<table>
<thead>
<tr>
<th>Rural Artisans have human resources with information technology qualifications meeting the implementation of E-commerce</th>
<th>If human resource information technology skills are made available, then it can be an advantage for rural artisans. And can help them with setting up e-commerce</th>
<th>Rural artisan clusters have human resource who have basic knowledge on IT related field</th>
<th>Human resource which can help them to understand the IT and leverage the e-commerce platform and rural artisans are still lagging to bridge this gap which can be bridged by human resource.</th>
<th>Awareness of E-commerce</th>
<th>3</th>
<th>Rural Artisan Readiness for E-commerce Integration</th>
<th>What are the existing challenges faced by the artisans on the ground for e-commerce adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Artisans have infrastructure sources meeting the application of E-commerce</td>
<td>Right now, rural artisans don’t have infrastructural facilities to apply for e-commerce. They need assistance.</td>
<td>They are having basic infrastructure and are totally unaware of how to use it and get the benefits of that for e-commerce</td>
<td>No, I don’t think so rural artisans have proper infrastructural facilities to combat e-commerce marketplace</td>
<td>Awareness of E-commerce</td>
<td>4</td>
<td>Rural Artisan Readiness for E-commerce Integration</td>
<td>What are the existing challenges faced by the artisans on the ground for e-commerce adoption</td>
</tr>
<tr>
<td>E-commerce helps Rural Artisans save costs and time</td>
<td>Yes, e-commerce can help rural artisans save cost and time and broaden their network</td>
<td>Yes, e-commerce will help rural artisans to save cost and time.</td>
<td>Yes, definitely e-commerce helps provided rural artisans are directly working with the rural artisans. In case of middleman its like a traditional business</td>
<td>Networking</td>
<td>5</td>
<td>Awareness of E-commerce benefits of Rural Artisans</td>
<td>Formulating a handicraft-specific e-commerce strategy will positively or negatively promote rural artisan crafts</td>
</tr>
</tbody>
</table>

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E-commerce Adoption Strategy for Rural Artisans

<table>
<thead>
<tr>
<th></th>
<th>E-commerce helps Rural Artisans approach more customers</th>
<th>Yes, it will help rural artisans reach abundance of customers across the globe</th>
<th>Yes, ecommerce helps because it has a wide network and people using ecommerce are increasing day by day</th>
<th>Yes, this statement is again 100% true when rural artisans are selling in their own space in localities then his space is very much limited.</th>
<th>Net working 6</th>
<th>Awarenes of E-commerce benefits of Rural Artisans</th>
<th>Formulating a handicraft-specific e-commerce strategy will positively or negatively promote rural artisan crafts</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td>Yes, it will help rural artisans reach abundance of customers across the globe</td>
<td>If they are ready to accept ecommerce then they will be able to know the market size and potential and scope for ecommerce</td>
<td>Yes, it will help in accessing more information these kind of clusters here we need to take care of demand for people across the world.</td>
<td>Kn owledge 7</td>
<td>Awarenes of E-commerce benefits of Rural Artisans</td>
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<td></td>
<td>Come to know the competitive pricing for their products</td>
<td>Definitely it has the potential to explore more markets create new business opportunities to increase sales and profits</td>
<td>Yes the statement is true as it helps them in realizing more business and profits.</td>
<td>Kn owledge 8</td>
<td>Awarenes of E-commerce benefits of Rural Artisans</td>
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<td>E-commerce Adoption Strategy for Rural Artisans</td>
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<td><strong>Traditional purchase and sale practices hinder the application of E-commerce</strong></td>
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<td>3.1</td>
<td>No traditional purchases and sale practices do not hinder the application of E-commerce</td>
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<td>No these are totally two different ways and it do not hinder the application of ecommerce because people are giving importance to time saving processes</td>
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<td>9</td>
<td>E-commerce adoption barriers for Rural Artisans</td>
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<td>Other markets and actors positively or negatively impact the handicraft sector</td>
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<tr>
<th>Human resources have not met the demand of applying E-commerce</th>
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<td>3.2</td>
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<td>10</td>
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<tr>
<td>Other markets and actors positively or negatively impact the handicraft sector</td>
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<tr>
<th>Investment costs for E-commerce are limited</th>
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<tbody>
<tr>
<td>3.3</td>
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<td>11</td>
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<tr>
<td>Other markets and actors positively or negatively impact the handicraft sector</td>
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<thead>
<tr>
<th>Awareness of benefits of E-commerce is not clear</th>
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<tr>
<td>3.4</td>
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<td>12</td>
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<tr>
<td>Other markets and actors positively or negatively impact the handicraft sector</td>
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<tr>
<th>E-commerce is not consistent with the way enterprises do business</th>
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<td>3.5</td>
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<td>13</td>
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</tbody>
</table>
| Other markets and actors positively or negatively impact the
<table>
<thead>
<tr>
<th>The government provides tax incentive</th>
<th>Support not reaching directly to rural artisans. Details are not that much user friendly</th>
<th>Government incentives are not able to properly reach the rural artisans and they are not able to get the tax incentives. They are also not aware how to avail the incentives</th>
<th>Government in big cities are providing various craft melas and haat where rural artisans get chance to put up stalls at subsidized rates</th>
<th>Support</th>
<th>14</th>
<th>Support Policies of Ecommerce adoption for rural artisans</th>
<th>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The government provides infrastructures at a reasonable cost</td>
<td>Maybe there must be some support but not actively reaching the rural artisans. But in future there is much scope</td>
<td>Yes, government provides infrastructure at a reasonable cost, but they are not able to avail complete benefits</td>
<td>I don’t feel so. Maybe there must be some support but not actively reaching the rural artisans. But in future there is much scope.</td>
<td>Willingness</td>
<td>15</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
</tr>
<tr>
<td>The legal environment for E-commerce has been complete</td>
<td>Rural Artisans are not equipped enough to understand the legalities for ecommerce</td>
<td>Yes, it is required but most of the rural artisans are not having their own GST due to which they are not able to come on to ecommerce platforms</td>
<td>Legalities are not that stringent and can be passed by rural artisans. And it is good to clear the legal environment for ecommerce.</td>
<td>Knowledge</td>
<td>16</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
</tr>
<tr>
<td>The market has consultancy, design and development of electronic information</td>
<td>No much support for rural artisans scope is high to provide the support for integration</td>
<td>Currently there are huge social media market influence which can help rural artisans to market their products</td>
<td>yes, we definitely have the support and in today’s era everyone uses smartphones and have access to abundance of content for ecommerce on how to sell and place the products</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
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<td>17</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
<td></td>
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</tr>
<tr>
<td>Rural Artisans have sufficient human and material resources to apply E-commerce</td>
<td>Not having human and material resources to apply for ecommerce</td>
<td>In case of rural artisans’ human resources are present in the market on the name of helping rural artisans but people are mostly their party and are concerned more about their own profitability</td>
<td>Yes, I agree with this point but not sure on human resources government can provide them proper support.</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
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<td>Support Policies of Ecommerce adoption for rural artisans</td>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
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<tr>
<td>E-commerce really benefits Rural Artisans</td>
<td>If ecommerce is used correctly it can be a game changer for the industry if they have right skill set and right guidance</td>
<td>E-commerce if rightly used for the benefits of rural artisans, then it will be a great help for them along with that rural artisan need to understand the changing human need and need to develop products as per the market demands</td>
<td>I do feel that because it is like unlimited opportunities which you are getting to grab</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
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<td>5.2</td>
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<td>19</td>
<td>Factors affecting Ecommerce adoption positively or negatively influences rural artisan sustainable livelihood</td>
<td>E-commerce adoption positively or negatively influences rural artisan sustainable livelihood.</td>
<td></td>
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</tr>
<tr>
<td>Rural Artisans get the support they need to apply for E-commerce</td>
<td>Not seen much in the market. Scope is immense</td>
<td>Yes, definitely there are many clusters who want to genuinely look after the development of rural artisans</td>
<td>There are support in the market but the level of penetration of</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
<td>Current government policies positively or negatively impact the promotion of handicrafts in Odisha, India.</td>
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<tr>
<td>5.3</td>
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<td>20</td>
<td>Factors affecting Ecommerce adoption positively or negatively influences rural artisan sustainable livelihood</td>
<td>E-commerce adoption positively or negatively influences rural artisan sustainable livelihood.</td>
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</table>
E-Commerce Adoption Strategy for Rural Artisans

**Figure 3: Network Diagram for ecommerce adoption for rural artisans**
Figure 4: Word Cloud for rural artisan survey conducted
As we can see the technology is running in the same pace with time. Basic technology is made accessible and useful to rural artisans by any means by awareness workshops on how to use. Basic technology leverages can be given to rural artisans.

SHRIYA TECKCHANDANI

Figure 5: Shriya Teckchandani quote from survey
Conclusions from the overall study

The analysis of the data from the survey revealed several interesting trends. The data showed that majority of the factors has no influence on the ecommerce adoption for rural artisans. Furthermore, most respondents are not aware of the benefits of ecommerce usage and ecommerce adoption barriers have limited influence on ecommerce adoption for rural artisans. Additionally, revealed that there is a greater scope for rural artisans for ecommerce adoption provided with right direction and guidance is statistically significant.

Based on the qualitative analysis performed on the ecommerce adoption for rural artisans several recommendations can be made for further research and implementation. First, more research should be done to analyze the impact of ecommerce adoption on the handicraft sector in Odisha. This should include further analysis of different types of technology acceptance and building new models for ecommerce adoption. Additionally, this research should analyze how different types of technology are adopted and utilized by different stakeholders in the Handicraft Segment. Second, further research should be done to examine the potential benefits of technology adoption in the handicraft sector and the potential costs associated with it. Specifically, this should look at how technology can help with the efficiency of operations and the reduction of costs. Additionally, this research should look at how technology can help to increase the value of ecommerce investments and the potential risks associated with it. Finally, further research should be done to analyze the potential impact of ecommerce adoption on the rural artisans from the handicraft sector of Odisha. This should include a review of the existing supporting policies and any potential changes that may be necessary to ensure the adoption of ecommerce for rural
artisans. Overall, the findings from this qualitative analysis suggest that technology has the potential to significantly improve the efficiency and performance of the ecommerce adoption in handicraft sector. To ensure that these benefits can be realized, further research should be done to analyze the potential impacts of ecommerce adoption and the potential costs associated with it.

**Implications for managers such that they can apply the learnings from the research to their practical management activities.**

Managers can improve business performance by understanding the relationships for ecommerce adoption for rural artisans. In this pilot study, Rural Artisan readiness, Awareness of e-commerce benefits, Ecommerce adoption barriers and Supporting Policies are used for the latent variables. The analysis of the inner model shows no impact of supporting policies on ecommerce adoption for rural artisans. These important findings suggest that current supporting policies from the government has no or significant effect on the ecommerce adoption for rural artisans. There’s a need for radical change in the supporting policies by the government to increase the ecommerce usage among rural artisans. These findings can be used to inform policies and strategies that aim to increase the adoption of ecommerce adoption for rural artisans in the handicraft sector of Odisha.

**Limitations of the study that could not be overcome in the research**

The survey questionnaires for “Rural Artisans Survey” pilot study only considers data from survey inputs of three participants generated, there may be a bias in the data collected for this study. These data are considered as valid and doable especially they are preset, and from the reliable source. However, there are inaccurate data by human mistakes or bias in the process that
cannot be excluded in this analysis. Further collecting responses of more stakeholders will further validate the data and provide significant trends.
Appendices

- IRB form

Golden Gate University Institutional Review Board
Application Cover Page

Note: A complete application contains three (3) parts: Application Cover Page, Project Details, and Attachments.

1. **Investigator(s) Contact Information** (Principal Investigator must be a GGU faculty member or employee):

   Principal Investigator (faculty member):
   - GGU Department: _______ Phone: ___________ Email:

   Student Investigator:
   - GGU Program: Doctor of Business Administration Phone: +91-8178497350 Email: smohanty@my.ggu.edu

   Co-Principal Investigator (or second faculty reader):
   - Department: ___________ Phone: ___________ Email: ____________________________

2. **Title of Project:** Building a Handicraft Sector Upgrading Strategy with E-Commerce adoption for rural artisans in Odisha, India

3. **Category of Application:** ☑ New □ Re-Submission Renewal (IRB approval#)

   *(If Renewal, complete and submit this Application Cover Page and Renewal/Continuation Form)*

4. **Site of Study** ☑ Off-campus (India)

5. **Duration of Study**
   - From: January 4, 2023
   - To: December 4, 2023
   (Renewal will be required if data collection is longer than 1 year)

6. **Participants**
   - Estimated Number of Participants: 3

   Does the study includes any of the following populations?
   - Elderly (> 65 years old)
   - Minors (< 18 years old)
   - Pregnant women or use of fetuses
   - Those unable to speak or read English
   - Mentally disabled or those unable to consent for themselves
   - Prisoners
   - Homeless
   - HIV-infected individuals

   Note: ____________________________

7. **Funding**
   - Will this study be funded? ☑ Yes □ No □ Pending

   If "Yes" or "Pending," indicate source and check the following: ____________________________

   □ Public □ Not-for-profit □ Private □ Other
8. **Cost/compensation to participants:** Is there cost to participants? □ Yes ☑ No

Will participants be compensated? □ Yes ☑ No

**Signatures** (By signing below, I certify that I have read, understand and will abide by GGU guidelines, policies and procedures.)

Student Investigator (print): Sandeep Mohanty
January 4, 2023

Principal Investigator’s Signature & date:

GGU Institutional Review Board Member & date:

Golden Gate University Institutional Review Board
Forms: Project Details

Project Title: Building a Handicraft Sector Upgrading Strategy with E-Commerce adoption for rural artisans in Odisha, India

1: State your research questions, hypotheses, and expected outcomes in several sentences. Include theories and references that this research stems from.

- Contact sheets

**Contact Summary Form 1**

<table>
<thead>
<tr>
<th>Type of contact: Consumer</th>
<th>Location - Office</th>
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</thead>
<tbody>
<tr>
<td>Name of the contact: Mr. Shubham</td>
<td>Contact Number – 987899****</td>
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<td></td>
<td>Date - 12th January 2023</td>
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Page No. | Salient Points | Code | Themes/Aspects |
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<table>
<thead>
<tr>
<th>No.</th>
<th>Topic</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>E-commerce Adoption Strategy for Rural Artisans</td>
<td>I feel that they don’t have sufficient financial resources to apply for e-commerce. They have good skills, but the resources are lacking in the state. Have resources to produce the material. Digital equipment and knowledge are missing. E-commerce integration is a marketplace where artisans can sell their product. E-commerce has its own customer base where the artisans can sell their products. For Information technology requirements Laptops/Mobile, Electricity, Internet availability is issue. Can be integrated by a third party who can provide them the information technology services. If human resource information technology skills are made available, then it can be an advantage for rural artisans. And can help them with setting up e-commerce Right now, rural artisans don’t have infrastructural facilities to apply for e-commerce. They need assistance.</td>
</tr>
<tr>
<td>2.</td>
<td>Rural Artisan Readiness for E-commerce Integration</td>
<td>Yes, e-commerce can help rural artisans save cost and time and broaden their network. Yes, it will help rural artisans reach abundance of customers across the globe. Yes, it will help in accessing more information for the rural artisans. They will get to know more brands their competitors their pricing strategy. Come to know the competitive pricing for their products. Will get market intelligence of the markets.</td>
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<td>3.</td>
<td>Awareness of E-commerce benefits of Rural Artisans</td>
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<td>5,6</td>
<td>No traditional purchases and sale practices do not hinder the application of Ecommerce. Customer base is different for both Rural artisans don’t have human resources. As they don’t have that manpower and that capital to invest in human resources It is zero as of now. They don’t have the resources and knowledge we must teach them. Yes, they are not clear on the benefits of rural artisans as no one is there to guide them on the benefits of rural artisans Yes, that’s true as people are not aware of how ecommerce functions. If we educate them, they will be able to operate ecommerce</td>
<td>Awareness, Barriers</td>
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<td>6</td>
<td>Not able to make complete use of government support. Support not reaching directly to rural artisans. Details are not that much user friendly I don’t feel so. Maybe there must be some support but not actively reaching the rural artisans. But in future there is much scope Rural Artisans are not equipped enough to understand the legalities for ecommerce No much support for rural artisans scope is high to provide the support for integration</td>
<td>Support, Willingness, Knowledge Support</td>
</tr>
<tr>
<td>6</td>
<td>Not having human and material resources to apply for ecommerce. There is much scope in this field is required. If ecommerce is used correctly it can be a game changer for the industry if they have right skill set and right guidance to support with onboarding, operating and getting payments. But as of now it is missing. Not seen much in the market. Scope is immense</td>
<td>Support, Knowledge</td>
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Contact Summary Form 2

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<td>Name of the contact: Mrs. Rashmita</td>
<td>Date - 12th January 2023</td>
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<tr>
<td>Contact Number – 824931****</td>
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<th>Themes/Aspects</th>
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<tr>
<td>7</td>
<td>Are not having sufficient financial resources to apply for ecommerce they depend on fairs and exhibitions to sell their product Designing simple apps by third parties to support rural artisans with ecommerce integration will provide information technology resources. And education of usage of the new technology like app Rural artisan clusters have human resource who have basic knowledge on IT related field, but they don’t find career or scope in supporting rural artisan clusters and look for other options. They are having basic infrastructure and are totally unaware of how to use it and get the benefits of that for ecommerce</td>
<td>Barriers, Support, Awareness</td>
<td>Rural Artisan Readiness for Ecommerce Integration</td>
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<tr>
<td>8</td>
<td>Yes, ecommerce will help rural artisans to save cost and time. When they are marketing their products on exhibitions and fairs, they have to go to the place along with their product which adds up to their transportation cost, and time Yes, ecommerce helps because it has a wide network and people using ecommerce are increasing day by day. So,</td>
<td>Networkin g, Knowledge</td>
<td>Awareness of E-commerce benefits of Rural Artisans</td>
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they have availability to more customer’s access
If they are ready to accept ecommerce then they will be able to know the market size and potential and scope for ecommerce
Definitely it has the potential to explore more markets create new business opportunities to increase sales and profits

No these are totally two different ways and it do not hinder the application of ecommerce because people are giving importance to time saving processes
Rural Artisans have not understood the value of ecommerce platform, and no one is there to provide the guidance for ecommerce and hence have not met resources for ecommerce
Yes, ecommerce investment cost is limited, and rural artisans feels it’s very complicated.
Yes, they are not clear on the benefits of rural artisans as no one is there to guide them on the benefits of rural artisans. Acceptance is crucial to plan and accept ecommerce
Yes, that’s true as people are not aware of how ecommerce functions. If we educate them, they will be able to operate ecommerce

Government incentives are not able to properly reach the rural artisans and they are not able to get the tax incentives. They are also not aware how to avail the incentives
Yes, government provides infrastructure at a reasonable cost, but they are not able to avail complete benefits. But if we look into the deep rural sectors people are totally unaware on how to use the technology hence, they are not ready to avail the benefits out of it
Yes, it is required but most of the rural artisans are not having their own GST due to which they are not able to

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<tr>
<th>Awareness, Barriers</th>
<th>E-commerce adoption barriers for Rural Artisans</th>
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<tbody>
<tr>
<td>Support, Willingness, Knowledge</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
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</table>
come on to ecommerce platforms
Currently there are huge social media market influence which can help rural artisans to market their products. But these platforms are not properly utilized by them even the people who are aware on about social media are not interested to support the rural artisans.

| 9,10 | In case of rural artisans’ human resources are present in the market on the name of helping rural artisans but people are mostly their party and are concerned more about their own profitability.
Ecommerce if rightly used for the benefits of rural artisans, then it will be a great help for them along with that rural artisan need to understand the changing human need and need to develop products as per the market demands.
Yes, definitely there are many clusters who want to genuinely look after the development of rural artisans. But the rural artisans should understand the importance of the adoption of ecommerce for their craft and seek support from the parties genuinely supporting them | Support, Knowledge | Factors affecting Ecommerce adoption |

Contact Summary Form 3

<p>| Type of contact: Consumer |  |
| Name of the contact: Mrs. Shriya | Location – Meeting Room |
| Contact Number – 799969**** | Date - 13th January 2023 |</p>
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<th>Page No.</th>
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<th>Code</th>
<th>Themes/Aspects</th>
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</thead>
<tbody>
<tr>
<td>10, 11</td>
<td>I don’t think so they have sufficient financial funds to onboard themselves to ecommerce platforms. Finance and awareness should come together to make the proper uses. As we can see the technology is running in the same pace with time. Basic technology is made accessible and useful to rural artisans by any means by awareness workshops on how to use. Basic technology leverages can be given to rural artisans.</td>
<td>Barriers, Support, Awareness</td>
<td>Rural Artisan Readiness for Ecommerce Integration</td>
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<td>11</td>
<td>Human resource which can help them to understand the it and leverage the ecommerce platform and rural artisans are still lagging to bridge this gap which can be bridged by human resource. No, I don’t think so rural artisans have proper infrastructural facilities to combat ecommerce marketplace. Because it demands high storage space and logistics which can be collaborated by various 3rd parties.</td>
<td></td>
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<td>11</td>
<td>Yes, definitely ecommerce helps provided rural artisans are directly working with the rural artisans. In case of middle man its like a traditional business. Yes, this statement is again 100% true when rural artisans are selling in their own space in localities then his space is very much limited. In case of ecommerce the horizon increases. Yes, it will help in accessing more information these kind of clusters here we need to take care of demand for people across the world. Yes the statement is true as it helps them in realizing more business and profits.</td>
<td>Networking, Knowledge</td>
<td>Awareness of E-commerce benefits of Rural Artisans</td>
</tr>
<tr>
<td>No traditional purchases and sale practices do not hinder the application of E-commerce. Because the adoption of ecommerce platform will come to people gradually. Human resources are not well versed with the technology that know how will only come once they are aware of making the complete utilization of ecommerce. I think this is a plus point for any kind of seller in ecommerce as initially you don’t have to stock in as in case of traditional business here the stock can be based on the demands and extra accessories are not required to showcase the products. Yes, they do not know the potential of ecommerce platforms. They are many programs to provide subsidies they are not aware of that also. I don’t think so ecommerce is platform for all kinds of products it is not separate for different merchandise.</td>
<td>Awareness, Barriers</td>
<td>E-commerce adoption barriers for Rural Artisans</td>
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<td>Government in big cities are providing various craft melas and haat where rural artisans get chance to put up stalls at subsidized rates. Reach is limited which can be increased in time. I don’t feel so. Maybe there must be some support but not actively reaching the rural artisans. But in future there is much scope. Legalities are not that stringent and can be passed by rural artisans. And it is good to clear the legal environment for ecommerce. yes, we definitely have the support and in today’s era everyone uses smartphones and have access to abundance of content for ecommerce on how to sell and place the products. And there are many consultancies which provides handholding to run your business.</td>
<td>Support, Willingness, Knowledge</td>
<td>Support Policies of Ecommerce adoption for rural artisans</td>
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Yes, I agree with this point but not sure on human resources government can provide them proper support. I do feel that because it is like unlimited opportunities which you are getting to grab. There are various programs which are for rural artisan clusters. There are support in the market but the level of penetration of support is to be looked upon.

- Questionnaires

[Rural_Artisans_Survey+(1).docx - Google Docs](#)

- Aids for interviews

<table>
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<tbody>
<tr>
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<tr>
<td>Name of the contact: Mr. Shubham</td>
</tr>
<tr>
<td>Contact Number – 987899****</td>
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Hello Mr. Shubham- Welcome to the Rural Artisans research study!
Shubham: Thank You

Thank you for participating in this research study.
This interview will take only 15 valuable minutes of yours.
Shubham: Ok

Before starting the interview, we would like to have your consent on the consent form. You can stop us anywhere in between wherever you feel uncomfortable to answer the questions.
Shubham: Ok
Q1. Your views on rural artisan’s cluster have sufficient financial resources to apply E-commerce.

Shubham: I feel that they don’t have sufficient financial resources to apply for ecommerce. They have good skills, but the resources are lacking in the state. Have resources to produce the material. Digital equipment and knowledge are missing.

Q2. What are the factors influencing rural artisans cluster sufficient information technology resources to conduct E-commerce integration.

Shubham: Ecommerce integration is a marketplace where artisans can sell their product. Ecommerce has their own customer base where the artisans can sell their products. For Information technology requirements Laptops/Mobile, Electricity, Internet availability is issue. Can be integrated by a third party who can provide them the information technology services.

Q3. Explain rural artisans cluster having human resources with information technology qualifications meeting the implementation of E-commerce advantages or drawbacks.

Shubham: If human resource information technology skills are made available, then it can be an advantage for rural artisans. And can help them with setting up ecommerce.

Q4. Rural Artisans cluster have infrastructure sources meeting the application of E-commerce.

Shubham: Right now, rural artisans don’t have infrastructural facilities to apply for ecommerce. They need assistance.
Q5. E-commerce helps Rural Artisans cluster save costs and time.

Shubham: Yes, ecommerce can help rural artisans save cost and time and broaden their network.

Q6. E-commerce helps Rural Artisans cluster approach more customers.

Shubham: Yes, it will help rural artisans reach abundance of customers across the globe.

Q7. Traditional purchase and sale practices hinder the application of E-commerce.

Shubham: No traditional purchases and sale practices do not hinder the application of Ecommerce. Customer base is different for both.

Q8. Rural Artisans cluster’s human resources have not met the demand of applying E-commerce.

Shubham: Rural artisans don’t have human resources. As they don’t have that manpower and that capital to invest in human resources.

Q9. Investment costs for E-commerce are limited.

Shubham: It is zero as of now. They don’t have the resources and knowledge we must teach them.

Q10. E-commerce helps Rural Artisans cluster access more information.
Shubham: Yes, it will help in accessing more information for the rural artisans. They will get to know more brands their competitors their pricing strategy.

Q11. E-commerce helps Rural Artisans cluster expand business opportunities, increase sales and profits.

Shubham: Come to know the competitive pricing for their products. Will get market intelligence of the markets.

Q12. Rural Artisans awareness of benefits of E-commerce is not clear.

Shubham: Yes, they are not clear on the benefits of rural artisans as no one is there to guide them on the benefits of rural artisans.

Q13. E-commerce is not consistent with the way Rural Artisans cluster do business.

Shubham: Yes, that’s true as people are not aware of how ecommerce functions. If we educate them, they will be able to operate ecommerce.

Q14. The government provides tax incentive to Rural Artisans cluster.

Shubham: Not able to make complete use of government support. Support not reaching directly to rural artisans. Details are not that much user friendly.

Q15. The government provides infrastructures at a reasonable cost to Rural Artisans cluster.
Shubham: I don’t feel so. Maybe there must be some support but not actively reaching the rural artisans. But in future there is much scope.

Q16. The legal environment for E-commerce has been complete for Rural Artisans cluster.

Shubham: Rural Artisans are not equipped enough to understand the legalities for ecommerce.

Q17. The market has consultancy, design and development of electronic information for Rural Artisans cluster.

Shubham: No much support for rural artisans scope is high to provide the support for integration.

Q18. Rural Artisans cluster have sufficient human and material resources to apply E-commerce.

Shubham: Not having human and material resources to apply for ecommerce. There is much scope in this field is required.

Q19. E-commerce really benefits Rural Artisans cluster.

Shubham: If ecommerce is used correctly it can be a game changer for the industry if they have right skill set and right guidance to support with onboarding, operating and getting payments. But as of now it is missing.

Q20. Rural Artisans cluster get the support they need to apply E-commerce.
Shubham: Not seen much in the market. Scope is immense.

**Interview 2 Transcript**

<table>
<thead>
<tr>
<th>Type of contact: Consumer</th>
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<tbody>
<tr>
<td>Name of the contact: Mrs. Rashmita</td>
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<tr>
<td>Contact Number – 824931****</td>
<td>Date - 12th January 2023</td>
</tr>
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Hello Mrs. Rashmita- Welcome to the Rural Artisans research study!
Rashmita: Thank You

Thank you for participating in this research study.
This interview will take only 15 valuable minutes of yours.
Rashmita: Ok

Before starting the interview, we would like to have your consent on the consent form. You can stop us anywhere in between wherever you feel uncomfortable to answer the questions.
Rashmita: Ok

Q1. Your views on rural artisan’s cluster have sufficient financial resources to apply E-commerce.
Rashmita: Are not having sufficient financial resources to apply for ecommerce they depend on fairs and exhibitions to sell their product.
Q2. What are the factors influencing rural artisans cluster sufficient information technology resources to conduct E-commerce integration.

Rashmita: Designing simple apps by third parties to support rural artisans with ecommerce integration will provide information technology resources. And education of usage of the new technology like app.

Q3. Explain rural artisans cluster having human resources with information technology qualifications meeting the implementation of E-commerce advantages or drawbacks.

Rashmita: Rural artisan clusters have human resource who have basic knowledge on IT related field, but they don’t find career or scope in supporting rural artisan clusters and look for other options.

Q4. Rural Artisans cluster have infrastructure sources meeting the application of E-commerce.

Rashmita: They are having basic infrastructure and are totally unaware of how to use it and get the benefits of that for ecommerce.

Q5. E-commerce helps Rural Artisans cluster save costs and time.

Rashmita: Yes, ecommerce will help rural artisans to save cost and time. When they are marketing their products on exhibitions and fares, they have to go to the place along with their product which adds up to their transportation cost, and time.

Q6. E-commerce helps Rural Artisans cluster approach more customers.
Rashmita: Yes, ecommerce helps because it has a wide network and people using ecommerce are increasing day by day. So, they have availability to more customer’s access.

Q7. Traditional purchase and sale practices hinder the application of E-commerce.

Rashmita: No these are totally two different ways and it do not hinder the application of ecommerce because people are giving importance to time saving processes.

Q8. Rural Artisans cluster’s human resources have not met the demand of applying E-commerce.

Rashmita: Rural Artisans have not understood the value of ecommerce platform, and no one is there to provide the guidance for ecommerce and hence have not met resources for ecommerce.

Q9. Investment costs for E-commerce are limited.

Rashmita: Yes, ecommerce investment cost is limited, and rural artisans feels it’s very complicated.

Q10. E-commerce helps Rural Artisans cluster access more information.

Rashmita: If they are ready to accept ecommerce then they will be able to know the market size and potential and scope for ecommerce.

Q11. E-commerce helps Rural Artisans cluster expand business opportunities, increase sales and profits.
Rashmita: Definitely it has the potential to explore more markets create new business opportunities to increase sales and profits.

Q12. Rural Artisans awareness of benefits of E-commerce is not clear.

Rashmita: Yes, they are not clear on the benefits of rural artisans as no one is there to guide them on the benefits of rural artisans. Acceptance is crucial to plan and accept ecommerce.

Q13. E-commerce is not consistent with the way Rural Artisans cluster do business.

Rashmita: Yes, that’s true as people are not aware of how ecommerce functions. If we educate them, they will be able to operate ecommerce.

Q14. The government provides tax incentive to Rural Artisans cluster.

Rashmita: Government incentives are not able to properly reach the rural artisans and they are not able to get the tax incentives. They are also not aware how to avail the incentives.

Q15. The government provides infrastructures at a reasonable cost to Rural Artisans cluster.

Rashmita: Yes, government provides infrastructure at a reasonable cost, but they are not able to avail complete benefits. But if we look into the deep rural sectors people are totally unaware on how to use the technology hence, they are not ready to avail the benefits out of it.

Q16. The legal environment for E-commerce has been complete for Rural Artisans cluster.
Rashmita: Yes, it is required but most of the rural artisans are not having their own GST due to which they are not able to come on to ecommerce platforms.

Q17. The market has consultancy, design and development of electronic information for Rural Artisans cluster.

Rashmita: Currently there are huge social media market influence which can help rural artisans to market their products. But these platforms are not properly utilized by them even the people who are aware on about social media are not interested to support the rural artisans.

Q18. Rural Artisans cluster have sufficient human and material resources to apply E-commerce.

Rashmita: In case of rural artisans’ human resources are present in the market on the name of helping rural artisans but people are mostly their party and are concerned more about their own profitability.

Q19. E-commerce really benefits Rural Artisans cluster.

Rashmita: ecommerce if rightly used for the benefits of rural artisans, then it will be a great help for them along with that rural artisan need to understand the changing human need and need to develop products as per the market demands.

Q20. Rural Artisans cluster get the support they need to apply E-commerce.

Rashmita: Yes, definitely there are many clusters who want to genuinely look after the development of rural artisans. But the rural artisans should understand the importance of the
E-commerce Adoption Strategy for Rural Artisans

adoption of ecommerce for their craft and seek support from the parties genuinely supporting them.

Interview 3 Transcript

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<tr>
<th>Type of contact: Consumer</th>
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<tbody>
<tr>
<td>Name of the contact: Mrs. Shriya</td>
<td></td>
</tr>
<tr>
<td>Contact Number – 799969****</td>
<td>Date - 13th January 2023</td>
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</table>

Hello Mrs. Shriya- Welcome to the Rural Artisans research study!
Shriya: Thank You

Thank you for participating in this research study.
This interview will take only 15 valuable minutes of yours.
Shriya: Ok

Before starting the interview, we would like to have your consent on the consent form. You can stop us anywhere in between wherever you feel uncomfortable to answer the questions.
Shriya: Ok

Q1. Your views on rural artisan’s cluster have sufficient financial resources to apply E-commerce.

Shriya: I don’t think so they have sufficient financial funds to onboard themselves to ecommerce platforms. Finance and awareness should come together to make the proper uses.

Q2. What are the factors influencing rural artisans cluster sufficient information technology resources to conduct E-commerce integration.
Shriya: As we can see the technology is running in the same pace with time. Basic technology is made accessible and useful to rural artisans by any means by awareness workshops on how to use. Basic technology leverages can be given to rural artisans.

Q3. Explain rural artisans cluster having human resources with information technology qualifications meeting the implementation of E-commerce advantages or drawbacks.

Shriya: Human resource which can help them to understand the it and leverage the ecommerce platform and rural artisans are still lagging to bridge this gap which can be bridged by human resource.

Q4. Rural Artisans cluster have infrastructure sources meeting the application of E-commerce.

Shriya: No, I don’t think so rural artisans have proper infrastructural facilities to combat ecommerce marketplace. Because it demands high storage space and logistics which can be collaborated by various 3rd parties.

Q5. E-commerce helps Rural Artisans cluster save costs and time.

Shriya: Yes, definitely ecommerce helps provided rural artisans are directly working with the rural artisans. In case of middle man its like a traditional business.

Q6. E-commerce helps Rural Artisans cluster approach more customers.

Shriya: Yes, this statement is again 100% true when rural artisans are selling in their own space in localities then his space is very much limited. In case of ecommerce the horizon increases.
Q7. Traditional purchase and sale practices hinder the application of E-commerce.

Shriya: No traditional purchases and sale practices do not hinder the application of Ecommerce. Because the adoption of ecommerce platform will come to people gradually.

Q8. Rural Artisans cluster’s human resources have not met the demand of applying E-commerce.

Shriya: Human resources are not well versed with the technology that know how will only come once they are aware of making the complete utilization of ecommerce.

Q9. Investment costs for E-commerce are limited.

Shriya: I think this is a plus point for any kind of seller in ecommerce as initially you don’t have to stock in as in case of traditional business here the stock can be based on the demands and extra accessories are not required to showcase the products.

Q10. E-commerce helps Rural Artisans cluster access more information.

Shriya: Yes, it will help in accessing more information these kind of clusters here we need to take care of demand for people across the world.

Q11. E-commerce helps Rural Artisans cluster expand business opportunities, increase sales and profits.
Shriya: Yes the statement is true as it helps them in realizing more business and profits.

Q12. Rural Artisans awareness of benefits of E-commerce is not clear.

Shriya: Yes, they do not know the potential of ecommerce platforms. They are many programs to provide subsidies they are not aware of that also.

Q13. E-commerce is not consistent with the way Rural Artisans cluster do business.

Shriya: I don’t think so ecommerce is platform for all kinds of products it is not separate for different merchandise.

Q14. The government provides tax incentive to Rural Artisans cluster.

Shriya: Government in big cities are providing various craft melas and haat where rural artisans get chance to put up stalls at subsidized rates. Reach is limited which can be increased in time.

Q15. The government provides infrastructures at a reasonable cost to Rural Artisans cluster.

Shriya: I don’t feel so. Maybe there must be some support but not actively reaching the rural artisans. But in future there is much scope.

Q16. The legal environment for E-commerce has been complete for Rural Artisans cluster.
Shriya: Legalities are not that stringent and can be passed by rural artisans. And it is good to clear the legal environment for ecommerce.

Q17. The market has consultancy, design, and development of electronic information for Rural Artisans cluster.

Shriya: yes, we definitely have the support and in today’s era everyone uses smartphones and have access to abundance of content for ecommerce on how to sell and place the products. And there are many consultancies which provides handholding to run your business.

Q18. Rural Artisans cluster have sufficient human and material resources to apply E-commerce.

Shriya: Yes, I agree with this point but not sure on human resources government can provide them proper support.

Q19. E-commerce really benefits Rural Artisans cluster.

Shriya: I do feel that because it is like unlimited opportunities which you are getting to grab.

Q20. Rural Artisans cluster get the support they need to apply E-commerce.

Shriya: There are various program which are for rural artisan clusters. There are support in the market but the level of penetration of support is to be looked upon.

- Sampling data (including a description of the data set)

Rural Artisans Survey January 4, 2023_16.58 - Google Sheets
• Details of any other information stated in the research that the reader may want to confirm

Consent Form:
Informed Consent Form.docx - Google Docs

Interview Script:
Interview Script.docx - Google Docs

Debriefing Statement:
https://docs.google.com/document/d/1YNacLTwWP6YzqVBkZkORPMQik2gawXC8/edit?rtpt=of=true
References


https://www.researchgate.net/publication/313349342_LIVELIHOODS_APPROACHES_COMPARED_A_brief_comparison_of_the_livelihoods_approaches_of_the_UK_Department_for_International_Development_DFID_CARE_Oxfam_and_the_United_Nations_Development_Programme_UNDP


https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/775


