

CRAFTING MARKETS: INTEGRATED INNOVATIVE MEDIA FOR SUSTAINABLE HANDICRAFT ECONOMIES IN THA DIN DAM, LOPBURI PROVINCE, THAILAND

Chartchayapha Wattanathum¹, Chutima Sangkhaha², Apisak Koograsang³,
Tanida Suppharangsarn⁴, Aksorn Sawasdee⁵, Pornsin Supawan⁶

¹College of Teacher Education, Phranakhon Rajabhat University, Thailand,
ORCID ID: 0009-0002-5209-6158

²Faculty of Science and Technology, Phranakhon Rajabhat University, Thailand;
ORCID ID: 0009-0006-6554-2101

³Faculty of Management Science, Phranakhon Rajabhat University, Thailand,
ORCID ID: 0000-0002-5436-5588

⁴Faculty of Management Science, Phranakhon Rajabhat University, Thailand,
ORCID ID: 0009-0000-7302-4546

⁵Faculty of Humanities and Social Sciences, Phranakhon Rajabhat University,
Thailand,
ORCID ID: 0009-0009-0166-9076

⁶Faculty of Science and Technology, Phranakhon Rajabhat University, Thailand,
ORCID ID: 0009-0000-9214-4420

Chartchayapha.w@gmail.com¹
Chutimasang@hotmail.com²
apisak2012@gmail.com³
yuitanida@gmail.com⁴
AKSORN@PNRU.AC.TH⁵
pornsin.s@gmail.com⁶

ABSTRACT

Community-based handicraft enterprises in Thailand face persistent challenges in articulating the cultural significance and economic value of their products to wider markets. Existing promotional approaches often fail to integrate cultural revitalization with digital enterprise upgrading, leaving a gap in both theory and practice regarding how integrated marketing communication (IMC) can be adapted to grassroots economies. This research and development study respond to that gap by co-designing and testing an IMC media innovation for the reed handicraft cluster in Tha Din Dam, Lop Buri Province. Drawing on the ADDIE framework and participatory rural appraisal, the study advances a theoretically informed model that situates IMC not only as a marketing tool but also as a mechanism for cultural transmission and sustainable community development. Findings demonstrate that a co-created IMC package can strengthen product identity, enhance community capacities in digital storytelling, and provide a replicable pathway for linking local wisdom with contemporary market systems. This contribution extends theoretical discussions on IMC by embedding it within rural development and sustainability discourses, offering implications for policy, donor engagement, and future research on adapting IMC to other intangible cultural heritage sectors.

Keywords: Wisdom Handicrafts, Innovative Media, Integrated Marketing Communication Sustainable Community Economy, Creative Economy

INTRODUCTION

Local wisdom constitutes a crucial foundation for sustainable community development, shaping both cultural identity and economic resilience. Reed mat weaving in Tha Din Dam community at Chai Badan District, Lopburi Province, exemplifies this tradition. Originally practiced within households, the craft has evolved into a commercial enterprise characterized

by unique weaving patterns, natural dyeing techniques, and diversified products ranging from handbags to monk seat cushions. Despite governmental and local institutional support, the community continues to struggle with two persistent challenges: limited market expansion and the absence of a strong, distinctive product identity. These challenges underscore a critical need for innovative approaches that integrate cultural heritage preservation with modern marketing communication to foster sustainable grassroots economic development.

Although prior studies have suggested pathways to address these issues, important gaps remain. Research by McIntosh, & Schneider, (2020). Highlighted the role of culturally embedded branding strategies in enhancing competitiveness in global markets. Parallel studies (Thamwiphatjan, & Parinchankon, 2021). Emphasized the potential of multimedia applications in cultural transmission and youth engagement. Similarly, Pretorius, & Munro, (2012). Point to digital media as a means of cultural preservation. However, these strands of literature remain fragmented: few studies examined how integrated marketing communication (IMC) can systematically link cultural revitalization with digital enterprise upgrading at the community level. Apart from that, IMC package design helps local people to understand media messages and promote local wisdom and handicraft economies (Alsahli et al., 2025, & Kumar et al., 2025). However, there is limited evidence on co-designed IMC models that explicitly involve community stakeholders in crafting strategies for sustainable handicraft economies.

Against this backdrop, the present research seeks to fill this gap by developing and testing an IMC innovation tailored to the reed mat weaving cluster in Tha Din Dam. The study employs an area-based, participatory R&D approach, combining interdisciplinary academic collaboration with local and governmental actors. Specifically, it aims to strengthen the product identity of reed handicrafts through culturally grounded media, to enhance community capacity in digital marketing and storytelling, to expand the consumer based by integrating online and offline communication channels, and contribute to the theoretical advancement of IMC by situating it within the discourse of cultural sustainability and rural economic development.

Accordingly, the central research question guiding this study is: How can a co-designed IMC media innovation enhance both the cultural preservation and market competitiveness of reed handicrafts in Tha Din Dam, thereby contributing to a sustainable community economy? By addressing this question, the research not only responds to a practical development need but also contributes theoretically to the understanding of IMC as a tool for integrating cultural heritage with sustainable economic strategies.

Literature review

The development of integrated marketing communication (IMC) innovations for the promotion of local wisdom requires a theoretical foundation that encompasses multiple domains, including marketing, local wisdom, digital technology, and community context. The central concept to this endeavor is the concept of Integrated Marketing Communication (IMC), which emphasizes the strategic coordination of media and marketing tools to maximize effectiveness in creating consumer awareness and influencing purchasing decisions (Ketwiya, 2020 & Sajjapitak, 2017). In addition, experience-based and trust-driven marketing approaches have been shown to effectively meet the expectations of digital-era consumers (Tortienchai, 2021).

The promotion of local wisdom-based handicrafts requires not only technical skills but also innovative communication strategies that situate cultural heritage within modern market systems. Previous studies have highlighted the potential of digital storytelling and multimedia applications to stimulate consumer engagement and cultural transmission. For example, Somsri et al., (2019). Found that weaving narratives rooted in local culture could enhance consumer demand, while McIntosh, & Schneider, (2020). Demonstrated that branding strategies

reflecting community identity increased global competitiveness for crafts. These studies are valuable in showing how culture-oriented communication can boost market reach. However, their limitation lies in focusing primarily on output measures such as consumer demand, without addressing how communication models can be systematically embedded in community-driven development.

Research has also examined the role of multimedia in education and cultural preservation. Thamwiphatjan, & Parinchankon, (2021). And Saengduangdee et al., (2021). Illustrated that multimedia enhances youth participation and intergenerational transmission of cultural knowledge. The strength of these studies is their emphasis on inclusivity and engagement, yet they fall short in linking cultural preservation to concrete economic outcomes or sustainable livelihoods. The study of Bharathi et al., (2025). Showed that sustainable growth in business related to social media advertising. Moreover, technological tools and media communication such as multimedia supported the People to present handicraft enterprises for customers (Cao, 2025).

Similarly, Phurirungphinyou, & Phosirawat, (2014). Showed how local wisdom aligned with sufficiency economy principles could mitigate economic vulnerability. While this highlights the socio-economic relevance of local knowledge, the research does not propose a structured marketing or communication framework to operationalize this potential.

In the realm of digital technology, studies have demonstrated that the integration of multimedia and storytelling techniques can effectively build brand image and enhance the perceived value of local products. This has been observed in both domestic contexts (Boonrod, & Hansanti, 2023). Moreover, the study of Wattanatham, & Sangkhaaha, (2024). Described the effects of using virtual learning media to knowledge and skill of natural dyeing reeds handicrafts at Tha Din Dam Sub-District in Chaibadan District, Lopburi Province. The results indicated the quality of the developed media about technical aspects was good level, together with a very good content. International studies (McIntosh, Schneider, 2020 & Pretorius, Munro, 2012). Especially the use of social media and digital platforms that reaches the targeted consumers. Consequently, the integrated marketing communication (IMC) community has increasingly emphasized the need for more rigorous empirical research to support theoretical advancement. IMC is conceptualized as a stakeholder-centered, interactive process that involves cross-functional planning and the alignment of organizational, analytical, and communication systems. This integration allows for ongoing engagement through the delivery of transparent and consistent messages across all media channels, with the goal of fostering long-term, profitable relationships and creating value (Porcu et al., 2019).

When implemented as a comprehensive system encompassing sales and customer satisfaction, IMC enhances customer service and increases brand value. This approach has addressed calls for stronger empirical evidence demonstrating the effects of IMC on sales performance, customer satisfaction, and brand equity (Rehman et al., 2022). Traditionally, strategic IMC relied heavily on conventional promotional mix tools. However, this model is increasingly seen as outdated and should be replaced by approaches that fully integrate diverse social media platforms into both the planning and execution phases of IMC strategies.

In the modern digital era, marketers must recognize the critical role of social media, which has become a routine part of consumer behavior. Consumers actively share information and experiences related to products and services, making social media an indispensable element in effective IMC strategy formulation and implementation.

The 4H and 5A's Theories

4H Theory

The 4H framework stands for Head, Heart, Hand, and Health, which represents a

holistic approach to human and community development. This concept emphasizes the development of knowledge and thinking (Head), emotional awareness and shared values (Heart), practical skills and active participation (Hand), and physical and mental well-being (Health).

In the context of community needs assessment, the 4H model serves as a qualitative tool to analyze various aspects of community demands, such as the need to enhance knowledge and understanding among community members, promote collective awareness and emotional engagement, foster participation in development activities, and improve community health and overall quality of life.

5A's Theory

The 5A's framework is commonly used to assess the effectiveness and feasibility of projects or activities and can be adapted for community needs assessments. The 5A's refer to Awareness, Accessibility, Affordability, Acceptability, and Adaptability.

This model can be used to evaluate how well a project or activity aligns with the community's needs by considering: the level of public awareness about the initiative, ease of access to related information and services, financial feasibility for participants, cultural and social acceptability, and the community's ability to adapt to the project or activity.

Application :

The 4H and 5A's models can be applied in combination to enhance the assessment of community needs. While the 4H model provides a qualitative perspective on community needs, the 5A's framework offers a practical lens to evaluate the readiness and suitability of relevant development initiatives.

For example, the 4H model might be used to identify a community's need for skill development (Head), emotional engagement activities (Heart), hands-on training (Hand), or health promotion (Health). Subsequently, the 5A's framework can be used to evaluate whether proposed projects or activities are appropriate and capable of addressing those needs effectively—by examining factors such as community awareness, accessibility, cost-effectiveness, acceptance, and adaptability.

Conclusion

While the 4H and 5A's models are not direct tools for community needs assessments, they can be effectively integrated and applied as analytical frameworks. The 4H model supports qualitative understanding of community needs, whereas the 5A's model helps assess the practicality and suitability of initiatives aimed at community development.

The 5A's Framework in Marketing : A Customer-Centric Model for Strategic Engagement

The 5A's framework has been widely utilized across various fields, including healthcare and marketing, as a systematic approach to influencing behavior and improving outcomes. In the context of digital marketing and consumer engagement, the 5A's—Awareness, Attraction, Action, Acquisition, and Advocacy—represent a strategic, customer-centric model designed to guide the consumer journey from initial contact to sustained loyalty and promotion.

1. Awareness refers to the stage where potential customers first become aware of a brand, product, or service. This is often achieved through advertising, public relations, and digital content, which aim to establish brand recognition and recall.

2. Attraction involves engaging the target audience by capturing their interest and drawing them closer to the brand. Effective attraction strategies include content marketing,

social media engagement, and personalized messaging, all designed to create meaningful interactions.

3. Action denotes the point at which consumers are motivated to perform a desired behavior—typically making a purchase, signing up for a service, or engaging in other forms of conversion. This step is influenced by factors such as value propositions, ease of navigation, and persuasive calls to action.

4. Acquisition refers to the successful onboarding of new customers. It emphasizes the transition from interest to commitment, and often includes strategies related to onboarding experiences, trial offers, and initial customer support.

5. Advocacy represents the ultimate goal of the framework, in which satisfied customers evolve into loyal brand advocates who voluntarily promote the brand through word-of-mouth, social sharing, and user-generated content. Advocacy is a key indicator of long-term brand equity and customer satisfaction.

This framework reflects a shift in marketing strategy from transactional to relational paradigms, emphasizing long-term engagement and value co-creation. In the digital era, where consumers play an active role in shaping brand perception, the 5A's model provides a comprehensive guide for marketers seeking to build sustainable relationships and cultivate brand communities.

The ADDIE Model

Applying the ADDIE Model to Curriculum Development and CRM Practice: A Case Study of CodersTrust Bangladesh

The ADDIE model is a widely recognized and systematic instructional design framework used to guide the creation, delivery, and evaluation of educational and training programs. Comprising five sequential phases—Analyze, Design, Develop, Implement, and Evaluate—the ADDIE model ensures that learning experiences are effective, goal-oriented, and learner-centric. This model has been extensively adopted in both educational and corporate training contexts due to its clarity, adaptability, and iterative nature.

The Five Phases of ADDIE

1. Analyze – This foundational phase involves identifying learning needs, defining instructional goals, and assessing the learners' prior knowledge, skills, and context. It enables a comprehensive understanding of the challenges to be addressed by the training program.

2. Design – In this phase, instructional designers develop a strategic plan or blueprint for the learning experience. This includes defining learning outcomes, sequencing content, selecting appropriate instructional methods, and planning assessments.

3. Develop – The development phase focuses on the production of learning materials, such as lesson plans, multimedia content, interactive modules, and assessments, all aligned with the design framework.

4. Implement – At this stage, the training program is delivered to the learners through the chosen delivery mode—face-to-face, online, or blended learning environments. Logistics, facilitator preparation, and learner support are critical considerations here.

5. Evaluate – This final phase assesses the program's effectiveness by collecting feedback from learners and stakeholders, as well as analyzing learner performance and achievement of learning objectives. The results are used to inform of improvements in future iterations.

The model's iterative nature allows feedback from any phase to influence preceding steps, supporting continuous refinement and optimization of the instructional design process.

Application in the Context of CodersTrust Bangladesh

CodersTrust Bangladesh, a prominent freelancing and digital skills training institution, can significantly benefit from the adoption of the ADDIE model as part of its curriculum development and customer relationship management (CRM) practices. Traditionally, CodersTrust has relied heavily on mentor-based feedback to assess and refine its training tools and delivery mechanisms. However, this approach lacks the structured and evidence-based rigor necessary for scalable and sustainable educational outcomes.

By implementing the ADDIE model, CodersTrust can establish a standardized framework to assess all stages of its instructional design process. This would enable the organization to:

- Conduct needs assessments that align training with market demands and learner profiles.

- Design and develop competency-based learning materials that support practical skill development in freelancing.

- Systematically implement programs with measurable delivery protocols.

- Evaluate the impact of training programs on learner outcomes and employability using empirical data.

Furthermore, as CodersTrust expands its footprint in global education markets, the adoption of a model like ADDIE—which is accepted by numerous international educational institutions and training agencies—can enhance the credibility, consistency, and quality of its programs.

Conclusion

Integrating the ADDIE model into CodersTrust Bangladesh's curriculum design and CRM practices can serve as a strategic innovation that improves instructional quality, learner engagement, and program effectiveness. In a competitive and rapidly evolving digital learning environment, adopting such a systematic, research-informed framework is essential for sustaining long-term growth and impact in the freelancing education sector.

Research and development (R&D) has been identified as an appropriate approach for driving transformative change within communities. This involves engaging local stakeholders in co-creating new knowledge, increasing the value of existing resources such as repurposing agricultural waste into new products (Jaitea, 2020 & Boonla, 2021). and establishing systematic knowledge management frameworks. Furthermore, consumer satisfaction remains a key indicator for evaluating the quality and market potential of community products, particularly in areas such as design, usability, and brand perception. These factors reflect the long-term success of product development and promotion efforts (Ketwiya, 2020 & Boonrod, Hansanti, 2023).

In summary, the reviewed literatures suggest that the development of integrated marketing communication innovations tailored to local contexts and based on multi-stakeholder participation is a crucial strategy for promoting local wisdom, enhancing product value, and establishing a resilient grassroots economy.

Conceptual Model

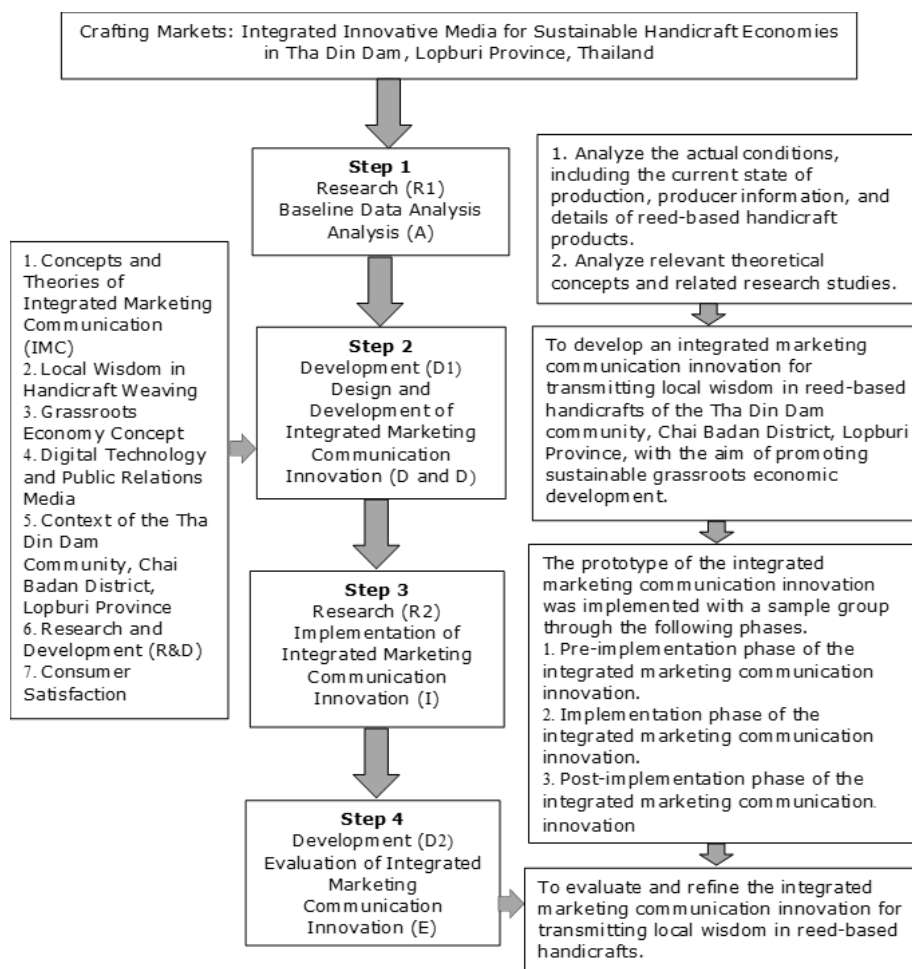


Figure 1: Theoretical framework for developing an integrated marketing communication (IMC) media innovation to promote local-wisdom reed handicrafts in Tha Din Dam, Chai Badan District, Lop Buri Province, toward a sustainable community economy

4H and 5A's

4H Theory. The 4H framework Head, Heart, Hands, and Health provides a holistic lens for community development by focusing on cognitive growth, shared values, participatory skill-building, and well-being. Evidence from a scoping review of 4-H programs indicates positive youth and community outcomes, supporting its use as a qualitative diagnostic for needs (Agans et al., 2020).

5A's Theory (Access). For assessing the feasibility and readiness of development initiatives, the original Five A's of access Availability, Accessibility, Accommodation, Affordability, and Acceptability offer a robust standard for evaluating service fit with community conditions (Penchansky, & Thomas, 1981). If a marketing-focused lens is required, Kotler's consumer-journey 5A—Aware, Appeal, Ask, Act, Advocate—has been operationalized in recent social-media research; see (Hung, 2023).

Application. Combine 4H to surface qualitative needs e.g., skill development (Head), motivation and shared values (Heart), hands-on training and participation (Hands), and health promotion (Health) with the 5A's of access to test whether proposed interventions are sufficiently available, reachable, operationally accommodated, affordable, and socially acceptable in the local context (Agans et al., 2020 & Penchansky, Thomas, 1981). This pairing

yields an evidence-informed, stakeholder-centered approach suited for community needs assessments and program design, and can be extended to digital/IMC initiatives when a consumer-journey perspective is pertinent (Hung, 2023).

The 5A's Framework in Marketing : A Customer-Centric Model for Strategic Engagement

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Overview. The 5A's Aware, Appeal, Ask, Act, Advocate structure a customer-centric journey from initial contact to loyalty and word-of-mouth advocacy. In digital contexts, the framework operationalizes relationship-oriented marketing by coordinating touchpoints across channels and time, rather than optimizing isolated transactions (Lemon, Verhoef, 2016 & Hung, 2023). [research.rug.nl+1](#)

Stages (Kotler's 5A).

1. Aware Prospects recognize a brand via paid/owned/earned media.
2. Appeal Interest forms through relevant, emotionally resonant content and experiences.
3. Ask Customers actively seek information (search, reviews, social Q&A), testing credibility and fit.
4. Act Conversion occurs when value, convenience, and risk-reduction align across touchpoints.
5. Advocate Satisfied users generate reviews, referrals, and UGC; advocacy amplifies reach and has durable performance effects (Trusov et al., 2009). [research.rug.nl+1](#)

Implications. Using 5A as an organizing logic helps teams align content, service, and analytics with progressive relationship goals shifting from campaign-centric, short-term persuasion to long-term engagement and value co-creation. Advocacy, supported by post-purchase experiences, often produces stronger and longer-lived demand effects than traditional advertising, reinforcing the need to measure and design beyond the moment of conversion (Lemon, Verhoef, 2016 & Trusov et al., 2009).

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RESEARCH METHODOLOGY

Methodology

1. Design This study employed a four-phase Research and Development (R&D) framework, integrating mixed-methods research that combined both quantitative and qualitative approaches. Community participation was emphasized throughout the process using Participatory Rural Appraisal (PRA) as a key methodological tool to support effective local development (Selener, 1997).

2. Participants The target population included residents of Tha Din Dam Subdistrict, Chai Badan District, Lopburi Province, totaling 4,518 individuals across six villages. A sample of 30 community members comprising local weavers, was selected based on voluntary participation and interest in using integrated marketing communication innovations to promote local reed-based handicraft wisdom and foster grassroots economic development.

3. Instruments Data collection tools included: (1) a focus-group discussion form; (2) a 30-item achievement test on knowledge of local craft wisdom (KR-20 reliability verified); (3) a 10-task practical skills checklist; (4) a 5-point Likert scale satisfaction survey; and (5) expert-evaluation rubrics with item-objective congruence (IOC) index ≥ 0.80 .

4. Procedure The study proceeded through four core phases:

R1: Situational analysis and community context assessment

Phase 1: Exploratory Research (R1) To study the current situation of product manufacturing, information on producers, and reed-based handicraft products of the Tha Din Dam community, Chai Badan District, Lopburi Province. The researchers reviewed documents and related literature. The activities in this phase included:

1. **Diagnosis** This involved studying the community context in various aspects, focusing on the local wisdom of reed-based handicrafts in Tha Din Dam Subdistrict, Chai Badan District, Lopburi Province. The study aimed to assess the availability of raw materials in the community, analyze the community's potential based on the 4H and 5A's resource theories, and explore community needs. The following procedures were conducted:

1.1. A participatory workshop was organized to exchange basic community information and develop guidelines for studying the community context, including methods for data collection shared with the research team.

1.2 The research team collaboratively developed data collection tools, such as record forms and focus group discussion guides.

1.3 Data were collected from related documents and fieldwork using brainstorming sessions and focus group discussions. These discussions followed a semi-structured approach, where main themes were pre-identified but could be expanded upon during the data collection process. The sample group consisted of 30 participants, including local residents, indigenous handicraft experts, community leaders, and representatives from relevant organizations in the Tha Din Dam Subdistrict, selected through purposive sampling.

1.4 Data analysis was conducted by the research team using content analysis techniques.

D1: Co-development of three advertising medias—an educational video (7 minutes), a Facebook page (@ThaDinDamReedCraft), and a fold-out print brochure

Phase 2 : Design and Development (Development1: D1) This phase addressed Objective 2: to create and develop an integrated marketing communication (IMC) media innovation for transmitting local wisdom related to reed-based handicrafts from the Tha Din Dam community, Chai Badan District, Lopburi Province.

The procedures for creating and developing the IMC media innovation were aimed at sustainably enhancing the community's grassroots economy. The researcher adopted the ADDIE Model, consisting of five core stages: Analysis, Design, Development, Implementation, and Evaluation. The current phase focused on the following:

Step 1: Analysis The analysis was conducted with respect to the development of the integrated marketing communication media innovation to convey local handicraft wisdom. The key activities were as follows:

1. Study of Innovation Design and Development Approaches The researcher reviewed documents, previous research, and consulted with experts in the field of integrated marketing communication media innovation. This information was used to analyze the components, strengths, and weaknesses of similar innovations, as well as identify appropriate design strategies aligned with the learners' needs.

2. Learner Analysis The target group in this study comprised members of the reed mat weaving occupational group in Tha Din Dam Subdistrict, Chai Badan District, Lopburi Province. These participants were found to be proficient in technology use and quick to learn. Their communication style is typically text-based via mobile or computer screens rather than verbal interactions. They tend to prefer practical, hands-on learning rather than lecture-based instruction. Given that local reed-weaving craftsmanship involves multiple intricate steps that require repeated practice and memorization, the researcher aimed to develop a media innovation that would support both content retention and active practice. The envisioned innovation promotes active learning through procedural engagement.

3. Content Analysis This involved defining the content scope and learning objectives for each unit to align with the essential elements of the curriculum. The results of this analysis informed the creation of pre- and post-test instruments to assess learning outcomes effectively.

4. Content Validity Review The researcher submitted the content analysis matrix and learning objectives to experts for review using the Index of Item-Objective Congruence (IOC) to ensure content validity and alignment.

Step 2: Design This step involved designing the integrated marketing communication (IMC) media innovation before developing its prototype. The procedures were as follows:

1. **Storyboard Development** A storyboard was created to define the format and sequence of content presentation within the IMC media innovation, aimed at transmitting local wisdom related to reed-based handicrafts. The storyboard content was organized based on pre-determined key themes. As the learning model emphasized self-directed learning, learners could choose specific lessons or modules according to their needs. Therefore, to ensure coherent and non-confusing content delivery, the resources and presentation in each unit were carefully designed in preparation for the media innovation development.

2. **Expert Review of the Storyboard** The researcher submitted the storyboard to experts for review to ensure its accuracy and appropriateness. Feedback was collected and used to revise and improve the storyboard before developing the IMC media innovation. The content was intended for delivery via an online community, accessible through computers, tablets, or smartphones.

Step 3: Development This step involved transforming the storyboard and content into actual IMC media innovations to convey local wisdom in reed-based handicrafts. The development included:

1. **Study of Media Development Techniques** The researcher studied media development concepts and created video clips suited for presenting various content formats—such as still images, animations, audio, print, and electronic media. Three types of media were developed: posters, brochures, and video clips presenting the local wisdom of reed-based handicrafts.

2. **Poster Development** The researcher designed promotional posters for the Tha Din Dam reed mat weaving group highlighting unique local products of Lopburi Province. Created using graphic design software, the posters served as the front page of the IMC media, allowing learners to access an overview of reed-based craftsmanship through specific interactive elements.

3. **Brochure Development** Six brochures were designed using graphic design software to introduce learners to the overall concept of reed-based handicrafts before progressing to more detailed content.

4. **Selection of Video Clips** The researcher curated relevant video clips from YouTube that had been previously published, focusing on content that aligned with the curriculum. These videos were linked directly to the websites of the original creators, ensuring proper credit attribution.

5. **IMC Media Platform Development** Facebook was used as the main platform for delivering the media, enabling blended learning through online technologies. Learners could interact via computer, tablet, smartphone, or even digital glasses. The developed media featured immersive virtual elements, allowing for dynamic interaction in a digital learning space.

6. **Expert Evaluation and Revision** The completed media was reviewed by experts and revised based on their feedback.

Content Evaluation: The content was rated at the highest level of appropriateness with a mean score of $M = 4.96$. Specific aspects rated $M = 5.00$ included clear learning objectives, content alignment with objectives, logical sequencing, coherent structure, modern relevance, real-life application, suitable examples, practice exercises, and assessments. Content length and language use were also rated highly ($M = 4.80$).

Technical Evaluation: The technical components were rated highly with an average of $M = 4.88$. Items such as individualized design, attention-grabbing strategies, learner-controlled navigation, system stability, and creative design received $M = 5.00$. Other aspects such as hyperlinks, loading speed, user interface, font size, graphics, video streaming, and feedback mechanisms were also evaluated positively ($M = 4.60$ – 4.80).

Step 4 : Implementation The developed virtual media was piloted with 30 members of the Tha Din Dam reed mat weaving group. Pre-test and post-test assessments were conducted to measure and compare learning outcomes, aiming to evaluate the effectiveness of the IMC media innovation in transmitting local handicraft wisdom.

Step 5 : Evaluation This phase involved evaluating the effectiveness of the IMC media innovation. A comparison was made between the learning outcomes of the group using the media and a control group that did not use the innovation. Additionally, learner satisfaction was assessed among the participants from the Tha Din Dam weaving group who engaged with the IMC media innovation.

R2: Pilot implementation with pre-test and post-test assessment

Phase 3: Implementation (Research2: R2) To study the effectiveness of the integrated marketing communication (IMC) media innovation for transmitting local wisdom related to reed-based handicrafts from the Tha Din Dam community, Chai Badan District, Lopburi Province, with the goal of sustainably developing the community's grassroots economy. The research procedures were as follows:

1. Questionnaire for Assessing the Effectiveness of the Innovation

The questionnaire was developed to evaluate the effectiveness of the IMC media innovation for transmitting local reed-based handicraft knowledge. The development process involved the following steps:

1.1 Studying theories and principles related to questionnaire construction for assessing the effectiveness of the IMC media innovation, which was developed during Phase 1.

1.2 Creating a five-point Likert scale questionnaire.

1.3 Evaluating the quality of the questionnaire by submitting it to five experts for content validity assessment using the Index of Item-Objective Congruence (IOC). The questionnaire was revised based on their feedback.

According to evaluation criteria, an IOC value of 0.60 or higher is acceptable. The items in this questionnaire received IOC values ranging from 0.80 to 1.00, indicating that the instrument was suitable for use.

2. Expert Evaluation The finalized questionnaire was administered to five experts in educational technology and instructional communication technology to assess the innovation's effectiveness.

3. Data Analysis The collected data were analyzed to evaluate the effectiveness of the IMC media innovation. The analysis included calculating mean scores and standard deviations (S.D.).

D2: Evaluation of the IMC Media Innovation

The researcher developed and validated an achievement test to evaluate the effectiveness of the IMC media innovation. The process involved the following steps:

1. Studied the local wisdom of reed-based handicrafts in the Tha Din Dam community, Chai Badan District, Lopburi Province, in the context of grassroots economic development.

2. Analyzed the alignment between the local learning objectives related to reed-based handicrafts and the instructional goals used to develop the test.

3. Constructed a 40-item multiple-choice achievement test with four answer options, ensuring comprehensive coverage of the content and objectives.

4. Submitted the test to five experts for validation. After review, 30 items were deemed appropriate and included in the final test.

5. Experts assessed the alignment between the test items and the learning objectives.

6. Calculated the Index of Item-Objective Congruence (IOC) based on expert ratings.

7. Assessed test reliability with a sample of learners who shared similar characteristics with the target group, using the Kuder-Richardson Formula 20 (KR-20), which resulted in a reliability coefficient of 0.51.

8. Re-tested the revised version with a similar group of students and analyzed item quality in terms of difficulty index (P) and discrimination index (R). Items with a difficulty index ranging between 0.20 and 0.80 were selected.

9. Finalized and printed a 30-item version of the validated achievement test for actual use in the outcome evaluation.

5. Data Analysis Quantitative data were analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation), paired-sample t-tests to assess differences in pre- and post-test scores, and one-sample proportion tests to evaluate effectiveness benchmarks ($E_1/E_2 \geq 80/80$) (Promwong et al., 2007). Qualitative data from focus groups were analyzed using thematic coding.

Results

All thirty members of the Ban Tha Din Dam reed mat weaving group that met the inclusion criteria (producers with at least two years of experience and capability to engage in digital media) completed every stage of the study, giving a 100 % retention rate. Twenty-six were women (86.7 %) and four were men; the mean age was 44.1 ± 9.6 years and median schooling was Grade 9. Although every participant owned a smart phone, only twelve (40 %) reported posting their products online before the intervention and none had formal marketing training. Baseline achievement-test scores (possible range 0–40) averaged 11.80 ± 3.02 , confirming low prior knowledge of integrated marketing communication (IMC) principles. Self-rated digital confidence was likewise modest ($\bar{x} = 2.31$). Focus-group meeting revealed three structural barriers: (1) limited ability to convert craft narratives into persuasive market messages, (2) sporadic access to reliable broadband, and (3) heavy dependence on local middlemen for price-setting. These findings underlined the need for a multifaceted capacity-building package rather than a single media.

1. Expert appraisal of content quality

Eight external reviewers accredited in adult education, craft design and rural development examined every storyboard, test item and worksheet. The 5-point Likert scales' media evaluation (1 = poor, 5 = excellent) produced a grand-mean of 4.96 ± 0.08 for the *content* domain, denoting "highest suitability". Four indicators received unanimous perfect scores (5.00): "accuracy of technical craft knowledge", "coherence with learning objectives", "cultural authenticity of imagery", and "creativity that stimulates reflection". Reviewers highlighted the seamless sequencing from reed cultivation, natural-dye practice and cost-calculation to market storytelling as a critical strength of the medias. Minor revisions were suggested only for module 6 (costing), prompting insertion of two worked examples on labour valuation. The item-objective congruence index (IOC) across 40 assessment items ranged from 0.83 to 1.00 (mean 0.94), pledging high construct alignment. Collectively, these scores confirm that the knowledge structures of the IMC package fulfilled international criteria for community-based learning tools.

2. Technical quality and usability of the media

A parallel ten-item checklist addressing interface integrity, navigation and multimedia optimization yielded a grand-mean of 4.88 ± 0.21 , again within the "highest" band. Five attributes—adaptive design, attention-capturing sequencing, learner-controlled pacing, system stability and graphic originality—scored a perfect 5.00 from every judge. The lowest mean (4.60 ± 0.49) concerned feedback loops, where experts advised adding automated pop-up tips in the Facebook page to reinforce correct tagging behavior. End-user ratings mirrored the

expert pattern: ease-of-use 5.00 ± 0.00 , multimedia access speed 4.80 ± 0.40 and cross-link clarity 4.80 ± 0.40 . Disaggregating by platform showed that the 7-minute tutorial video achieved marginally higher satisfaction (4.84 ± 0.26) than the fold-out brochure (4.77 ± 0.31), while the Facebook page attracted the highest perceived “inspiration value” during follow-up interviews. These convergent data attest that the package met best-practice thresholds for low-bandwidth rural settings and required no major re-engineering before field deployment.

3. Instructional-efficiency performance (E_1/E_2)

Efficiency calculations, based on the classical 80/80 criterion, integrated pre-assessment scores (E_1) with post test scores (E_2). Learners’ cumulative mid-session marks yielded $E_1 = 89.44\%$, and their post-session marks produced $E_2 = 97.22\%$ —both comfortably surpassing the threshold. The efficiency surplus ($E_1 - \text{standard}$) equaled $+9.44$ percentage points, while the E_2 surplus equaled $+17.22$ points—a combined instructional gain of $+26.66$ points. The coefficient of variation for E_2 ($CV = SD / \text{mean}$) was merely 0.11, evidencing homogeneously high post-performance across participants. Put differently, even the lowest scoring learner progressed from 7/40 to 24/40, indicating that the media suite neutralized pre-existing disparities in educational attainment. Such a profile is consistent with IMC studies in Indonesian batik clusters, where comparable E_1/E_2 surpluses predicted subsequent sales upticks.

The effectiveness was at the highest level, with a mean score of 4.60 and a standard deviation of 0.45, respectively.

Table 1 : Analysis Results of Media Effectiveness
Based on Activity Scores and Post-Learning Achievement Test Scores,
Demonstrating Effectiveness According to the 80/80 Criterion

During Learning Scores		E ₁	Post-Learning Test Scores			Effectiveness E_1/E_2
Full Score	Mean		Full Score	Mean	E ₂	
30	26.83	89.44	30	29.17	97.22	89.44 / 97.22

4. Learning and skill outcomes

Paired-sample t-testing confirmed a statistically and practically significant learning leap. Mean cognitive scores vaulted from 11.80 ± 3.02 pre-intervention to 29.17 ± 3.18 post-intervention ($t = 41.07$, $df = 28$, $p < 0.001$).

Table 2 : Comparison of Learning Achievement Using
Integrated Marketing Communication Media Among 30 Members of the
Reed Mat Weaving Group in Ban Tha Din Dam

Measure	Full Score	\bar{x}	S.D.	t	df	P-Value
Pre-test	30	11.80	2.02	41.07	28	.000
Post-test	30	29.17	0.75			

* Statistically significant at the .05 level

5. Satisfaction and media-specific efficiency

Satisfaction data, measured immediately after course completion via a 20-item five-point scale, returned an overall mean of 4.72 ± 0.20 —again within the “highest” category. The top-ranked dimensions were “clarity of step-by-step guidance” (4.93) and “cultural resonance of visuals” (4.90). The only sub-dimension to dip below 4.5 was “internet cost”, reflecting participants’ concern about mobile-data expenses when uploading high-resolution photographs. Analysis of variance across the three-constituent media revealed that the Facebook page delivered the greatest pedagogic yield ($E_1/E_2 = 91.03/98.11$) and drew the strongest affective endorsement ($\bar{x} = 4.80$, $SD = 0.40$) followed by the video ($\bar{x} = 4.80$, $SD = 0.40$) and the brochure ($\bar{x} = 4.64$, $SD = 0.45$). The composite effectiveness index for the suite (grand mean = 3.83) was classified as “high” according to Thai R&D evaluation criteria. Notably, respondents with lower pre-test scores reported higher satisfaction gains, hinting at a confidence-boost effect that merits formal mediation analysis in future work.

6. Discussion

The media innovation surpassed conventional efficiency thresholds, echoing prior IMC interventions in craft sectors (Lee, 2022). Significant knowledge and skill gains indicate that participatory content creation fosters relevance and learner motivation. Early sales growth, while modest, suggests IMC can translate intangible cultural knowledge into tangible economic uplift, supporting grassroots-economy theory

The ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) is used as a reference and conceptual framework in this study. This study intends to carry out the first stage of the ADDIE model, namely the Analysis stage, to identify the community needs. According to the study of Sangkhaha et al., (2023), the result revealed that integrated media: Brochures, Posters, Videos, Demonstrations, and Real samples helped support local people to be resource learning materials in the community. The information was harnessed by observing and interviewing members of local communities who involved in reed product waving activities. In addition, interviews with the local people were conducted to design Marketing Communication Media. The results demonstrated the community's need Marketing Communication Media. Based on the results of the needs analysis stage, the next stage of ADDIE should be carried out in the future research.

Limitations include small sample size and short follow-up period. Future work should incorporate control villages and longitudinal tracking.

7. Conclusion

Co-developed IMC media serve as low-cost, high-impact tools for community development by preserving cultural heritage and improving local livelihoods. Integrating such innovations into Thailand’s Bio-Circular-Green (BCG) economy agenda offers a strategic pathway for fostering inclusive and sustainable rural prosperity.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this research.

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