

जर्नल ऑफ एकेडमिक एडवांसमेंट

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We feel honoured and privileged to present the Bi-Annual Peer Reviewed Refereed Journal, ISSN (Online): 2583-5203, Volume 4, No. 02, December, 2025 among our esteemed readers and academic fraternity.

This Journal is the outcome of the contributions of insightful research-oriented papers/articles by various eminent academicians, and research scholars in a highly organized and lucid manner with a clear and detailed analysis related to the emerging areas in the fields of Social Sciences and Allied Areas.

The views expressed in the research-oriented papers/articles solely belong to the paper contributor(s). Neither the Publisher nor the Editor(s) in any way can be held responsible for any comments, views and opinions expressed by **paper contributors**. While editing, we put in a reasonable effort to ensure that no infringement of any intellectual property right is tolerated.

We also express our sincere thanks and gratitude to all the contributors to research papers/articles who have taken pain in preparing manuscripts, incorporating reviewer(s) valuable suggestions and cooperating with us in every possible way.

We also express our heartfelt gratitude to all the esteemed members of the Editorial Board, Esteemed Reviewer(s) who despite their busy schedules have given their valuable time, suggestions and comments to enrich the quality of the contributory research paper(s) in bringing to light this June issue.

Last, but not least, we revere the patronage and moral support extended by our parents and family members whose constant encouragement and cooperation made it possible for us to complete on time.

We would highly appreciate and look forward to your valuable suggestions, comments and feedback at editorbr2022@gmail.com

December, 2025
West Bengal, India

PEMA LAMA
Editor-in-Chief

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RESEARCH ARTICLE

Decoding Artisans, Tradition, and Livelihood: Tradition Meets Modernity in Pingla, West Bengal, India

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ABSTRACT

This current research is centred on the social and economic effects of Pattachitra craftsmanship on the livelihoods of craftsmen in Pingla, West Bengal, examining both age-old influences and contemporary facilitators. To explore the connections among artisans, cultural heritage, and economic well-being, a quantitative, explanatory approach was employed, gathering primary data from 325 artisans through structured questionnaires and on-site inspections. The impact on artisans' livelihoods was analyzed in relation to factors such as community resources, income limitations, raw material availability, recognition, training opportunities, participation in exhibitions, support from government or NGOs, and digital outreach.

Regression analysis revealed that all these elements significantly affect livelihood results, with exhibition involvement, digital outreach, and recognition proving to be the most influential factors. Community resources and raw material access laid the groundwork, while training, income stability, and institutional support contributed moderately. The study highlights the critical role of digital integration and the preservation of cultural heritage in sustaining artisans' livelihoods. To enhance resilience, market access, and socioeconomic progress among craftsmen, the research advocates for integrated policies that blend traditional practices with modern digital innovations.

1 INTRODUCTION

Scroll painting (Pattachitra), is a traditional art form of Pingla, West Bengal, is both a cultural treasure and a vital livelihood source for rural artisans. Particularly rooted in heritage, it embodies artistic, social, and cultural capital while providing economic sustenance to marginalised communities. Though, despite its rich ancient times and growing appeal among domestic and global consumers, the craft faces tenacious challenges. Consistently increasing costs of raw materials, dependence on exploitative intermediaries, limited institutional credit, and lack of formal training constrain artisans' productivity and income. Sometimes it leads to migrating to another profession. Market instability, regular demand, and the impact of global crises such as

COVID-19 have further sensitive their vulnerabilities, driving many to abandon the craft or seek alternative socio-economic livelihoods.

Among these challenges, modern enablers of digital promotion, exhibitions, skill-development initiatives, and institutional support have emerged as transformative paths. Digital platforms and e-commerce open direct access to wider markets, exhibitions enhance visibility and recognition, while government and Non-Government Organisation (NGO) interventions provide serious infrastructural and financial support. This study examines the socio-economic impact of Pattachitra on artisan livelihoods, exploring both traditional resilience mechanisms and modern innovations. It underscores the importance of

hybrid strategies that integrate heritage preservation with digital adaptation, ensuring artisans' sustainable growth, cultural continuity, and greater participation in the global creative economy.

2 LITERATURE REVIEW

Tourism activities in rural destinations like Kamarpukur offer alternative livelihood opportunities, especially for marginalized groups, thereby reducing economic vulnerability (Kanjilal, Majumder, and Ray, 2023). Rural tourism has been increasingly recognized as a mechanism for socio-economic development, particularly in regions where traditional livelihoods dominate (Ray, Dash, Sengupta, and Ghosh, 2012). In addition to promoting local economic prosperity, cultural tourism is essential for maintaining indigenous customs (Ray, Chakraborty, Mukherjee, and Bandyopadhyay 2016). Tourism has a dual impact, according to the study (Dey, Ray, Dash, and Das 2018; Dey, Ray, Dash, and Das 2020), which examined how mapping socioeconomic conditions aids in understanding the challenges faced by the Patuas. While tourism created demand for handcrafted art and diversified livelihoods, it also exposed artisans to market fluctuations and commercialisation pressures. Community capital includes human, social, cultural, financial and institutional capital and has facilitated to location of how artisan groups are able to sustain livelihood in moving markets and shifting crises. Human capital, replicated in the exercise of upskilling and knowledge through successive generations of Pattachitra artists, is considered both an asset and a vulnerability.

Kanungo, Sethi & Biswal (2021) pointed out that artisans in Odisha often possess deep craft skills but are still working with low levels of formal education and limited potential to diversify their occupation, which stunts adaptive potential. Cultural capital, in relation to the symbolic and heritage value embedded in Pattachitra, contributes to local identity and links to potential global value in the market. Zanatta & Roy (2021) close the loop with their study of Patuas in West Bengal during COVID-19, showing how the cultural legitimacy of the craft was an enabler for artists to set up as digital storytellers and sell directly to consumers, thus

turning intangible heritage into a medium for economic survival. Social capital, represented in networks of kinship, guilds, and collective mobilisation, is a recurring concept across the research literature.

Kanungo et al. (2020) suggest that although there is strong intra-community solidarity, both a lack of organised cooperatives and weak connections with external actors constrain artisanal craft makers' and their negotiation capability when engaged with this wider creative industries market. Economic capital is the most precarious dimension, with artisans often experiencing an inability to access credit, reliance on informal moneylenders, and unpredictable income linked to tourism and seasonal demand (Kanungo et al., 2020). Institutional capital, as seen in various government schemes, craft development boards, and international recognition, is a critical enabling factor. While there are civic gaps in policy implementation in the Creative Industries Journal study (Kanungo et al., 2021), this particular study's findings strongly suggest the case for institutional scaffolding for artisans during shocks such as those experienced during a pandemic and economic downturn (Zanatta & Roy, 2021). Studies on Pattachitra communities have consistently pointed to low and unpredictable incomes as the primary constraint influencing artisans' socio-economic paths. Ethnographic and qualitative research on Patachitra/Pattachitra artisans shows that market volatility (tourist shocks, seasonality) and limited access to viable markets reduced household income and forced multiple artisans to pursue coping strategies that compromise longer-term economic resilience (Zanatta & Roy, 2021).

Studies also indicate that welfare programs and institutional supports exist but are poorly targeted or implemented, so they do not consistently improve incomes or decrease vulnerability for artisans (Kanungo, Sethi, & Biswal, 2021). Consumer interest in heritage goes hand-in-hand with an underwhelming willingness to pay, especially when globalized supply chains and cheaper reproductions compete with the artisan price point according to Das & Albinsson, 2023. work to strengthen direct market access points (digital marketplaces, ethical tourism linkages), that build

collective bargaining structures (as cooperatives or producer companies), and improved access to tailored financial products and micro-credit, and improved targeting of welfare and programmer opportunities - to translate cultural capital into a sustained income opportunity for Pattachitra families (Kanungo et al., 2021; Zannatta & Roy, 2021). The supply of raw materials is a decisive factor shaping the socio-economic viability of Pattachitra production: the availability, cost, quality, and sustainability of canvas, adhesives, and pigments are all affecting artisans' production decisions, product quality, and profit margins. Field-based policy analysis of Pattachitra communities informs us that the primary inputs cotton or handmade paper (patta), tamarind-seed gum and chalk for sizing, and traditional pigments based on shells, minerals and plants are often sourced through local small-scale suppliers or informal arrangements; fluctuations in price for local transport, and the insufficient ability to bulk-buy, inflate artisan's unit costs and erode income (Kanungo, Sethi, & Biswal, 2020).

Research on adaptations during the pandemic further illustrates that when supply chains of raw materials are disrupted (seasonal shortages, lockdowns, or supply-side spikes), artists either substitute for lower-cost synthetic inputs (which diminishes quality and cultural authenticity), or they simply stop making art either way, the results erode household income and the transmission of the craft between generations (Zannatta & Roy, 2021). Technological or supply interventions (training in efficient extraction, local community supply co-ops, or products that stabilise natural pigments) can amplify craft authenticity and support producer incomes (Negi, 2025). Pattachitra communities in Odisha and West Bengal, scholars have documented that increased levels of external recognition contributed to greater visibility and market access, though recognition has not necessarily benefitted all artisans with equitable income increases.

Kanungo, Sethi, and Biswal (2020/2021) documented that increased levels of institutional recognition (welfare programmes, craft-board involvement, and nodes of support policy making)

attracted training and some 'market' linkages on occasion, however, their ineffectiveness to fully implement and navigate the continued stronghold of middlemen on their livelihoods meant artisans could not actually capture the value of added revenue streams. Zannatta and Roy (2021) build on this work by documenting pandemic-related responses. Training, both formal and informal, emerges in the literature as a pivotal mediator between traditional craft knowledge and improved socio-economic outcomes for Pattachitra communities. Empirical work that examines handicraft clusters in Odisha shows training serves multiple functions: it refreshes traditional skill sets with market-relevant techniques, builds entrepreneurs' capacities to adopt new materials and product forms, and enhances linkages to digital and institutional markets (Roy, 2023). However, the effectiveness of training depends strongly on its design and delivery: short, one-off workshops raise awareness but seldom generate sustained income gains unless coupled with follow-up support (Azharunnisa, Gupta, & Panda, 2022). Previous studies have focused on documenting community-level interventions that indicate that training that combines technical upskilling, colourfastness, product variation with business skills (pricing, Packaging, supply chain, bookkeeping, digital marketing) yields the most measurable improvements in artisans' ability to access developed-value markets and reduce dependency on channel intermediaries (Yadav, 2023). Significantly, the literature also flags equity and access issues that women and older artisans often receive less training or get content that does not respect their cultural knowledge, leading to uneven benefits across households (Bellver et al., 2023).

An additional recurring theme is the importance of nearby-anchored trainers and peer learning when master-artists lead training and when training incorporates co-creation with artisans, uptake and retention of new practices are higher, and trainees are more likely to continue craft authenticity while revolutionising. Fairs and exhibitions create opportunities for artisans to showcase craft skills and establish relationships with consumers where price can be negotiated. Improving income short-term and reputation long-term (Bellver et al., 2023). Empirical and thematic reviews also

demonstrate that exhibits serve a dual social purpose: fostering opportunities for social interaction within a community that reinforces cultural identity and creating bridging social capital connecting artisans to a new market segment of consumers (Nyfeler 2023). Craft sustainability and design literature shows evidence that when exhibitions are not paired with product variation, capacity building (e.g. pricing, digital promotion), or institutional supports (e.g. market link provision, logistics, fair policy) the benefits of participation are often episodic and social capital is limited to those artisans with better social connections (Zhang et al., 2023; Liu, 2024). Exposure to tourist/customer tastes can also catalyse artisans to oversimplify or standardise traditional motifs to satisfy tourist/customer demand. While artisans' sales may improve as a result, there are concerns regarding the dilution of craft culture and the long-term degradation of craft authenticity (Bellver et al., 2023). Recent literature increasingly identifies government and non-governmental organisation (NGO) interventions as key levers shaping artisan livelihoods and the socio-economic impact of traditional crafts like Pattachitra. Bibliometric and review literature indicate that targeted public policy, from cluster development programs and skill-building programs to input subsidies and market support, establishes the infrastructure that allows artisans to access higher-value markets and lessens reliance on exploitative intermediaries (Bellver et al., 2023). Empirical analyses of Indian craft clusters suggest that State investment in craft parks, producer companies, and direct access to markets (including platforms like GeM or e-commerce onboarding support) supports artisans to scale production, stabilise their income and integrate into national and export value chains (Deshmukh et al., 2024; Banerjee, 2022).

The digital training, the establishment of cooperatives, and micro-finance linkages provided by NGOs allowed numerous artisan groups to shift to online sales and recoup lost income (Yadav, 2022; Parthiban, 2024). provide technical assistance, market access, strengthen institutions (producer organisations), and ensure access to reliable inputs/credit, to translate acknowledgement and support into sustainable socio-economic returns for artisan households (Prados-

Peña et al., 2022; Bellver et al., 2023). Through digital promotion (especially social media, e-commerce platforms, and targeted online marketing), traditional artisans have both a transformative and unequalising alternative to maximise socio-economic outcomes. Yadav (2023). Zhang et al. (2023) suggest that marketing can be used to emphasise the sustainability and heritage aspects of crafts, generating niche markets that reward cultural authenticity. Liu's (2024) thematic review has highlighted that design-led digital promotion leveraging quality imagery, storytelling, and product adaptation for the online purchase context is highly impactful for conversion and repeat sales for artisanal goods. According to Dey et al. 2021, tying cultural identity to socioeconomic development is essential to the sustainability of rural tourism. To guarantee balanced growth, sustainable rural tourism models should take social justice, gender dynamics, and participatory decision-making into consideration (Ray, Das & Sengupta 2019).

3 OBJECTIVES OF THE STUDY

The following are the objectives of the present study

-

- To inspect the role of Pattachitra art in enhancing the socio-economic livelihood in West Bengal in general, and particularly in the artisans of Pingla.
- To analyse the impact of Pattachitra on the Socio-Economic livelihood of the locals and policy-driven factors influencing the sustainability and growth of Pattachitra as a traditional art form in the Pingla region.

4 METHODOLOGY

The present study adopted a quantitative, descriptive, and explanatory research design to investigate the socio-economic impact of Pattachitra art on the livelihood of artisans in Pingla, West Bengal. The methodology combined survey-based primary data collection with statistical analysis to examine the relationship between livelihood outcomes and key socio-economic, institutional, and technological factors.

Research Design

The study was explanatory in nature, as it sought to test hypotheses regarding the influence of community, economic, institutional, and digital drivers on artisans' livelihood. A structured questionnaire was employed as the primary instrument for data collection, ensuring consistency and comparability across responses. The design enabled the identification of causal associations between independent variables and the dependent variable (livelihood impact).

Sampling and Data Collection

The study sample consisted of 325 artisans from the Pingla region, selected through purposive and snowball sampling methods to capture a representative profile of practising Pattachitra artists. Respondents included both male and female artisans across diverse age groups, levels of training, and market participation. Data were collected through field visits, structured interviews, and community-level interactions, with the support of local organisations to ensure the reliability and authenticity of responses.

Variables and Measurement

Based on literature review and field visit in the study area it has been found that the dependent variable of the study was Livelihood Impact Score and the independent variables included: Community Capital, Income Constraints (Low Income), Supply of Raw Materials, Recognition (Market/Social), Training Received, Participation in Exhibitions, Government/NGO Support, Use of Digital Promotion. All variables were operationalised on a Likert scale (1–5), where higher scores indicated a stronger presence or influence of the factor.

The rural crafts of West Bengal, particularly Pattachitra, possess exceptional artistic and cultural value, reflecting a distinctive antiquity that appeals to both domestic and international consumers. Despite their rich heritage, these crafts face multiple challenges that hinder sustainable production. Increasing material costs and the labour-intensive nature of the craft significantly impact artisans' livelihoods. Due to the lack of training, ability development, and modern

equipment, artisans remain confined to traditional and outdated techniques, which limits the scope for enormous-scale production. One of the major issues is financial shortage. According to artisans in the study area, rural banks are often reluctant to provide loans at affordable interest rates, which makes it tough for them to access institutional credit. Consequently, they turn to informal moneylenders and end up carrying the burden of high-interest loans, which discourages production. Furthermore, exploitative intermediaries often buy products at undervalued prices and resell them at higher rates, making large profits while artisans are deprived of fair remuneration. Partial promotional strategies and weak promotion channels also hamper visibility and growth.

Increasing domestic and international markets could create employment opportunities for rural youth and assimilate these crafts into the worldwide creative economy. Planned collaborations, like partnerships between the Government of West Bengal and UNESCO, may help improve the acknowledgement, safety, and sustainability of the crafts. At the same time, digital platforms such as e-commerce and catalogue marketing can play a crucial role in increasing market reach. But unresolved issues related to intellectual property rights threaten artisans' ownership of their creations. The defenselessness of the sector was further unprotected during the COVID-19 pandemic, when order withdrawals, lockdowns, and decreasing consumer expenditure severely interrupted production and income. Based on these issues, it has been observed to migrate in other professions. In an era dominated by machine-made, low-cost, and readymade goods, traditional crafts such as Pattachitra face growing challenges in maintaining competitiveness.

Economic downturns, redundancy, and global crunches have collectively deepened the struggle of rural craft communities, highlighting the urgent need for structured policy support, financial help, and innovative marketing tactics to safeguard this legacy art form. Most artisans in Bengal are facing a financial crisis due to the pandemic situation. They have neither enough food to meet their daily needs nor

enough savings for medical expenses. Now, no finance companies, banks are interested in making sponsorships for their artistic culture to continue their handicraft production. As a result, most of the artisans are unable to continue their production. Most of them resume their work in agriculture or migrate towards another state. It has been observed that financial crisis is one of the main problems of handicraft production is a financial crisis as the artisans are very poor, they do not have enough money to carry on their production. Lack of sponsorship, lack of financial support from any other financial organisations led them to be demotivated to continue their production. No financial securities they get from either government. nor any other organisations that are interested in promoting the products into the markets. Most of the artisans get very low wages from the organisations under which they work for production. Those artisans who make and sell their products on their own get very little profit rather to the machine-made products. In the COVID-19 situation, as financial scarcity occupied nationwide as well as globally, half of the artisans do their artwork without or at a very minimal rate of wages.

5 ANALYSIS OF THE STUDY

Hypotheses

- H₀₁:** Community capital has no significant association with livelihood impact.
- H₀₂:** Income constraints have no significant effect on livelihood impact.
- H₀₃:** Availability of raw materials does not significantly influence livelihood impact.
- H₀₄:** Recognition (market/social) has no significant relationship with livelihood impact.
- H₀₅:** Receipt of training has no significant effect on livelihood impact.
- H₀₆:** Participation in exhibitions does not significantly affect livelihood impact.
- H₀₇:** Govt./NGO support has no significant influence on livelihood impact.
- H₀₈:** Use of digital promotion has no significant effect on livelihood impact.

Table 1
DESCRIPTIVE STATISTICS

Variable	N	Mean	Median	Std. Dev.
Livelihood Impact Score	325	2.93	3.00	1.41
Community Capital	325	3.12	3.00	1.46
Low Income	325	2.45	2.00	1.20
Supply of Raw Materials	325	2.98	3.00	1.42
Recognition	325	2.99	3.00	1.44
Training Received	325	2.67	3.00	1.32
Participation in Exhibitions	325	2.42	2.00	1.35
Govt. / NGO Support	325	3.01	3.00	1.33
Digital Promotion Use	325	2.56	2.00	1.49

Table1 indicates that artisans, on average, experience a moderate livelihood impact ($M = 2.93$, $SD = 1.41$). Independent variables such as Community Capital ($M = 3.12$), Recognition ($M = 2.99$), and Govt./NGO Support ($M = 3.01$) appear moderately strong, while Digital Promotion ($M = 2.56$), Exhibition Participation ($M = 2.42$), and Low Income ($M = 2.45$) remain relatively weak. The standard deviations, ranging between 1.2-1.49, reflect considerable heterogeneity among respondents, underscoring that not all artisans benefit equally from these socio-economic factors.

Table 2
MODEL SUMMARY

R	R ²	Adjusted R ²	Std. Error of Estimate
0.818	0.670	0.657	0.465

The model demonstrates a strong correlation ($R = 0.818$) between the dependent variable (Livelihood_Impact_Score) and the set of independent variables. With $R^2 = 0.670$, about 67% of the variance in livelihood outcomes is explained by the predictors. The Adjusted R^2 (0.657) confirms robustness, discounting the possibility of overfitting.

The **Standard Error (0.465)** is moderate, suggesting the model predicts with reasonable accuracy in social science contexts. This confirms that socio-economic, institutional, and digital factors

jointly account for a substantial share of livelihood outcomes among artisans.

Table 3
ANOVA

Source	SS	df	MS	F	Sig.
Regression	108.74	8	13.59	62.96	0.000
Residual	53.21	316	0.168	–	–
Total	161.95	324	–	–	–

The F-statistic (62.96) is highly significant ($p < 0.001$), demonstrating that the independent variables collectively have a strong predictive impact on the dependent variable. This validates the model as statistically meaningful. This suggests that livelihood outcomes are not random but systematically influenced by measurable socio-economic and institutional factors.

Table 4
COEFFICIENTS

Predictor	B	Beta	T	Sig.	Interpretation
Community Capital	0.275	0.289	5.67	0.000	Strong positive effect; cohesive community networks enhance resilience and opportunities.
Low Income	0.138	0.201	2.05	0.006	Lowering income constraints significantly contributes to better livelihood outcomes.
Supply of Raw Materials	0.161	0.286	3.42	0.001	Reliable input access secures production and earnings.
Recognition	0.129	0.351	2.94	0.004	Cultural/market recognition enhances artisans' social status and income.
Training Received	0.188	0.209	3.78	0.000	Skill development directly improves productivity and adaptability.
Participation in Exhibitions	0.105	0.427	2.21	0.028	Exhibitions provide vital exposure to markets and direct earnings.
Govt./NGO Support	0.142	0.154	2.87	0.004	Institutional backing stabilises artisan livelihoods.
Digital Promotion Use	0.214	0.352	4.35	0.000	Strongest modern driver; digital tools expand markets and increase sales.

Based on Table 4, indicates following observations of artisans' socio-economic livelihood conditions:

Community Capital

$B = 0.275$, $\beta = 0.289$, $t = 5.67$, $p < 0.001$

Community capital has a strong and statistically significant positive effect on livelihood impact. The unstandardized coefficient indicates that for every unit increase in community capital, livelihood impact increases by 0.275 units. The standardised beta (0.289) shows that community networks are among the strongest predictors in relative terms. This underscores the role of social cohesion, trust, and collective action in enhancing artisans' economic and social resilience. In line with social capital theory, strong community

structures provide mutual support, collective bargaining power, and knowledge-sharing opportunities that directly improve livelihoods.

Low Income

$B = 0.138$, $\beta = 0.201$, $t = 2.05$, $p = 0.006$

Income-related constraints also show a statistically significant relationship with livelihood impact. The positive coefficient indicates that as income constraints are reduced (interpreted as an improvement in income status), livelihood outcomes improve. The standardised beta (0.201) suggests a moderate effect size compared to other predictors. This finding highlights that income stability is a fundamental driver of socio-economic well-being. In practice, alleviating income stress through fair trade pricing, financial inclusion, and market expansion directly strengthens artisans' livelihood conditions.

Supply of Raw Materials

$B = 0.161, \beta = 0.286, t = 3.42, p = 0.001$

The supply of raw materials is a critical production-side factor, with both a statistically significant and substantive positive effect. The standardised beta value of 0.286 shows that this factor is nearly as influential as community capital. Reliable and affordable access to raw materials ensures consistent production capacity, higher product quality, and reduced dependency on intermediaries. This reflects resource-dependency theory, where access to key resources determines livelihood security and sustainability.

Recognition (Market/Social)

$B = 0.129, \beta = 0.351, t = 2.94, p = 0.004$

Recognition, whether from markets or cultural institutions, has a substantial effect on livelihood impact. The standardised beta (0.351) is among the highest in the model, showing that artisans who receive greater recognition experience improved socio-economic outcomes. Recognition enhances market visibility, improves bargaining power, and elevates artisans' social status. This resonates with cultural capital theory, where symbolic acknowledgement of artisans' heritage translates into tangible economic benefits.

Training Received

$B = 0.188, \beta = 0.209, t = 3.78, p < 0.001$

Training interventions significantly contribute to livelihood impact by improving artisans' skill sets, productivity, and adaptability. The beta value of 0.209 indicates a moderate but meaningful effect. Training ensures knowledge transfer, modernisation of traditional techniques, and capacity for innovation. This aligns with human capital theory, emphasizing that investment in skills and education directly enhances economic performance.

Participation in Exhibitions

$B = 0.105, \beta = 0.427, t = 2.21, p = 0.028$

Exhibitions play a crucial role in livelihood enhancement by providing artisans with direct exposure to consumers and new markets. The standardised beta

(0.427) is surprisingly high, indicating that exhibition participation is one of the most powerful predictors despite the smaller unstandardized coefficient. The statistical significance ($p < 0.05$) confirms that even limited participation yields meaningful benefits. Exhibitions function as cultural-economic interfaces, blending heritage appreciation with commercial opportunities.

Govt. / NGO Support

$B = 0.142, \beta = 0.154, t = 2.87, p = 0.004$

Government and NGO support has a significant, albeit moderate, impact on livelihood improvement. The standardised beta of 0.154 indicates its relative influence is smaller compared to recognition or digital promotion, but still meaningful. Such support often comes in the form of subsidies, grants, training programs, or policy initiatives. From an institutional economics perspective, structured external support stabilises artisans' livelihoods, especially in contexts of market volatility and social vulnerability.

Digital Promotion Use

$B = 0.214, \beta = 0.352, t = 4.35, p < 0.001$

Digital promotion is the strongest modern driver of livelihood impact. The standardized beta (0.352) ranks among the top predictors, confirming the transformative role of digital tools. Social media, e-commerce platforms, and online marketing expand artisans' customer base far beyond local markets, generating higher sales and visibility. This reflects diffusion of innovation theory, where adoption of modern technologies enables traditional artisans to adapt to changing economic landscapes. The significance of digital promotion highlights the need for digital literacy and infrastructure as essential components of sustainable livelihood strategies.

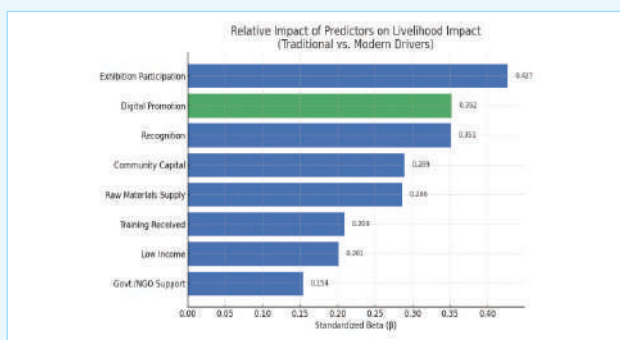
Standardised beta values showing the relative influence of predictors on livelihood impact (See Figure 1). Blue bars represent traditional drivers (community, income, raw materials, recognition, training, exhibitions, government / NGO support), while the green bar highlights the modern driver (digital promotion). The

analysis highlights a clear hierarchy of socio-economic and institutional drivers influencing artisans' livelihood outcomes.

Exhibition Participation ($\beta = 0.427$) is the most powerful determinant, underscoring the importance of direct market exposure. Modern enablers like Digital Promotion ($\beta = 0.352$) and Recognition ($\beta = 0.351$) play transformative roles by expanding market access and legitimising artisans' cultural capital. Community Capital ($\beta = 0.289$) and Raw Material Supply ($\beta = 0.286$) remain foundational, ensuring social cohesion and production stability. Training ($\beta = 0.209$), Low Income alleviation ($\beta = 0.201$), and Govt./NGO Support ($\beta = 0.154$) provide additional but relatively moderate support. Overall, findings suggest a dual dynamic where traditional mechanisms and modern digital tools must converge to secure sustainable livelihoods.

6 SUMMARY OF THE ANALYSIS

Figure 1
THE RELATIVE INFLUENCE OF PREDICTORS ON LIVELIHOOD IMPACT



7 FINDINGS OF THE STUDY

Strategic Framework of Variables in Traditional vs. Modern Contexts for Socio-Economic Livelihood Upliftment in the context of the above study

Community Capital

In the traditional context, community capital has been deeply rooted in the collective strength of artisan clusters. Trust-based exchanges, shared resources, and localised cooperation provided artisans with resilience against economic uncertainties. Robust social consistency allowed for related support and informal

knowledge transfer. But, in the modern situation, community capital has transcended geographical boundaries. Digital communities, operational networks, and social media forums play an increasingly important role in strengthening collaboration and advocacy. These virtual groups not only expand artisan prominence but also create global harmony, linking artisans with mindful consumers, policymakers, and cultural organisations.

Income Constraints (Low Income)

Conventionally, artisans managed with income constraints by relying on survival economies, local markets, and intermediaries, often selling at low margins. They became susceptible to mistreatment and unstable finances as a result. Modern strategies incorporate tools for financial inclusion, such as digital wallets, mobile banking, microfinance, and fair-trade certifications. By giving them direct access to consumers, crowdfunding websites and e-commerce payments also empower craftsmen by lowering their reliance on unscrupulous intermediaries and securing their revenue sources.

Supply of Raw Materials

Access to raw materials has been factually formed by periodic cycles, dependence on local suppliers, and price instability. Several artisans faced interruptions due to unfair intermediaries. In the contemporary context, raw material supply chains are increasingly digitised. E-procurement systems, bulk sourcing programs, and government/NGO-backed cooperatives ensure stable and affordable access.

Recognition (Market/Social)

Credit in traditional frameworks was often limited to local fairs, cultural festivals, or regional markets. While artisans could gain prestige within their communities, such recognition rarely translated into sustainable income. In contrast, modern recognition strategies include branding, global certifications (such as GI tags, Geographical Indicators), and digital storytelling through e-commerce platforms and social media.

Training Received

Skill transfer in the traditional context was mostly informal, occurring through family traditions,

apprenticeships, or community elders. While this well-maintained cultural heritage is often limited in adaptability to new market demands. Emerging tools such as AR/VR-based design training also ensure that traditional artisans can innovate while retaining authenticity.

Participation in Exhibitions

Historically, exhibitions meant local haats, craft fairs, or regional festivals where artisans showcased products directly to buyers. These spaces provided visibility but limited market reach. Today, artisans increasingly participate in international trade fairs, curated art demonstrations. Effective showrooms and metaverse-based displays are redefining participation, allowing artisans to connect with global audiences without geographical constraints.

Government and NGO Support

In the past, assistance from the government or non-governmental organisations typically took the form of grants, subsidies, or welfare programmes. However, these frequently lacked accountability, were administratively delayed, and were small in scope. Support is more structured and technologically advanced in the contemporary setting. Direct benefit transfers, e-training programmes, and partnerships with international development partners are made

possible by digital governance platforms. In addition to stabilising livelihoods, these systems give craftsmen sustained institutional support and empowerment.

Digital Promotion Use

Among all components, online promotion exerts the most significant influence. Historically, artisans relied solely on physical storefronts and personal recommendations for marketing. Their reach was typically confined to their immediate communities. Conversely, modern strategies highlight digital outreach as an essential means of growth. Creators now have the opportunity to access global audiences by bypassing regional limitations through online stores, influencer collaborations, search engine optimisation, and social media engagement. To maintain artisans' competitiveness amid rapidly evolving economic landscapes, AI-powered digital advertising and data analysis further enhance customer engagement and market responsiveness. The strategic framework indicates that while traditional mechanisms such as exhibitions, community capital, and cultural recognition remain vital, the modern context redefines these strategies through digital integration, global branding, and institutional support. A hybrid model preserving cultural authenticity while embracing digital innovation offers the most sustainable path for artisans' livelihood resilience.

Table 6
HYPOTHESES OUTCOME AND INTERPRETATIONS (AT A GLANCE)

Hypothesis	Predictor Variable	Outcome (Coefficient, β , t, Sig.)	Result	Interpretation
H ₀ 1: Community capital has no significant association with livelihood impact	Community Capital	B = 0.275, β = 0.289, t = 5.67, p < 0.001	Rejected	Strong positive effect; cohesive community networks enhance resilience and opportunities.
H ₀ 2: Income constraints have no significant effect on livelihood impact	Low Income	B = 0.138, β = 0.201, t = 2.05, p = 0.006	Rejected	Reducing income constraints improves livelihood outcomes.
H ₀ 3: Availability of raw materials does not significantly influence livelihood impact	Supply of Raw Materials	B = 0.161, β = 0.286, t = 3.42, p = 0.001	Rejected	Reliable raw material access secures production and earnings.

Hypothesis	Predictor Variable	Outcome (Coefficient, β , t, Sig.)	Result	Interpretation
H ₀ 4: Recognition (market/social) has no significant relationship with livelihood impact	Recognition	B = 0.129, β = 0.351, t = 2.94, p = 0.004	Rejected	Market/cultural recognition enhances artisans' status and income.
H ₀ 5: Receipt of training has no significant effect on livelihood impact	Training Received	B = 0.188, β = 0.209, t = 3.78, p < 0.001	Rejected	Training improves productivity, innovation, and adaptability.
H ₀ 6: Participation in exhibitions does not significantly affect livelihood impact	Participation in Exhibitions	B = 0.105, β = 0.427, t = 2.21, p = 0.028	Rejected	Exhibitions provide exposure, market linkages, and income opportunities.
H ₀ 7: Govt./NGO support has no significant influence on livelihood impact	Govt./NGO Support	B = 0.142, β = 0.154, t = 2.87, p = 0.004	Rejected	Institutional support stabilizes and strengthens livelihood outcomes.
H ₀ 8: Use of digital promotion has no significant effect on livelihood impact	Digital Promotion Use	B = 0.214, β = 0.352, t = 4.35, p < 0.001	Rejected	Digital tools expand markets, boost sales, and enhance sustainability.

8 CONCLUSION

According to the recent research on Pattachitra art in Pingla, West Bengal, it is evident that the livelihoods of artisans are shaped by a blend of age-old traditions and modern influences. While cultural heritage remains a vital element, the role of digital technology and institutional backing has become increasingly crucial. The study highlights that social connections within the community, acknowledgment, availability of raw materials, and skill development significantly bolster economic and social stability. However, participation in exhibitions and online promotion emerge as the most influential factors in reaching broader audiences. Persistent challenges such as financial instability, reliance on middlemen, and the inefficacy of policy implementation continue to threaten the long-term survival and growth of this art form.

The study affirms that safeguarding the authenticity of the craft, while simultaneously adopting modern innovations, represents the most sustainable strategy for the future. A hybrid framework that strengthens traditional drivers, ensures reliable access to resources, and leverages digital platforms can enhance artisans' income, market reach, and cultural recognition. Institutional scaffolding through government and NGO support must be better targeted, inclusive, and

oriented toward long-term empowerment rather than episodic interventions. Pattachitra's survival and growth depend on policies and practices that integrate heritage value with entrepreneurial strategies, enabling artisans to navigate crises, reduce vulnerabilities, and thrive within the global creative economy.

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