

THE ROLE OF SOCIAL ENGINEERS IN PROMOTING BAN CHIANG COMMUNITY PRODUCTS: BRIDGING LOCAL WISDOM AND THE CREATIVE ECONOMY

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ABSTRACT

This project emphasizes a student-centered approach, where students apply social engineering processes to address community development challenges in Ban Chiang Subdistrict. The initiative focuses on identifying, understanding, and addressing visible issues by implementing the MIC Model. Through this process, students develop four key social engineering skills: **Critical Thinker**: Students enhance their analytical thinking skills by treating challenges as opportunities. By engaging with the community, they utilize tools like the “Fahpratan” framework to separate facts from emotions and perspectives using cause-and-effect principles. This approach fosters mutual understanding and facilitates joint development efforts. Additionally, studying the timeline of community development, including daily life and product histories of target groups, enables more precise future planning. **Effective Communicator**: Students gain knowledge-sharing and communication skills essential for problem-solving. **Collaborative Facilitator**: Emphasis is placed on teamwork and conflict-free collaboration. Students mobilize resources and coordinate efforts effectively to address issues. **Innovative Creator**: By focusing on community innovation, students acquire skills in designing and implementing solutions that are both practical and impactful for the local context. The project outcomes demonstrate the potential of integrating social engineering practices into community development, empowering students with essential skills while benefiting the local community.

Keywords: Social Engineers, Ban Chiang Community, Local Wisdom, Creative Economy

INTRODUCTION

The 12th National Economic and Social Development Plan (2017–2021) emphasized the importance of the participation of all stakeholders in the country's development process, including professional groups, regional levels, and national levels. The plan aimed to collaboratively define a vision and strategic direction toward “Stability, Prosperity, and Sustainability” through the formulation of strategies and action plans. As the 12th plan concluded in September 2021, the 13th National Economic and Social Development Plan (2022–2026) was introduced as the second five-year phase of the national strategy. This plan aims to address global changes, such as the aging population, shifts in values and lifestyles, changes in work patterns, global warming, and advancements in technology. These factors significantly impact the behavior and livelihoods of people in society.

To adapt to these changes, Thailand must strengthen its capacity and address existing weaknesses by focusing on developing the skills and attributes of its people to align with the demands of the modern world. This includes knowledge-based skills, behavioral competencies, and adherence to societal norms.

Preparing a high-quality workforce to meet market demands, along with enhancing social security and welfare to promote life stability, is crucial. Particularly, the development of youth with 21st-century skills, such as Social and Emotional Skills or Soft Skills, is a priority (Isro, 2021). These skills enable individuals to adapt and seize opportunities in a rapidly changing society. Social engineers have been identified as a vital mechanism to strengthen communities and enhance learners' competencies. Social engineers are expected to possess four key attributes:

1. A correct attitude toward the nation.
2. A stable life foundation with morality, employment, and ethical citizenship.
3. Skills to solve problems effectively.
4. The ability to develop local communities and create sustainable innovations.

Students trained as social engineers can act as mediators, fostering collaboration among various stakeholders to promote local development. This ensures that communities achieve sustainable growth while equipping youth with the skills necessary for future living and work (Rattanasuwan, 2021).

Ban Chiang, a UNESCO World Heritage Site, represents a prehistoric archaeological civilization and is renowned for its unique cultural identity. This heritage is reflected in the lifestyle of the Tai Phuan community, particularly in the creation of painted pottery, which has been further developed into souvenirs and cultural tourism programs. These programs offer visitors a captivating experience, combining local craftsmanship with historical narratives. Suan Sunandha Rajabhat University, in collaboration with the Ban Chiang pottery group, has integrated research and knowledge to enhance the quality of community products. This effort includes modernizing production processes, improving packaging design, adding value to products, and aligning distribution channels with international standards.

Despite the strengths of Ban Chiang's heritage, the challenge of intergenerational knowledge transfer persists. Many younger community members leave the area for work or focus on external influences, leaving the preservation of local wisdom in the hands of only a few community elders. Addressing this issue requires cultivating a new generation of social engineers within the community. By integrating interdisciplinary knowledge and innovation, these social engineers can improve the quality of life and empower the community to achieve sustainable self-reliance.

The cultivation of social engineers focuses on developing four key competencies:

1. Critical Thinking: Enhancing the ability to analyze problems, identify cause-and-effect relationships, and view challenges as opportunities.
2. Effective Communication: Equipping individuals with skills to effectively convey knowledge and address community issues.
3. Collaborative Facilitation: Promoting teamwork, conflict-free collaboration, and resource mobilization from both within and outside the community.
4. Innovative Creation: Designing and implementing innovative solutions tailored to the needs of the community.

This study employs the Participatory Action Research (PAR) method to develop training programs that emphasize Reskill, Upskill, and New Skill approaches for students and community enterprises. The goal is to enhance their capacity to transfer community-based technology and innovations, rooted in local wisdom and the creative economy. Ultimately, this approach seeks to elevate Ban Chiang's community products, ensuring their competitiveness on a global scale and fostering sustainable development.

Conceptual Framework

The cultivation of social engineers for community development can be outlined in a **conceptual framework** that encompasses the entire process, divided into **four key stages** as follows:

1. Input: Resources and Data Acquisition	2. Process: Cultivation Steps	3. Output: Achieved Results	4. Outcome and Impact: Long-Term Results and Effects
• Personnel: Students, academic advisors, and experts • Community Data: Economic, social, cultural, and resource information in the area • Tools: Reskill, Upskill, and New Skill processes, Human-Centered Design Thinking, SWOT Analysis • Collaboration: Support from the community, government agencies, and private sector organizations	• Training and Skill Development: • Developing analytical thinking skills • Enhancing communication and coordination abilities • Innovating solutions to address community problems • Community Engagement: • Studying the community's problems and situation • Interviewing community leaders and members • Using tools such as Timeline and SWOT Analysis for evaluation • Design and Development: • Applying Human-Centered Design Thinking • Creating prototypes for community products • Testing the products within the community	• Social Engineer Development: • Improved problem analysis skills • Ability to create innovative solutions • Enhanced teamwork and collaboration skills • Value-Added Community Products: • High-quality products that meet customer needs • Attractive and suitable packaging designs • Modern marketing strategies	• Short-Term Outcomes: • Communities managing resources more effectively • Community enterprises generating higher income and gaining consumer confidence • Long-Term Impact: • Improved quality of life in the community • Sustainable community development • Creation of capable individuals to support the nation's development in the future

Figure 1

OBJECTIVE

1. To cultivate social engineers through training programs emphasizing **Reskill, Upskill, and New Skill** approaches.
2. To enhance the skills of social engineers in creating innovations that boost income and strengthen the community's economic potential.
3. To transfer community-based technologies rooted in local wisdom and the creative economy, thereby advancing innovations within the community.

METHODOLOGY

The research team, comprising 15 academic advisors and 115 social engineers, integrated knowledge from various disciplines. The participants included students from the following fields of study:

- **Esports Management:** 25 students
- **Tourism and Hospitality:** 28 students
- **Political Science:** 10 students
- **Business Information Systems Management:** 7 students
- **Business Computer:** 25 students
- **Logistics Management:** 22 students

The students were divided into interdisciplinary groups of 10-15 members per group. The research methodology was structured as follows:

Table 1
Research Design, Data Collection, and Data Analysis

Research Activities	Data Collection Methods	Data Analysis
Training Social Engineers	Conduct training programs using Reskill, Upskill, and New Skill curriculums	Develop action plans
Forming Social Engineer Groups	Divide students into interdisciplinary groups of 10-15 members, with assigned advisors for each group	Create 8 interdisciplinary groups of 10-15 members each
Studying Community Issues	Observe, interview community leaders, and document community history using social engineering tools	Create a timeline of community processes
Participatory Community Problem Analysis	Conduct Focus Group Interviews	Develop plans for innovation processes
Participatory Action Research	Apply Design Thinking to connect identified problems with practical solutions	Create action plans
Monitoring and Empowerment Evaluation	Use Reflection , knowledge exchange, and lesson learned sessions	Summarize into outputs, outcomes, and impacts

RESULTS

The cultivation of social engineers to enhance community products in Ban Chiang, Nong Han District, Udon Thani, based on local wisdom and the creative economy, revealed the following key findings:

1. **Analysis of Community Potential and Issues**
The social engineering process was utilized to analyze the community's potential and challenges. The "Fahpratan" tool was employed to distinguish facts from emotions and perspectives. Additionally, the study of the community's historical timeline and development helped in planning targeted future actions.
2. **Integration of Interdisciplinary Knowledge**
The research team consisted of 15 academic advisors and 115 social engineering students from six disciplines: Esports Management, Tourism and Hospitality, Political Science, Business Information Systems Management, Business Computer, and Logistics Management. Students were divided into 8 interdisciplinary groups, each comprising 10-15 members, to collaboratively analyze and address community issues.
3. **Community Study and Innovation Development Process**
 - o Data collection and problem analysis were conducted through observation, interviews, and SWOT analysis.
 - o Planning and design were performed using **Human-Centered Design Thinking**.
 - o Participatory Action Research (PAR) was employed to develop community innovations.
 - o Monitoring and evaluation were carried out through reflection, knowledge exchange, and lesson-learned sessions.
4. **Problem-Solving and Product Development**
Over 12 months, the study found that while Ban Chiang has significant potential and

resources, challenges exist in managing these effectively. Additionally, the lack of young individuals to inherit local wisdom and limited access to technology hindered progress. The outcomes included:

- Upgrading community products to meet the needs of new customer groups.
- Increasing production efficiency and reducing transportation time.
- Creating new income opportunities post-COVID-19.

5. Recommendations

The cultivation of social engineers should continue to integrate interdisciplinary expertise to address community challenges and needs effectively. Collaboration between educational institutions, relevant agencies, and the community is essential to empower the community to manage its resources, ensuring self-reliance and sustainable development.

Project Implementation and Results

The project engaged 40 participants, including community leaders and members of local enterprises, to collaboratively identify problems, analyze root causes, and design and implement solutions. The findings revealed that all community enterprises possess significant potential, resources, and opportunities. However, a critical gap was identified: **the effective management of resources and opportunities**. This issue arises from a lack of knowledge, limited access to technology, and the absence of younger generations to sustain and carry forward the community's traditional wisdom. Consequently, the role of social engineering students in collaboration with community enterprises and related organizations became essential.

To address these challenges promptly and sustainably, a systematic mechanism was implemented within the community enterprises. This mechanism aimed to:

1. **Promote self-reliance** within the community.
2. **Enhance community products** to meet the needs of new customer groups.
3. **Optimize transportation efficiency**, reducing time and costs.
4. **Create new income opportunities** post-COVID-19.
5. **Increase production capacity** to meet rising demand.

These outcomes were achieved through collaboration with academic institutions and relevant local agencies. This joint effort underscores the importance of fostering partnerships to drive community development while ensuring long-term sustainability.

Table 2

Input	Process (Social Engineers)	Output	Outcome	Impact
The community needs to upgrade its products to meet the demands of new customer groups, reduce transportation time, increase income opportunities post-COVID-19, and boost overall production. There is a lack of modern	Social engineering students introduced scientific knowledge through training programs emphasizing Reskill, Upskill, and New Skill . They developed social engineers' skills in innovation, income	Community members and local enterprises gained skills in production. They developed and implemented tools and processes for agricultural product transformation that meet quality standards. They also designed	Community members and local enterprises worked together on planning and implementation, managing finances and income allocation, and collaborating with relevant agencies.	The quality of life in the community improved. The involvement of social engineers empowered community members, boosted their confidence, and enabled them to create sustainable livelihoods.

knowledge in technology and innovation.	generation, and economic empowerment. The focus was on technology in agriculture, product design, marketing, and financial management. Collaborations with the community helped improve agricultural processing tools, enhance product quality, design packaging, logos, and create content for social media platforms.	packaging, logos, and marketing materials for the modern market, supporting tourism.		
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CONCLUSION AND FUTURE WORK

This research focuses on cultivating social engineers to develop community products in Ban Chiang based on local wisdom and the creative economy. It employs **Reskill, Upskill, and New Skill** processes. The findings highlight significant aspects that can be analyzed and linked to related theories and research, as follows:

1. Developing Community Potential and Problem-Solving. The **Human-Centered Design Thinking** process used in developing Ban Chiang's community products aligns with **IDEO (Brown, 2009)**, which emphasizes that user-centered design leads to innovations that effectively address user needs. Problem analysis through **SWOT Analysis** is consistent with **Andrews (1971)**, which facilitates the evaluation of strengths, weaknesses, opportunities, and threats within the community.

Additionally, the study by **Wanida Suwannipon (2021)** found that innovation development in community enterprises, supported by educational institutions and government agencies, significantly enhanced competitiveness, particularly through the use of digital technology and network creation.

2. The Role of Younger Generations in the Community. The lack of younger generations in Ban Chiang reflects the **Maslow's Hierarchy of Needs (1943)**, which suggests that younger individuals can play a key role in the community if provided with appropriate opportunities and support. Developing tools, processing products, and designing packaging adds value to community products and instills consumer confidence. This approach aligns with the **Value Chain Model by Porter (1985)**, which states that product value can be increased by improving production processes and creating differentiation.

3. Sustainable Quality of Life Development. This research also demonstrates positive impacts on the quality of life in the community. Product development and resource management within Ban Chiang reflect the **Sustainable Development Theory (WCED, 1987)**, which focuses on meeting current needs without compromising the ability of future generations. The use of **Reskill** and **Upskill** processes also corresponds with the **Lifelong Learning Theory (Jarvis, 2009)**, promoting lifelong learning to enhance long-term potential.

4. Creating Innovation and Collaboration. Promoting collaboration between social engineers, the community, and related agencies aligns with the **Collaborative Advantage (Huxham & Vangen,**

2005), which suggests that partnerships among diverse groups create greater value than individual efforts. Furthermore, research by **Chutikarn Sriviboon (2021)** indicates that leveraging human capital strategies and service innovations improves the efficiency of community enterprises.

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