

Entrepreneurial Intentions among Artisans: The Role of Digital Transformation

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ABSTRACT

Digital technology integration is transforming Indian Entrepreneurial eco-system. The objective of this research study is to understand the intention of artisans who want to integrate digital technology in their business for sustainable business economy and aligns with VIKSIT BHARAT@2047 vision. Artisans are always an important part of Indian culture and economy, but they are out of the boundary of entrepreneurship due to lack of market reach, not getting financial help and limited knowledge of technology. This research study examines the impact on business related decision's ability cause to digital marketplace onboarding and e-commerce ecosystem integrations and effect on newer market expansion. Apart from these, this study also checks the effect of digital literacy, AI based product recommendation, and supply chain automation plays which type of role for their economical sustainability. We contacted 200 artisans to collect data of Gorakhpur Terracotta Cluster, Deoria Home Decorative Cluster and Kushinagar Banana Fibre Cluster. The collected data has helped to understand the impact of digital adoption in handicraft industry. As per the findings of the study, the uses of digital technologies help to minimize the operational inefficiencies, develop the price strategy, national and international market reach. Moreover, the various government actions including ONDC, and MSME digitalization programs, have made the artisans part of the digital economy. Unfortunately, there are still limitations like lack of proper internet connections, inadequate digital skills, and financial difficulties. Hence these challenges will have to be tackled through public policies, skill development programs, and better financial inclusion mechanisms.

Through the development of the digitally empowered artisan sector, India will not only gain economic growth, self-sufficiency, and global competitiveness but also take advantage of traditional crafts industry. The present research highlights the necessity of bringing together the policymaking, technology, and finance sectors to provide the artisans with easy and uninterrupted access to the digital economy which, accordingly, will help in the realization of VIKSIT BHARAT@2047.

Keywords: Entrepreneurial Intention, Artisans, Digital Transformation, AI, Business Economy, Viksit Bharat@2047

INTRODUCTION

The artisan-based industries in India have great cultural value and their great contribution to rural economies and employment generation has been significant. The artisanship is the main factor behind the existence of such traditional crafts as terracotta, handmade decorative items, textiles, and metalwork. Nevertheless, the global economy that is constantly changing has also brought many difficulties to the artisans, like the inability to access the markets, financial instability, and being technically and digitally outdated. The digital transformation and AI (artificial intelligence) are giving rise to a scenario where the artisans can overcome these obstacles and become successful entrepreneurs. Artisans can increase their efficiency, widen their sales avenues, and maximize their pricing methods by making use of AI-based analytics, online trading venues, and automated business solutions.

Problem Statement

Advances in Consumer Research

Even though the artisans are excellent and creative people, they have a hard time uniting modern business method and using digital tools in their start-ups. Most of the artisans keep themselves away from using digital platforms, are not very good with money, and have problems getting hold of tech-based resources. Consequently, they are not able to take advantage of e-commerce, AI-powered market analysis, and digital payments. Through this research, we want to know the main problem of how the digital transformation and AI affect the intentions of artisans in business and the sustainability of their whole business.

Purpose and Objectives

This study aims at a comprehensive analysis of digital transformation's impact on the entrepreneurial behavior of artisans. The study will pursue the following specific objectives:

- To measure how digital literacy and market intelligence affect artisans' choices of business.

- To investigate the influence of e-commerce on the market reach of artisans.
- To uncover the main difficulties that artisans encounter in the use of digital and AI solutions.
- To suggest policies that will improve digital inclusiveness and financial assistance for artisans.

Literature Review

An entrepreneur's intention is the individual's driving force and readiness to start a new business. As per Krishna and Kumar (2021), artists have the talent of being entrepreneurs but still have to deal with large hurdles in their way to business realization. One major hurdle is that the Indian handicrafts sector is mainly informal, which prevents artisans from using the market power to their advantage and obtaining the necessary institutional support. Ajzen's Theory of Planned Behavior (1991) and other similar models highlight the important role that perceived behavioral control, subjective norms, and attitudes have in influencing the making of entrepreneurial decisions. In evaluating these factors for artisans, their digital competence, ability to access finance, and application of technology will be the main determinants of their future in business.

Digital transformation is the dominant factor in the growth of conventional industries. As per Chopra et al. (2022), the advent of e-commerce platforms, mobile payment systems, and social media marketing has enabled artisans to get customers worldwide instead of being limited to the local market only. Flipkart Samarth, Amazon Karigar, and ONDC are examples of platforms that open up the whole nation and even the entire world to artisans to market their products. Besides, digital payment systems like UPI and innovations in fintech have made the transactions much faster and easier, thus lessening the reliance on middlemen. On the downside, digital illiteracy and poor infrastructure are still major hindrances to the adoption of these technologies in rural areas.

Artificial intelligence (AI) is changing the face of the business world by offering data-driven insights, automating, and personalizing the processes. Rai & Mehta (2023) mention AI's influence on the market intelligence where it has the power to foresee the consumption of goods, suggest improvements for the products, and control the inventory efficiently. AI technology in pricing can help artisan to price their products appropriately and thus lessening the chance of revenue loss due to undervaluation. Besides, AI-based translations do away with language differences and empower artisans to communicate with the world buyers effectively. However, on the other hand, the high price of AI-powered solutions and the limited understanding about their use among artisans still are the main reasons for low acceptance of the technology.

Contextualization and Research Gap

Even though digital transformation and AI are very important for business development according to the current literature, research on Indian artisans is still very limited. The whole technology adoption in MSMEs has been the subject of prior studies, but no major attention

has been given to the influence of AI-powered tools on artisans' entrepreneurial intentions. Hence, the current study has decided to embark on a journey to unveil such a phenomenon in the cities of Gorakhpur, Deoria, and Kushinagar wherein it will not only present relevant trends but also give evidence showing that AI and digital platforms lead to the sustainable growth of the handicrafts sector in the business area.

Research Design

This research uses mixed-methods approach, where both quantitative and qualitative techniques were combined to provide a holistic view of the digital era artisans' entrepreneurial intentions. The digital transformation and AI effects on artisans' business development have been studied through exploratory and descriptive research design approaches. Viewing it from the artisan's perspectives involves their problems, grievance experiences and it also involves the strength in the relational capital among digital adoption and the outcomes of entrepreneurship. To collect the data a cross sectional survey was used about artisan's technology adoption, market growth and contact establishment that will foster their business, also to get deeper insights focus group discussions and interviews were conducted.

Data Collection

Sampling Method and Participants

The research is classified into 2 categories-

- Gorakhpur terracotta craftsmen
- Artisans from Deoria and Kushinagar districts

200 craftsmen were identified according to their craft work and abilities of going digital. The selection involved artisans from rural and semi urban regions making it sure that different socio-economic conditions of the artisans are represented.

Data Collection Methods

Surveys were carried out and a questionnaire was circulated to 200 artisans which was based upon questions like entrepreneurial motivation, digital use, and business performance. Interviews were conducted with 20 different craftsmen to know the challenges and possibilities of digital transformation.

Focus group discussions were conducted with 10 artisans to collect whereabouts of digital assistance business growth. Field observation was also done to explore the working of the artisans.

Secondary data was also collected from sources such as Government agencies and their report on artisans, further cases from online marketplaces such as ONDC were also considered.

Data Analysis

- Quantitative Analysis:
 - Descriptive statistics: Mean, frequency, and percentage distribution presented an overview of the survey responses.

- Regression analysis: determined the relationship between digital adoption and business expansion.

• Qualitative Analysis:

Content analysis was used to classify artisans' own experiences and answers, to examine their views towards digital platforms. By combining quantitative analysis and qualitative information, this study will not only show statistical trends, but also present people's real experiences, providing policy makers and stakeholders with useful information for action.

Results and Findings

The study shows that artisans are not only accepting the use of digital tools to improve their business practices but are also making efforts to promote it in their communities. Most interviewees reported that the use of digital technology is an effective way for their business to attract customers in new markets, run their business more efficiently and consequently increase sales. On the other hand, it was found that the level of technology use is greatly influenced by demographic factors such as age, education and prior experience with technology.

Table 1: Artisan Willingness to Adopt Digital Tools

Willingness to Adopt Digital Tools	Percentage (%)
Highly Willing	42%
Moderately Willing	33%
Slightly Willing	15%
Not Willing	10%

From the above data, it is inferred that a considerable percentage of artisans, specifically 75%, would adopt digital tools to a great or moderate extent if they are provided with proper training and support. This situation is a clear indication of the artisan community demand for digital literacy initiatives. Furthermore, a quarter of artisans reported that they had been making payments through digital means using apps like UPI, Paytm, and other mobile wallets which is seen as the beginning of the process of digital inclusiveness for the artisans. Above all, the figures show that 60% of the sellers who had moved to online platforms were able to double their sales, hence, the economic advantages of operating in a digital market are obvious. It is indeed a fact that the digital revolution in the rural micro-entrepreneurs would be a powerful transformation factor very much.

Challenges in Digital Adoption

Even though there is an inclination towards digital tools, artisans must deal with a bunch of structural and operational problems that totally prevent them from adopting these tools on a large scale. The problems include:

- **Internet Connectivity Issues:** A significant 67% of the surveyed people have pointed out that they have very slow and unreliable internet that

totally limits their involvement with digital platforms.

- **Limited Digital and Formal Education:** The difficulties faced by around 58% of artisans in understanding the simplest digital matters, like using smartphones or getting online content, can be traced to the fact that they have received very little formal education.
- **Lack of Money:** Money was literally a concern just over 51% of the people indicated that their financial situation was such that affording technology and gadgets is not possible therefore they won't be able to shift to digital business model.

Challenges like these function in synergies to restrict digital adoption and widens the economic disparities. These divides can only be resolved when beneficiaries will be trained, subsidiaries at individual level will be given and technology savvy ecosystem should be created.

Government and Institutional Support for Digital Empowerment

Some elements like different government schemes and institutional programmes which made impact to adopt digital tools among artisans. Schemes such as ONDC which is a platform to showcase online their products and sale which eliminated the role of intermediaries and maximise their profit. PM Vishwkarma Scheme is also a good scheme for artisans for training and financial support. Apart of these schemes there are many other programs conducted by MSME department which support to create website, social media presence and other marketing linkages support.

Discussion

The consequences of the analyzed result shows that technology adoption would significantly improve the entrepreneurial inclination of the artisans. The large portion of 75% the artisans were ready to jump on the digital train but only if their training and support needs were catered for. Besides, the largest segment of 60% the surveyed participants stated that their turnover had gone up due to the use of online platforms in their business functions. Hence, the current study can have it as one of its main conclusions the link between digital adoption and successful entrepreneurship in the artisan sector is highly positive.

The trends that we could see pointed to that digital tools were getting adopted the most with mobile payment systems and e-commerce platforms as the most remarkable ones besides being a market penetration strategy, an operational effectiveness enhancer, and finally, a revenue generator. The artists have thus positioned themselves in the global market and can even sense the public mood through their direct sales channels online as the traditional ones are no longer in use.

The study identifies several barriers that are quite significant in terms of the digital tools widespread adoption. Internet access problems in rural and semi-urban regions (a problem acknowledged by 67% of the artisans) in conjunction with the low level of digital skills

(58%) and lack of funds (52%) are seen as the greatest hurdles. These results align with existing literature, which cites the digital divide as one of the main reasons preventing economic inclusion in rural areas of India.

The gap shown between desire and actual use represents a gap that can be filled by a fully expanded and multi-stakeholder approach. Artisans are positive towards digital transformation, but lack of government support in essential facilities like digital infrastructure, low costs and capacity development is preventing them from fully participating in the digital economy.

The artisan's gender, age and education level are factors that determine their adoption of digital technology. Younger artisans and more educated individuals have greater confidence in using digital platforms, indicating the need for outreach based on socio-demographic differences, which indicates a need for outreach based on socio-demographic differences. It might in turn confuse many people who were looking at how to awaken some opportunities that are to be made permit and realized, while at the same time trying to observe some of the harsh realities of living with so many impediments, discrimination, and whatnot. The findings suggest that there is a need for a policy change that would move from universal digital inclusion policies to local, craft-centered approaches that integrate infrastructure development, skill training, financial support, and easy access to government and institutional schemes.

Krishna & Kumar (2021) mentioned that the artisan's intentions to start a business were affected negatively due to financial constraints and the nonexistence of modern business practices. This investigation confirmed those results, since 52% of the artisans pointed financial challenges as a chief obstacle in the digital adoption.

Chopra et al. (2022) pointed out the importance of e-commerce to the market's enlargement. In the same way, this research has revealed that 60% of the artisans had a sales increment after they were digital platforms users, thus reinforcing the argument that digital marketplaces are pivotal for artisan's business development.

However, this study is different compared to others as it supports its conclusions through primary data collection from craftsmen and women in Gorakhpur, Deoria, and Kushinagar, which makes it more accurate contextually with regard to India's traditional crafts sector.

Conclusion

Digital adoption has emerged as a major driver of business growth among artisans, with findings clearly demonstrating that the contribution of digital tools to improving business performance can be directly measured. Interestingly, nearly 75% of artisans expressed their readiness to adopt digital tools such as mobile applications, e-commerce platforms, and digital payment solutions, provided they receive proper training and support. This highlights a significant, yet untapped, potential for digital inclusion in artisanal communities. Around 60% of respondents reported that accessing online marketplaces like ONDC and various social commerce platforms had directly increased their sales, underscoring the value of digital channels in attracting new customers

and expanding market reach. Furthermore, 40% of artisans were already using digital payment methods like UPI and Paytm, indicating growing familiarity with technology even in semi-urban and rural regions. Clearly, digital adoption is not merely an innovation but an essential growth tool that enables artisans to access larger markets and strengthen their competitive edge.

However, persistent barriers continue to restrict many artisans from realizing the full benefits of digital transformation. Those living in remote areas often face poor internet connectivity, which limits their ability to browse, market, or transact online. Alarming, 58% of artisans reported lacking basic digital skills, reflecting an urgent need for targeted training and awareness initiatives to bridge this digital skills gap. Financial constraints also remain a major hindrance, as many artisans cannot afford smartphones, data plans, or digital marketing services that form the foundation of a strong digital identity. The weak digital connectivity faced by artisans compared to other populations has resulted in a growing divide that threatens inclusive economic growth. These challenges call for collaborative efforts in policy making, infrastructure development, and public-private partnerships to gradually dismantle these barriers.

The study also reveals a tangible economic impact of digital literacy on artisans' livelihoods. Statistical analysis confirmed a strong association between digital proficiency and income levels among participants. Skilled artisans with moderate to high levels of digital literacy earned significantly higher incomes compared to those with minimal or no digital skills. While digital literacy emerged as the most influential factor affecting economic performance, other aspects such as craft experience, merchandise type (e.g., home décor, jewelry, utility items), and strength of market linkages also contributed to income disparities. These findings reinforce the view that digital competence is a cornerstone of economic empowerment and entrepreneurial success among artisans.

Government support remains crucial in enabling digital transformation, but it must align with the actual needs of local communities. Programs such as ONDC, PM Vishwakarma Yojana, and MSME Digital Transformation initiatives have provided valuable financial aid, market access, and training to artisans. Nevertheless, participants noted that the visibility and accessibility of these schemes at the grassroots level remain limited. Effective implementation demands decentralization, contextual sensitivity, and artisan-specific adaptations. For greater policy impact, there is a strong need to promote mobile-based learning platforms with local-language content, establish door-to-door digital service facilities, and create community-level digital centers to ensure inclusion and sustainability.

Overall, the research clearly suggests that digital technology is no longer a luxury but a necessity for rural artisans striving to succeed in today's evolving economy. The study presents a dual narrative—highlighting both the enthusiasm among artisans to embrace digital advancement and the systemic barriers that continue to impede equitable technological participation. To achieve

the vision of *Viksit Bharat @2047*, artisans must be recognized as vital pillars of India's cultural economy. Their inclusion in the digital ecosystem will not only enhance their livelihoods but also preserve traditional handicrafts, safeguard cultural heritage, and promote long-term rural prosperity. Therefore, beyond universal digital literacy initiatives, an artisan-focused, place-based, and sustained support system—backed by cohesive policies and institutional partnerships—is imperative for ensuring that digital transformation truly reaches every corner of India's creative economy.

Recommendations

To realize the complete advantages of digital transformation for the artisan community in India, it is crucial to apply strategies that are diverse and involve all stakeholders. The recommendations given below present the steps that can be taken by the different actors involved such as: policymakers, training institutions, private players, and civil society organizations to fill in the gaps identified in this research:

Strengthening Digital Literacy and Training Programs

The lack of digital skill in artisans is the main reason for slow sleep of digitization. Some steps can be taken like:

- Convene need-based digital literacy workshops, custom-made for artisans, focusing on practical skills like mobile-based e-commerce, digital payments (UPI, QR-based systems), AI tools for business intelligence, and content creation.
- To establish regional digital learning centers to provide hands-on training, mentorship, and continuous learning support.
- To collaborate with universities to develop training modules and associate with NGOs to facilitate.

Expanding Financial Inclusion for Digital Adoption

Digital transformation is capital-intensive mostly for micro and small enterprises to any great extent. Therefore, the financial support systems must be enhanced:

- Creating individualized microfinance plans and providing low-interest loans for artisans to help them buy smartphones, internet, and digital tools.
- Giving artisans who utilize AI-enabled inventory systems, virtual storefronts, CRM tools, government subsidies and tax breaks.
- Encouraging the tech firms, through PPP models (Public-Private Partnerships), to develop together inexpensive but very useful digital solutions that meet the needs of the artisans and possibly be offered with training and post-sale support.

Improvement of Digital Infrastructure in Rural Areas

Digital literacy programs cannot be implemented on a large scale without proper internet connectivity and technology. Hence:

- Make rural and semi-urban areas with a lot of artisans the focus for the installation of broadband and 4G/5G connections, using the Universal Service Obligation Fund (USOF) methods for this purpose.
- Introduce mobile digital vans and community-based digital kiosks that will offer real-time support and make it easy for the users to get on board platforms such as ONDC and GeM (Government e-Marketplace).

Strengthening Digital Marketplaces and E-Commerce Integration

Only providing digital literacy training is not sufficient for holistic development of artisans. Some other steps should be taken:

- To onboard the artisans on e-marketplaces like ONDC, Amazon Karigar and Flip-kart Samarth. These platforms are specific for artisanal work.
- Use AI to equip the artisans with the business intelligence tools which will help them in demand trend, customer behavior and sales forecasting analyses thus boosting their decision-making power and making them more competitive.
- Develop Common Facility Centers to provide support in creating Digital Cataloging, Product Designing, processing orders, and complaints handling.

Future Research Directions

- It is recommended to conduct studies in every 3-to-5-year period about the use of digital and AI tools and the impact of these tools on the income of artisans, generation of new jobs, new markets expansion etc.
- The comparison between different government schemes in different states is also a good sector to study.
- The use of AI especially in artisanal sector in different domains-like designing, packaging, branding, marketing etc. is a good stream to study.

Final Thoughts

This paper shows that the technologies of the digital world and artificial intelligence are playing an important role in the process of transformation of the Indian artisan economy. Evidence of digital empowerment shows that it is not just a means of business expansion, but plays an important role in socio-economic inclusion, cultural preservation and national development. India's VIKSIT BHARAT@2047 approach proves that linking traditional artisan skills with digital solutions is not just a way, but also a powerful, inclusive and eco-friendly development tool.

The handicraft sector has always been in the mix of tradition and innovation and now it has the most promising option for its digital rebirth. However, realizing

the full potential requires a greater and smoother collaboration between various beneficiaries, government officials, financial institutions and ed-tech providers on the one hand, and e-commerce platforms, NGOs and the manufacturers themselves on the other. All these stakeholders must not only work together, but rely on each other in their efforts, providing technology that is efficient, but also available, inclusive, and responsive to the needs of the community.

An AI-centered artisan economy featuring the two integration junctions can endow the benefits stated below:

- India's cultural heritage would be preserved in the global markets,
- The rural and semi-urban areas would have the opportunity to have dignified and sustainable livelihoods, and
- The country would become a stronger player in the global creative and digital economies.

Local necessities must dictate the formation of policies, continuous training must be a priority, and infrastructural accessibility must be a universal right in order not to alienate craftsmen. Filling the gap of technology and make easy the use of right technology practice in artisanal

REFERENCES

1. Chopra, R., Sharma, A., & Gupta, P. (2022). E-commerce and Digital Inclusion: The Role of Technology in Handicrafts Growth. *Journal of Business and Technology*, 15(3), 45-62.
2. Krishna, S., & Kumar, V. (2021). Entrepreneurial Intentions and Challenges among Rural Artisans in India. *Small Business Review*, 12(1), 32-48.
3. Rai, M., & Mehta, D. (2023). AI and Market Intelligence: Enhancing Traditional Business Models in the Handicrafts Industry. *Journal of Innovation and Economic Development*, 17(4), 79-95.
4. Ministry of Micro, Small & Medium Enterprises (MSME). (2023). Annual Report on Digitalization and Market Access for Artisans. Government of India.
5. National Institute for Transforming India (NITI Aayog). (2022). *Viksit Bharat@2047: A Strategic Vision for India's Economic Growth*.
6. Open Network for Digital Commerce (ONDC).

sector will not only boost individual entrepreneurship but it will help to achieve the target of economic independence, cultural diplomacy and sustainable development. In fact, to provide the tools of digital transformation to artisan is not only economical need but a strategically compulsory for a resilient, inclusive, and culturally vibrant India by 2047.

Limitations of the Study

This research has some limitations:

- The study covering artisans from Gorakhpur, Deoria, and Kushinagar leads to the difficulty of generalizing the results to other Indian places. In the coming years entry of more geographical areas are possible.
- Positive attitude was obtained in the study due to some awareness among artisans about technology and digital adoption
- Poor and interrupted network was justified as the most painful point.

Future researchers could explore how both public and private sectors can solve the problem of digital dividing when work in synergies

- (2024). Expanding Market Access for Artisans through Digital Platforms. Retrieved from <https://www.ondc.org>
7. World Bank. (2023). *Financial Inclusion and Digital Transformation in Emerging Economies*. Washington, DC: World Bank Publications.
8. Singh, P., & Verma, T. (2020). The Impact of Digital Literacy on Entrepreneurial Growth in Rural India. *Entrepreneurship and Development Journal*, 9(2), 112-128.
9. Goyal, A., & Patel, N. (2023). Artificial Intelligence and Small Business Development in India. *Journal of Economic Policy*, 11(3), 55-71.
10. Kumar, R., & Sharma, L. (2021). Adoption of AI-Powered Solutions in Traditional Business Sectors. *International Review of Business and Economics*, 18(2), 102-118.