



Modernization of Palmyra Wicker Crafts as a By Product of Creative Social Enterprise's Innovation Capability

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ABSTRACT

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Creative social enterprises have several distinct characteristics that support the United Nations' sustainable development goals. In doing so, creative social enterprises embed innovation capability in their businesses, and it happens to be a dynamic force for their economic sustainability while also promoting cultural sustainability. The research studies how the innovation capability of creative social enterprises developed in collaboration with the community of artisans. The study elaborates how creative social enterprise revives the century old handicraft tradition through innovation capability (IC) theoretical lens. Innovation capability has generated extensive interest both academically and practically. However previous works have mostly been performed at conventional organizations with few discussed at creative social enterprise and community level, especially in artisans' community who are struggling to preserve their handicraft traditions. The research focusing on a unique case, creative social enterprise who works with 14 villages in east Nusa Tenggara Timur, Indonesia. The research used qualitative exploratory study design with single case study. In-depth interviews, a literature review, and documentation were used to collect data for the study. The study result is framework innovation capability in which co-creation as the main engine of IC development of CSE and community of artisans. CSE develops their innovation capability by nurturing multidiscipline team development, listen to market demand, constantly do research and development. Community of artisan's innovation capability can be developed by considering factors like local culture, local material, local champion, village governance and artisans' willingness to learn. This research contributes in two ways: first, it provides a comprehensive understanding of how to collaboratively develop innovation capability; and second, it successfully identifies the determinants of innovation capability in both creative social enterprise and artisan communities.

1. INTRODUCTION

Creative industry is "an industry that comes from the use of creativity, skill, and individual talent to create prosperity and job opportunity by producing and exploiting the power of creation and production of the mentioned individual" [1]. There are 16 areas of creative industry: (1) culinary; (2) fashion; (3) handicraft; (4) Tv & radio; (5) publishing; (6) architecture; (7) application and game developer; (8) advertisement; (9) music; (10) photography; (11) art performance; (12) product design; (13) arts; (14) film, animation and video; (15) interior design; (16) visual communication design [2].

From 2009 – 2019 in average, the Indonesian creative industry contributed 7,45% to Indonesia GDP [3], and it was able to absorb approximately 3.7% million workers, accounting for 4.7% of total labor absorption [4]. There are different business model of creative industry and one of them is Creative Social Enterprise.

Creative Social Enterprises (CSEs) defined as "a type of social enterprise that generates market demand for creative goods and services, through intellectual property, ideas, and

imagination while also contributing to a global dynamic shift toward cultural sustainability, social justice, and economic development" [5]. In other words, CSEs are creative enterprises that use creative approaches to solve social and environmental problems.

A study about CSE conducted by Council [6] stated that CSEs have several unique qualities that foster United Nations sustainable development: first it provides employment for women and young people by harnessing human creativity, social and emotional skills. Second, it solves the sustainability challenges by bringing disruptive ideas and creating environmentally and socially sustainable solutions to the market. Third, it is inclusive distributing innovation and technology to the bottom of pyramid by enabling democratic governance. Fourth, it brings new energy and pride to local communities, hence it fosters country's identity in the global market. Hence, creative social enterprises in many parts of the world are regarded as success stories.

Indonesia has 75, 240 Creative Social Enterprises (CSEs) led by young entrepreneurs [7]. Many young people desire to work in a field where they can make a difference rather than merely earn money. The majority of creative social enterprises

in Indonesia are small and medium-sized enterprises (SMEs) in the early stages of development [8]. The growing number of Creative Social Enterprises in Indonesia is encouraged by the country's growing sustainable market. According to WWF-Indonesia and Nielsen survey results from 2017 [9], the willingness of Indonesian consumers to purchase eco-friendly products in higher prices is up to 63%. This demonstrates a substantial increase in consumer awareness of the consumption of sustainable products, indicating that the Indonesian market is ready to purchase sustainably produced products [10]. This creates new business openings for innovative social enterprises.

The sustainable market is growing, and sustainable consumers are looking for products that are not only ethical and environmentally friendly, but also innovative. Bosma et al. [10] and Suhaily et al. [11] supports the desire for innovative products by stating that green perceived quality and green product innovation have a significant and positive effect on green product purchase intention among Indonesians. Recognizing the importance of innovation for consumers, 99% of Indonesian CSEs emphasized the importance of innovation and creativity in their business operations [7].

In the Indonesia context, creative social enterprises can be categorized into four types, identified by Pratono & Sutanti [12]:

1. Community-based creative social enterprise typically, social enterprises that work to solve community problems and improve local resource allocation for the good of the community.
2. Non-profit creative social enterprise—created by non-profit organizations (NPOs). These CSEs, also known as Entrepreneurial NPOs, integrate their social mission and economic activities to ensure their sustainability and then use a self-governing and independent system of governance.
3. Creative Social cooperatives are CSEs that emerge from shared interest organizations and rely on their own resources for finance and management. This includes a new wave of cooperatives that strive to continue pursuing societal goals as a main co-operative principle.
4. Profit-for-benefit creative social enterprise—companies that strive for social impact while also focusing on financial sustainability. However, some argue that mission drift is a risk due to a conflict of values between desire for profit and social purpose, and that these businesses should be referred to as 'inclusive businesses' rather than creative social enterprises [10].

This paper further discusses profit for benefit creative social enterprises as they are the most common type of CSEs in Indonesia, CSEs that strives for financial sustainability while also contributing to sustainable development [12]. To achieve their social mission, Creative Social Enterprise work closely with certain community and one of most common community empowered by CSEs is community of artisans.

A community of artisans is a group of people who are proficient in the development of unique handicrafts. In Indonesia there are many CSEs that work with artisan communities find markets for the artisans' products while also providing capacity building training to help them improve their artisanal skills and also their quality of life [2].

The scope of community of artisans is related to a specific region, for example community of batik artisans in Girilayu, Karanganyar Regency, Central Java, Indonesia. The scope can range from a village to a regency [13]. Community of artisans

are categorized as business in informal sector. OECD [14] defines informal sectors as, “units engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned”.

One of the unique handicrafts of Indonesia is wicker crafts.

A wicker is a woven fiber formed to create structure and thus become a solid shape. Fibers and weaving pattern are two important elements of weaving crafts. Weaving crafts symbolizes local wisdom. They represent the local wisdom and local knowledge, which can be handed down to the next generations [15]. Wicker crafts embodies human genius in utilizing natural material, through weaving any material can be strong and can be used to daily use. In Indonesia there are many wickers crafts culture and one of them is Palmyra wicker crafts of East Flores from Nusa Tenggara Island. To ensure its sustainability wicker crafts should be adapted to modern lifestyle.

The unique characteristic of palmyra wicker crafts is its hexagonal weaving pattern (see Figure 1). They are used to create baskets, trays, and bags.



Figure 1. Palmyra Wicker Crafts from Flores, East Nusa Tenggara Island

Palmyra grows abundantly in east Flores. Based on interview it is founded that the wicker is made with palmyra leaves that are only three months old. The three months old leaves are taken because of their soft texture but strong surface and give off a nice light-yellow color to recolor. The palmyra's smooth, tenacious, and water-absorbing stem makes it an excellent material for weaving, and it is sustainable because the leaves grow within three weeks.

Unfortunately, the palmyra wicker crafts is made by one of poorest province in Indonesia with high birth and death rates. The inconsistency of cash flow from subsistence agriculture, the dominant industry there, has been identified as a primary cause of these poor health conditions. Local women learned Palmyra weaving from their mothers at a young age have now grown old, implying that this century-old traditional handicraft is starting to disappear. Furthermore, as technology advances and people's fashion preferences shift, the century-old handicraft industry is no longer able to keep up with current trends. As a result, the women cannot rely on palmyra weaving crafts as their primary source of income and must instead rely on farming.

This problem has led to the creation of Creative Social Enterprise (CSE) which sees the potential value of palmyra wicker crafts and see this as a way out for the poor province by providing market access for the women to sell their wickers craft to larger market. By improving women's financial potential, they gain access to savings, better nutrition, health care, and education for their children. This paper is going to elaborate how the CSE revives the century old handicraft tradition through innovation capability (IC) theoretical lens, as studies that discussing how IC can revive old handicraft

tradition is still very limited and sparse. So, we raise the research question of: How is the innovation capability of creative social enterprises developed in collaboration with the community of artisans? How is the innovation capability reviving the old handicraft?

The purpose of this paper is to present a framework for revitalizing old handicraft tradition through innovation capability. There are two key objectives to support the purpose:

(1) Describing the process of how IC is developed within the creative social enterprise (formal sector) collaborating with community artisans (informal sector).

(2) Defining innovation capability and its determinants to help CSEs develop their innovation capability for cultural sustainability.

The study's findings provide a comprehensive picture of how IC develops through the stages of discovery, development, and empowerment. CSE and community artisans are mutually dependent on IC development through co-creation activities in modernizing local crafts. In addition, we describe the process of IC development both from the perspectives of CSEs and the Community of artisans, along with its determinant factors.

To study how the innovation capability of creative social enterprises developed in collaboration with the community of artisans, the structure of this paper is as follows. First, literature review about innovation capability development in formal and informal sectors are compiled, because CSEs are unique; it is in formal sectors who collaborate with community of artisans who are in informal sectors. Then the research method is formulated. The research is exploratory in nature because the research questions have not been thoroughly investigated previously. But to ensure we got the validity and reliability; we carefully selected the research subjects. After this, the results of the study which are the framework of IC development in creative social enterprise, and the community of artisans is described. In conclusion we recommend some of the study's considerations, managerial implications, limitations and some future research directions are presented.

2. LITERATURE REVIEW

Innovation capability (IC) is defined as the ability of a firm to generate innovation through continuous learning, knowledge transformation, and exploitation of internal and external resources available to the company [16]. IC refers to the "ability to continuously transform knowledge and ideas into new products, processes, and systems for the benefit of the firm and its stakeholders" [17]. From the definition it has been emphasized that IC is about firms' capability to transform knowledge and ideas into new products, processes, and systems by continuously learning to exploit its internal and external resources.

There are numerous advantages to having an IC. First, firms with IC have a first mover advantage in both product and process innovation, which has a significant impact on financial performance [18]. Second, using IC Firms become more adaptable and responsive to rapidly changing environments as they develop the ability to generate and discover radical new ideas and concepts, experiment with potential opportunity patterns, and transform them into marketable and effective innovations [19]. Third, IC provides the company with a long-term competitive advantage [11, 20]. Fourth, IC enables firms to initiate and execute a wide range of innovation projects with varying degrees of complexity, speed, and degree of

innovation [21].

Innovation capability is linked not only with firm success, but it could also result in long-term industry and societal transformation [12]. Innovation capability can lead to innovations that contribute to sustainability by creating new or improved products and processes that improve the environment and benefit specific societies [13].

Calik et al. [22] asserts that IC is a high order capability that consist of different sub capabilities such as: "product innovation capability, organizational innovation capability, process innovation capability, marketing innovation capability, innovation culture, and innovation resource".

According to Helfat & Peteraf [23], IC development starts when a group of people organizes around a goal that requires the development of a capability. IC development has two general requirements: (1) an organized group or team with some type of leadership and the ability to act collaboratively; and (2) a central goal, the achievement of which entails the creation of a new capability. Though new to the organization, the capability does not have to be new to the rest of the world. Three key components that play a role capability development are human capital (knowledge, skills, and experience), social capital (social ties inside of and outside of the team), and the belief systems and mindsets that serve as the basis for decision making [24]. IC is made up of seven key concepts: knowledge management, organizational learning, organizational culture, leadership, collaboration, creativity, idea management, and innovation strategy [16].

Research further discuss IC determinants factors in SMEs context, as CSEs in Indonesia are SMEs. Wang and Dass [25] discovered that SMEs can build their innovation capabilities by investing in R&D, acquiring knowledge from multiple stakeholders, establishing a market learning-oriented culture and encouraging knowledge sharing inside the organization. In similar perspective [26] presented various determinants of SMEs' innovation capabilities such as "knowledge development, entrepreneurial orientation, and external networks collaboration with research institutes, and leadership". Saunila [27] asserts IC needs structures and system on how the work tasks are organized supported by participatory leadership style in which manager encourage employee to take part in development activities. IC is also determined by the firms' ability to learn from previous experience and use that experience to create innovations and improve their operations. According to Saunila & Ukko [28] IC is determined by the working climate and the wellbeing of employee, know-how development, and individual attitude and motivation toward innovation.

In the study of [29] provides insight about the antecedents of IC in Micro Small Medium Enterprises in Yogyakarta, they found that knowledge sharing is a key antecedent of IC. Sulistyandari et al. [30] provide a comprehensive definition of knowledge sharing as the social interaction culture of an organization that involves the transfer of knowledge, experience, and skills among its members. All types of knowledge sharing can occur at both the individual (organization members) and organizational levels. Van Den Hooff and Ridder [31] discovered two aspects of the knowledge sharing process: knowledge donating and knowledge collecting. Knowledge donating is the process of communicating personal knowledge assets to others, whereas knowledge collecting is the process of having to consult with other colleagues to encourage them to share their knowledge assets.

CSEs is very unique in nature as they need to develop their innovation capability along with the community. So, there are additional factors that need to be considered for building innovation capability. The study goes on to analyze the factors that affect IC development in informal sectors. Rodrigues et al. [32] asserts that co-creation is critical in fostering innovation capability in the context of a social setting. The collaborative process of creating and developing innovation while also empowering the community is defined as co-creation [33].

Local atmosphere and culture, in addition to co-creation, could be used as a source of innovation. Communities can strengthen their ability to innovate by utilizing local resources and mechanisms in specific ways while remaining true to their local identity.

Tranggono et al. [34] emphasizes the importance of a local champion with a productive personality in terms of community development and empowerment. A local champion is someone with a strong sense of leadership and the ability to mobilize a large number of people to kickstart a community's change process. O'Brien [35] emphasizes how tacit knowledge acquired through on-the-job learning, the traditional apprenticeship system, and indigenous knowledge systems influence IC in an informal setting. Businesses in the informal sector develop their innovation capability through "Learning by Doing," "Learning by Using," "Learning by Interacting," "Learning by Searching," "Learning by

Producing," and "Learning by Imitation." It is possible to conclude that culture, human resource capacity to learn, collaboration, local leaders, and openness are all important factors to consider when developing IC in informal settings.

We summarize the literature review by examining relationship of each determinant.

From the Table 1 we can see that human capital are very critical for IC development both in formal and informal context. Another important factor is organizational learning, which is a process that focuses on how knowledge is acquired and how it is used within the organization [36]. By nurturing both, companies can start developing their innovation capability.

After reviewing current research on IC in both the formal and informal sectors, we conclude that what sets our study apart from others are:

- 1) This study focuses on IC development in CSE (formal sector) and the community of artisans (informal sector).
- 2) This study looks at how CSE and community artisans together transform knowledge and ideas to revive the old tradition of Palmyra weaving crafts.
- 3) The results will show the process and the factors that influence innovation capability development in CSE (formal sector) and the community of artisans (informal sector).

Table 1. Literature review summary

Determinants of Innovation Capability Development	Dimension	References
Formal sector		
Human capital	Organized group of people	[17, 24]
Belief system	Leadership	
	Goal	
Social capital	Organizational culture	
Innovation strategy	Collaboration	
Organizational learning	Idea management	
	Creativity	
	Knowledge management	
Formal sector SMEs		
Entrepreneurial orientation	R&D investments	[25-29]
Organizing structure	A market learning oriented culture establishment	
	External networks collaboration with research institutes	
Leadership	Participatory leadership	
	Employee well being	
	Knowledge development	
Organizational learning	Knowhow development	
	Knowledge acquisition from multiple stakeholders	
	Knowledge sharing encouragement	
Working climate	Attitude and motivation toward innovation	
Informal Sector		
Local champion		[35]
	Tacit knowledge from on-the job learning	[36]
	Traditional apprenticeship system	
Indigenous knowledge system	Learning by doing	
	Learning by using	
	Learning by interacting	
	Learning by imitation	

3. METHOD

The research used qualitative exploratory study design with single case study. The research is exploratory in nature because the research questions have not been thoroughly investigated previously. The exploratory case study approach is the best research method because it allows researchers to (1)

cover contextual conditions that are relevant to the phenomenon under study; (2) investigate ongoing occurrences when the boundaries between phenomenon and contexts are unclear; (3) discover the answer to "how," "what," and "why" questions; and (4) observe and find potential causal relationships among the variables without manipulating the behavior of those involved [37]. In order to generate insightful

knowledge, a single case study must be unique [38]. A case is unique when it occurs in a unique context that allows people to gain insights that are not available in other contexts [39].

The study investigates a unique case which is a creative social enterprise who manage to receive design awards for its product that made by community of artisans who live in rural area of Indonesia [40]. The unique is case because it is one of the few CSEs in Indonesia who manage to develop its innovation capability along with 1400 artisans in rural Indonesia [41].

The awards are the validation of their innovation capability. The research tries to uncover how it build the innovation capability and investigate how it manage to transfer the capability to its community by examining various design projects. Analyzing a design project requires careful observation and not carelessly ignoring any details about how the project enfolds.

To ensure the research validity and reliability we do research data triangulation [42] by carefully selected our research subject, we formulated criteria based on the literature review, Table 2 shows the interviewee's detailed profile:

1. The interviewee should be a senior manager who oversees the product development process, such as the CEO, R&D manager, or employee.
2. The interviewee should have at least 2 years of work experience, indicating that they have extensive knowledge and experience in the development of innovation capability.

Table 2. Interviewee profile

Interviewees	Work Experience	Job position
Mr. Davit Manalu	8 years	Community development manager
Mr. Faiz	6 years	Business development manager,
Mr. Fito	8 years	R&D team
Ms. Faizah	5 years	Graphic design team
Ms. Devina	2 years	Product design intern
Mrs Hemiliana Nirong Tukan	8 years	Field facilitator

The qualitative data analysis is used in this study. The process is inductive exploring the data to identify recurring themes, pattern, or concepts and then describing and interpreting those categories [43]. The data analysis technique used in this study is according to Lemy et al. [44] consists of several steps: data reduction, categorization, prioritization, and conclusion.

4. RESULT

4.1 CSE background

A social enterprise founded in 2014 by three high school friends who decided to create business together. It produces and distributes woven crafts made from local natural fiber by empowering mothers in East Nusa Tenggara of Indonesia to use their weaving skills to create marketable craft products. By selling their products, the CSE improves maternal health and the economy in East Nusa Tenggara. The CSE provides market access to the weaving craft for B2B businesses. In 2014, It began its first project with eight mothers in Duntana Village,

East Flores County. East Nusa Tenggara is one of Indonesia's poorest provinces, with one of the world's highest maternal and new-born mortality rates. The high maternal and newborn mortality rates are due to the fact that there are no other jobs in NTT besides farming, and the ups and downs of good and bad harvesting make it difficult for them to have a good cashflow, and the community's income from farming was low, seasonal and prone to crop failures.

The founders of CSE sees an opportunity to address maternal and new-born health issues while also providing alternative employment through existing woven traditions. Handwoven items are commonly used daily in kitchens, farms, and all around the household in NTT. Now, CSE has a total of +30 employees that are located in Jakarta and East Nusa Tenggara. The CSEs started from one small village in 2014 and now it has empowered more than 1400 artisans in 54 villages in East Nusa Tenggara, East Kalimantan, and Papua.

The following are some weaving crafts as a result of innovation capability development in the community of artisans from Villages of East Nusa Tenggara (see Figure 2). These products are the result of co-creation between CSE and the community of artisans.



Figure 2. The Project Discussed Modernize Palmyra Wicker Crafts from East Nusa Tenggara

Based on interviews with key informants Mr. Davit Manalu, community development manager, Mr. Faiz, business development manager, Mr. Fito, R&D team, Ms. Faizah, graphic design team, and Ms. Devina, product design intern, Mrs Hemiliana Nirong Tukan, field facilitator. They describe the process how the CSE develop their innovation capability along with the community artisans in villages of East Nusa Tenggara. The findings are summarized as follows:

4.2 Discovery

The first stage involves CSE assembling a team from various divisions, that consist of one from community development, one from R&D, and one from marketing and sales. The team conducts ethnographic research on the community. The community development task is to investigate the availability of materials, the production lead time, and the logistics of bringing the product to the CSE, as well as to identify a local champion. Aside from this, community development team also need to learn the leadership structure within the community, how is trust among the citizens. The R&D task is to investigate the existing product and the indigenous local pattern that the artisans can create; and learn how to weave from the artisans. The marketing and sales tasks are calculating the production cost and determining how much income the weavers should earn in

order to live securely. If the CSE can't provide consistent income to the artisans, they will not take the job seriously. Following the collection of data, the team met with the management to discuss the findings and determine whether the community could be developed further with the company's resources and capability. The CSE already has certain parameters that have been developed based on previous experience, such as the availability of local champions, the standard of production lead time, the logistic cost, and the availability of material. The CSE will not develop the community if it does not meet this criterion. If the community is chosen, the management will develop an innovation strategy that is appropriate for the community's resources and capabilities. The innovation strategy is to modernize the wicker crafts by incorporating color to the traditional crafts and modifying its sizes to accommodate the needs of urban people.

4.3 Development

The second stage is that the community development team goes back to the community and share CSE's vision and mission which are Empowering Women, Promoting Culture, and Improving Well-Being, and also share the innovation strategy that have been formulated from the discovery stage. If the local champion is sympathetic and support the vision the process goes further. If not, the CSE finds another local champion. Finding local champion that supports the CSE's vision is not easy. The local champion acts as field facilitator. She starts creating group of weavers. She identifies which women have better skill and coordinate weaving training sessions where the more skillful weavers teach the others. The weaving activities began slowly but steadily picked up pace. As the first-generation weavers shared the news from one village to another, others soon followed for a chance to further their income. The CSEs collaborate with head of the village to use its communal space as CSEs house of weaving, a place where weavers can collect the material for weaving and the women can decide whether they want to weave there or weave at home. For example, at Wulublolong Village, Solor Island, East Flores, NTT there is a house of weaving which coordinates 12 villages, to produce woven works.

Through training sessions, the weavers are trained to focus on quality by ensuring the consistency the width of natural fiber, the weaving density and product size. The training sessions some time doesn't go smoothly there are many weavers who resist to upgrade their weaving skills and refuse to develop new product outside their capability. To increase the initiative the CSE create a reward system in which the weavers are paid based on the quality of their work. The CSE R&D team provide the weavers with tools and molds that help them weave more efficiently and reduce human error (see Figure 3).



Figure 3. Palmyra leaves cutting tool developed by CSE R&D Team

From market research it is decided that CSE focuses on B2B market like hotel, so it focuses on developing product like basket, sandals, and storage box. CSE distributes to business consumers in large quantities so that the women's problems regarding cash flow can be overcome.

As mentioned before, one of CSE vision is preserve culture. So, the idea inspiration comes local artifacts. The hexagonal weaving pattern used on the baskets, trays, and bags is a distinctive feature of Flores wicker crafts that cannot be found in another region of Indonesia. After the weavers masters the hexagonal weaving pattern and produce them in high quality. The weavers start modifying the weaving pattern by twisting and reinserted the leaves and this create a three-dimensional weaving pattern (see Figure 4). This new pattern is developed into basket and named Sobe. The design team adds value by developing it into four different sizes from small to extra large and add new functions to the products while staying as close to the traditional design as possible.



Figure 4. Three-dimensional weaving of Sobe basket

The collaboration between the R&D team continues because the weavers have reached a certain level of proficiency in maintaining quality after undergoing a series of learning sessions arranged by field facilitator. The R&D team in Jakarta conducts research on natural coloring of palmyra leaves using plants and fruits available in NTT, and then disseminates the knowledge to the community through trainings. The efforts have resulted in a new wicker craft design that incorporates natural dye into the weaving process. Figure 5 shows an example of a Sobe basket with color variations.



Figure 5. Sobe Basket

The color makes the 3D weaving more prominent; these qualities cannot be obtained if it is made from other natural fibers such as bamboo or rattan. The weavers begin to develop the pattern and experiment with natural dye (see Figure 6). This is a sign that the community has reached certain degree

of innovation capability; they can transform knowledge and ideas provided by the R&D team in Jakarta and use them to create new products, beginning with simple pattern modification and progressing to more complex product development.

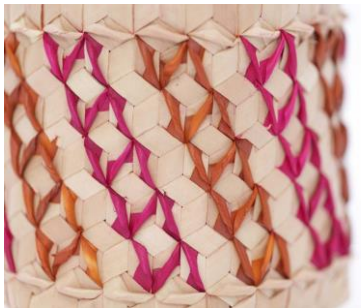


Figure 6. Development of Sobe Weaving Pattern



Figure 7. Home accessories made entirely by artisans (Left) and fashion accessories Made in NTT and Jakarta (Right)

The CSE divides the artisans into two large groups based on the evaluation of weaving training sessions. The more skilled artisans collaborate with CSE designers to develop new products, while the less skilled artisans make basic weaving materials. The materials are transported to Jakarta, in which they are combined with other materials. As a result of this newfound innovation capability, CSE has two product portfolios: home accessories made entirely by the community of artisans and fashion accessories made 50% in NTT and 50% in Jakarta (see Figure 7). Home accessories is for hotel and fashion accessories is for corporate gift. By having mixed product portfolio CSE can reach wider market and with this mixed production system the CSE can increase production lead time. When weaving is combined with other materials, the production time is reduced compared to 100% full-woven products.

CSE and the Community of Artisans collaboratively build their innovation capability through co-creation in product development. The CSE's product development knowledge is delivered to the artisans, and the CSE receives local indigenous knowledge from the community. They can only create new innovative weaving crafts with a strong identity and high quality by combining their knowledge.

Figure 8 depicts the transformation of knowledge and ideas that occurs as a result of co-creation between the CSE R&D team and the community of artisans. Prior to IC development the community artisans can only do hexagonal weaving

pattern that are inconsistent and unrefined. The process of IC development evolves in three stages. First stage is when weavers learn to maintain the quality and consistency of their weaving during the product development phase. Then they start to improve their weaving skills. On this stage the community of artisans only able to make simple home accessories. Similarly, the R&D team also develops their innovation capability by investigating local resources, capabilities, and sensing market trends. After they accumulated certain knowledge, R&D team generates product development ideas that preserve locality while also considering modern needs and trends.











Palmyra Weaving Pattern Prior To Innovation Capability Development		Palmyra Weaving Pattern After Innovation Capability Development			
		First Stage	Second Stage	Third Stage	
R&D Team	Mapping community resources, capabilities, market sensing	Developing product ideas that balance locality with modern needs and trends.	Experimenting with indigenous natural dye on palmyra leaves and transfers this knowledge with the community	Co-create developing new weaving pattern with natural dye	
Artisans	Hexagonal Weaving Pattern	Improved Hexagonal Weaving Pattern	Hexagonal 3d Weaving	3d Weaving With Natural Dye	3d Weaving Modification With Natural Dye
					
Product application	Simple home accessories	Hexagonal weaving combined with other material as fashion accessories	Hexagonal 3d Weaving as home accessories	Hexagonal 3d Weaving with natural dye as home accessories and fesyen accessories	
					

Figure 8. CSE and community of artisans innovation capability

The second stage is when the weavers learn to twist the palmyra leaves to create 3D weaving texture, which is impossible to achieve with any other natural fiber, such as bamboo or rattan. At this stage, the community of artisans is divided into two groups: those with more expertise create home accessories, while those with less expertise produce basic hexagonal weaving as material to be delivered to Jakarta and combined with other materials to create fashion accessories.

The third stage is when co-creation takes place. Based on market research, the R&D team sees an opportunity to modernize natural dye weaving crafts. The R&D team experiments with natural dyes on palmyra leaves and shares their findings with the community, allowing them to experiment with natural dyes and create new weaving patterns. They collaborate to modernize weaving crafts by creating home and fashion accessories that are appropriate for a modern lifestyle.

After the community has develop some degree of innovation capability, the CSE must ensure the sustainability of a generation of weavers, because the newly developed IC will not be sustained if no young generations are interested in learning to weave. The CSE creates after school weaving classes for the youths to instill the sense of proud and embrace weaving as their cultural identity.

Aside from the human factor, the CSE also considers the sustainability of the material in the future by knowing the months when the palmyra leaves are harvested, and when it has been taken from one tree, the next palmyra leaf is taken from another tree, so that the previous tree has time to grow. In addition, the R&D team creates natural dye from local plants and fruits that are available near the community's livelihood. The CSE ensure that their activity doesn't disrupt the balance of nature.

4.4 Empowerment

In addition to hard skills development, weavers are mentored in the development of soft skills such as financial literacy training, capacity building training in presentation skills, computer skills, and administrative skills mentored both from CSEs manager and local people who have the qualification. Through new-found confidence, these women have turned themselves into local leaders. They gain public speaking skills, supervisory skills, and vocational knowledge such as weaving, report writing, and digital literacy.

The CSE commits to improve the livelihoods of rural women and their families based on the local communities' needs, such as infrastructure support, advancing nutrients of rural family, scholarship program from weavers' children. The CSE build water wells in community's neighborhood, installing solar lamps, and distributing monthly nutritious food packages, and providing scholarships for the weaver's children.

Since the weaving house is near to the weaver's home. The weavers have the freedom to resume their other roles, as wives, mothers, and farmers. They learned to take better control over their domestic finances, while at the same time acquired new life-skills and job-related skills such as leadership, quality-management, inventory control and communication. More field facilitators are trained because of these empowerment mission trainings, and the CSE expand its community of artisans from one village to 54 villages by 2021 as a result of this mixed hard and soft skill capacity building model.

Based on the results of exploratory studies, we highlighted eight factors that influence the innovation capability development of creative social enterprise along with their community and we also recommend the conceptual framework (see Figure 9). CSE develops their innovation capability by nurturing multidiscipline team, listen to market demand, constantly do research and development, our findings correspond with previous research [25]. Team diversity is important in IC development as it bring various knowledge, skill and experiences [45]. After CSE have successfully developed their IC, they share the knowledge with the community of artisans and co-create new products with them. Rodrigues et al. [31] and [32] have mentioned the importance of co-creation on building IC in informal sector.

Community of artisan's IC can be developed by considering factors like local culture, local material, local champion, village governance and artisans' willingness to learn. Each determinant is significant to community artisans' IC development. These findings correspond with O'Brien [35] who already mention the importance of local culture and local champion. The synergy between CSE's IC and community of artisans' IC will boost the innovation performance.

Although each finding is related with existing research, but this research model differs from others because it is more comprehensive considering both the CSE and Community

artisans' perspective. It is based on exploratory research and provides a new perspective on phenomena that have not previously been studied. The proposed frameworks reflect a phenomenon for specific research objects, specifically creative social enterprise. This model will then be empirically tested in order to be used in future studies.

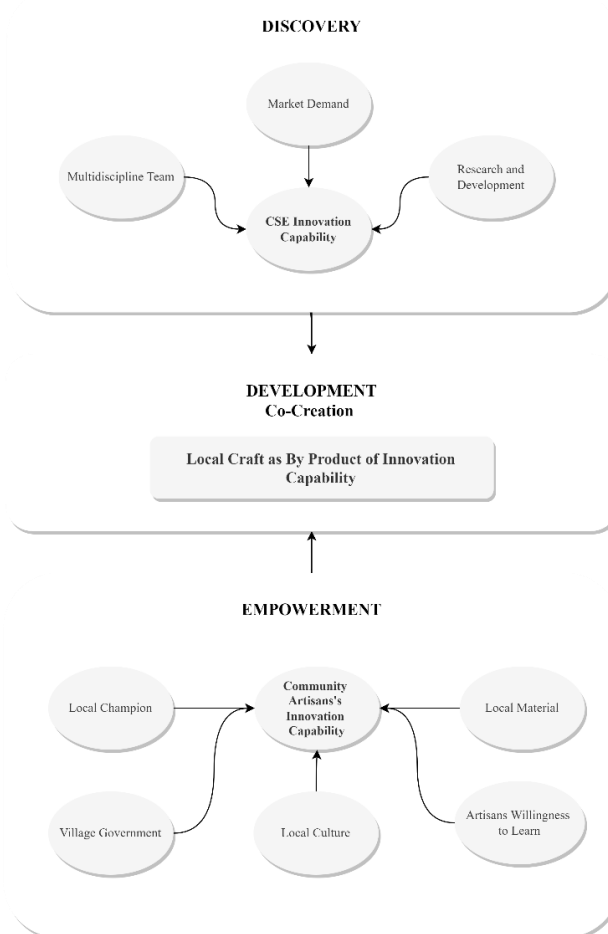


Figure 9. Modernization of Local craft as by product of innovation capability conceptual framework

5. CONCLUSION

The purpose of this study was to investigate the process of innovation capability of creative social enterprises developed in collaboration with the community of artisans. Old handicrafts can be revived through IC development. The study was successful in defining the IC determinants for both the CSE and the artisans' community.

Figure 9 shows the comprehensive view on how IC is developed through discovery, development, and empowerment stages. CSE and community artisans are interdependent on IC development through co-creation in modernizing the local craft. The result can be applied to different CSE and community of artisans, as the framework has corresponded and enriched the previous research by integrating IC development determinant factors in formal and informal sectors [17, 24-29, 35, 36]. The conceptual framework proposed in the study is a schematic diagram of organizational learning from the perspectives of CSEs and the community of artisans. When we review our conceptual framework to the literature summary (see Table 1), we notice

that the framework prioritizes human capital and organizational learning, which is consistent with previous research on IC development.

This study contributes by revealing the process and determinants of IC development in both formal and informal sectors.

From a managerial standpoint, the study offers interesting recommendations for creative social entrepreneurs who want to develop their organization's ability to innovate. The managerial recommendation suits for creative social enterprises who are in the handicraft sector and work with community of artisans who are in informal sector. This study suggests that CSEs can successfully develop their innovation capability by following the three steps outlined below. First, the discovery stage. The stage in which CSE entrepreneurs should put together a team of people from various divisions with a diverse set of skills. It is suggested the teams comes from marketing and sales, R&D, and community development. The marketing team's task is to gather information about market demand, while the R&D team's task is to investigate the community's resources, capabilities, and connect with the local people. The task of the community development experts is to learn about material suppliers, production lead times, logistics, and the local champion. After the multidisciplinary team gain insight about the community, the management team should decide whether or not the community can be developed based on previous experiences parameters. If yes, the management should develop an innovation strategy that aligns with the community's resources and capabilities. The study suggests CSE entrepreneurs on discovery stage should consider factors such as the market demand, multidisciplinary team background and research and development, because the study found out that IC development depend on these factors.

Second, the development stage. The stage in which CSEs should begin building innovation capability on the community through a series of trainings hosted by local champion. We propose that CSEs entrepreneurs should gain community's trust by working with local champion. Meanwhile, it is suggested that the R&D team continues to develop ideas based on the resources and capabilities of the community. Only after the community has attained a certain level of proficiency in artisanal skills, both the R&D team and the community can collaborate to co-create and modernize traditional crafts. In conclusion on development stage, CSE entrepreneurs should leverage employee learning to a higher level, and advance knowledge sharing during co-creation between community and internal team to enhance organizational learning, which will ultimately foster innovation capability in both CSEs and the community of artisans.

The third and final stage is empowerment. The stage at which CSEs should seek to empower their communities not only in terms of hard skills, but also in terms of soft skills and improved their livelihoods. In this study, it was found that community well-being can improve IC development. It is strongly advised that CSE entrepreneurs ensure local community participation throughout the empowerment program. Community participation is important as it ensures that capacity building regenerates continuously within the community itself rather than relying on CSEs. Aside from empowering the human capital, the study also suggests that CSE entrepreneurs should consider the regeneration of weaving material in the local community. They should apply sustainable harvesting practices to ensure the regeneration of raw materials.

There are some limitations to this study that can be turned into opportunities for future research. We used a single case study, but future research could do multiple case studies in order to compare the findings of this study. Future research can also enrich the research by conducting a longitudinal study to see how IC develops over time. Finally, future studies could further the analysis of the main difficulties hindering the development of CSE and community artisans' innovation capabilities.

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