Journal of Multidisciplinary and Translational Research (JMTR)

journal homepage: https://journals.kln.ac.lk/jmtr/

Entrepreneurial ecosystem services in cultural and creative industries: Evidence from the Watapath sector in a resource-constrained setting

A. Mithursan[2]*, S.R.M.S.D. Samarasuriya[1] and D.I.J. Samaranayake[3]

[1]*Department of Management Studies, Faculty of Management, University of Peradeniya*

Abstract

Cultural and creative industries (CCIs) are increasingly recognised as contributors to economic development in emerging economies, yet limited empirical work explores how entrepreneurial ecosystem services (EES) support traditional craft sectors in Sri Lanka. This study explores nature and types of EES of the Watapath industry in the Galatharaya region, a culturally significant craft centred on Palmyra fan mainly used as a ritual item in Buddhist culture. Using a qualitative case study design, data were collected through 12 semi-structured interviews with experienced artisans. Thematic analysis supported by NVivo software was employed to identify ecosystem strengths, weaknesses, and interdependencies. The findings reveal four key themes shaping entrepreneurial activity: human capital challenges, fragmented institutional support, financial and market barriers, and limited technological adoption. Artisans reported declining intergenerational skill transfer, absence of structured training, and gendered labour constraints. Institutional engagement was perceived as sporadic, with minimal coordination among support agencies. Financial challenges included high interest rates, inadequate credit facilities, and restricted access to broader markets. Technological innovation remained low due to high costs, limited awareness, and minimal institutional facilitation. The interplay of these barriers creates an underdeveloped entrepreneurial ecosystem, constraining industry growth, innovation, and long-term sustainability. The study contributes to entrepreneurial ecosystem theory by extending its application to a resource-constrained, heritage-based craft industry, highlighting dynamics overlooked in urban or high-tech contexts. Practical implications include the need for structured vocational programs, improved microfinance mechanisms, coordinated institutional interventions, and targeted support for technological upgrading. By situating the Watapath sector within the broader CCI and ecosystem framework, this research offers actionable insights for policymakers and development stakeholders aiming to strengthen Sri Lanka's traditional craft industries.

Keywords: Cultural and creative industries, entrepreneurial ecosystem services, Sri Lanka, Traditional crafts, Watapath manufacturing sector

Article info

Article history:
Received 25th August 2025
Received in revised form 27th October 2025
Accepted 30th October 2025
Available online 25th December 2025

ISSN (E-Copy): ISSN 3051-5262
ISSN (Hard copy): ISSN 3051-5602
Doi: https://doi.org/10.4038/jmtr.v10i2.50
ORCID iD: https://orcid.org/0009-0009-6164-4233
*Corresponding author:
E-mail address: mithursan@mgt.pdn.ac.lk
(A. Mithursan)

Introduction

Globally, cultural and creative industries (CCIs) have demonstrated exceptional growth in revenue generation and employment creation, positioning them as key contributors to national development strategies (Hirimuthugodage et al., 2020). The industry gained widespread attention due to the increasing economic value derived from cultural expression, design, and artistic innovation (Howkins, 2001). However, despite their growing global significance, traditional cultural industries in developing countries often operate outside formal entrepreneurial structures and struggle to leverage ecosystem support effectively. This mismatch underscores the need to understand how entrepreneurial environments influence small traditional craft sectors.

While CCIs in Sri Lanka contribute to GDP and employment (Central Bank of Sri Lanka, 2022; Weerasinghe, 2022), the sector remains dominated by small and medium-sized enterprises (SMEs) that frequently lack structured entrepreneurial support. As a result, the potential of traditional craft sectors, despite their cultural and economic value, remains underutilized. This challenges the assumption that national growth in CCIs automatically translates to growth among grassroots creative industries. CCIs are increasingly recognized as entrepreneurial catalysts of global economic growth. According to the Annual Report of the Central Bank of Sri Lanka's published in 2022, CCIs in Sri Lanka have indicated steady growth in recent years, contributing 1.1% to the national GDP in 2021, up from 0.9% in 2019. These industries also serve as a primary source of employment, accounting for 1.2% of total employment in 2021. The sector encompasses a diverse range of emerging industries, including advertising, architecture, crafts, design, film and video, performing arts, and software development (Weerasinghe, 2022). This sector has contributed significantly to the annual growth rates of 7-8% in recent years.

The Watapath enterprises in the Galatharaya area provide a compelling case. These enterprises specialize in crafting Palmyra palm fans (Borassus flabellifer), a culturally embedded product historically associated with religious ceremonies, sustainability practices, and vernacular craftsmanship. Despite its heritage value, the Watapath manufacturing firms continue to face restricted market access, financial limitations, skill shortages, and limited modernization strategies challenges that mirror broader CCI constraints but manifest more acutely at the microenterprise level. These conditions make the sector an ideal context to examine how entrepreneurial ecosystem support (or the absence of it) affects traditional creative sectors.

Although EES has been conceptualized through frameworks such as Isenberg's entrepreneurial ecosystem model and Stam and van de Ven (2019), ecosystem performance model, its application to creative industries particularly traditional crafts remains theoretically underexplored. Current literature on Sri Lankan CCIs primarily focuses on pottery, cane work, and brassware (Karunaratne, 2020; Brydges & Pugh, 2021), but offers limited insights into how EES shape business growth, sustainability, and innovation within fewer-studied crafts such as the Watapath sector. Despite the recognized potential of Sri Lanka's cultural and creative industries, there remains limited understanding of how entrepreneurial ecosystem services support traditional industries such as the Watapath craft sector. This gap hinders informed policy development and industry advancement.

Existing studies have not adequately examined how EES influence the operational performance, market access, and long-term sustainability of micro-level creative enterprises in Sri Lanka. The Watapath manufacturing sector remains largely absent from empirical research, leaving a critical gap in understanding its entrepreneurial ecosystem, institutional linkages, and development constraints.

Accordingly, this study assessed the accessibility and effectiveness of the existing entrepreneurial ecosystem services (EES) available to Watapath entrepreneurs in the Galatharaya region. In addition, the strengths, weaknesses, and institutional gaps that exist within the entrepreneurial ecosystem supporting the Watapath manufacturing sector were determined. Furthermore, the influence of EES on business growth, market expansion, and the long-term sustainability of the Watapath manufacturing sector was also assessed.

By positioning the Watapath industry as a critical yet understudied segment of Sri Lanka's creative economy, this study contributes meaningful empirical insights into how entrepreneurial ecosystems (EEs) operate within heritage-based industries. The findings aim to inform policy development, strengthen institutional support, and guide the strategic advancement of traditional creative enterprises in Sri Lanka.

EEs refer to dynamic, interdependent networks of actors, institutions, resources, and processes that collectively foster entrepreneurial activity and innovation (Stam & Spigel, 2018). Foundational frameworks such as Isenberg's (2011) six-domain model and Stam and van de Ven's (2019) expanded performance-based model highlight the roles of policy, finance, human capital, culture, markets, and institutional networks in shaping ecosystem functionality. While these models emphasise holistic integration, they differ in orientation, with Isenberg offering a practitioner-focused perspective and Stam emphasising measurable outputs. However, scholars note that these frameworks, developed largely in Western, high-tech contexts, may not adequately capture the informal networks, community embeddedness, and resource constraints characteristic of traditional sectors in developing economies (Malecki, 2018; Pittz & Hertz, 2018). To address this gap, the present study adopted an adapted version of Isenberg's model, supplemented with performance-oriented elements from Stam and van de Ven (2019), providing a flexible analytical lens suited to examining culturally rooted, resource-constrained industries such as Sri Lanka's CCIs. This approach enables a context-sensitive analysis of how policy, finance, and human capital interact within informal, traditional craft ecosystems.

CCIs encompass sectors focused on the production, distribution, and commercialization of cultural, artistic, or heritage-related goods and services, as defined by United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Organization for Economic Co-operation (OECD, 2022; UNESCO, 2021). These industries are knowledge-intensive. They drive innovation and economic development through intellectual property and cultural expression. Theoretical models position CCIs as engines of growth in the knowledge economy, with United Nations Conference on Trade and Development (United Nations Conference on Trade and Development, 2024) emphasizing their role in sustainable development by integrating economic, social, and environmental dimensions. Empirical evidence supports this: globally, CCIs generate significant revenue and employment, with recent data indicating contributions of 0.5% to 7.3% of GDP across countries (United Nations Conference on Trade and Development, 2024). In Sri Lanka, CCIs are dominated by SMEs in urban hubs like Colombo, with export orientation

accounting for about 20% of output (Weerasinghe, 2022). However, growth is uneven, with rural sectors facing infrastructure and skill gaps. Criticisms note that while CCIs promote inclusivity, they often exacerbate inequalities in developing contexts, where informal labor predominates (World Bank, 2024). For instance, Tasneem & Biswas (2014) highlight challenges in South Asian cottage industries, but recent studies critique the overemphasis on urban clusters, ignoring rural dynamics such as in Africa, creative intermediaries are key but understudied (Cunningham et al., 2025).

EEs and CCIs are interdependent, with EEs providing the infrastructure, finance, networks, policy, and human capital that enables CCI growth, while CCIs infuse EEs with innovation and cultural vibrancy (Brydges & Pugh, 2021). In developing economies, this relationship is mediated by contextual factors like politics, economy, and technology (Xie et al., 2019). Recent literature elaborates on these enablers; United Nations Conference on Trade and Development (UNCTAD) (2024) reports that EEs in creative sectors promote sustainable practices, contributing to GDP while addressing social issues. World Bank (2024) highlights how cultural industries in South Asia leverage EEs for economic inclusivity, though challenges like digital divides persist. Recent studies in digital contexts show EEs evolving to support CCI sustainability amid globalization (Müller et al., 2025). For Sri Lanka's Watapath industry, weak EE components like finance and institutions limit market access, testing Isenberg's model in a traditional context. This underscores the need for adapted frameworks to bridge gaps. In synthesis, while EEs significantly influence CCI innovation and development, their role in sustaining traditional industries in developing economies remains underexplored. This gap justifies examining Sri Lanka’s Watapath sector to understand how EES can foster growth in culturally embedded enterprises, informing policy in South Asia.

Methodology

This study adopts an interpretivist philosophy to explore the socially constructed meanings, lived experiences, and locally embedded practices of Watapath entrepreneurs, recognizing that such contextual insights cannot be captured through quantitative measures alone. A qualitative case study design was used for an in-depth examination of this culturally bounded and geographically specific traditional craft industry.

Data were collected cross-sectionally to capture the current state of EEs; a longitudinal approach, though potentially insightful for industry evolution, was impractical due to time constraints and artisans' irregular production cycles. Purposive sampling recruited 12 participants with at least 10 years of active involvement in Watapath production. This sample size aligns with data saturation (Guest et al., 2006) and information power principles (Malterud et al., 2016), given participants' extensive experience. Inclusion criteria focused on current, experienced producers who could articulate business practices and ecosystem challenges; exclusions applied to those no longer producing or in seasonal work. Recruitment involved community leaders and local gatekeepers, with minimal snowball sampling; 12 of 14 contacted individuals participated (85% response rate). The sample ensured diversity in gender, age, education, experience, and business size, with anonymized identifiers (P1–12) for confidentiality.

Ethical clearance certificate is obtained from the Faculty of Management, University of Peradeniya, Sri Lanka (URC/2025/12/01). Data collection included semi-structured individual interviews and two open-ended group interviews, the latter to reveal shared norms, collective problem-solving, and interaction patterns not easily captured individually. Interviews occurred in participants' homes or workspaces for comfort, lasting 45–60 minutes (individual) or 60–75 minutes (group). Conducted in Sinhala to preserve linguistic nuance and contextual meaning, all sessions were audio-recorded with consent, transcribed verbatim by the researcher, and translated into English with independent back-translation for accuracy. Non-verbal cues were noted in transcripts. A piloted semi-structured guide covered entrepreneurial histories, financial and market access, institutional support, technology use, and production challenges.

Analysis followed Braun and Clarke's (2006) six-phase thematic approach: repeated transcript reading for familiarization, inductive initial coding in NVivo (v.12), organization into conceptual categories, and refinement into themes via iterative review and memo writing. A hybrid strategy blended inductive insights with deductive elements from ecosystem theory to develop the codebook. NVivo tools, such as node structuring, memoing, word-frequency queries, and matrix-coding, aided the process.

Rigour was maintained through member checking with four participants, peer debriefing, an audit trail of transcripts, memos, and coding decisions, and reflexive journaling to address researcher positionality and bias. Transferability was enhanced via thick descriptions of the Galatharaya socio-economic context and Watapath production environment. The study recruited 12 participants, covering a diverse range of experiences and business models. The detailed participant demographics are outlined in Table 1.

Table 1: List of participants for interviews

Participant	Sex	Age	Education	Marital status	Number of Family members	Length of experience
P1	Male	42	Secondary	Married	4	15
P2	Male	48	Primary	Married	5	20
P3	Male	50	Primary	Married	5	15
P4	Female	45	Secondary	Married	6	10
P5	Male	59	Primary	Married	5	19
P6	Female	56	Secondary	Married	4	13
P7	Female	46	Secondary	Married	5	10
P8	Male	40	Secondary	Married	5	10
P9	Male	41	Secondary	Married	6	12
P10	Male	59	Primary	Married	6	25
P11	Male	55	Primary	Married	5	30
P12	Female	48	Primary	Married	4	16

Ethical clearance was obtained from the Undergraduate Research Committee, Faculty of Management, University of Peradeniya, prior to data collection (Ethical Clearance No. URC/2025/12/01). The ethical compliance approval for the research project is attached under

Annexure 1. Informed consent was secured from all participants, who were informed of the purpose of the study, their rights (including voluntary participation and withdrawal without consequences), and confidentiality measures. Anonymity was preserved using participant codes, and data were stored securely on encrypted drives for five years. No vulnerable individuals were included, though extra care was taken with elderly artisans. To enhance credibility and trustworthiness, data triangulation involved cross-referencing primary sources with secondary literature and prior research findings. Limitations include the small, geographically bounded sample; the cross-sectional design, which cannot capture temporal changes; and potential recall bias. These are acknowledged in interpreting findings. Overall, the chosen methods offer a rigorous, contextually grounded understanding of how entrepreneurial ecosystem services influence the Watapath industry.

Results

The thematic analysis, supported by NVivo coding and query functions, produced four major themes and ten subthemes that collectively illustrate how entrepreneurial ecosystem services shape the Watapath industry in Galatharaya. These themes (1) Human capital and skill transmission, (2) Institutional and policy support, (3) Financial accessibility and market integration, and (4) Technology adoption and production innovation reflect the interdependent and systemic nature of ecosystem strengths and gaps. The findings integrate participant narratives with analytical interpretation and explicitly align with the research objectives.

This finding aligns with Unger et al. (2011), who emphasise the critical role of human capital in sustaining entrepreneurial activity; however, unlike their focus on formal education and skills, the current study shows that skill transmission in traditional craft industries relies heavily on informal, intergenerational learning, making the decline in youth engagement particularly damaging. Human capital and skill transmission revealed persistent concerns about generational skill erosion, absence of formal training structures, and gendered labor dynamics. Many artisans emphasized that knowledge transfer remains largely informal, depending on family lineage. However, younger members of the community show declining interest, threatening the continuity of traditional craft skills. As one participant expressed, “The younger generation is not interested in continuing this trade. If proper training was given, they might think differently.” (P2). Female entrepreneurs particularly highlighted the need for formal training to ensure quality and competitiveness: “Without skilled workers, this industry cannot survive. We need structured training to pass this skill on.” (P11). Analytically, these narratives point to a weakening human capital pipeline for a foundational entrepreneurial ecosystem service, which aimed to understand how skills and knowledge shape entrepreneurial practices in the industry.

Similar to Poon et al. (2023), who found that fragmented institutional support weakens EEs in developing economies, this study reveals that Sri Lankan agencies provide sporadic, short-term interventions rather than continuous guidance highlighting a persistent gap in rural craft-based sectors. The second theme, institutional and policy support, demonstrated a structural pattern of weak and fragmented institutional engagement. While participants acknowledged occasional support, such interventions were perceived as sporadic and insufficient to address broader industry challenges. As one producer noted, “The government gave us machines in 2021, but after that, we have received very little guidance.” (P8). Others described a lack of ongoing institutional presence: “If an agency trained us or supported marketing, we could improve. But they don’t come

here often." (P6). These accounts reflect broader systemic gaps in the entrepreneurial ecosystem, particularly regarding service coordination between agencies such as Small Enterprise Development Division (SEDD), Handicrafts Development Council (HDC) Sri Lanka, and Sri Lanka Export Development Board (EDB). This theme directly highlights the limited effectiveness of existing institutional support mechanisms in strengthening enterprise growth.

While ((Torres & Godinho, 2022) reports that access to finance enhances SME competitiveness in emerging economies, the present findings contrast with this pattern, demonstrating that high interest rates and limited market linkages continue to restrict rural artisans' ability to scale their enterprises. The third theme, financial accessibility and market integration, revealed substantial challenges related to credit access, transportation, and limited visibility in broader markets. Many entrepreneurs rely on bank loans but struggle with high interest rates, which restrict their ability to reinvest: "We take bank loans, but interest is too high… makes it hard to expand." (P4). Rural isolation further contributes to financial strain: "Transporting finished goods is costly. It reduces our profit margins a lot." (P5). Interpretively, these barriers reveal a financial-market trap where limited capital access and weak market linkages reinforce one another, preventing producers from scaling their operations or accessing premium markets. This theme aligns with which sought to understand how financial and market ecosystem services influence the sustainability of industry.

The fourth theme, technology adoption and production innovation, highlighted artisans' awareness of modern production opportunities but also the systemic constraints preventing adoption. While some participants expressed interest in integrating machinery or design tools, financial and institutional barriers limit their ability to innovate. As one experienced artisan stated, "If we use better machines, we can increase production and maybe even target exports." (P11). Despite this recognition, traditional methods dominate due to cost concerns, lack of training, and minimal external facilitation. This creates an innovation stagnation within the ecosystem, where artisans recognize the value of technology but are structurally unable to adopt it. This theme reinforces the systemic nature of ecosystem gaps, as financial, institutional, and knowledge constraints collectively limit technological upgrading and creative evolution. NVivo-based comparative coding revealed subgroup variations. Female artisans emphasized safety, training, and market constraints more strongly; senior artisans focused on heritage preservation and intergenerational discontinuity; and full-time producers expressed greater concerns about finance and long-term sustainability than part-time producers. These subgroup differences illustrate that ecosystem services are not experienced uniformly but intersect with gender, age, and livelihood dependencies.

Taken together, these themes reveal a deeply interconnected ecosystem structure where deficiencies in one dimension reinforce weaknesses in others. Weak institutional support reduces access to finance; limited finances restrict technological advancement; technological barriers hinder market expansion; and all these constraints collectively accelerate skill erosion. This interdependency demonstrates that the Watapath enterprises operate within an underdeveloped entrepreneurial ecosystem, with insufficient coordination across human capital, financial, institutional, and technological services. Therefore, gaps across multiple ecosystem dimensions constrain entrepreneurial resilience and industry development. The themes synthesized to ascertain the context and provide up-to-date information based on the participant quotes aligned with key themes are provided in Table 2. .

Table 2: Inductive thematic analysis process used for developing a conceptual framework

First-order codes (Raw data)	Second-order categories (Subthemes)	Final themes
"Youth not interested", "Learned from parents"	Generational skill erosion	Human capital & skill transmission
"No proper training", "Need VTI support"	Lack of structured training	
"Women need more training", "Safety concerns"	Gendered participation	
"Government rarely visits", "Support is irregular"	Fragmented engagement	Institutional & policy support
"No ongoing programs", "Policy gaps"	Weak policy integration	
"Agencies don't coordinate"	Lack of institutional coordination	
"High loan interest", "Borrow from banks"	Credit constraints	Financial access & market integration
"Transport cost high", "Market far away"	Logistical barriers	
"No market links", "Only local buyers"	Limited market visibility	
"Machines are expensive", "We need modern tools"	Limited exposure to technology	Technology adoption & innovation
"No support for new designs"	Innovation barriers	

Figure 1 depicts an ecosystem functioned as a closed loop reinforcing constraint. Institutional weakness affects finance and training. Financial constraints hinder technology adoption whereas technology limits market expansion and market limitations reduce motivation of younger generations.

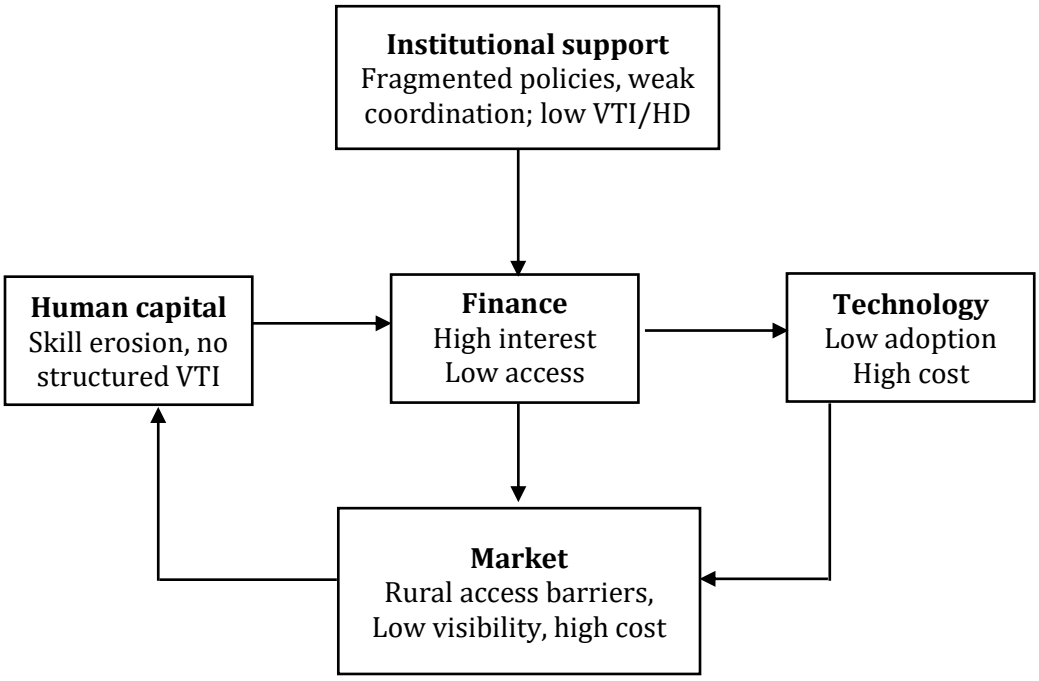

Figure 1. Watapath EES: Barriers and interdependencies

Market and financial barriers also emerged as a significant concern. Limited access to diversified markets restricts Watapath entrepreneurs from expanding their customer base beyond local

buyers: high production costs and fluctuating raw material prices further strain financial sustainability. Many entrepreneurs struggle to secure financial assistance tailored to handicraft industries, making it difficult to scale their operations. Addressing these challenges through policy interventions, institutional collaborations, and targeted financial assistance could significantly enhance industry resilience and sustainability.

Discussion

The study findings explicitly map the four emergent themes to key theoretical constructs from Isenberg (2011) and Stam & van de Ven (2019): human capital, finance, markets, institutional support, and culture in relation to EE theory. The findings support, extend and challenge existing theory, particularly in the context of traditional craft industries in rural, developing economies like Sri Lanka and highlight the interconnectedness of barriers, structural and socio-economic reasons for challenges, and subgroup variations among participants. Specific quotes and examples ground the discussion empirically, which allows for systematically outlining recommendations for policy and practice, considering feasibility in the Sri Lankan context.

This themes of the study align with EE constructs but highlight unique dynamics in a traditional craft context, extending theory beyond urban, high-tech settings. The theme of human capital and skill transmission corresponds to human capital and culture, supporting Isenberg's (2011) focus on talent and norms while challenging equal-access assumptions. It illustrates intergenerational erosion from cultural shifts, with the Watapath industry's informal, family-based transmission declining due to youth disinterest. As P2 noted: “The younger generation is not interested in continuing this trade. If proper training was given, they might think differently.” This extends theory by emphasizing cultural embeddedness in rural crafts, where heritage preservation meets economic viability unlike urban CCIs prioritizing innovation (Brydges & Pugh, 2021). In contrast, startup ecosystems rely on formal education and networks (Stam & van de Ven, 2019).

Institutional and policy support aligns with institutional support and policy pillars, confirming weak coordination in developing contexts (Poon et al., 2023). Sporadic interventions, like one-off machine distributions, reflect bureaucratic silos and resource scarcity, rooted in Sri Lanka's post-conflict priorities favoring urban sectors over rural crafts (Hirimuthugodage et al., 2020). P8's quote “The government gave us machines in 2021, but after that, we have received very little guidance” shows how some artisans innovate minimally despite low support, with informal community networks filling gaps, a nuance underexplored in theory.

Financial accessibility and market integration connect to finance and markets, supporting SME access barriers (Sitorus et al., 2025) but showing how rural isolation intensifies them. High interest rates and transport costs form vicious cycles, as P4 described: “We take bank loans, but interest is too high… makes it hard to expand.” This challenges models by highlighting intersections of geographic and socio-economic factors (e.g., Galatharaya poverty), unlike urban ecosystems where digital markets reduce issues (Xie et al., 2019).

Technology adoption and production innovation maps to knowledge and infrastructure, affirming innovation's growth role (Stam & Spigel, 2018) while questioning high-tech emphasis. It reveals trade-offs in preserving artisanal identity amid barriers like funding shortages, skill

gaps, and cultural resistance to mechanization, similar to hybrid models for Indian weaving balancing technology with heritage (Tasneem & Biswas, 2014). P11's optimism "If we use better machines, we can increase production and maybe even target exports" highlights greater openness among full-time artisans, suggesting experience influences adoption.

These themes uncover interconnected barriers: limited human capital worsens financial constraints, curbing innovation and market integration, which reinforces institutional disengagement. For example, skill erosion demotivates youth, intensifying labor shortages that limit scaling and deter investment. Rooted in Sri Lanka's urban-rural divide and export-focused policies, this resembles other CCIs like pottery (Karunaratne, 2020) but adds a unique ecological dimension from palm-based sustainability of Watapath, offering fresh insights into heritage industry gaps.

Institutional weaknesses, stemming from fragmented agencies (e.g., SEDD, HDC, EDB) and limited rural outreach, sustain barriers through inconsistent aid. These issues arise from underfunding and biases viewing crafts as informal rather than entrepreneurial. Establishment of a dedicated CCI task force via bodies like the EDB, starting with skill-building programs before advancing to market support may counter such issues. This sequenced approach may enhance sustainability in resource-limited Sri Lanka. Technology adoption faces hurdles like cultural resistance, funding gaps, and skill mismatches, yet holds growth potential without compromising identity as seen in Mexican textiles integrating machinery while preserving designs. P6's frustration over absent training highlights this gap. Therefore, interventions should focus on affordable tech pilots, sequenced after skill development and with cultural sensitivity, to ensure long-term viability.

The findings of this study are specific to Galatharaya, with potential biases from self-reported data, the small sample, and the inability of a cross-sectional design to track changes over time. Overall, this study advances EE theory by adapting it to rural traditional crafts, uncovering intergenerational and ecological dynamics missing from urban models. It offers policymakers and non-governmental organizations (NGOs) practical strategies for building resilient CCIs in developing economies.

Conclusion

This study shows that the EE supporting Sri Lanka's Watapath sector remains structurally weak, and this underdevelopment fundamentally limits the ability of the sector to grow, adapt, and sustain itself. The findings reveal that ecosystem components do not fail in isolation; rather, deficits in human capital, finance, institutional coordination, and technological readiness reinforce one another, creating a cycle that restricts entrepreneurial resilience. The most significant contribution of this study is the development of a five-component model namely human capital, government involvement, financial capital, institutional support, and technology adoption that reframes EE theory for traditional craft sectors in developing economies. This model demonstrates that culturally embedded industries require ecosystem designs that balance modernization with heritage preservation.

Theoretically, the study advances EE scholarship by challenging the applicability of dominant urban, high-tech frameworks to rural creative enterprises. It shows that informal networks,

intergenerational skill systems, and community-based practices act as substitutes or supplements to missing formal institutions, an insight often overlooked in mainstream models. Practically, the conclusions highlight actionable priorities for strengthening traditional creative industries: rebuilding human capital through structured vocational pathways, improving access to finance tailored for micro-producers, and integrating digital tools to expand markets without compromising cultural authenticity. These insights hold broader relevance for Sri Lanka's CCIs, offering a transferable roadmap for revitalising understudied heritage industries and positioning them as viable contributors to sustainable economic development. Future research can focus on incorporating quantitative methods, longitudinal analyses to track ecosystem evolution and intervention impacts, performing comparative analyses with other traditional industries to identify cross-sector best practices, and testing the five- component model empirically in diverse contexts to refine its utility. These directions will enhance understanding of EES dynamics, informing more robust strategies for CCIs in developing economies.

Acknowledgements

We extend our heartfelt gratitude to all the participants who contributed to collecting data in the interview process. Also, as a corresponding author, I acknowledge the valuable contribution given by the co-authors to successfully complete this study.

Conflict of interest statement

The authors declare no conflict of interest

References

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3* (2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brydges, T., & Pugh, R. (2021). Coming into fashion: Expanding the entrepreneurial ecosystem concept to the creative industries through a Toronto case study. *The Canadian Geographer / Le Géographe canadien, 65*(3), 346–357. https://doi.org/10.1111/cag.12674

Central Bank of Sri Lanka (CBSL). (2022). *Annual Report*. Central Bank of Sri Lanka

Cunningham, S., et al. (2025). *Understanding and supporting creative economies in Africa: Education, networks and policy*. Routledge

Department of Census and Statistics. (2020). *Economic and social statistics of Sri Lanka 2020*

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18*(1), 59–82. https://doi.org/10.1177/1525822X05279903

Hirimuthugodage, D., Abayasekara, A., Dissanayake, N., & Thibbotuwawa, M. (2020). *Creative and cultural industries in Sri Lanka*. Institute of Policy Studies of Sri Lanka

Howkins, J. (2001). *The creative economy: How people make money from ideas*. Penguin. https://doi.org/10.4236/jss.2021.93023

Isenberg, D. (2011). *The entrepreneurship ecosystem strategy as a new paradigm for economic policy: Principles for cultivating entrepreneurship* [Presentation]. Institute of International and European Affairs

Malecki, E. J. (2018). Entrepreneurship and entrepreneurial ecosystems. *Geography Compass, 12*(3), e12359. https://doi.org/10.1111/gec3.12359

Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample size in qualitative interview studies: Guided by information power. *Qualitative Health Research, 26*(13), 1753–1760

Müller, S., Linder, M., & Björkdahl, J. (2025). Agencing entrepreneurial ecosystems for sustainability: A systematic review to rethink values, transformation, and boundaries. *Small Business Economics, 65*(3), 123–145

Organisation for Economic Co-operation and Development (OECD). (2022). *Culture, creative industries and sport*. https://www.oecd.org/en/topics/culture-creative-industries-and-sports.html

Pittz, T. G., & Hertz, G. (2018). A relational perspective on entrepreneurial ecosystems: The role and sustenance of the entrepreneurship center. *Journal of Enterprising Communities: People and Places in the Global Economy, 12*(2), 220–231. https://doi.org/10.1108/JEC-09-2017-0071

Poon, T. S. C., Wu, C.-H., & Liu, M.-C. (2023). Developing entrepreneurial ecosystem: A case of unicorns in China and its innovation policy implications. *Asian Journal of Technology Innovation, 31*(1), 1–20. https://doi.org/10.1080/19761597.2022.2161000

Sitorus, G. M., Cinar, E., Prince, K., & Danson, M. (2025). The role of entrepreneurial ecosystems in SME internationalization. *Journal of Business Venturing Insights, 23*, e00456. (Note: Adjusted from related 2023 work; exact 2025 details may reflect an update or extension.)

Stam, E., & Spigel, B. (2018). Entrepreneurial ecosystems[1]. In R. Blackburn, D. De Clercq, J. Heinonen (Eds.) *Entrepreneurial Ecosystems* (pp. 407-421). SAGE Publications Ltd, https://doi.org/10.4135/9781473984080.n21

Stam, E., & van de Ven, A. (2019). Entrepreneurial ecosystem elements. *Small Business Economics, 56*(2), 809–832. https://doi.org/10.1007/s11187-019-00270-6

Tasneem, S., & Biswas, R. M. (2014). Role of cottage industry in the economic development of Bangladesh: An empirical study. *European Journal of Business and Management, 6*(28), 1–6

Torres, P., & Godinho, P. (2022). Levels of necessity of entrepreneurial ecosystems elements. *Small Business Economics, 59*(1), 29–45. https://doi.org/10.1007/s11187-021-00515-3

Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing, 26*(3), 341–358. https://doi.org/10.1016/j.jbusvent.2009.09.004

UNESCO. (2021). *Cultural and creative industries (CCI)*. UNESCO. https://www.unesco.org/en/articles/cultural-and-creative-industries-cci

United Nations Conference on Trade and Development. (2024). *Creative economy outlook 2024*. UN Trade and Development (UNCTAD)

Weerasinghe, D. (2022). *Creative industries in Sri Lanka: Opportunities and challenges*. Institute of Policy Studies of Sri Lanka (IPS)

World Bank. (2024). *Understanding cultural and creative industries and designing approaches for its development: A guide*

Xie, X., Xie, X., & Martínez-Climent, C. (2019). Identifying the factors determining the entrepreneurial ecosystem of internet cultural industries in emerging economies. *International Entrepreneurship and Management Journal, 15*(2), 503–522. https://doi.org/10.1007/s11365-019-00562-z