SUSTAINABLE BUSINESS MODEL DEVELOPMENT OF SALAM RANCAGE BOGOR USING TRIPLE LAYERED BUSINESS MODEL CANVAS

Rinda Amalia Fadila*, Yudha Heryawan Asnawi*, Asep Taryana*

*School of Business, IPB University
SB IPB Building, Jl. Pajajaran, Bogor, Indonesia 16151, Indonesia

Abstract: The Business Model Canvas (BMC) is a tool commonly used by companies to create business models. However, the weakness of BMC is still focused on increasing profits and ignoring other sustainability concepts. The research focuses on the use of the Triple Layered Business Model Canvas (TLBMC) to create business models focused on sustainability issues on SME scale. This research was conducted at a social enterprise in Bogor named Salam Rancage from December 2022-February 2023. The primary data was collected by field observations and in-depth interviews with management, artisans, and an old customer. Secondary data include internal documents, previous research, scientific journals, and data from the internet. The data is analyzed using descriptive analysis techniques and by mapping the 27 elements of TLBMC. The results of the study show that the application of the TLBMC framework in Salam Rancage can be implemented in significantly covering three aspects of economic, environmental, and social issues that have not been covered in the BMC framework. The TLBMC framework is one of the tools that can be considered to achieve more sustainable business.

Keywords: model business, salam rancage, social enterprise, sustainability, TLBMC


Kata kunci: model bisnis, salam rancage, bisnis sosial, keberlanjutan, TLBMC

1 Corresponding author:
Email: rindaaf@gmail.com
INTRODUCTION

The sustainability business concept known as the Triple Bottom Line (TBL) concept was created by John Elkington in 1994. This concept emphasizes the balance between the 3Ps (people, planet, and profit). According to Elkington (1997), companies must be responsible for the positive and negative impacts on economic, social, and environmental aspects. There are several reasons why sustainability business practices are beneficial to many parties; according to Gunawan (2015), sustainability can create a positive image for the company, has a positive effect on customer loyalty (Rahanatha and Sawitri, 2019), and can increase the company’s competitive advantage (Chiou et al. 2011) therefore the sustainability business concept can lead to more vital business improvements.

Many companies transform their business to be more sustainable, one strategy is changing their business models. The business model can be trusted to describe the organization’s purpose and is a tool for organizations to implement their strategy to increase their profit. Sustainability, in the context of business model innovation, can be defined as strategies and activities within a business that aim to meet the needs of the company and stakeholders while the future needs of human and natural resources are protected, maintained, and enhanced by the company (Rauter et al. 2015). According to Muña et al. (2020), the sustainability business model is the introduction of several sustainable practices in the production process. In parallel, each sustainability practice must be evaluated with environmental, economic, and social assessment tools to assess its feasibility.

BMC (Business Model Canvas) is a top-rated tool used by companies. BMC has been proven to be a powerful tool for profit-focused businesses to formulate their business models by asking nine questions (Upward and Jones 2015), which address nine elements: key partners, key activities, key resources, value propositions, customer relationships, channels, customer segments, cost structure and revenue streams (Osterwalder and Pigneur, 2010). Unfortunately, BMC is not enough when considering values for multiple stakeholders in sustainability aspects such as environmental and social (Bocken et al. 2013). A similar opinion was expressed by Upward and Jones (2015) BMC is more focused on formulating profit-normative business models and lacks an architecture through added value to society and the environment. The primary purpose of BMC is economic.

In 2016, Joyce and Paquin brought a new business model concept based on three elements of sustainability. A tool with the aim to explore sustainability-centered business model innovation. Initially, this concept was pioneered by BMC from Osterwalder and Pigneur (2010) as the economic layer and added two other layers such as environmental and social. Triple Layered Business Model Canvas (TLBMC) is a practical and easy tool that supports developing, visualizing, and communicating sustainable business model innovations (Stubbs and Cocklin, 2008). TLBMC aims to achieve vertical and horizontal blocks in and between layers to achieve a clear understanding and align organizational actions toward sustainability at the strategic business model level (Joyce and Paquin 2016).

The concept of sustainability described above is usually adopted by large or multinational companies. Research shows that large companies have more efficient functionality, management discipline, and proper finances compared to SMEs (Small and medium enterprises) (Aghelie, 2017). According to Häkkinen & Belloni (2011), most studies on sustainability and green business are conducted to draw an inclusive image of the concerns primarily associated with large corporations and multinational companies. Schaper (2012) added that SMEs have limited knowledge of green business, therefore SMEs are not aware of the impact of these practices on their business performance even though data shows that SMEs themselves are estimated to be 80 percent responsible for the environmental impact of industry and more than 60 percent in the form of commercial waste generated (Marie 2012).

In addition, the positive impact of MSMEs (Micro, Small and Medium Enterprises) in Indonesia is to be the axis of the economy in Indonesia in facing global economic uncertainty by creating domestic independence through the domestic market (Azahra and Wibawa, 2021). The contribution of MSMEs in Indonesia reaches 60.3 percent of the Indonesian economy as a whole, and 97 percent creates jobs (Wibowo, 2020).

Over the past few years, Indonesia has faced environmental problems caused by the uncontrolled accumulation of municipal solid waste (Kurniawan et al. 2021). Around 200,000 tons of solid waste are generated nationally every day. On average, around...
384 big cities in Indonesia generate around 2.2-2.7 kg per capita of solid waste every day (Brotosusilo and Handayani, 2020). Based on data from the Ministry of Environment and Forestry (KLHK) (2022), the amount of national waste piles reached 65 million tons per day, of which 18.6 percent is plastic waste and 11.3 percent is paper waste. In contrast with the paper industry sector, this situation has the potential to be developed with the application of a circular economy because the need for recycled paper in the global market is also increasing by up to 2 percent per year (KEMENPERIN, 2020).

Increasing concern for the environment has forced the industry to innovate in reducing the negative impact on the environment. To minimize solid waste production, different solutions can be adopted. Several SMEs in Indonesia have adopted a sustainability strategy with the 3Ps concept. Salam Rancage is an example of an innovative business in sees global problems as a business opportunity for future initiatives. Salam Rancage is a social enterprise in Bogor that seeks positive solutions in dealing with waste problems in Indonesia by adopting a visionary strategy in which sustainability-oriented business is the core point of the agenda and sustainability is the focus point in all business activities (Baumgartner and Ebner, 2010).

Salam Rancage was founded in 2012 to transform paper waste such as newspapers, old magazines and used paper into premium handicraft products. Salam Rancage was not built based on increasing economic value alone but also idealistic towards improving social and environmental aspects. More than ten years of running the business, there are some improvements seen from the economic activity by the rise in people’s income, starting reaching export market, the prestigious Inacraft Award as an innovative design in 2017, awards to the community as the cleanest village in Bogor Regency in 2016, implementing the urban garden program and empowering women artisans.

Based on previous research. It can be concluded that the concept of a sustainability-oriented business model is still limited to be found on the SME scale but SMEs themselves contribute greatly to the negative impact on the environment. It is interesting how a sustainability-oriented business model is created. This study has proposed to apply the TLBMC framework as a tool to analyze the existing business model in Salam Rancage as a model SME that focuses on sustainability concepts. This study is to present a clear picture of the sustainability business model being implemented on the SME scale and to understand how stakeholders from environmental and social aspects influence this business model. This research is expected to be representative as an example of improvement and inspiration for designing and developing an innovation sustainability business model on the SME scale with TLBMC tool.

METHODS

This research was conducted at Salam Rancage’s office, which is located in the Al Hasanah Housing Complex, Jl. Al Hasanah IV, Tanah Baru, North Bogor, Bogor City, West Java. The research was conducted from December 2022-February 2023. The data obtained was then processed and analyzed using descriptive analysis techniques described by mapping 27 elements of the TLBMC based on data.

The first interview with Salam Rancage’s director was to find fact findings related to the current strategic situation and problems. Other interviews were conducted with several internal respondents in management Salam Rancage, artisans, and an old customer to find existing business model mapping and TLBMC actor’s analysis. The respondents are carried out by purposive sampling through knowledge, expertise, and competence in the business model.

This research consists of primary data and secondary data. Preliminary research data were obtained from in-depth interviews and field observations. Secondary data was brought based on Salam Rancage’s internal documents relating to the issue under study, previous studies that had been conducted at Salam Rancage, scientific journals, and data from the internet that were relevant to the object or problem under investigation.

Analysis data was conducted to get an overview of the existing business model in Salam Rancage. An analysis was conducted of the sustainability concept and internal business activities of organizations by using the triple layer business model canvas framework by Joyce and Paquin (2016). This business framework was divided 3 blocks sustainability each box into nine main boxes (Figure 1). Based on Joyce and Paquin (2016), the TLBMC supported users in creatively exploring sustainability-oriented business model innovation in at least three ways: TLBMC provided a visual
representation of an organization’s business model; TLBMC is a creation tool; TLBMC is a validation tool.

Since BMC itself has not yet been able to cover the concept of sustainability. This research hypothesis is concerned that TLBMC is one of the right tools to make plotting innovations in sustainable business models that can be used even for small-scale businesses which is exemplified in the case study in Salam Rancage. Creating positive attention through greener business practices is the key to reaching the ideal business now and future. Using TLBMC tool can help business owners to consider more deeply how environmental and social aspects will contribute to their business. TLBMC is one of the tools that can help to achieve success in the concept of sustainability.

Salam Rancage’s business has been operating since 2012. The company has already made a business model. However, the business model does not capture all the conceptual elements of the sustainability area. TLBMC provides clarity of the 27 key business building blocks divided by 3 areas sustainability: economic, environmental and social (Figure 2). Discussion of this research divided into two parts: Description of Salam Rancage’s business profile and Analysis visual representation of TLBMC.

In the Figure 2 that can be seen, the research began with conducting a literature study from previous research and field observations to find out the general description of Salam Rancage and continued by conducting in-depth interviews about the business model which was carried out by interviewing Salam Rancage management with the TLBMC script and an open-ended question to find out internal strengths and weaknesses.

RESULTS

Salam Rancage

Salam Rancage is a social enterprise in Bogor that creates and produces premium handicrafts made from paper waste such as newspapers, old magazines and recycled paper. Salam Rancage has a mission to bring harmony to improve local finances, empower women, and protect the environment in the community. Salam Rancage was founded by Aling Nur Naluri in 2012. Originally, Salam Rancage was a waste bank program from Sekolah Alam Bogor in 2009. The waste bank is one of the waste management programs to educate the school community and the surrounding community.

![Figure 1. Triple Layer Business Model Canvas (Joyce and Paquin, 2016)](image-url)
Participants who participate in the program can exchange the waste for a certain amount. The program is dominated by newspaper waste. Sekolah Alam experimented hundreds of times until they realized that newspaper itself has a character that is easily shaped so that initiatives to use newspaper waste to make handicrafts emerge. Finally, finding satisfactory results with high market potential. Ibu Aling founded Salam Rancage separately from the Sekolah Alam as a social enterprise.

Salam Rancage empowers women from Gang Kodir, Sindangsari Village, Bogor City, West Java. This group originally consisted of 6 artisans, until now it has reached 37 artisans and once up to 93 people. Gang Kodir was chosen as a social business development where most of the community live in poverty and work as casual laborers such as cassava skin peelers and button tailors who are paid unfairly. The Salam Rancage management team itself consists of 6 members who are dominated by women. Salam Rancage has an organizational structure divided into 4 departments with one leader occupying the highest position. The four departments are divided into finance, production, quality & compliance and marketing.

More than 200 items designed by Salam Rancage are daily necessities such as home decorations, lampshades, laundry baskets, mats, notebooks, bags, flower vases, tissue boxes, etc. “Tak Ada Koran Rotan Pun Jadi” means No rattan, so newspapers are Salam Rancage’s tagline using recycled paper as its primary raw material but newspapers were finished using water based wood paint, which resembled rattan. Even though the primary material is paper, the quality of souvenir products from Salam Rancage is equal to wood-made products as shown in Figure 3.

Sustainable business model

Business models have been believed to be a tool for companies to gain profits by describing in detail what needs to be done to determine the product’s value and which customers can afford. Even though many papers have been published, the study of business models in the field is still in its early stages, and there is still no unequivocal definition (Moggi et al. 2016).

The business model itself develops in several phases. According to Muiña et al. (2020), a business model is initially considered from a static perspective. Recently, several authors have considered the dynamic evolution through the process of innovative business models (Wirtz et al. 2016). One of the most relevant research-specific topics in recent years is the relationship between business models and sustainability (Evans et al. 2017). The impact of sustainability practices should not only be limited to the company’s internal viewpoint but must also involve stakeholders, especially those directly affected by these changes (Moggi et al. 2016).

The business model itself develops in several phases. According to Muiña et al. (2020), a business model is initially considered from a static perspective. Recently, several authors have considered the dynamic evolution through the process of innovative business models (Wirtz et al. 2016). One of the most relevant research-specific topics in recent years is the relationship between business models and sustainability (Evans et al. 2017). The impact of sustainability practices should not only be limited to the company’s internal viewpoint but must also involve stakeholders, especially those directly affected by these changes (Moggi et al. 2016). Recently, however, the impact of sustainability has increasingly been considered from the perspective of Elkinston’s 1994 triple bottom line, proactive multi-stakeholder management, and a long-term view (Geissdoerfer et al. 2018).
BMC and TLBMC

Some studies still need help to define the business model itself formally. One of the most common business model representations is the Business Model Canvas (BMC), first introduced by Osterwalder, Pigneur, and Clark in 2010. However, according to Morelli (2011), the triple bottom line for business and sustainability cannot be fully spelled out in traditional BMC. Design, management, and innovation BMC are currently limited to the economics of a three-legged approach that has lost the potential to innovate in environmental and social fields (Joyce & Paquin, 2016). TLBMC is used to explore ways to change business models through innovation aimed at creating, delivering, and capturing superior value.

The explanation of TLBMC is divided into three categories. The total will be 27 blocks related to sustainability issues. The first category from the economic layer is the original framework of BMC. According to Joyce and Paquin (2016), The business model canvas is a valid economic-financial tool based on three main aspects: The various components and parts of the enterprise can be integrated to provide value to customers; Strategy and interconnection; The relationship between the supply chain and stakeholders. Gassman et al. (2014) also added that BMC represents a triangle where the customer is at the center (who), the value proposition (what), the value chain (how), and the profit mechanism (why).

Economic layer

The economic layer is the basis of TLBMC, the economic layer describes the 9 blocks described below in Table 1 which are summarized in 4 categories as explained.

Customer segments, customer relationships, and channels

BMC sees consumers as the main focus which is discussed in 3 different blocks: customer segments, customer relationships, and channels. Some of the questions that are often asked in the creation of these blocks will be related to questions such as what is used to reach Salam Rancage’s customers? Who are Salam Rancage’s customers? Who is Salam Rancage’s biggest customer? What kind of relationships have been built and so on? Salam Rancage designed its main target consumers to be private companies, government projects BUMN, and international exports B to B with a minimum number of orders but apart from that there are other consumers with a small reach number from schools and Non-Government Organizations (NGOs). Salam Rancage has not yet provided products for individuals due to inadequate resources and the prices offered have not yet entered the individual market.

Salam Rancage has a relationship with consumers through several services such as sharing artisan stories through brochures to make consumers feel more connected to artisans and provide positive feelings about their contribution to social issues. Salam Rancage also provides loyalty services that are carried out with easy replacement in the event of damage caused by Salam Rancage after the goods have been sent. Another service is providing a personal assistant with one admin who can communicate directly with consumers through various media.

Figure 3. Salam rancage’s products
### Tabel 1. Economic layer of TLBMC framework

<table>
<thead>
<tr>
<th>Economic Layer</th>
<th>Value propositions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key partners</strong></td>
<td><strong>Key activities</strong></td>
</tr>
<tr>
<td>Raw material suppliers</td>
<td>Pra-production</td>
</tr>
<tr>
<td>Artisans</td>
<td>Production</td>
</tr>
<tr>
<td></td>
<td>Finishing</td>
</tr>
<tr>
<td></td>
<td>Distribution</td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer relationship</th>
<th>Customer segments</th>
<th>Key resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artisan’s stories through brochures</td>
<td>Private companies</td>
<td>Human capital</td>
</tr>
<tr>
<td>Loyalty service</td>
<td>BUMN</td>
<td>Newspapers</td>
</tr>
<tr>
<td>Personal assistant (IG, WA and website)</td>
<td>Governments</td>
<td>Brand</td>
</tr>
<tr>
<td></td>
<td>Export B to B</td>
<td>Office</td>
</tr>
<tr>
<td></td>
<td>Schools</td>
<td>Internal investors</td>
</tr>
<tr>
<td></td>
<td>NGOs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Channels</th>
<th>Cost structure</th>
<th>Revenue streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word of mouth</td>
<td>Perajin’s income</td>
<td>Volume of sales (main revenue)</td>
</tr>
<tr>
<td>Events/Exibitions</td>
<td>Employee’s salary</td>
<td>Training</td>
</tr>
<tr>
<td>WhatsApp</td>
<td>Raw materials</td>
<td>CSR consultations</td>
</tr>
<tr>
<td>Websites and mail-order</td>
<td>Transport</td>
<td>Salam Rancage’s tour</td>
</tr>
<tr>
<td>Social media</td>
<td>Events</td>
<td>Other: interest earned</td>
</tr>
<tr>
<td></td>
<td>Tax</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Utilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

Salam Rancage utilizes various channels in promoting its products or activities online through various social media and offline through various exhibitions to communicate with its consumers. Interestingly, Santos (2020) explains that one of the advantages of digital marketing is the cost is low but it manages to attract consumers 24 hours a day. In addition, according to Aque et al. 2021, the local industry should adapt to digital marketing. To be able to compete with large companies, an impeccable online strategy, and a capable digital marketing business are needed.

Currently, most consumers get Salam Rancage through word-of-mouth channel. According to Latief (2018) Word of mouth (WOM) is a marketing communication activity through promotions carried out by customers to other customers, both verbally, in writing, and electronically which is used by the public to exchange ideas about their experiences and knowledge of a company or product. Salam Rancage has not maximized electronic WOM so this is an important point, especially when wanting to get an international mock market, Salam Rancage must be able to maximize this channel.

**Value propositions**

Salam Rancage has several value propositions offered to customers. In interviews conducted with internal management, Salam Rancage itself clearly understands the quality of its products, the differences between its products and other products, along with the selling points offered by Salam Rancage as a social enterprise. The social values are one of the important values where Salam Rancage can help the community in solving various social problems.

Salam Rancage’s products are made from paper waste so Salam Rancage shows the contribution to environmental protection by making handicraft products made from environmentally friendly materials. Salam Rancage offers a clear example of creative business model innovation by offering waste that is considered non-saleable goods into premium goods with high selling value. Salam Rancage offers premium quality products with designs that have reached 200 products and have started to penetrate the international market. According to research conducted by Sun and Yoon...
(2022), attitudes towards environmentally friendly products and awareness of ethical consumption have a positive impact on the intention to buy environmentally friendly products at a premium price. This is also supported by Morel and Kwakye (2012), people who have more knowledge about green advertising are more willing to buy green products.

Key partners, key activities and Resources (Infrastructure)

The group infrastructure in the Salam Rancage business model is described in the blocks of key partners, key activities, and resources. The activities carried out at Salam Rancage itself are divided into five major activities, namely Pre-production is the preparation of materials, design and division of tasks, production which is a weaving activity. This activity is carried out at various times and with various results. Here, the flexibility of time and place of work is the main key to fostering good relations between management and artisans, considering that the main task of artisans here is housewives. According to Shagvaliyeva and Yazdanifard (2014), flexible work practices are beneficial for employees & employers, can have a positive effect on work-life balance and overall employee life satisfaction. In the last activity, it was followed by coloring activities, quality checking by management, and packaging for shipments wrapped in cardboard and parchment paper, all packaging was done without plastic. The next stage is the distribution stage which is usually carried out by direct pickup by consumers, delivery by courier agents, or delivered directly by the Salam Rancage team. Another important activity is related to marketing both online and offline.

Based on the explanation of the activity above, it is clearly illustrated that raw material supply partners are blocks of key partners. Salam Rancage has good relations with several suppliers such as newspapers, bamboos, glue and paint. Several questions were raised in this interview session such as who is Salam Rancage’s partner in creating value? What resources does Salam Rancage acquire from partners? What activities are carried out by partners and others?

The success of Salam Rancage itself cannot be separated from qualified human resources. Salam Rancage employs the local Bogor community with the criteria in the target village with the enthusiasm, skills, and capabilities that are appropriate and needed for their business. According to Jiao (2011), entrepreneurship with social business requires a proactive approach where its application must be aligned in overcoming social problems such as the problem of unemployment sequentially to promote social values. In addition, according to Defourny (2001), the combination of various stakeholders in a social enterprise organization is more oriented to benefit the whole community.

Newspaper resources have also become a unique attraction in the design of this craft so for more than 10 years the Salam Rancage brand has been known by both local and international people who are interested in their ideas and creativity offered as an alternative to environmentally friendly products. One of the other uniqueness is that Salam Rancage as a social enterprise is incorporated in the Salam Komunitas Bogor, this is a place where Salam Rancage can survive and grow bigger to run its business, for example in the office occupied by Salam Rancage now it is assistance from the Salam Komunitas Bogor which is usually for the craft business itself is rare to have an office but only have a workshop. This point is a distinct advantage that can strengthen Salam Rancage’s business. According to Trivedi and Stokols (2011), as a social enterprise reputation or credibility is very important to be able to utilize social networks to collect and mobilize resources. It is also supported by Ati et al. (2019), in order to realize the sustainability of the institution, a creative fund-raising strategy is needed. Apart from that, another advantage is the strategic location which is an additional point for customers who are located outside the city because of the location close to the toll road.

Cost structure dan Revenue streams

Group financials is described by 2 blocks of cost structure and revenue streams. Salam Rancage expenses are described by expenses for employee salaries, artisan salaries, raw materials, transportation, tax, Utilities, Other and activities for participating in exhibitions. Most of Salam Rancage’s income is derived from product sales, but Salam Rancage opens other opportunities that are not periodic from providing training, for example, Ibu. Aling as CEO becomes a speaker at an event and CSR consulting activity.
Environmental layer

The environment layer itself is divided into 9 blocks as in Table 2. The environmental layer itself describes the negative and positive impacts of the Salam Rancage business, both directly and indirectly. According to Joyce and Paquin (2016), the advantage of this model is the possibility to understand the most critical environmental issues of the company and the most important practices of circularity and sustainability that the company is undertaking.

Functional Value, Environmental Impacts and Environmental Benefits

Functional value according to Joyce and Paquin (2016) explains first of all what is examined in the environmental layer and secondly serves as a basis for exploring the impact of alternative potential business models. Salam Rancage is ecopreneurship which according to Urbaniec (2018), the essence of sustainable entrepreneurship can consider a series of business practices that create opportunities for innovative corporate activities in conjunction with environmental and social challenges. The value of sustainable entrepreneurship itself is the formation of value for various stakeholders (Lüdeke-Freund, 2020).

Salam Rancage implements a sustainable strategy in its business by creating environmentally friendly products. Salam Rancage is also committed to having a small negative impact on all of its business activities and all of its products so Salam Rancage needs to see in detail how its organization and all of its products have an impact on the environment both positively and negatively. The environmental benefits of Salam Rancage are described in the 3R’s program where the use of newspapers or paper waste as raw materials has the concept of reuse, reduction and a recycling program that turns newspaper waste into other products. The environmental benefits of using the concept of sustainability are described, for example in a 60 L laundry basket product that can use 4 kg of newspaper waste. Here we can see immediately 3 aspects of sustainability, both economically, that the goods have a new selling value. As an environmentally friendly product, Salam Rancage reduces the amount of waste circulating in society. This product is made by women from assisted villages where the presence of Salam Rancage can help solve social problems in the community by providing decent jobs that can help improve the economic standard of their families.

In the environmental impacts block, the biggest impacts are waste generated from production residues and waste from goods that do not pass quality control. Production waste is processed by carrying out burial activities in which there is an organic process where the items that have been buried are lost after a few months of being eaten by termites. According to Piandari (2021), termites have an important role as decomposers that are beneficial to the environment.

Table 2. Environmental Layer of TLBMC framework

<table>
<thead>
<tr>
<th>Supplies and Out-sourcing</th>
<th>Production</th>
<th>Functional Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bamboo</td>
<td>Weaving, Coloring and quality control</td>
<td>Ecopreneurship</td>
</tr>
<tr>
<td>Newspapers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood stain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Materials</th>
<th>Environmental Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeroplane transport</td>
<td>Newspapers</td>
<td>3Rs’s program</td>
</tr>
<tr>
<td>Road transport</td>
<td>Glue</td>
<td>Sustainable living in community (zero waste and gardening)</td>
</tr>
<tr>
<td></td>
<td>Wood stain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bamboos</td>
<td></td>
</tr>
</tbody>
</table>

End of Life

<table>
<thead>
<tr>
<th>Use Phase</th>
<th>Environmental Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product disposal</td>
<td>none</td>
</tr>
<tr>
<td></td>
<td>Waste production (paper, water and used cans)</td>
</tr>
</tbody>
</table>
According to Muiña et al. (2020), environmental damage due to industrial activities will have a social impact, especially in the areas where the company operates. Salam Rancage has production sites that are still scattered in several places so that this can be used as a future focus for improvement in reducing negative impacts on the environment. It is undeniable that Salam Rancage still uses materials containing chemicals that can have a negative impact on the environment such as the use of paint which can result in air pollution in the surrounding environment and disrupt the health of its employees.

**Production, Distribution, Materials, Supplies and Out-sourcing**

The biggest environmental impacts generated in the production and finishing activities are in the activities of gluing, coloring, and quality control. To obtain raw materials, Salam Rancage cooperates with third parties such as suppliers of bamboo, newspapers, glue, and paint itself. Salam Rancage is very selective in choosing premium quality ingredients that are indeed more environmentally friendly. Paper waste, which is Salam Rancage’s main raw material, still contributes as much as 11.3% (KLHK, 2022). Another material, namely the glue used by Salam Rancage contains polyvinyl acetate (PVAc), which according to Ricciotti et al. (2022), new sustainable adhesive for use in art and design, consisting of PVAc which is considered to be a more environmentally acceptable than inorganic materials. The use of paint from Mowilex Woodstain is a premium water-based wood coating paint designed to make wood last longer, easy to use, and easy to clean. Mowilex itself received an award as a Brand Choice Award in 2022 for consistently producing environmentally friendly paints. In addition, the company is also the first manufacturing company to receive a Carbon Neutral certification (Mowilex, 2022).

Salam Rancage needs to know the track record of the origin of these products because Salam Rancage works with 3rd parties such as bamboo suppliers that must be owned by original farmers who have certificates that are not planted in protected forest areas, another example in newspaper raw materials there is a lead content of as much as 1.11 mg/kg which is less than the lead allowed in cosmetics. So that the Salam Rancage product itself is certain to be safe to use. Salam Rancage has been very good at documenting these data. At the distribution stage activities are used with cars and planes which produce a large carbon footprint on the environment. This is still difficult to avoid considering that the existing technology is still unable to provide the right solution.

**End of life and use phase**

End of life ultimately results in product disposal in the form of paper waste itself which ends up in the hands of consumers. Salam Rancage still hasn’t created a system that is capable of handling end-of-life that is more sustainable and has more benefits to the environment because the size of Salam Rancage’s business itself is not yet large so that access to technology for its products and development is still limited.

The use phase here describes consumer involvement in using products from Salam Rancage. Salam Rancage focuses on handicraft home decor goods which are certain that the products are quite safe and do not need the help of other natural resources to use these goods, such as the use of water or electricity and so on. Salam Rancage products have a long service life of 5-7 years even if indoor goods can reach 10 years. The newspaper itself comes from wood and has a strong character. If it is woven and glued, it will bind together so that it is united and hard.

**Social layer**

This last chapter would discuss 9 blocks as in Table 3 which are divided into 2 parts, which are related between the blocks. The social perspective focuses on the impact of the organization on society, considering how certain actions can positively or negatively influence society (Joyce and Paquin, 2016).

**Social Benefits, Social Impacts, Scale of Outreach, End-User**

Social layer discussed the positive and negative impacts of each block. The presence of Salam Rancage has a positive impact or social benefits that affect the lives of the surrounding community such as opening new job opportunities and providing education related to recycling activities that are both environmentally and economically causing the community to change to a new and healthier lifestyle.
The program created by Salam Rancage in the assisted village can produce a domino effect that is periodically enhanced by the surrounding community, for example, the artisans themselves have a better life with fair wages, the emergence of self-confidence in the assisted village women, reducing plastic waste by replacing cloth shopping bags, routine village cleaning activities and an attitude of openness from the community that shows concern for one another such as when a flood occurs, the community makes cash to help those affected by the flood.

With great dedication from artisans and the surrounding community, Salam Rancage always innovates to create programs that are useful for the future of the community there, such as funding free training for employees such as gardening certification activities that have been carried out by one of the residents there, creating new business opportunities from gardening activities and Dongko market activities by selling local gardening produce.

However, apart from the positive impacts, several negative potentials must be considered so that ways of prevention and handling can be found first. There is a potential for jealousy from other villages to be part of Salam Rancage, which currently, with the size and existing customers of Salam Rancage, cannot yet leverage its business. Besides that, other impacts that can occur are related to additional income for artisans which are expected to help the household economy there, instead of changing compulsive lifestyle changes. The possibility of an accident occurring at work, even though the possibility of this opportunity is small due to fatigue at work, from the beginning, Salam Rancage sets working hours based on discussion and agreement from the artisans themselves so that there is no compulsion to exceed the limit.

The business carried out by Salam Rancage itself has a fairly wide reach not only to artisans, fostered villages, international customers, and local suppliers but here it is also very important where a larger audience is obtained from people who have only heard or seen products from exhibitions, the internet, news, and TV to increase the awareness of the wider community, especially in this case the community who are interested in sustainability issues to see more positively that there are things that can be done to reduce environmental damage and small steps that can be given, especially by buying Salam Rancage products, can help change the lives of many people so that the end user here is the consumer. Salam Rancage products can be a new choice for consumers to enjoy, especially for consumers who already understand environmentally friendly goods and develop a high sense of awareness so that every consumer is always responsible for other negative impacts of every product they buy.

Many social values are owned by the Salam Rancage business. As previously mentioned, a strong sense of helping each other in the community emerged with the project provided by Salam Rancage. This was
the initial foundation for the target areas to be more persistent in dealing with various problems. The nature of independence, responsibility, leadership, and self-confidence here has been fostered by Salam Rancage, the effect of which is how the community can make their village progress.

The socio-culture here is Sundanese culture which has been practiced by the Salam Rancage business, for example when the management communicates with artisans who are accustomed to Sundanese and the naming of the products themselves uses Sundanese. Apart from that, new cultures were born from the practice of programs created by Salam Rancage, such as the culture of weaving, gardening and zero waste applications by not using plastic in everyday life.

Local communities here that Salam Rancage work together with local artisans who live not far from the Salam Rancage office and who have quite a lot of social problems compared to the surrounding area. Equally important, joining the Salam Bogor Community here is very important for business development and business stability in Salam Rancage.

Employees at Salam Rancage are dominated by women, around 90% are over 30 years old but some roles are still held by men, such as in the production team where the members and leaders are men, besides that in the business development department, many are assisted by a male director from SMX (the director of the natural high school) which Ibu Aling herself admits as the director of Salam Rancage, needs other opinions from men who can provide diversity and input so that her business can grow better, not just always using her heart and emotions.

All employees use local workers who do have the capacity required by Salam Rancage. For the management block itself, Salam Rancage has been running very well, and management’s openness to business profits is returned 100% for craftsmen. Based on the results of a survey report conducted by the British Council (2021), out of 203 social enterprises in Indonesia, most of the profits are allocated 72% for growth and development activities, 29% for cross-subsidies for social missions with business activities and 27% for staff awards.

From a governance perspective, Salam Rancage is a CV that has a hierarchy where role selection is also based on the capacity and skills of its employees. Discussion is a tool to consider making decisions but still the final decision will be made by a trusted director based on his experience working in various companies with experience as a financial manager. Ibu Aling herself was at Salam Community Bogor before the Salam Rancage was made. Based on the British Council report 2020 related survey results of 146 social enterprises in Singapore, 64% of women are leaders, 40% are youth leaders.

Managerial Implications

This research has succeeded in the overview of a sustainable business model. The TLBMC framework supports the exploration of existing business models. Salam Rancage can understand the business model that is now implemented, so Salam Rancage knows what needs to be improved by using the existing business model as primary data to creatively explore the strengths and weaknesses for applying an alternative strategy, which can be seen in each block, for example in the social impact and environmental impact blocks. It is clearly described that there are negative impacts from these business activities such as, risk of accidents at work, product waste, etc. Salam Racage can think of an alternative strategy to minimize these problems.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The results of the study show the current sustainable business model applied by the TLBMC framework. Salam Rancage’s business model itself has been divided into three aspects of sustainability to fill in the total 27 blocks. The main business of Salam Rancage itself is explained at the economic layers detailed on the target customers, activities cash flow, etc how ideally the business works to make a profit. The environmental layer explains the negative and positive aspects obtained, this provides a big picture of how decision-making in the business looks at the sustainability side of the environment, especially when Salam Rancage products are branded as green products. A social enterprise can explain the role of business in society which is explained at the social layer by empowering women and helping with social issues in the community.
TLBMC also describes the stakeholder’s roles involved in the business. The stakeholder’s role impacts the improvement of the sustainability business itself. The existing sustainable model of business is primarily for review and exploration of the potential of business development and repairing weaknesses in the business model on 3 aspects sustainability. The application of the TLBMC framework on the SME scale can be implemented for businesses that want to achieve a sustainability strategy, especially for businesses that have declared their business as sustainability-oriented, so TLBMC is the right tool to cover the sustainability aspect itself.

Recommendations

The results show some limitations despite the good degree of detail achieved by TLBMC. Salam Rancage can use the existing model business as primary for creating a new business model with alternative strategies. The result just shows the actors who play a role in Salam Rancage’s business so the assessment of external factors such as judgments from experts are important to deeper perception of external condition that can’t be control by Salam Rancage itself so both data to be used as suggestions for supporting further research for alternative business models.

FUNDING STATEMENT: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

CONFLICTS OF INTEREST: The authors declare no conflict of interest.

REFERENCES


Piandari I. 2021. Inventarisasi Jenis Rayap dan Jenis Tanaman yang Diserang di Kawasan Universitas Islam Riau serta Efikasi Cendawan Metarhizium anisopliae dalam penanganannya


