

PENTAHHELIX SYNERGY STRENGTHENING MODEL TO REVIVAL SUSTAINABLE ECOTOURISM IN BALI PROVINCE

I Gusti Ayu Purnamawati
I Gusti Bagus Baskara Nugraha
Gede Adi Yuniarta

ABSTRACT

This study aims to reveal the efforts to revive the weaving industry in Bali Province based on local wisdom and religious magical values with pentahelix synergy strengthening model for sustainable ecotourism. The COVID-19 pandemic has brought about considerable changes in all aspects of life, especially on the opportunity to improve welfare. The weaving craft industry, which mostly women are involved in, has been affected by the pandemic and various efforts have been made to revive the industry from adversity. This research design is in the form of explanatory research with a qualitative approach. This research was conducted at the location of the weaving industry in Bali Province. The results showed that the income earned by women weaving craftsmen was not fully sufficient to improve their welfare, because there were still obstacles they experienced, namely access to raw materials and labor. The creativity created by making endek has indirectly delivered endek as an identity of local cultural excellence. Woven fabrics are not just fabrics that have artistic value but more than that endek fabrics also have very high economic value, even marketing uses digital media. It has been proven that the endek and songket woven fabric industries can open up job opportunities and improve the welfare of local communities as well as cultural wisdom. The pentahelix synergy model seeks to integrate market share, capital assistance, training centers and forms of partnership cooperation. The government can also carry out tax regulations through fiscal stimulus whose aim is to provide a protective effect for the government against the existence of small industries. This strengthening is able to encourage the initiative of craftsmen and provide motivation to carry out alternative economic activities as an effort to survive amid limited resources. This effort is expected to lead to prosperity.

Keywords: local culture, economy, creative industry, religious magic.

INTRODUCTION

The development of the textile and apparel industry in Bali Province provides very strong support for regional economic growth. This is a challenge for the Balinese people in maintaining their existence, especially Balinese woven fabrics which pose challenges for women as successors who are obliged to take part in preserving them. Cultural value heritage with its complexity has a relationship with one another to form a system. For the community, the system is then used as a guide for ideal concepts that provide strong motivation for the direction of people's lives, as well as the ikat craft which is so closely related to tradition and becomes the identity of superiority of the local culture of the community. The handicraft of woven cloth contains traditional values and local wisdom culture with the absorption rate of labor in the category of small and medium enterprises (Yuningsih, 2019); (Purnamawati et al., 2020).

Ikat weaving also utilizes natural resources for the coloring process. The optimal use of natural and human resources is one part of industrialization activities. The effort to be aimed at industrialization is the hope of an increase in a better standard of living in the form of welfare (Arsyad, 2004). As with the creative industry of endek and Balinese songket weaving which seeks to increase its creativity as one of the industries engaged in the processing sector, namely the textile and apparel industry business fields, which in the manufacturing or production process use looms instead of machines. Even some weavers still use a traditional weaving tool called the *cag-cag*. Its use is by sitting on the ground or floor and using wood. There are several obstacles in the growth of the weaving craft industry that breathes this culture, one of which is the limited number of business centers and marketing of the endek and songket woven fabrics. Most of the endek or songket fabrics produced by the craftsmen still use traditional motifs and designs, even have religious value because they are used only during traditional ceremonies in Bali. This cultural heritage causes several types of endek and songket woven fabrics to be considered sacred because they are used in Hindu religious ceremonies (Sukawati, 2009). If seen from its history, the Balinese ikat or endek cloth was originally only used by the elderly and the nobility, but slowly the woven cloth is now starting to be used by the Balinese people during major religious ceremonies and prayers to temples (holy places for Hindus).

Endek cloths used in religious ceremonies are referred to as wastra in Balinese custom with a very dominant role and deep meaning in traditional ceremonial activities. When life begins, even from the commencement of Balinese activities at sunrise to sunset, Balinese people are very attached to religious traditional ceremonies. As one of the noble cultural heritages, several types of endek fabrics are considered sacred (Sukawati, 2009). Some of the endek fabrics have various designs related to sacred ceremonies or can only be used by certain people. This makes endek a culture that must be preserved and must be maintained so as not to damage the value of the ancestral cultural heritage. The increasing demand of the local market for endek woven fabrics has caused designs, motifs, and colors to adapt to consumer tastes. However, if it only focuses on the local market in Bali, the output that can be absorbed will be smaller, especially the threat of the entry of types of fabrics from outside Bali, which makes Balinese endek craftsmen even less enthusiastic and pessimistic in running their business. Therefore, there is a need for a strategy carried out by craftsmen to target the domestic market. Endek Bali is very rich in creativity, even the original Balinese cultural design has the advantages that distinguish it from other regions with its uniqueness (Ari, 2009). Efforts are needed to expand the business to domestic and international markets so that they do not rely solely on local markets. The requirement is to enrich the design according to market desires and provide comfort. Woven cloth is the identity and integrity of the superiority of local Balinese culture that has been passed down from generation to generation (cultural identity and ritual artifacts). Not only limited to being

used as souvenirs for tourists but starting to experience developed into a world fashion commodity based on local Balinese culture. The communities of Balinese woven cloth craftsmen can be found in Karangasem, Klungkung, and Jembrana Regencies, areas that are the centers or centers for the production of woven fabrics in Bali. Weaving cloth is a daily activity in almost all houses in villages in Karangasem, Klungkung, Jembrana, Bangli, Gianyar, Buleleng, Denpasar, and Badung regencies, where people carry out their routine activities as weavers, even among the people in these villages can weave, as an inheritance from their parents.

There are differences in the types of endek and songket woven fabrics produced by craftsmen, which are used for everyday life and at important religious ceremonies, such as tooth cutting, marriage, holidays, cremation, and other traditional ceremonies, even types of cloth that are not used for ceremonies. Religion is also marketed outside the Bali region (Sudhana et al., 2017). The manufacture of endek woven fabrics begins with the process of spinning the threads. Furthermore, the thread is stretched on a stretcher, and tied by raffia rope to match the desired design or pattern and color, after which the thread will be dyed. The final process after the yarn is colored and rotated (sorted) is woven into cloth. Especially for songket woven cloth, it is done by inserting silver, gold, copper, and colored threads over the underlying warp. This additional thread is intended to form the desired pattern and is sometimes combined with the tie technique. In the manufacture or production of woven fabrics, the ikat technique developed in Bali is a single tie technique on the weft and double tie on both warp and weft yarns. The development of technology led to the technique of making motifs by binding then using the airbrush technique which was felt to be more practical and efficient. Apart from getting a piece of cloth, people who buy endek have also received a cloth full of stories. The meaning contained in it makes endek a promotional tool for endek industry players (Sudhana et al., 2017). Endek is not just a piece of cloth but has a story meaning behind it, and this has become its own competitive edge for Endek in the world market. Marketing of commercialized endek is still only the endek that is allowed to be used, not the sacred endek. Commercializing endek which has a sacred value and can only be used at certain times, will damage the value of the endek itself. Therefore, the ability to create a more creative endek can be done through awareness of the surroundings (Tri Hita Karana) and market it as a cloth that has more value than the story contained in the endek without having to normalize the sacred endek (Telagawathi, 2014).

The life of the Balinese people is clad in tight traditions with religious ceremonies that are full of philosophical values. There is a philosophy of *Tri Hita Karana*, namely, three things that are believed to give happiness in life, so that if lived in harmony, harmony will be created which in its implementation can shape the character of Balinese people who care about the relationship between humans and God (*parahyangan*), humans and others (*pawongan*), and humans with the environment (*palemahan*). The use of endek is also based on the values of the *Tri Hita Karana* concept. Endek cepuk with sacred motifs specifically used in religious ceremonies to honor the Creator. In addition, *pegringsingan* which is also a sacred ikat cloth must be used in religious ceremonies such as Ngaben and Mepandes ceremonies in Bali. In contrast to the endek motif for religious ceremonies which mostly use sacred patra and encak serving motifs, the endek used in social activities generally has natural motifs. The creativity created from making endek has indirectly delivered endek as an identity of local cultural excellence (Purnamawati et al., 2015). The development of small and medium enterprises gets full support from the government, especially its role in developing a people-based economy through a labor-intensive production process that can absorb labor, expand job opportunities and increase income. By the general policy direction of the 2015-2019 national development, the first is to increase inclusive and sustainable economic growth. Increasing competitiveness and the role of small and medium enterprises is one way to achieve sustainable economic growth (Badan Pusat Statistik, 2019). One of the factors that cause the low productivity of Balinese ikat weaving is the technological factor, which is still using traditional looms or non-machine looms in the production process. According to Baiquni (2007), the use of technology is one of the capabilities of the community regarding the ability to utilize existing resources. Based on the neoclassical growth theory developed by Solow (1970), the growth rate comes from three sources, namely capital accumulation, increased supply of labor, and technological improvements where the technology can be seen from the increase in skills or advances in production techniques so that per capita productivity has increased. Technology plays a very important role in supporting the improvement of business performance. Developing technology is one of the efforts to create a comparative advantage for business actors.

One of the districts that received a yarn dyeing machine with a large capacity is Gianyar Regency so that it can increase productivity with one work and for drying requires a very fast process using a machine. The results of dyeing using traditional tools can only produce a few threads in a day with a more complicated process (Kementerian Perindustrian Republik Indonesia, 2014). Another problem in society is that one of the factors that cause a decrease in the value of production in the woven fabric industry is the low market demand. The downward fluctuation was felt in 2008-2010, due to difficulty to obtain raw materials, expensive yarn prices, and quality that was not by the production standards of ikat fabrics.

Through the empowerment of women workers in the production sector, it is also expected to create creativity and competitive advantage. A strategy is needed to meet consumer tastes, so that competitiveness also increases. Designs, motifs, and colors adjust to market demands, but the characteristics of ikat weaving must be maintained because the local cultural elements in it provide added value and uniqueness to the local weaving industry. Not only done by women, however, the involvement of all parties in promoting woven fabrics that are more vigorous and protect against plagiarism, makes woven ikat can be increasingly elevated along with the increase in creativity and innovation of local designers to win competition both locally, domestically, and internationally (Yuningsih, 2019). Likewise, the protection carried out on local cultural works must be maximized through government support. Attention to all elements in this world makes the clothes made by the Balinese people have more value (Sukawati, 2009). The existence of the Governor of Bali Regulation Number 4 of 2021 concerning the use of Balinese endek fabrics, has been able to increase the demand for Balinese woven fabrics, one of which is endek. However, this increase in demand is not accompanied by the amount of production because weavers are currently getting scarce. So far, the obstacle in developing woven fabrics is the raw material in the form of yarn which was previously imported from India and China, so the price is very high. Another problem faced is related to the limited number of weavers and no regeneration. The younger generation considers the job of being a weaver to be less promising (Sanjiwani, 2019).

The scarcity of resources is one of the main factors contributing to the sustainability of the endek, and songket tie weaving industry in Bali. These obstacles can hinder development which includes fundamental changes to social structures, attitudes of society, and national institutions. Development continues to pursue acceleration of economic growth, handling income inequality and poverty alleviation or adjustment of the social system as a whole towards better living conditions.

Development must be planned effectively, which in itself must also include the goal of solving problems in the field of employment (Todaro, 2001). Regional development aims to improve regional economic conditions so that they are independent and able to carry out government and regional development in a sustainable manner, improve the social conditions of the community to achieve prosperity fairly and equitably manner for all members of the regional community, develop every variety of regional culture to ensure the preservation of regional culture among other cultures. other Indonesian national cultures, improve and maintain the community to support the implementation of increased economic, social, cultural activities, environmental quality, and improve the welfare of all members of the community as a whole (Arsyad, 2010). The provision of employment opportunities for employment will be able to overcome the problem of income inequality and community welfare. Increased productivity, business performance, efficiency, and competitiveness will be realized if the strengthening of small and medium enterprises is supported by increased efforts to empower women in the use of technology, especially appropriate technology.

Table 1. Residents 15 Years Old and Over Who Worked by Business Field and Gender (2018) in Bali Province

Business Fields 17 Sectors	Working By 17 Sectors (Persons)		
	Male	Female	Total
Agriculture, Forestry, and Fisheries	284.376	216.859	501.235
Mining and excavation	4.485	1.588	6.073
Processing industry	129.537	235.148	364.685
Procurement of Electricity and Gas	5.309	680	5.989
Water Supply, Waste Management, Waste and Recycling	4.702	1.052	5.754
Construction	141.087	17.103	158.190
Wholesale and Retail Trade; Car and Motorcycle Repair	219.785	282.279	502.064
Transportation and Warehousing	67.307	4.887	72.194
Provision of Accommodation and Food and Drink	179.471	139.103	318.574
Information and Communication	5.544	2.022	7.566
Financial Services and Insurance	31.772	29.215	60.987
Real Estate	2.589	604	3.193
Company Services	43.728	14.173	57.901
Mandatory Government Administration, Defense, and Social Security	98.299	39.497	137.796
Education Services	55.263	61.476	116.739
Health Services and Social Activities	15.995	34.102	50.097
Other services	55.088	66.745	121.833
Amount	1.344.337	1.146.533	2.490.870

Source: Badan Pusat Statistik Provinsi Bali, 2019.

In 2018, when seen in Table 1, the absorption of female workers in the manufacturing sector is quite high when compared to male workers. The pattern of increase that occurs in the female workforce is generally influenced by several factors, including changes in lifestyle from large families to small families. The involvement of women's roles in the processing industry is one of them in the textile and apparel industry, especially in the weaving industry which is growing in the province of Bali. The tradition of weaving seems to be a must-do behavior, especially for women. Apart from the need for woven fabrics for traditional and religious purposes, woven fabrics have now become tourism commodities that have economic value.

The better the education level of women and the fewer the number of children and the development of household equipment technology will encourage women to participate in the workforce. In addition, female workers have characteristics that distinguish them in employment opportunities for women and are identical to jobs that require more thoroughness, patience, and perseverance (Kementerian Tenaga Kerja, Transmigrasi R.I & Provinsi Bali, 2018). Various, community empowerment efforts are related to entrepreneurial activities. This is increasingly considered important for companies, especially in today's complex global economy, where entrepreneurship is essential to gain a sustainable competitive advantage (Wiklund dan Shepherd, 2003). The considerable pressure on globalization in all sectors causes small and medium enterprises to face problems from competition around the world. Compounding this is the changing sophistication of customers around the world so that small and medium-sized businesses face increasing difficulties in maintaining and improving business performance promptly unless they can actively manage these pressures. The considerable pressure on globalization in all sectors causes small and medium enterprises to face problems from competition around the world. Compounding this is the changing sophistication of customers around the world so that small and medium-sized businesses face increasing difficulties in maintaining and improving business performance promptly, unless they can actively manage these pressures.

This study will explore strategies for economic and tourism recovery in Bali Province and how the government, academia, society, industry and the media, as elements forming the pentahelix, each contribute to the proposed program.

METHOD

The research design is a research plan and structure arranged in such a way that answers to research questions will be obtained (Kerlinger, 2006). This research design is in the form of explanatory research, namely research that aims to explain a generalization of the sample to the population or explain the relationship between differences or the influence of one variable with other variables (Bungin, 2010). In this study, the author uses a qualitative descriptive method that makes a systematic, factual and accurate description of the facts and characteristics of a particular population or area that is used as the object or subject of research, so that the picture is an idea about the economy and tourism and the impact of disasters which can be observed directly at the time

the research was conducted. The analysis is carried out on the identification of problems and the elaboration of the data collected by referring to the study concepts relevant literature. So that a systematic, factual, and accurate description or description is produced regarding an inventory of economic recovery and tourism in the province of Bali during and after the COVID-19 pandemic. The research implemented in the weaving industry business locations in regencies (cities), sub-districts, or villages that have weaving industry centers, with the research subject being women weaving entrepreneurs in Bali Province.

RESEARCH RESULTS AND DISCUSSION

The COVID-19 pandemic has brought about considerable changes in all aspects of life, especially on the opportunity to improve welfare. The impact of the decline in economic growth due to the COVID-19 pandemic has changed people's mindsets to try to rise and survive amid economic difficulties and continue their business activities. This is also experienced by entrepreneurs in the weaving craft industry in the province of Bali. The weaving craft industry, which mostly women are involved in, has been affected by the pandemic and various efforts have been made to revive the industry from adversity. The importance of the synergy carried out by the government (Ministry of Education, Culture, Research and Technology of the Republic of Indonesia, Badan Nasional Penanggulangan Bencana), Department of Trade, Industry, Cooperatives and Small and Medium Enterprises, Dekranasda, academics, media and the craft community is expected to be able to revive the economic and tourism sector in Bali Province. The tourism sector, which previously dominated economic growth, is slowly starting to rise from adversity. The Governor of Bali officially enforces the use of Balinese Endek Woven Fabrics Every Tuesday as stated in the Bali Governor's Circular Letter Number 4 of 2021 concerning the Use of Balinese Endek Woven Fabrics/Balinese Traditional Woven Fabrics Traditional Balinese Woven Fabrics are the creative cultural heritage of the Balinese people that must be preserved, protected, used, and empowered as the identity of the Balinese people with character and integrity in accordance with the Vision of Nangun Sat Kerthi Loka Bali through the Planned Universal Development Pattern towards a New Era of Bali. The Balinese Endek Woven Fabric has been registered as a Communal Intellectual Property of Traditional Cultural Expressions with NRE Inventory Number.12.2020.000085 by the Directorate General of Intellectual Property, Ministry of Law and Human Rights of the Republic of Indonesia, December 22, 2020.

The majority of the population in Bali Province adheres to Hinduism, where all aspects of daily life are still very thick with Balinese Hindu culture. Cultural preservation is highly emphasized to support the Bali tourism program which is generally based on Balinese culture. Many Hindu philosophies that can be used as guidelines in carrying out daily life including *Tri Kaya Parisudha*, *Arthasastra*, *Tat Twam Asi*, *Tri Hita Karana*, and many other concepts that come from Hindu philosophy.

In connection with the preservation of natural resources, customs, and cultural culture, Balinese people, with their belief, apply a lot of harmony or harmony in life known as *Tri Hita Karana*. Its implementation can form a caring character of society and a harmonious relationship between humans and God (*parahyangan*), humans and each other (*pawongan*), and humans and the environment (*palemahan*). The application of the *Tri Hita Karana* in a steady, creative and dynamic manner will be able to create a harmonious life that includes human development as a whole (Windia & Dewi, 2011). The concept of *Tri Hita Karana*'s teachings is also used as an indicator of subjective well-being and business networks among entrepreneurs in the weaving industry in Bali. The concept of *Tri Hita Karana* is a philosophy that can preserve cultural and environmental diversity in the midst of the influence of globalization.

Bali Province is one of the best tourist destinations in the world, both for domestic and foreign tourists. Cultural uniqueness, natural beauty, and traditional culture of life (customs, are a strong attraction for tourists to visit Bali). The growth of the tourism industry has also brought changes, especially with the entry of foreign elements in the form of new ideas or ideas as well as an investment which causes orientation changes based on economic motives. The real impact of these developments is to urge the arts and home industries to meet the demands of the tourism industry. One of the original Balinese textile products based on local culture is the result of the ikat industry in the form of endek, and songket. The use of endek, and songket is also based on the values of the *Tri Hita Karana* concept, including endek cepuk with sacred motifs specifically used in religious ceremonies as respect for the Creator. In addition, songket pegriingsingan which is also a sacred ikat cloth must be used in religious ceremonies such as Ngaben and Mepandes ceremonies in Bali. In contrast to the endek motifs for religious ceremonies which use more sacred patra, and anca serve motifs (the motifs show respect for the Creator), endek is used in community social activities or daily activities in general patterned in natural nuances. The resulting motifs mostly depict flora, fauna, and wayang characters that often appear in Balinese mythologies. The creativity created based on the harmonization of life in the process of making endek, and songket has indirectly led to endek and songket as a unique identity of the superiority of local Balinese culture.

The existence of weaving craft which is managed by women certainly has an impact on the surrounding environment, namely by forming a network of business communities to get new ideas that are useful in business development, especially in terms of design, coloring techniques, production, and marketing techniques to increase the amount of productivity. , the number of orders, and expand the network of buyers (Ofogebu et al., 2013; Choi & Lim, 2017). The support from the business community network makes it easier to obtain new market opportunities and expand the supply chain, the ease of obtaining technology for production, and also the ease of utilizing technology in marketing. According to Alrubaiee dan Al-Nazer (2010), As the environment continues to evolve and change rapidly, companies cannot maintain an attitude characterized by attracting customers or expanding new markets. The key success factors for survival in mature markets depend on the continuation of long-term relationships with stakeholders (Garcia-Madariaga & Valor, 2007). The challenge facing all marketers today is finding ways to increase customer loyalty and retention. Turning indifferent customers into loyal ones and building long-term customer relationships are critical to organizational success (Bhardwaj, 2007).

The guidance carried out for weaving craftsmen by Bank Indonesia includes preparing experts for training in yarn dyeing techniques, designs to assist with weaving equipment such as non-machine looms to spools and ani. In addition, helping to establish a place of business in each village in the form of a place for training and the weaving process, a meeting place, and a place to showcase production. Weaving villages assisted by Bank Indonesia are located in three regencies in Bali Province, namely Keramas Village, Gianyar Regency, Pejukutan Nusa Penida Village, Klungkung Regency and Sinabun Village, Buleleng Regency. Apart from these three areas, Garuda Indonesia also guides Karangasem Regency.

Even though the actual income earned by women weaving craftsmen is not fully sufficient to improve their welfare because there are still obstacles they experience, namely access to raw materials and labor. Even though the ease of access to raw materials can improve business performance (Sila, 2007; Edwards-Schachter et al., 2015). For weaving craftsmen, access to these raw materials is generally an obstacle, because some craftsmen get them through collectors. Likewise, barriers to labor are caused by the absence of regeneration or the younger generation who continue their business or nearly 41 percent of weavers are over 50 years of age. Through various efforts made by women in handicraft businesses and increasing synergy with the government, these various obstacles have been attempted to overcome. This statement is reinforced by the statement of one of the owners of the Sekar Jepun weaving craft, Mrs. Etmy Kustiyah Sukarsa (70 years old), located on Jalan Gatot Subroto Timur, Denpasar, namely:

"For me, access to raw materials and labor is not easy. If looking for female workers to be trained is possible, the solution is to be patient and slowly look for it, but no one wants to do that. Trained for just one month to weave, actually, you can. I started this business, not from generation to generation, but because I started it from learning, if I wanted to, I could do it. I regularly attend training from the government and often participate in fashion shows to increase sales. The training can provide information for design and promotion techniques. (Interview, 28 May 2021).

The same thing was said by Ms. Dewa Ayu Putu Nitiani (48 years old), owner of a weaving craft SME in Banjar Budamanis, Sidemen District, Karangasem Regency (Pelangi Weaving Craft SME), namely:

"Nowadays, most of the young people work in tourism. My problem is actually in the workforce, to be honest...like for example now there are piodalan activities, Galungan holidays, we can be out of work for a month. Fulfilling customer demand when there are many orders can be fast, but as fast as possible, woven fabrics are one to two months at the fastest. Actually, we have to focus on regeneration, because we were cut off, the children of weaving craftsmen could go to the high school level, but rarely do they continue the weaving business, because it is related to prestige. Unlike in the past, people were proud to be able to weave in the castle environment, but now with the development of technology, there are many choices of jobs." (Interview, 31 May 2021).

Another uniqueness in terms of designs or motifs to develop new ideas was stated by one of the craftsmen in Jembrana District, Negara, Mrs. Sriadi (45 years old) who is the owner of the Putri Mas weaving SME, stating:

"Innovation is always done for weaving motifs, but still maintaining quality. This typical motif such as bubunan, bridge of love, ducks, and natural batik songket. In the past, songket cloth was made with a connection, now it is without a connection with a size of twice one meter. Making a piece of this weaving has its difficulties, one day the craftsmen make cloth 5 cm to 10 cm long, depending on the motive and the difficulties. Songket Jembrana uses more natural dyes, for example from turmeric, noni root, and mango leaves". (Interview, 29 May 2021).

To raise the image of songket among today's generation, Putri Mas weaving SMEs innovate seamless songket, natural batik songket, and songket with natural coloring. All three are unique, exclusive and premium findings. Each product has a serial number to indicate originality. The product has a certificate of intellectual property rights. It is undeniable that business networks are indispensable in marketing woven handicraft products. This business network is very important starting from buyers and suppliers. The network of buyers in the business network is reflected in the desire to join the network of the business community for new useful ideas. This statement was responded to by respondents with a statement agreeing (good). This is reinforced by the results of the researcher interview with Mrs. Kadek Endang Erawati (58 years old) from Artha Dharma weaving, in Sinabun Village, Sawan District, Buleleng Regency, stating:

"I joined the business community network to share new design motifs, especially for endek mastuli silk with motifs such as sanan empeg, gringsing, sekordi, keplok". (Interview, 25 May 2021).

The same statement was also conveyed by Mrs. Etmy Kustiyah Sukarsa (70 years), the owner of the Sekar Jepun weaving SME in East Gatot Subroto, Denpasar, namely:

"I also join a business association to get new and useful idea. Now I am part of the association of endek border and songket tie weaving (ASBES), and there is always a visit from Mrs. Riana Jokowi. Through that network, I can exchange information, so I can know new designs, especially my son who can design dresses to be displayed at fashion events. In my gallery, many other craftsmen come to sell their products. So this is not all mine. Some of them also have friends who are craftsmen, some are sold with three-dimensional motifs." (Interview, 25 May 2021).

Network of buyers by joining the network of the business community not only to get new and useful ideas, but also to increase the sales volume and the number of orders for woven products. Absorption of technology has been carried out by several weaving business actors in the production process, this is shown in their operations using tools/machines such as for design techniques using three-dimensional digital technology as applied by the Astiti Weaving Craft SME in Klungkung and using the *dobby* technique as applied by the Arta Nadi Bali Ikat Weaving SME in Sidemen sub-district, Karangasem Regency. The development of technology today greatly affects the technique of making woven fabrics. The loom used in the three-dimensional technique of weaving is the semi-manual *dobby* loom. Unlike the songket that is usually made in the weaving industry, in three-dimensional woven fabrics, the threads that are accumulated are warped threads with the help of a *zakat* machine. The combination

of the three work processes can be seen from the colors and motifs produced after the weaving process is complete. Through this combination of techniques, the 3-dimensional woven fabric is able to produce various colors and overlapping motifs.

Various discussion forums were held with industry partners and universities, even academics who should be able to become solutions for industry. It is hoped that during this pandemic there will be a leap in technology, innovation, and economy. For this reason, the government is currently building an ecosystem through pentahelix synergy.

Table 2. The Role of Pentahelix in Economy and Tourism

Element	Role
Bali Provincial Government	in economic and tourism development which consists of: Regulation, Guidance, Implementation and Supervision
Industrial/private	Sources of business capital, job creation, recruitment of local human resources, as industry players and promotion of cultural tourism wisata
Academics	Implementing training and human resource development in the weaving industry and cultural tourism, implementing scientific studies, implementing socialization and mentoring community groups
Local community	Act as a business actor engaged directly/indirectly in the craft and tourism industry, monitoring the economic impact on tourism, culture and society's social
Media	Promotional instruments, distribution of information and improvement of the image of cultural tourism

The concept of pentahelix synergy is intended to avoid overlapping policies and programs between interested parties in the implementation of post-disaster recovery. This collaborative collaboration model is considered to be able to create community independence more quickly so that it does not always depend on assistance, especially the government, in particular in post-disaster economic recovery (Rizkiyah et al., 2019).

Based on the results of the focus group discussions and field observations, several strategies and programs that are proposed as the flagship of economic recovery in Bali Province are summarized. The Role of Pentahelix in Recovery Strategies and Programs:

1. Improving the Image of Bali Province and the Weaving Craft Industry
Due the ongoing COVID-19 pandemic, the image of the Province of Bali as a cultural tourism destination is safe to visit through:
 - a. Organizing various creative events that are published as widely as possible through digital media. For example, by holding online exhibition festivals and other creative events to promote attracted the attention of many people, for example an online expo was held for weaving crafts.
 - b. Cooperation with celebgram for promotion. Through this media, the target market for publications is millennials, triennials, and not close the possibility of a generation in the age of 40-60 years. The use of celebgram services is quite effective in creating brand awareness for the Province of Bali. Influencer marketing is very effective because 50% of internet users in Indonesia are Instagram users.

The involvement of pentahelix stakeholders in this program is as follows:

- a. Central government (Ministry of Technology Research-National Innovation Research Agency) and National Disaster Management Agency: schedule festivals or events to be held in Bali Province in the calendar of economic tourism events.
 - b. Academics: make a comprehensive study of public perceptions of the events carried out, evaluation studies on the effectiveness and efficiency of activities, to measure the impact of activities on the economic and tourism sectors;
 - c. Industry plays a role in creating new business opportunities from these event and promotional activities and enlivening the event by offering existing weaving handicraft products;
 - d. Communities and communities become the driving force of activities that will carry out event operations or become connoisseurs of the ongoing event;
 - e. The media plays an important role because it is the main motor of publication to create a new image of the Province of Bali with weaving as a safe cultural tourism destination.
2. Disaster Awareness Culture Movement
This disaster-aware cultural movement is expected to contribute so that the community in Bali Province can become one of the pilot disaster-resilient areas, which is one of the BNPB programs. Resilient areas are defined as areas that are able to withstand, absorb, adapt to and recover from the effects of disasters in a timely and efficient manner, while retaining their basic structures and functions. Tough does not mean never accepting disasters, but being able to survive and rise from disasters that come and the threat of disasters that may occur.

CONCLUSION AND SUGGESTION

The roles and involvement of pentahelix stakeholders in this program are as follows: Government: prepares policies, prepares facilitators, takes action and conducts monitoring and evaluation; Academics: prepare related studies to support government policies, help government prepare facilitator and program administration; Industry plays a role in facilitating the implementation of disaster awareness programs; Communities and communities are the main objects and subjects in the disaster awareness movement; Media: educating the public to be prepared for disasters, media crews must also actively participate as competent and professional disaster-aware actors.

Data from the Industry and Trade Office of the Bali Province (2008) shows that endek is a superior product and becomes the identity and identity of the people in the Bali Province. The art of weaving that was done by the Balinese in the past and is still being done to create endek cloth is an added value that is owned by endek cloth. The making of Balinese endek still involves rituals to produce quality cloth. The harmonization of life that exists among endek craftsmen inspires the creation of attractive endek designs with the manufacturing process carried out without neglecting concern for the surrounding environment. This sensitivity provides the ability to respond to dynamism quickly. If viewed from the social aspect, woven fabrics in principle can be used as clothes or body coverings, as a symbol of the bonds of brotherhood (equal to *braya*). When viewed from the cultural aspect, woven cloth can be used in many traditional and religious ceremonies of the Balinese people, which are often known as *Panca Yadnya*. Woven cloth is not just a cloth that has artistic value but more than that endek cloth also has a very high economic value. It has been proven that the endek and songket woven fabric industries can open up job opportunities and improve the welfare of local communities as well as cultural wisdom. For women's study institutions such as women's empowerment and child protection institutions regarding women's participation in the world of work, as a strategy to increase household economic resilience and make women as role models to inspire future generations to be more active in the economy.

REFERENCES

- Alrubaiee, L., & Al-Nazer, N. (2010). Investigate the Impact of Relationship Marketing Orientation on Customer Loyalty: The Customer's Perspective. *International Journal of Marketing Studies*, 2(1), 155–174. <https://doi.org/10.5539/ijms.v2n1p155>
- Ari. (2009, April 4). Endek Bali Jalan, tapi Terengah-Engah. *Cyber Tokoh*. Retrieved from <http://www.cybertokoh.com/mod.php?mod=publisher&op=viewarticle&artid=1901>
- Arsyad, L. (2004). *Ekonomi Pembangunan* (4th ed.). Yogyakarta: STIE YKPN. Retrieved from http://library.fis.uny.ac.id/opac/index.php?p=show_detail&id=2777
- Arsyad, L. (2010). *Ekonomi Pembangunan. Edisi 4*. Yogyakarta: STIE YKPN.
- Badan Pusat Statistik. (2019). *Potensi Peningkatan Kinerja Usaha Mikro Kecil*.
- Baiquni, M. (2007). *Strategi Penghidupan di Masa Krisis Belajar dari Desa*. Yogyakarta: IdeAs Media.
- Bhardwaj, D. (2007). Relationship Marketing in Context to the IT Industry. *Vision: The Journal of Business Perspective*, 11(2), 57–66. <https://doi.org/10.1177/097226290701100207>
- Bungin, B. (2010). *Metodologi Penelitian Kuantitatif* (Edisi Kedu). Jakarta: Prenada Media Group.
- Choi, Y. S., & Lim, U. (2017). Contextual Factors Affecting the Innovation Performance of Manufacturing SMEs in Korea: A Structural Equation Modeling Approach. *Sustainability*, 9(7), 1193.
- Edwards-Schachter, M., Barrioluengo, M. S., Garcia-Granero, A., & Quesada, H. (2015). Disentangling Competences: Interrelationships on Creativity, Innovation and Entrepreneurship. *Thinking Skills and Creativity*, 16, 1–40. <https://doi.org/10.1016/j.tsc.2014.11.006>
- Garcia-Madariaga, J., & Valor, C. (2007). Stakeholders Management Systems: Empirical Insights from Relationship Marketing and Market Orientation Perspectives. *Journal of Business Ethics*, 71(4), 425–439. <https://doi.org/10.1007/s10551-006-9149-7>
- Kementerian Perindustrian Republik Indonesia. (2014). Program Restrukturisasi Mesin/Peralatan IKM Tahun Anggaran 2015. Retrieved January 16, 2019, from <http://www.kemenperin.go.id/artikel/11955/Program-Restrukturisasi-MesinPeralatan-IKM-Tahun-Anggaran-2015>
- Kementerian Tenaga Kerja dan Transmigrasi R.I Dengan Dinas Tenaga Kerja dan Transmigrasi Pemerintah Provinsi Bali. (2016). *Perencanaan Tenaga Kerja Provinsi Bali Tahun 2012-2016 Provinsi Bali*. Denpasar, Bali: Pusat Perencanaan Tenaga Kerja, Sekretariat Jenderal Kementerian Tenaga Kerja dan Transmigrasi.
- Kerlinger, F. N. (2006). *Asas-Asas Penelitian Behavioral*. Yogyakarta: Universitas Gadjah Mada.
- Ofoegbu, E. O., Akanbi, P. A., & Joseph, A. I. (2013). Effects of Contextual Factors on the Performance of Small and Medium Scale Enterprises in Nigeria: A Case Study of Ilorin Metropolis. *Advances in Management & Applied Economics*, 3(1), 95–114.
- Purnamawati, I. G. A., Adnyani, N. K. S., & Suastika, I. N. (2015). The Conservation of Perang Pandan Tradition for the Socio-Economic Life of Adat Community in Tenganan Pagringsingan Bali. In *Procedia-Social and Behavioral Sciences* (pp. 135–141). Denpasar, Bali: Science Direct, Elsevier. <https://doi.org/10.1016/j.sbspro.2015.11.020>
- Purnamawati, I. G. A., Utama, M. S., Suartana, I. W., & Marhaeni, A. A. I. N. (2020). Women's Entrepreneurship And Local Wisdom: The Role Of Sustainable Subjective Wellbeing. *Management Science Letters*, 10(16), 3879–3890. <https://doi.org/10.5267/j.msl.2020.7.023>
- Rizkiyah, P., Liyushiana, & Herman. (2019). Sinergitas Pentahelix dalam Pemulihan Pariwisata Pasca Bencana Erupsi Gunung Api Sinabung di Kabupaten Karo, Sumatera Utara. *Jurnal IPTA*, 7(2), 247–256.
- Sanjiwani, W. (2019, September). Permintaan Endek Meningkatkan, Penunun Malah Langka. *Bali Post*. Retrieved from <http://www.balipost.com/news/2019/09/14/87182/Permintaan-Endek-Meningkat, Penunun-Malah...html>
- Sila, I. (2007). Examining the Effects of Contextual Factors on TQM and Performance through the Lens of Organizational Theories. *Journal of Operations Management*, 25(1), 83–109. <https://doi.org/10.1016/j.jom.2006.02.003>
- Solow, R. M. (1970). *Growth Theory*. Oxford, United Kingdom: Oxford University Press.
- Sudhana, I. G. P. F. P., Suardani, M., & Mataram, I. G. A. B. (2017). Pemberdayaan Usaha Kain Tenun Ikat Di Desa Sukahet Sidemen Karangasem Dengan E-Commerce. *Jurnal Poltek Negeri Bali*, 20(2), 1–7.
- Sukawati, C. G. A. P. (2009). Membangun Bali dengan Spirit Yadnya dan Berbasis Kearifan Lokal. *Bisnis Bali*, p. 12.
- Telagawathi, N. L. W. S. (2014). Inovasi Pemasaran dan Penciptaan Pasar Kain Tenun Endek di Kabupaten Klungkung. In *Seminar Nasional Riset Inovatif II* (pp. 875–890). Denpasar, Bali: Universitas Pendidikan Ganesha.
- Todaro, M. P. (2001). *Pembangunan Ekonomi di Dunia Ketiga* (7th ed.). Jakarta: Erlangga.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-Based Resources, Entrepreneurial Orientation, And The Performance Of Small And Medium-Sized Businesses. *Strategic Management Journal*, 24(13), 1307–1314. <https://doi.org/10.1002/smj.360>

Windia, W., & Dewi, R. K. (2011). *Analisis Bisnis Berlandaskan Tri Hita Karana*. Denpasar: Udayana University Press.
Yuningsih, S. (2019). *Perkembangan Usaha Kerajinan Tenun Endek di Banjar Sengguan Klungkung Bali*. Retrieved from http://www.academia.edu/34767777/Sekar_sosiologi

I Gusti Ayu Purnamawati
Faculty of Economics
Universitas Pendidikan Ganesha, Bali, Indonesia
Email: igapurnamawati@gmail.com

I Gusti Bagus Baskara Nugraha
Electrical and Informatics Engineering School
Institut Teknologi Bandung, Indonesia
Email: baskara@stei.itb.ac.id

Gede Adi Yuniarta
Faculty of Economics
Universitas Pendidikan Ganesha, Bali, Indonesia
Email: gdadi_ak@yahoo.co.id