



SUSTAINABILITY ANALYSIS AT KNK KOFFEE RESOURCES

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ABSTRAK

UMKM sebagai salah satu tulang punggung perekonomian nasional memiliki potensi ekonomi yang sangat besar. Kota Semarang memiliki 17.564 UMKM (95%) dan dalam kurun waktu lima tahun terakhir, omset UMKMbinaan Pemerintah Propinsi Jawa Tengah mengalami peningkatan sebesar Rp 30.45 triliun. Namun, terdapat beberapa hambatan yang diperparah dengan kondisi pandemi Corona Virus Disease 2019 (Covid-19), mayoritas pelaku bisnis mengalami penurunan omset, sebanyak kurang lebih 1.538 UMKM, sebanyak 50% UMKM olahan pangan, sisanya 50% UMKM campuran. Diperlukan kegiatan pendampingan oleh Tim Pengabdian Pada Masyarakat Universitas Negeri Semarang (PPM Unnes) pada UMKM di Kota Semarang. Mitra Knk Koffee Resources sebagai industri rumahan pengolahan kopi merupakan stockist café dari 60 kedai kopi (penyuplai 75%) di Semarang, beromset rata rata 100jt per bulan. Kegiatan inisielaras dengan Rencana Pembangunan Jangka Menengah Daerah (RPJMD) Kota Semarang tahun 2016-2021. Community/locality development (CD/LD) model digunakan meliputi community services, empowering dan relations, dengan tahapan pengumpulan fakta, perumusan masalah, perencanaan program, aksi dan komunikasi dan evaluasi. Kegiatan ini diharapkan dapat meningkatkan kualitas mitra /UMKM melalui peningkatan daya saing, produksi, omset dan kesejahteraan mitra. Dukungan pemerintah, lembaga penelitian dan perbankan dengan insentif, kredit, peralatan pemeliharaan dan kualitas bantuan standar akan meningkatkan produktivitas dan kualitas sekaligus meningkatkan harga kopi petani kecil.

ABSTRACT

MSMEs become one of the backbones of the national economy have enormous economic potential. Semarang City has 17,564 MSMEs (95%) and in the last five years, the turnover of MSMEs assisted by the Central Java Provincial Government has increased by Rp. 30.45 trillion. However, that does not mean that MSMEs do not encounter obstacles. This obstacle is exacerbated by the conditions of the Corona Virus Disease 2019 (Covid-19) Pandemic, the majority of business people experiencing a decline in turnover. The MSMEs affected by the pandemic are approximately 1,538 MSMEs, as many as 50% of MSMEs are food processing, and the remaining 50% are mixed MSMEs. It is necessary to assist the Community Service Team of the State University of Semarang (PPM Unnes) with the target audience of MSMEs in the City of Semarang, namely Strengthening Knk Koffee Resources Partners. This home-based coffee processing industry is a café stockist from 60 coffee shops (75% supplier) in Semarang, with an average turnover of 100 million per month. This activity is in line with the Regional Medium-Term Development Plan (RPJMD) of Semarang City for 2016-2021. The community/locality development (CD/LD) model used includes community services, empowering, and relations, with the stages of collecting facts, problem formulation, program planning, action and communication, and evaluation. This activity is expected to improve the quality of partners/MSMEs by increasing the competitiveness, production, turnover and welfare of partners. Government support, research institutions and banks with motivating forces, credit, upkeep gear, and quality standard help will increment efficiency and quality whereas expanding smallholder coffee costs.

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INTRODUCTION

The main point of Sustainable Development Goals (SDGs) 20230 focuses on empowering MSMEs to achieve these sustainable development goals. The central point of MSME strengthening within the SDGs incorporates a clear target for welfare. The consideration of MSME factors in sustainable development may be a worldwide acknowledgment of the commitment of MSMEs over the past two decades

Typically, in line with the Semarang City Territorial Medium-Term Advancement Arrange (RPJMD) for 2016-2021 which points to fortify the people's economy based on nearby greatness and construct a conducive trade climate. The number of Micro, Small and Medium Enterprises (MSMEs) in Semarang City is 17,456 or 95% of the entire commerce on-screen characters, making MSMEs as an inventive industry, have the potential to ended up one of the spines of the national economy within the future. In any case, amid the Covid-19 Widespread, there were 1,538 MSMEs influenced by the widespread. Of this number, there are 700 MSMEs (50%) related to handled nourishment, the rest are around 800 blended MSMEs. This number is moderately little, since there are still roughly 50 thousand MSMEs that have not been authorized so they cannot be checked. Nearly all segments experienced a decay in execution, counting within the manor sub-sector.

In any case, coffee commodities in Indonesia are progressively well known. Based on BPS Manor information, it is known that until February 2020, Indonesia's coffee sends out were

recorded at 55,989 tons, with an end out esteem of USD 136.75 million. Indonesia's coffee commodity exports are dominated by the United States, Malaysia and Italy with a contribution of 36.5 percent while to Egypt amounted to 34,287 tons or contributed 9.5 percent to the total volume of Indonesian coffee exports in 2019. In 2020, Indonesia's coffee exports to Egypt amounted to 7,273 tons with an export value of USD 12.62 million. Of the total exports to Egypt, as many as 134.4 tons of Robusta Coffee beans from Temanggung have been shipped from Tanjung Emas Port, Semarang, Central Java, to Alexandria, Egypt, at the end of April 2020. In addition, coffee exports to the Central and Eastern European region have been running for quite a long time since 2013.

Economically, Semarang coffee encompasses a huge advertise in Europe and the Middle East. So that the part of Semarang City cannot be ruled out with respect to the improvement of the coffee industry in Indonesia. A MSME KnK Koffee Resources possessed by a youthful individual in Semarang City also contributed. This coffee handling domestic industry may be a stockist café of 60 coffee shops (75% provider) in Semarang, with a normal turnover of 100 million per month Beginning from a pastime of drinking coffee, the proprietor of KnK Koffee Resources has opened a coffee shop commerce on Jalan Dewi Sartika No 5, Gunungpati District, Semarang City. As of now, KnK Koffee Resources Semarang has 10 employees and cultivates coffee ranchers within the Bonjor, Tretep Temanggung and Wonokasihan regions, Gunung Kelir, Ambawara. In expansion to the Coffee Shop (KnK Koffee Resources), Agung moreover

claims a Cafe (Lost in Café) found within the same area. The following is the profile of KnK Koffee Resources (Table 1).

Table 1. Partner Profile

No	Information	Friend
1	Partner Name	Knk Koffee Resources
2	Partner Locations	Jl Dewi Sartika Raya No 5 Perum UNDIP
3	Distance from PT to Location	7 km
4	Owner	Agung Kurniawan
5	Number of Employees	10 peoples
6	Product Type	Coffee and coffee equipment
7	Production Capacity	700-1000 kg/month
8	Turnover per Month	100 milion
9	Marketing Area	Semarang City and Cities in Central Java

Source: Knk Koffee Resources Data

Hendrar Prihadi (Hendi), the Leader of Semarang, trully increases in value the taste of Agung's prepared coffee, as well as the commerce he spearheaded. Hendi's arrival is to support KnK Koffee Resources as a business start-up for young people in Semarang City who have succeeded in penetrating outbound business and supporting the formation of a better business ecosystem in Semarang City (Figure 1).



Figure 1. Mayor of Semarang (Hendi) visited KnK Koffee Resources

Based on initial observations, website citations and reviews of previous empirical studies, the analysis of the situation of the partner (Knk Koffee Resources) is detailed in the following Table 2.

Table 2. Situation Analysis

SITUATION ANALYSIS			
Aspects	Excess	Debilitaton	Already/ Not Resolved
RAW MATERIALS			
Quality supply	The supply of raw material needs of partners has been adequate. Partners foster coffee farmers in two regions, namely Bonjor Tretep Village, Temanggung and Wonokasih Village, Gunungkelir, Ambarawa.	The quality of coffee beans is not optimal because the poor sorting/grading system is caused by the lack of sorting equipment. Coffee beans that are not uniform in size, hinder the roasting process because they cannot be cooked the same. Small coffee beans will have a lot of defective products that are wasted (inefficiency).	Not Resolved
Alternative Sources	Alternative sources are adequate because partners have suppliers throughout Indonesia.		
PRODUCTION			
Equipment		<p>The equipment owned by partners and coffee farmers is still inadequate.</p> <p>Friend:</p> <p>a. Processing of defective products (grinder for Process defective/ inferior products into valuable products such as animal feed, etc.)</p> <p>b. Packaging and Storage (weighing equipment, powder filling machines (coffee powder), burlap sack sewing</p>	Not Resolved

		tool related to packaging and storage).	
		Farmer: a. Coffee bean sorting/grading (coffee bean sieve) b. Drying (dome) c. Stripping (peeling machine)	
Capacity	As much as 700-1000 kg of coffee needs per month.		
Investment	Partners own land, buildings, tools (machinery) privately owned so that the continuity of the business is good.		
	Partners put several roasting tools/machines in two of its fostered areas. It is hoped that farmers in the Mount Kelir ambarawa area will have added value not only selling raw coffee, but also selling ready-to-brew coffee because it has fried using the roasting machine.		
PROCESS			
Layout	Mitra has a very strategic location and natural nuances. KnK Koffee Resources sells various café needs (one stop service), side by side with Café (Lost in Café).		
	The taste of the coffee served is very distinctive, coupled with the aroma of coffee that is so delicious when done Frying (roasting) is a unique feature of the business.		

Product Quality Assurance	The quality of the product is well maintained, this is evidenced by the special separation of the coffee supply storage area so that it does not blend with the smell of other products such as chocolate, sugar, syrup, honey etc.		
PRODUCTS/SERVICES			
Kind	The types of coffee sold are Arabica Coffee (supply from coffee farmers in the Tretep Temanggung area) and Robusta Coffee (supply from coffee farmers in the Tretep Temanggung area and Gunungkelir area, Ambarawa). In addition, there are types of blended and specialty.		
Sum	The number of copies sold reaches 700-1000kg per month with a turnover of 100 million/year		
Specifications	The type of coffee beans used is coffee with quality standards (SNI).		
Quality	Related to quality, Gunungkelir Ambarawa Coffee Beans has the 3rd position nationally related to Quality.		

DISTRIBUTION			
Distribution	The majority distribution is in Semarang (75% coffee shops) and various regions in Central Java.	The distribution of partner products is still limited, only serving personal purchases for offices and homes, supply contracts with 60 Coffee Shops (75%) in Semarang. Innovation is needed in the form of online business transformation to increase competitiveness, especially expanding market share.	Resolved (Service of Society 2020)
MARKETING			
Marketing techniques		Marketing only uses on-the-shop sales. So that the market share is not wide.	Resolved (Service of Society 2020)
Selling Price	The selling price of the product is competitive. This is evidenced by the number of customers supplied by partners (suppliers of 60 Coffeshop in Semarang (75%).		
User	Consumers include employees, students, coffee shop owners in Semarang who come Go to Store		
MANAGEMENT			
Production planning			
Taxation	Have made tax reports and make tax payments.		
IPR	Products already have IPR, PIRT		
Inventory	Inventory already placed in a special place.		

Management Patterns		Management not yet can optimize the functionality of the reports that have already been created as a basis business decision-making.	It has been solved (2020 research)
HUMAN RESOURCES (HR)			
Qualification	Administrative employees who handle bookkeeping and treasurers are not accounting graduates and need to receive training related to accounting understanding and use accounting software.		
Sum	There are 10 employees.		
Chance	Operational (technical) employees have participated in barista training several times. Owners and employees conduct comparative studies and various national and international events, especially in Germany, UK and Asia.		
Skills/ Abilities Special		TBSP still necessary Get training and training related updates Special Expertise	Not Resolved

MEANS			
Administration Room		Partners have an inadequate allocation of places. However, the location has been separated between the administration room, storage room, and showroom)	Not Resolved
Room Production			
Storage Space			
Showroom			
Access to the Highway			
Electricity	The partner electric is very adequate (2 x 4400 watts) because the tools used are very much such as roasting machines, grinder machines, freezer, refrigerator, blender, juicer etc.		
Telecommunication	Partner telecommunications are adequate, there is a free internet network (wifi) for visitors and employees.		
FINANCIAL			
Capital		Regarding financial problems, many improvements must be made. The financial records used to date are not able to show how much capital, cashflow or IRR is the basis for partners to take a decision.	Resolved (Service of Society 2019)
Cash Flow			
IRR			
Accounting/bookkeeping		Related to management, especially accounting, partners still experience financial management constraints. While this only uses simple records (bookkeeping manual).	Resolved (Service of Society 2019)

Financial Report	It is necessary to prepare better financial statements with the help of accounting software so that an audit process can be carried out.	Resolved (Service of Society 2019)
Audit	Audited financial statements can be used by partners to obtaining additional business capital.	Not Resolved

Source: KnK Koffee Resources Data 2020

The development of sustainability assessment indicators is necessary since coffee is one of Indonesia's commodities that contributes as a source of wage for agriculturists, making occupations and territorial advancement. Environmental, wellbeing and life mindfulness as well as ICO (Universal Coffee Organization) agreements related to the ban on exporting low-quality coffee beans are challenges and opportunities for smallholder coffee plantation sustainability. The World Commission on Environment and Development (WCED) popularized the idea of sustainable development in 1987. It is defined as development that satisfies present-day demands without jeopardizing the capacity of future generations to satiate their own needs. The three pillars of the sustainable development paradigm—the economy, the environment, and society—are widely used in a variety of industries, including MSMEs. Sustainability analysis is a crucial step in supporting sustainability as one of the sub-systems of the agribusiness coffee system. A sustainable coffee agroindustry possesses three key elements: (1) the ability to maintain productivity and profits over an extended period of time to meet present and future human requirements; and (2) the utilization of people's

natural resources or coffee agricultural resources. Because of the negative effects of coffee and the dependence of sustainability on raw material availability, smallholder coffee plants need to be maintained and enhanced.

In order to create viable alternatives for smallholder coffee production, sustainability evaluations must identify the current state of sustainability as well as the variables influencing policies. To boost farmers' income and sustainably meet the demands of the export market, people's coffee development that prioritizes quality must be pursued.

The purpose of this community service project is to provide KnK Koffee Resources with sustainability-related competencies and skills, so that it can improve community welfare. In order to respond to the phenomena and theoretical gaps mentioned above, the objectives of this Service of Society in particular are as follows:

- a. Knk Koffee Resources is able and skilled in developing a sustainability assessment framework based on sustainability indicators
- b. KnK Koffee Resources has experienced an increase in turnover and community welfare

PARTNER PROBLEMS

After reviewing the above-mentioned scenario and all of Knk Koffee Resources' issues,

the priority problems that have been mutually agreed upon between the Service of Society team and partners according to the PKM program are the human resources aspect; raw material aspects and production aspects (Product Innovation).

Table 3. Partner Issue Priority

It	Aspects	Issue Priority
1	Human Resources (HR)	KnK Koffee Resource employees do not have knowledge and skills related to Sustainable Development
2	Raw Materials	KnK Koffee Resources employees do not have the ability to utilize coffee waste
3	Production	Employees of KnK Koffe Rersources do not have the knowledge and Skills related to product innovation

METHOD

The Community Service Team of Semarang State University needs support with activities to help the Micro, Small, and Medium Enterprises (MSMEs) in Semarang City, namely Knk Koffee Resources, in order to address the current issues. This endeavor aligns with the objectives of the Semarang City Regional Medium-Term Development Plan for 2016–2021, which is to create a business-friendly environment and bolster the local excellence-based economy of the people.

The solution offered from PKM activities is in the form of strengthening partners so that they experience an increase in turnover by providing technological facilities in the form of knowledge (waste processing/coffee defective products) needed by partners. The goal of this FMD activity is to enhance the knowledge and abilities of KnK Koffee Resources' owners and staff, who are instrumental in promoting the expansion of superior regional goods and services for the ever-evolving domestic market. This includes raising the caliber and volume of

goods to a highly competitive level while preserving the distinctive qualities of the area increasing the attractiveness of superior products to the wider community, strengthening KnK Koffee Resources MSMEs so that they can survive, withstand adversity and grow in the face of the Covid-19 Pandemic, play an active role in maintaining the sustainability of local cultural heritage, accelerating the diffusion of technology and management of the university community to the industrial community and developing the link & match process between universities, industry and the wider community. The solutions offered by the Service of Society team related to PKM are comprehensive solutions to the obstacles faced by partners, especially problems The Committee on Sustainability Assessment (COSA) indicators were established and employed in the study. The following are a few phases of data analysis: (1) assigning a score to each sustainability by measuring good (score 3) and bad (score 0) sustainability situations using consistent values. The scored data must be

standardized prior to simulation through data normalization. The framework indicators serve the following main purposes: (a) evaluating conditions and changes; (b) comparing different places and situations; (c) evaluating conditions and trends in relation to goals and objectives; (d) supplying preliminary data; and (e) projecting future changes in conditions and trends. There are both large- and small-scale producers of coffee, making it one of the most traded agricultural goods worldwide. A holistic

approach to the production, distribution, use of natural resources, and final products, as well as services that can optimize the benefits of raw material and energy utilization, minimize the consumption of raw materials and non-renewable energy, and prevent the production of waste and environmental pollutants, are all integral components of the concept of sustainability in the coffee production industry. Assessment of indicators in four dimensions of sustainability (Table 4).

Table 4. Sustainability Indicators

It	Dimension	Indicators
A	Economics	Income Production and marketing costs Credit loan allowance Agricultural management Production quality Market access and opportunities Advantage
B	Milieu	Energy Management Water Management Land use management Biodiversity management Pollution prevention Reuse and recycle Carbon capture
C	Social	Health and Social Security Working hours and wages Human rights Social relations Perception and satisfaction

D	Institutional	Integrated decision making capacity building Improvement of science and technology social awareness and information International cooperation and agreements the role of civil society Institutional framework and rules Disaster preparedness
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There are several approaches that can be used in community service, namely Community Development, Persuasive, Educationative, Participatory and Normative. In order to increase community members' participation in development for their own interests, community development is a very relevant approach to use in this PKM. It involves directly involving the community in a variety of community service activities while also making them the subject and object of development. Community Development (CL) is often called Locality Development (LD). Community Development has three main characters, namely (1) community-based, (2) local resource based and (3) sustainable.

In general, the vision of community development is to create a conducive and harmonious environment between institutions or institutions and the community living around the area or location, where the institution or institution is located. The vision was then lowered into two missions. First, the mission is to provide added value to the socio-economic value of local governments, especially for the surrounding community. Second, its mission is to serve as a vehicle for interaction between the community, local governments, and related parties, such as interaction between stakeholders and institutions. With the establishment of good interaction between these parties, it is hoped that it can prevent conflicts that may occur between

the surrounding community and institutions. The goals of this community development are as follows:

- a. Developing and improving the quality of human resources of the community around the area of the institution or institution.
- b. Developing and improving facilities and infrastructure in the area around the institution or institution based on the priority scale and potential of the area.
- c. Encourage and develop entrepreneurial potential in the surrounding community based on local resources
- d. Developing local institutions around the area of the institution or institution

The scope of community development generally includes the following three aspects, namely:

- a. Community Services
Institutional services that cater to community interests.
- b. Community Empowering
The program's goal is to give the community more access so they can support their independence.
- c. Community Relations
Activities centered on informing and communicating with relevant parties in order to foster understanding.

The phases of community relations initiatives, such as the following, are pertinent to this PKM activity:

1. **Gathering facts**

Collect data on social problems faced by the community

1. **Problem formulation**

Simplifying the formulation of the problem to then find a solution

2. **Program planning**

Make good planning so that the program can be implemented and the goals are achieved

3. **Action and communication**

Two-way communication and planned program implementation

4. **Evaluation**

Assess programs/activities to determine the effectiveness and efficiency of the program.

Figure 2. Service of Society Stages



Resources in this Service of Society program includes:

1. Support and ability to cooperate as a partner with the team from Unnes in the implementation of Service of Society.
2. Partner participation through the implementation of activities together in terms of preparing personnel and places for the implementation of training.
3. Have a commitment and willingness to change for the better.

Table 5. Service of Society Partner Engagement

It	Activity Name	Stages	Partner Engagement	Time Implementation
1	Preparation for Proposal Preparation	Team Formation	Willingness to become a Service Partner is shown by the signing of a statement	First Month
		Formulation of Objectives		
		Stakeholder Identification		
2	Coordination of Service Team with Partners	Situation analysis and necessity	Partners provide information related to existing situations and conditions, convey problems and approve the PKM program	First Month –Eighth
		Priority determination of problem solutions		
		Program Planning		
3	Preparation	Purchase of materials Devotion	Have the commitment and willingness to change for the better	Second - Third Month
		Procurement of service facilities and infrastructure		
4	Implementation	Coffee bean sorting training	Assisting in the preparation of personnel and places for the implementation of training and actively participating in Training	Third - Fourth Month
		Coffee husk waste treatment		
5	Assistance	Assistance in financial management and business management of partners	Assisting in the preparation of personnel and places for the implementation of training and actively participating in Training	Third - Sixth Month

6	Review and Evaluation	Monitoring activities and making reports	Implementing programs on an ongoing basis	Fifth - Seventh Month
		Progress		
		FGD		
		Evaluation of activities and preparation of reports end		
		Article preparation		
7	Determination of new Needs and goals	Results Seminar	Have a commitment and willingness to be independent	Seventh Month
		International Seminar (Proseeding)		Eighth Month
		International Publications		

The evaluation of the Service of Society program is carried out by ensuring that the promised output of Service of Society activities has been achieved. Three aspects of the success of Community Development, namely:

1) Aspects of Community Participation

Community involvement in community development programs, starting from the planning, implementation, and evaluation stages.

2) Sustainability aspect.

Community involvement at the end, whether it remains enthusiastic and reaps satisfactory results, so that there is an intention to continue it with assistance from institutions or institutions.

3) Aspects of Independence

To what extent can the community stand on its own without intervention from institutions or institutions to continue the program, which lacks assistance from institutions or institutions,

especially in terms of financial assistance.

RESULTS AND DISCUSSION

In detail, socialization, training and mentoring activities in this service program are carried out so that the owners and employees of KnK Koffee Resource have knowledge and skills related to Sustainable Development, have the ability to utilize coffee waste and have knowledge and skills related to product innovation. The service activities go through various stages which are described as follows:

Activity Preparation

a. Venue Preparation

The location of this study was KnK Koffee Resources' office, or meeting room. Service of Society is held at KnK Koffee Resources during business hours, allowing owners and staff to participate without having to stop operations. The location is highly representative. KnK is

conveniently located near Semarang State University, making it accessible for service personnel, resource individuals, and students (field assistants).

b. Tool Preparation

In order to prepare the equipment, a variety of items are needed for the training process, including consumption, training material modules made and duplicated, data packages (quotas), and mementos to be purchased for the owners and staff of KnK Koffee Resources.

Implementation of Activities

a. Socialization

Following the acquisition of a permit and an initial meeting with KnK Koffee Resources' owner, a Community Service (Service of Society) plan comprising socializing, training, and mentorship plans was created. Around 15 to 20 service participants participated in the socializing activity, which was held at KnK Koffee Resources on Saturday, August 14, 2021.

b. Training

Training materials were given to the owners and employees of KnK Koffee Resources as part of this instruction. It is hoped that knowledge and skills will increase in product innovation related to sustainability development, factors and sustainability strategies for MSMEs.

c. Assistance

As a follow-up (after-sales service) to this program, a program to assist the sustainability process of KnK Koffee Resources MSMEs was carried out.

d. Activity Evaluation

The purpose of this activity evaluation is to determine whether KnK Koffee Resources has made use of the Service of Society program, which consists of socializing, training, and mentoring

(therapy). To track the sustainability of MSMEs, an enhanced Service of Society program must be implemented.

e. Preparation of Reports & Publications

The preparation of the report is carried out in three stages: preliminary report, progress report and final report. This report is made as a form of accountability for the implementation of activities and the use of funds to service society funding institutions.

The publication is carried out as a form of external accountability according to the promises of the devotees in the service of society proposal. The benefits of this publication are as a reference that can be accessed by readers to be followed up with research and service in the future.

The target group that is used as a fostered group in the community service program is KnK Koffee Resources MSMEs, Sukorejo Village, Gunungpati District, Semarang which is explained in detail as follows:

1. MSME Owner Knk Koffee Resources
2. MSME administration employee Knk Koffee Resources
3. Operational employee of MSMEs Knk Koffee Resource

Sustainability Assessment Framework

The supportability appraisal system is based on the maintainable improvement worldview within the 1992 Soil Summit in Rio de Janeiro to attain economical improvement around the world. The most capacities of the system pointers are as takes after: (a) evaluating conditions and changes, (b) comparing places and circumstances, (c) surveying conditions and patterns related to objectives and objectives, (d) give preparatory data, and (e) expect changes in conditions and patterns within the

future. It is critical to characterize the boundaries of markers to appear the inclination of natural frameworks to alter from one nation to another. Based on these confinements, a score can be made for each pointer.

Being one of the foremost exchanged rural items within the world, coffee is created by both little- and large-scale agriculturists. The concept of supportability in coffee generation ought to incorporate a all encompassing approach to generation, dispersion, utilize of normal assets and last items, administrations that can maximize the benefits of crude materials and vitality utilization,

minimizing crude fabric utilization. and non-renewable vitality, as well as dodging squander generation and natural contamination.

Economic Sustainability Dimension of Smallholder Coffee Agroindustry

The economic sustainability of the coffee agro-industry is not only an effort to maintain production activities but an effort to maintain the livelihood, social needs and environment of rural communities. KnK Koffee Resources SCPA score for each indicator in the economic dimension (Table 5)

Table 5. KnK Koffee Resources Economic Dimension Indicator

It	Indicators	Score KnK	Good (Max)	Bad (Min)	Information
1	Income	2	3	0	(0) Small (<RMW); (1) Income = RMW; (2) Fair > RMW (3) High, more than RMW (minimum wage regional)
2	Production & marketing costs	2	0	3	(0) Very high; (1) High; (2) Moderate; (3) Small
3	Credit loan allowance	1	3	0	(0) No access to credit loans (1) Have access but not use credit loan allowances; (2) There is access but only use a one-time credit loan; (3) There are access & credit loan allowances.
4	Agricultural management	2	3	0	(0) Subsystem (1) Semi-commercial; (2) commercial; (3) industrial agriculture
5	Production quality	2	3	0	(0) Not paying attention to quality and not understanding the concept of quality (1) Not fully paying attention to quality; (2) Have a concern for quality; (3) Have efforts to improve quality continuously.
6	Market access and opportunities	2	3	0	(0) Does not have market access (1) Limited market access; (2) There are markets with limited opportunities;

					(3) High access & opportunity.
7	Profit	2	3	0	(0) No profit (1) Small profit; (2) Sufficient profit; (3) High profit
Total Score		13			

There are two fundamental use components that progress maintainability status; generation costs, and generation quality. Changes in world coffee costs are affected by supply, climate, and financial conditions that influence the quality of generation. When coffee prices are low, farmers tend to choose cheaper and simpler dry coffee even though it produces lower quality. On the other hand, when coffee prices are high, farmers do not hesitate to carry out operational production of transfer methods from dry methods to wet methods that have large production inputs. Therefore, continuous efforts in improving production quality and cost stability are expected to improve the sustainability status of KnK Koffee Resources. Market opportunity is a difficult variable to measure, but it shows a link between producers and sustainability efforts in the structure of the industry. Market opportunities are

determined by the existence of fixed exporters, certifications and the quality of market information that can be accepted by producers.

Environmental Sustainability of the People's Coffee Agroindustry.

The growth of the global coffee processing industry raises environmental concerns both locally and internationally. Land resource management has the highest score compared to other environmental dimension indicators (Table 6). Farmers realize that the productivity of their land is determined by land management efforts. Coffee plantation systems with shade plants and cover crops show more stable nitrogen recycling. In addition, it can reduce the rate of erosion and the use of solid waste as organic fertilizer is one way to maintain the nutrient cycle in coffee plantations.

Table 6. KnK Koffee Resources Environmental Dimension Indicator

It	Indicators	Score (KnK)	Good (Max)	Poor (Min)	Information
1	Energy management	2	3	0	(0) Depends on 1 type of energy source (1) Using 2 types, still relying on non-renewable energy; (2) Uses 2 types & does not rely on non-renewable energy (3) There have been efforts to diversify the use & use of more than 2 types of sources.

2	Water management	2	3	0	(0) No conservation efforts when using well water & surface water (1) Using groundwater without conservation efforts (2) Use water & always make conservation efforts (3) Use water & always make conservation efforts
3	Land conservation management	3	3	0	(0) There are no erosion prevention efforts; (1) Start conserving with minimal effort (2) Do it with guidance; (3) Do the activity independently and continuously.
4	Biodiversity management	2	3	0	(0) Monoculture coffee plants (1) Coffee plants with cover plants & shade trees; (2) Coffee plants with a variety of cover plants & shade trees. (3) Coffee plants with industrial (commercial) trees as cover plants and shade trees.
5	Prevention pollution (reducing pollution)	2	3	0	(0) No pollution prevention efforts & pollution has a major impact on the environment (1) There is no effort to reduce but pollution has little impact on the environment; (2) There has been a concern to reduce pollution; (3) There are ongoing efforts to prevent pollution.
6	Reuse and recycle	2	3	0	(0) I don't understand & there has been no R2 effort on the waste produced (1) It has been realized but has not been tried to do R2 on the waste produced; (2) Rarely make efforts for the R2 waste generated (3) Understand & be able to

					produce R2 waste economically.
7	Carbon sequestration	2	3	0	(0) Low plant density & quality (1) Sufficient density with low plant quality; (2) Sufficient density with adequate quality; (3) Potential for great plant density & plant quality.
Total Score		15			

Table 7. Social Dimension Indicator at KnK Koffee Resources

It	Indicators	Score	Good	Bad	Information
1	Health services and a sense of security	3	3	0	(0) No access to health services and a sense of security for rural communities (1) No access or vice versa, having access to health services but no sense of security for rural communities; (2) Lack of health and safety services; (3) There are already easier health services and guaranteed services and safety.
2	Working hours and wages	2	3	0	(0) Wages & working hours are not eligible; (1) Paid indecently even though the working hours have been carried out according to the rules; (2) Decent pay & working hours in accordance with the minimum cost of living; (3) Paid wages more than the minimum cost of living.
3	Basic rights	2	3	0	(0) The basic rights of workers and society are not fulfilled; (1) The fulfillment of basic rights is still lacking; (2) The fulfillment of basic rights has met the rules; (3) Guarantee for the fulfillment of basic

					rights
4	Social relationships	2	3	0	Community relations and engagement with coffee plantations and processing (0) is weak; (1) strong enough; (2) very strong; (3) Not only connections but efforts to build their relationships with other stakeholders.
5	Farmers' perception and satisfaction	2	3	0	(0) Negative, dissatisfied; (1) Negative, dissatisfied; (2) Positive, satisfied; (3) Positive, very satisfied.
Total Score		11			

KnK Koffee Resources is relatively clean and pollutant-free. The relationship between communities at KnK Koffee Resources is quite good, especially in farmer groups or cooperatives engaged in wet coffee processing. In any case, there are still a few individuals who select the drying strategy to dodge decay of coffee natural products after collect. As a result, the affect of making strides the quality of coffee by damp is still not solid sufficient at KnK Koffee Resources. Based on these conditions, it is anticipated that coffee capacity will increment within the coming a long time.

Institutional sustainability of the people's coffee agroindustry

Educate play a vital part, as well as the presence of common assets, capital, innovation

and human assets in Indonesia's rural advancement. Without great organization usage, the accessibility of coffee generation variables will be troublesome to bolster maintainability. Coordinates decision-making encompasses a tall score primarily based on the evaluation that the decency of choices within the organization must be affirmed by all individuals. KnK Koffee Resources has standard exercises that are gone to by individuals to development the organization such as; Rancher bunch discourses, rural communication and expansion gatherings, assembly gatherings with other partners, comparative thinks about, social exercises and other supporting exercises. The official part of Semarang State College and Diponegoro College bolsters the organization improvement of KnK Koffee Resources.

Table 8. KnK Koffee Resources Institutional Dimension Indicators

It	Indicators	Score	Good	Bad	Information
1	Unified decision-making	3	3	0	(0) Never done (1) Conducted limited in management; (2) Sometimes it is done between management and members; (3) It is always done between management and members, also inviting other stakeholders.
2	Increased Capacity improvement	2	3	0	(0) Never done (1) Carried out with the support of stakeholders; (2) Carried out independently, rarely; (3) Continuous completion
3	Improvement of Science and Technology	2	3	0	(1) Never done (1) Carried out with stakeholder support; (2) Carried out independently, rarely; (3) Continuous completion
4	Social and information awareness	2	3	0	(0) Not yet known (1) Aware of limited actions only at the management level; (2) Have awareness for all members of the Cooperative; (3) It is their need.
5	International rules and cooperation	2	3	0	(1) Understand but do not have the desire to apply; (2) Apply with limited action; (3) Recognize & implement support from other stakeholders.
6	The existence of civil society (unwritten rules)	2	3	0	(0) There is no consideration; (1) Have individual awareness; (2) Have limited consideration at the management level; (3) Consideration with a clear and comprehensive understanding.
7	Institutional framework and rules	2	3	0	(0) Doesn't have a concept yet (1) Limited organization rules (2) Already have an institutional framework & rules; (3) There has been a guarantee in implementing

					it.
8	Disaster mitigation and adaptation	1	3	0	(0) Not yet knowing about disaster risk (1) Already have an idea but are not ready; (2) Have awareness & start coordinating with other stakeholders; (3) Have considered actions with stakeholders coordination.
9	Participation community in society	2	3	0	(0) Unknown (1) Already know but there is no community participation; (2) Understand concepts & sometimes involve community; (3) Always consider public participation in institutional improvement.
Total Score		18			

KnK Koffee Resources are vital, particularly this organization controls and controls the interdependency between financial performing artists and assets. Through organized rancher bunches "Cooperatives", they will be more grounded in terms of teach and capital. Based on the assessment and condition of KnK Koffee Resources, farmer groups are expected to become strong and independent organizations. Thus, they can increase revenue, market access and finance as an increase in sustainability.

Sustainability Dimension

The breakdown of supportability measurements could be a point by point outline to discover out the degree of the usage of supportability pointers for each measurement. In spite of the fact that between these measurements cannot be isolated for all intents and purposes. Subsequently, the evaluation of the supportability of exercises must be based on a adjust between measurements. The supportability values for each measurement appear that they are very economical in Table 9.

Table 9. KnK Koffee Resources Sustainability Index

1	Economics	13	7	13/21 = 62%
2	Milieu	15	7	15/21 = 71%
3	Social	11	5	11/15 = 73%
4	Institutional	18	9	18/27 = 67%
TOTAL		58	28 (0-84)	68%

The results of the KnK Koffee Resources simulation for 4 dimensions show that it is quite sustainable (68%). Maintainability enhancement exercises in 4 measurements must be executed together, as each key figure is interconnected. Cultivating administration within the financial measurement, land and water administration within the natural measurement, farmers' recognition and satisfaction within the social measurement and decision-making coordinates within the regulation measurement are four illustrations of key variables that can back the advancement of coffee quality. With the organization fortifying of agriculturists in "Cooperatives", support and bolster from partners through the arrangement of motivating forces for great quality coffee, great water administration or great vitality administration can overcome the issue of generation costs which is one of the key components.

CONCLUSION

A system for surveying the maintainability of the people's coffee agroindustry will be required to decide the maintainability status of the coffee agroindustry. The system may be a bunch of pointers that appear the extended level of maintainability of the "Munasinghe triangle" of maintainable improvement and the COSA coffee supportability markers. The supportability status of KnK Koffee Resources in Semarang City is very satisfactory. Progressing the quality of

people's coffee and coffee generation within the coffee agroindustry of KnK Koffee Resources must be based on expanding exercises with use variables in each measurement as a key calculate to progress the maintainability record.

In agreement with the vital arrange for ranch advancement in 2010-2014 from the Service of Agriculture of the Republic of Indonesia to ended up one of the finest coffee makers within the world by 2025, one of the arrangements executed is to extend coffee sends out and the quality of people's coffee beans as well as increment the included esteem of coffee items that have competitiveness within the universal market. Thus, expanding maintainability at KnK Koffee Resources must be coordinated to fulfill this plan based on 4 measurements. The use figure in each measurement may be a supporting calculate to attain this objective. It is trusted that the increment in generation components within the coffee agroindustry based on use components will have a positive affect on coffee ranchers and increment supportability esteem.

After this service of society, the service team advised KnK Koffee Resources to continue to update their knowledge and skills related to leverage factors and MSME sustainability strategies. Optimizing the sustainability leverage factor of KnK Koffee Resources will make the KnK Koffee Resources coffee bean processing home industry survive and experience continuous improvement so that it will spur a

better young people's start-up business ecosystem in Semarang City. This activity will be further developed with the government's assistance in socializing similar activities for other MSMEs and providing assistance in a sustainable manner as well so that it can improve the Indonesian economy.

REFERENCES

1. Anas Mubarak. 2019. Green Innovation as a Strategy for MSME Development in Supporting Sustainable Business (Case Study on Crispy Pare Winur, Krandari Village, Ngrambe District, Ngawi Regency). [Http://Repository.Iainpurwokerto.Ac.Id/6131/2/COVER_BAB%20I_BAB%20V_DAFTAR%20PUSTAKA.Pdf](http://Repository.Iainpurwokerto.Ac.Id/6131/2/COVER_BAB%20I_BAB%20V_DAFTAR%20PUSTAKA.Pdf)
2. Boyke P Siregar. 2020. SDGs 2030: IBCSD Believes MSMEs Are the Key to Economic Revival. [Https://Www.Wartaekonomi.Co.Id/Read297336/Sdgs-2030-Ibcds-Yakin-Umkm-Jadi-Kunci-Bangkitan-Economy](https://Www.Wartaekonomi.Co.Id/Read297336/Sdgs-2030-Ibcds-Yakin-Umkm-Jadi-Kunci-Bangkitan-Economy)
3. Desrianto, Mico. Don't let your guard down, here are tips so that SMEs can succeed in the industrial era 4.0", [Https://Money.Kompas.Com/Read/2019/08/23/190956126/Enggak-Boleh-Lengah-Ini-Kiat-Agar-SMEs-can-succeed-in-the-industry-40?Page=All](https://Money.Kompas.Com/Read/2019/08/23/190956126/Enggak-Boleh-Lengah-Ini-Kiat-Agar-SMEs-can-succeed-in-the-industry-40?Page=All). 2019
4. Donald Banjamahor. 2002. BRI Encourages MSMEs to Develop & Realize SDGs in Indonesia. [20201127131224-4-205143/Bri-Pacu-Umkm-Untuk-Develop-Make-Up-Sdgs-In-Indonesia](https://Www.Cnbcindonesia.Com/News/20201127131224-4-205143/Bri-Pacu-Umkm-Untuk-Develop-Make-Up-Sdgs-In-Indonesia)
5. Persistent, Mazda. 2021. MSMEs Skyrocket: Realize the SDGs 2030. [Https://Tugujatim.Id/Umkm-Meroket-Create-SDGS-2030/](https://Tugujatim.Id/Umkm-Meroket-Create-SDGS-2030/)
6. Initial Steps. 2017. Indonesian MSMEs, Booster of the Sustainable Economy of the [Https://Www.Langkahawal.Com/Peran-Umkm-Bangun-Sustainable-Economy/Nation](https://Www.Langkahawal.Com/Peran-Umkm-Bangun-Sustainable-Economy/Nation)
7. Maylia et.al. Strengthening The Role Of MSMEs (Knk Koffee Resources) Through Socialization And Completion Of The Composition Of Financial Statements And Tax Reports (Study In The Home Industry Processing Coffee Beans Supply 75% Coffee Shops In Semarang). 2020. Indonesian Journal of Devotion and Empowerment 2020, ISSN: 2721-2645. <https://journal.unnes.ac.id/sju/index.php/jde/article/view/42253>
8. Maylia et al. 2019. The Improvement Of Knk Koffee Resources's Financial Reporting System. National Seminar on Community Service Collaboration SNK-PPM Undip Unnes 2019. <https://drive.google.com/file/d/17Gncdz8-ZQgvtrtWJJWfCs8zwZ46-m21/view?usp=sharing>
9. Maylia et al. 2020. Improvisation of Financial Reporting System and Online

- Business Transformation in Increasing the Market Share of Knk Koffee Resources in the New Normal Era. National Seminar on Community Service Collaboration SNK-PPM Undip Unnes 2020. <https://drive.google.com/file/d/1KLuftao5NV6Wfw61Xu9gxtOIiftPEVzj/view?usp=sharing>
10. Purbudi Wahyuni. 2012. Strategy to Increase MSME Competitiveness through Sustainable Consumption and Production with a Green Perspective. <Http://Eprints.Upnyk.Ac.Id/23317/1/STRATEGI%20PENINGKATAN%20DAYA%20SAING%20UMKM%20METHROUGH:%20Sustainable%20Consumption%20and%20Production%20Insightful%20Green-Converted.pdf>
 11. Sigit Setiyadi et al. 2011. Determination of Business Sustainability Strategy for Culinary SMEs Using the SWOT – AHP <Https://Journals.Ums.Ac.Id/Index.Php/Jiti/Article/View/1251> Method
 12. Syarizka, Deandra. The contribution of MSMEs to GDP in 2019 is projected to grow by 5%. Business. Com. 2019. <https://ekonomi.bisnis.com/read/20190109/12/876943/kontribusi-umkm-terhadap-pdb-2019-projected-grow-5>
 13. Trimulato et al. 2020. Empowerment of MSMEs in achieving the SDGs. <Https://Journal.Ipmafa.Ac.Id/Index.Php/Isamicreview/Article/View/269/180>
 14. Vera Agustina Yanti. 2018. Analysis of Factors Affecting the Sustainability of MSME Business Actors in Rural and Urban Areas of West Java Province. <Http://Ejurnal.Litbang.Pertanian.Go.Id/Index.Php/Jpengkajian/Article/View/8386>
 15. Wuryono, Tri. Hendi is ready to support Semarang young people's start-up businesses. Metrosemarang.Com. 2017. <https://metrosemarang.com/hendi-siap-dukung-bisnis-rintisan-anak-muda-semarang-57567>
 16. Yuliani, Ayu. Ministry of Cooperatives and SMEs: 3.79 million MSMEs. It has gone online. <Https://Www.Cnnindonesia.Com/Ekonomi/20171115161037-78-255819/Kemenkop-Ukm-379-Juta-MSMEs-already-go-online/>

ATTACHMENT

